Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics

Master's Thesis

Fundamental Analysis of Sun Pharmaceutical Industries Limited

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DIPLOMA THESIS ASSIGNMENT

Hariprasath Ravichandran

Economics and Management

Thesis title

Fundamental Analysis of Sun Pharmaceutical Industries Limited

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Objectives of thesis

The Main Objective is to determine the intrinsic value of the sun pharmaceutical Industries Limited. The Sub Objective is to evaluate financial stability of sun pharmaceutical industries limited. The Second Sub Objective is to evaluate Sun Pharma's stock Value performance in terms of investor profitability.

Methodology

Quantitative and Statistical methods will be used to analyze the research. Utilizing secondary data as a basis, the review will be conducted. The annual report, financial statement, general meetings, periodicals, and publications of Sun Pharmaceutical Industries Limited shall be the sources of the data for the thesis. Financial statement analysis, Ratio Analysis and Stock valuation analysis will be employed in the research to find the aim. The following analysis methods are used for the study of Fundamental Analysis of Sun Phar maceutical Industries Limited.

The proposed extent of the thesis

60-80 pages + appendices

Keywords

Fundamental analysis, financial analysis, Ratio analysis, Sun Pharmaceutical Industries Ltd, Discounted Cash Flow.

Recommended information sources

ABARBANELL, J. S., & Bushee, B. J. (1997). Fundamental Analysis, Future Earnings, and Stock Prices. ISBN: 9781680834512.

BRIGHAM, Eugene F., and Joel F. Houston. Fundamentals of Financial Management, Ninth Edition, Harcourt College Publishers, Fort Worth, 2001. ISBN-13. 9781305635937

PENMAN, S. 2010. Financial Statement Analysis and Income Statement Analysis, 4th edition. New York: The McGraw Hill Companies. ISBN 9780078025310

PINTO et al. (2010) Equity Asset Valuation, Equity asset valuation. ISBN 13: 9780470395219

Hasanaj, P. and Kuqi, B. (2019) Analysis of financial statements. ISSN 2576-3024

FRANK K. Reilly., & KEITH C. Brown (2012). Investment Analysis & Portfolio Management. ISBN 10: 0538482109

LONGO, F. (2017) Price to earnings ratio, value to book ratio and growth, Academia.edu.

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Declaration

I declare that I have worked on my master's thesis titled " Fundamental analysis of Sun Pharmaceutical Industries Limited " by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 31.03.2024 _____

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Fundamental Analysis of Sun Pharmaceutical Industries Limited

Abstract

Sun Pharmaceuticals was founded by Dilip Shanghvi in 1983 in Vapi, Gujarat with five products for the treatment of psychiatric diseases. However, in 2024, Sun Pharmaceutical Industries Ltd. (Sun Pharma) ranks fourth in the global ranking of the largest specialty generic pharmaceutical companies with global revenues exceeding $5.1 billion. Backed by more than 40 manufacturing facilities. Sun Pharma provides affordable, well-respected drugs to over 100 nations globally, earning the trust of both patients and healthcare facilities. This research aims to perform a fundamental examination of Sun Pharma Industries Ltd. The primary goal of the research is to determine the significant ratios related to cash flow, profitability, liquidity, and profit and loss statements. The discounted cash flow method is used to calculate the intrinsic value of the company. Secondary data is used to analyze financial statements. Research papers, journals, magazines, websites, and articles are just a few of the places where secondary data for the study will be found. The 2019–2023 research study's duration is set. The data analysis and creation of graphs and tables will be done using Microsoft Excel. The study's findings will be useful to investors in the future as they decide how much to invest in Sun Pharma Industries Ltd. Additionally, understanding Sun Pharma Industries Ltd.'s basic position will be helpful.

Keywords: Fundamental analysis, Financial Analysis, Ratio Analysis, Sun Pharmaceutical Industries Ltd, Discounted Cash Flow.

Fundamentální analýza společnosti Sun Pharmaceutical Industries Limited

Abstrakt

Společnost Sun Pharmaceuticals založil Dilip Shanghvi v roce 1983 ve městě Vapi ve státě Gudžarát s pěti produkty pro léčbu psychiatrických onemocnění. V roce 2024 však společnost Sun Pharmaceutical Industries Ltd. (Sun Pharma) na čtvrtém místě v celosvětovém žebříčku největších specializovaných generických farmaceutických společností s celosvětovými tržbami přesahujícími 5,1 miliardy USD. Za ní stojí více než 40 výrobních závodů. Sun Pharma dodává do více než 100 zemí světa léčiva, která jsou respektována pacienty a zdravotnickými zařízeními a jsou za rozumnou cenu. Cílem této studie je provést fundamentální analýzu společnosti Sun Pharma Industries Ltd. K dosažení primárního cíle výzkumu jsou použita sekundární data k analýze finančních výkazů, která zahrnuje analýzu finančních ukazatelů, tj. zjištění významných ukazatelů týkajících se likvidity, ziskovosti, výkazu zisku a ztráty, výkazu peněžních toků a vnitřní hodnota společnosti bude vypočtena pomocí metody diskontovaných peněžních toků. Sekundární údaje studie budou získány z různých zdrojů včetně výzkumných prací, časopisů, magazínů, internetových stránek a článků. Výzkumná studie bude probíhat v letech 2019 až 2023. K analýze dat a k vytvoření grafů a tabulek pro analýzu bude použit program Microsoft Excel. Výsledky této studie pomohou investorům v budoucnu učinit moudrá rozhodnutí týkající se jejich investic do společnosti Sun Pharma Industries Ltd. Kromě toho bude přínosné seznámit se se základním Postavení společnosti Sun Pharma Industries Ltd.

Klíčová slova: Fundamentální analýza, finanční analýza, analýza poměru, Sun Pharmaceutical Industries Ltd, diskontované peněžní toky.

Table of content

1. Introduction

The biggest medicine manufacturer in India is Sun Pharmaceutical. It primarily distributes generic medications, a market that Indian businesses excel in, to more than 150 nations, including the United States. Sun Pharmaceutical supplies over 1,000 goods and has over 20 production facilities worldwide. Considering that just around 30% of its group sales come from within the country, it has successfully grown its business internationally. It has established a strong commercial foundation, particularly in the United States, accounting for around half of all sales. (Pandiarajan, V 2022).

1.1 About Sun Pharmaceutical Industries Limited

Dilip Shanghvi, an Indian business entrepreneur, was born in Amreli, Gujarat state, on October 1, 1955. He founded Sun Pharmaceutical Industries Ltd. in 1983. Son of a wholesale medication distributor, Shanghvi founded Sun Pharma shortly after earning a bachelor's degree in commerce (1982) from the University of Calcutta. The company started off selling only a few psychiatric medications. Still, by the early 1990s, it had established its own manufacturing and research facilities and had introduced product lines for gastroenterology and cardiology. In 1994, Shanghvi brought the business public. After three years, Sun Pharma made its first foreign acquisition when it acquired Caraco Pharmaceutical Laboratories, a company based in Detroit. It also acquired stock positions in Tamil Nadu Dadha Pharmaceuticals and MJ Pharmaceuticals, two well-known Indian pharmaceutical companies.

The company nearly increased its U.S. revenues to over $1 billion as soon as it acquired most of the company in 2010. Shanghvi led the $3.2 billion acquisition of generic medicine rival Ranbaxy Laboratories from Daiichi Sankyo Co., a pharmaceutical behemoth based in Japan, in 2015. Through the transaction, Sun Pharma became the biggest pharmaceutical company in India and the world's fifth-largest maker of generic drugs. Apart from his job at Sun Pharma, Shanghvi was also a private investor in the financial world. His interests grew beyond the pharmaceutical industry, particularly in renewable energy. He was added to the Reserve Bank of India's central board in 2018.

1.2 Background of the Study

Organizational growth is routinely monitored to evaluate a company's standing in a competitive market. The research aims to determine the intrinsic value of limited sun pharmaceutical industries. Sun Pharma is one of the biggest medicine manufacturers in India. Sun Pharmaceutical supplies over 1,000 products and has over 20 production facilities worldwide. Ratio Analysis and financial statement analysis have a major impact on the performance of Sun Pharmaceutical Industries Limited. The research will identify the intrinsic value of Sun pharma and make recommendations to investors.

1.3 Significance of the Study

Profit maximization and a strong feeling of sustainability are the two main motivators for any business. Profitability can only be achieved after carefully examining the business's finances. For many businesses, the efficiency of financial statement analysis becomes essential. The study will support investors in their decision-making on Sun Pharmaceutical investments.

1.4 Limitations of the Study

The present research has some limitations, which are listed below.

- The financial study of the company only considered a small number of ratios, which hides the true image of the company's performance.
- There is not a solution provided through the research for the challenges that the organization is undergoing.
- Intrinsic Value is identified from 2018-2023. Intrinsic value may vary depending on the longer period.

2. Objectives and Methodology

The objectives and methodological approaches used in the diploma thesis are mentioned in the chapters below.

2.1 Objectives

The Main Objective is to determine the intrinsic value of Sun Pharmaceutical Industries Limited by using fundamental analysis tools. The Sub aim is to evaluate the Sun Pharmaceutical Industries Limited financial stability. The Sub aim is to evaluate Sun Pharma's stocks on their Profitability for investors.

2.2 Research Questions

The research aims to find the answers to the following questions:

- Does Sun Pharmaceutical Industries Limited has financial stability?
- Is it Profitable for investors if they invest in sun pharmaceutical Industries Limited's stock for 5 years?

2.3 Methodology

A review of the literature plus a practical section makes up this study. Analyzing the research will be done in the Practical section using statistical and quantitative techniques. We will undertake the review using secondary data as a foundation. The Sun Pharmaceutical Industries Ltd. annual report, financial statement, general meetings, magazines, and publications will serve as the thesis's data sources.

To highlight how important it is to do a fundamental examination of this company, data will be collected from previously published publications. The research, which spans the years 2018–2023, has focused on historical patterns to assess and ascertain a company's inherent value. Projection years from 2024 to 2029 were produced and evaluated using historical data.

The Sun Pharmaceutical Industries, Investopedia, Guru focus, Yahoo Finance, Money Control, and Fortune 500 companies are the data sources. To evaluate the company's fundamental situation, the research will use primary analyses of the data, including financial statement analysis, management analysis, ratio analysis, and stock valuation analysis. The methods will be applied to Sun Pharma's fundamental analysis to assess it and help investors uncover possible investment opportunities.

Ratio Analysis

The following ratios have been calculated to assess the Liquidity, Profitability, Solvency, Turnover and Earnings of Sun Pharmaceutical Industries Limited (%). The formulas for the ratios are as below: (Goodwin, T. H. 1998).

Liquidity Ratios : These ratios are calculated to measure the liquidity position of a firm.

$$Current\ Ratio = \frac{Current\ \ Assets}{Current\ Liabilities} \quad \text{..... (1)}$$

$$Quick\ Ratio = \frac{Quick\ \ Assets}{Current\ \ Liabilities} \quad \text{..... (2)}$$

$$Quick\ Assets = \ Current\ Assets - Prepaid\ Expenses - Inventories$$

Profitability Ratios: These ratios are calculated to measure the profitability of the firm.

$$\text{Gross } Margin\ = \frac{\text{Gross } Profit}{Sales} \times 100 \text{ ..... (3)}$$

$$Operating\ Margin\ = \frac{Operating\ Profit}{Sales} \times 100 \text{ .....(4)}$$

$$Net\ Profit\ Margin = \frac{Net\ \ Profit}{Sales} \times 100 \text{ .....(5)}$$

$$Return\ on\ Assets = \frac{Net\ \ Income}{Average\ amount\ of\ Total\ Assets\ for\ previous\ periods} * 100 \text{ ..... (6)}$$

$$Return\ on\ Equity = \frac{Net\ Income}{Average\ Shareholder\ equity\ for\ previous\ periods} * 100 \ldots\ldots\ldots (7)$$

Return on capital employed (ROCE)

For calculating the ROCE ratio Earnings Before Interest and Tax (EBIT) needs tobe calculated first. (Kwok, B. K. B. 2013).

$$EBIT = \text{Operating revenue} - \text{Cost of revenue} - \text{total operating expenses} \ldots\ldots\ldots (8)$$

Then,

$$ROCE = \frac{EBIT}{(Total\ assets - Current\ Liabilities)} * 100 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (9)$$

Return on invested capital (ROIC)

For calculating the ROIC ratio, Tax rate and Net Operating Profit After Tax (NOPAT) are calculated first. (Kwok, B. K. B. 2013).

$$Tax\ rate = \frac{Income\ tax}{Income\ before\ tax} * 100 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (10)$$

$$NOPAT = \text{Tax rate} * \text{Operating Income} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (11)$$

Then,

$$ROIC = \frac{NOPAT}{Average\ Invested\ capital} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (12)$$

Solvency Ratio: These ratios are calculated to measure the Solvency of a firm.

$$Debt - Equity\ Ratio = \frac{Total\ Liabilities}{Total\ Shareholders\ Equity} \ldots\ldots\ldots\ldots (13)$$

$$Interest\ Coverage\ Ratio = \frac{EBIT}{Interest\ Expens} \ldots\ldots\ldots\ldots\ldots\ldots (14)$$

Turnover Ratio: These ratios are calculated to measure the Turnover rate of Assets, Inventory and Debtors in a firm. (Horrigan, J. O. 1968)

$$Asset\ Turnover\ Ratio = \frac{Net\ Sales}{Avg.Total\ Assets} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (15)$$

$$Inventory\ Turnover\ Ratio = \frac{Cost\ of\ Goods\ Sold}{Avg.Inventory} \ldots\ldots\ldots\ldots\ldots (16)$$

$$Debtors\ Turnover\ Ratio = \frac{Credit\ Sales}{Avg.Account\ Receivables} \ldots\ldots\ldots\ldots\ldots (17)$$

Earnings Ratio: These ratios are calculated to measure the earnings efficiency of a firm. (Horrigan, J. O. 1968)

$$Return\ on\ Net\ Worth = \frac{Net\ Income}{Shareholder's\ Equity} \times 100 \ldots\ldots\ldots\ldots\ldots (18)$$

$$Earnings\ Per\ Share = \frac{Net\ Income - Preferred\ Dividend}{Avg.No.of\ Shares\ Outstanding} \times 100 \ldots\ldots (19)$$

$$P/E\ Ratio = \frac{Price\ Per\ Share}{Earning\ Per\ Share} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (20)$$

Price-to-Book ratio (P/B)

The evaluation of relative value of company's shares was processed by calculation P/B ratio as per formula. (Frank E. Block. 1995).

$$Price\ to\ Book\ Ratio = \frac{\text{Price per share}}{\text{Book Value per share}} \quad \ldots\ldots\ldots\ldots\ldots\ldots (21)$$

Price to Earnings ratio (P/E)

The evaluation of relative value of company's shares was processed by calculation P/Eratio as per formula. (Leibowitz, M. L., & Kogelman, S. 1990)

$$Price\ to\ Earnings\ Ratio = \frac{Market\ capitalization}{Net\ Income} \quad \ldots\ldots\ldots\ldots\ldots\ldots (22)$$

Discounted cash Flow

$$DCF = \frac{CF1}{1+R} + \frac{CF2}{(1+R)\text{^}2} + \frac{CF3}{(1+R)\text{^}3} + \frac{CFn}{(1+R)\text{^}n} \quad \ldots\ldots\ldots\ldots\ldots\ldots (23)$$

CF – estimated future

cash flow.

R – Discount rate.

n – number of periods for calculation.

The discount rate is replaced by weighted average cost of capital (WACC). For the calculation of WACC weight of Equity and debt needs to be calculated as well as Cost of equity and debt. (Mulder, K. J. 1969)

$$Weight\ of\ Debt = \frac{The\ book\ value\ of\ debt}{Market\ capitalization + Book\ value\ of\ debt} \quad \ldots\ldots\ldots\ldots\ldots\ldots (24)$$

$$Weight\ of\ Equity = \frac{Market\ capitalization}{Market\ capitalization + Book\ value\ of\ debt} \quad \ldots\ldots\ldots\ldots\ldots\ldots (25)$$

$$Cost\ of\ debt = \frac{Interest\ expense}{Book\ value\ of\ debt} \quad \text{..... (26)}$$

For the calculation cost of equity risk free rate, β risk rate of stock and Market premiumare used. Equity risk free rate equals to 10-Year Treasury Constant Maturity Rate. β risk rateof stock is provided by the stock exchange where the security trades. The market risk premium is the difference between the expected return on the investment and the risk-free rate.

$$Cost\ of\ equity = Risk\ free\ rate + \beta\ risk\ rate\ of\ stock * Market\ premium \text{.... (27)}$$

WACC

$$WACC = \frac{Weight\ of\ Equity * Cost\ of\ Equity}{Weight\ of\ Equity\ and\ Debt} + \frac{Weight\ of\ Debt * Cost\ of\ Debt}{Weight\ of\ Equity\ and\ \text{Debt}}$$

$$* (1 - Tax\ rate) \quad \text{..... (28)}$$

After WACC and the free cash flow of the company is calculated the terminal value ofthe company needs to be determined. (Golbe, D. L., & Schachter, B. 1985)

Terminal value

$$Terminal\ value = \frac{FCF}{WACC - Terminal\ rate} \quad \text{..... (29)}$$

According to the FCFF model terminal value needs to be discounted.

Discounted terminal value

$$Discounted\ terminal\ value = \frac{Terminal\ value}{DCF} \quad \text{..... (30)}$$

The total equity value is calculated as per formula below:

$$Total\ equity\ value = Discounted\ terminal\ value + Total\ terminal\ value \ldots\ (31)$$

Next step is to find the Net asset value which defines company value without debt.

Net asset value

$$Net\ asset\ value = Total\ equity\ value - Book\ value\ of\ debt \ldots\ (32)$$

Finally, the fair value of the company stock is defined by dividing the received net asset value by the number of shares outstanding. (Miller, S. E., & Bradford, G. L. 2001).

Fair value of stock

$$Fair\ value\ of\ the\ stock = \frac{Net\ asset\ value}{\text{Number } of\ shares\ outstanding.} \ldots\ (33)$$

3. Literature Review

Literature Review of this diploma thesis consists of fundamental analysis, financial statements, users of financial analysis, financial analysis techniques, ratio analysis, and technical analysis. These analysis methods are used to understand the aim of the research, and fundamental analysis of Sun Pharmaceutical Limited is done in the practical part.

3.1 Fundamental Analysis

Fundamental analysis is a well-established, value-based technique that starts with a thorough assessment of a nation's economic, industrial, and company fundamentals. It assesses an industry, considers the status of the economy, and then thoroughly examines the firm's finances and non-financial aspects (Abarbanell & Bushee, 1997).

The security analyst or prospective investor primarily examines issues, including industry dynamics, economic consequences, and crucial corporate data like product demand, profits, dividends, and management, to determine the intrinsic worth of the company's stocks. An investor evaluates a security's intrinsic value and market price before purchasing. (Lev, B., & Thiagarajan, S. R. 1993).

A forecast of a company's earnings or dividends is necessary to determine the fair value of its stock. A company's fundamentals are characteristics associated with risk, profitability, and financial strength. One technique for assessing a stock's intrinsic worth, such as earnings and dividends, considering relevant quantitative, qualitative, economic, and financial variables is fundamental analysis. (Malvin C. Spooner. 1984).

3.1.1 Economic Analysis

Experts utilize economic analysis to ascertain the significant economic factors influencing the functioning of an organization, sector, region, or any other demographic group to make more informed decisions for the future. This term can describe the simple or complex process of identifying, examining, and projecting economic elements. (Jones, 1998)

Organizations often conduct corporate planning processes throughout one to two years, identifying two to three possible short- and medium-term economic scenarios. (Lawson, T. 1988).

The state of the economy has an impact on a company's performance. Businesses that experience a downturn in the economy would suffer. The company's performance level may be beneficial if the economy is doing well, salaries are rising, and demand is increasing. (Markham, J. W. 1954)

Analysis of costs and benefits and analysis of costs and effectiveness. When deciding whether to pursue a project, cost-benefit analysis balances the advantages and disadvantages of the suggested endeavor. In contrast, cost-effectiveness analysis determines which choice is the most efficient by comparing the proposed venture's expenses and benefits to those of competing ventures. (Jones, 1998)

3.1.2 Industry Analysis

A business's long-term profitability and prospects may be impacted; thus, analysts need to stay current on the latest developments, facts, and news in the relevant industries. (Peter, 1987)

A nation's industrial development affects that nation's progress. It is necessary to consider industries as having a shared interest. An industry that emphasizes units and products that are process oriented. There are numerous distinct industries. This division is possible due to the diverse functions performed by the many industries. As an example, automotive, steel, and other industries. (Kumar et al.2012).

An industry study is conducted by a commercial organization, or more specifically, an entrepreneur, to ascertain the factors influencing the sector they are presently investing in or are considering investing in. The state of competitors, potential new entrants, customers, and suppliers all directly impact how an industry operates. The concept of industry analysis equips corporate organizations with the necessary knowledge to develop strategies that effectively address them. (Richardson, 1972)

3.1.3 Company Analysis

Company analysis, instead of industry research, provides a more focused and in-depth understanding of a company's activities, including opportunities and challenges. Company analysis gives insight into a company's past performance and challenges and its growth, success, or failure. It presents business conditions and strategic efforts based on internal and external prospects and barriers. (Sharma, & Prashar, 2013).

Forecasts for future business and economic performance are included, contingent on the company's ability to manage stakeholder expectations, changes in the competitive landscape, technological advancements resulting from the firm's research and development efforts, both internally and externally, and shifts in the public's perception of high-quality goods and services. (Richardson, 1972)

There is no one-size-fits-all approach to investing. There are investment options that fit each individual investor's specific goals, time horizon, and income, just as there are many distinct types of investors. (Twin, 2012)

A comprehensive investment strategy may also be assessed in terms of the planning process, the investor's needs and financial status at the time, the performance of the portfolio, and whether a revision or change is warranted. (Twin, 2012)

3.2 Financial Statements

A critical resource for learning about how the business is implementing its strategic decisions is its financial report. Non-financial metrics are essential for illustrating business prospects in industries with wide variations. For instance, calculating the ratio of reserve coal to total coal resources in the coal mining sector may reveal a company's potential for future coal production. (Hasanaj, & Kuqi, 2019)

Financial ratio analysis is crucial for established businesses as it provides a more straightforward means of understanding the profitability, financial strength, risk, and general state of the organization. (Xhafa, 2005)

3.2.1 Cash Flow Statement

An organization's cash and cash equivalent inflows and outflows are shown in a financial document known as the cash flow statement (CFS). The CFS evaluates a company's ability to generate enough cash to pay off debt and fund operating expenses or how well it manages its financial position. The CFS is the third of the three primary financial statements, together with the income statement and balance sheet. The cash flow statement details a company's finances, funding sources, and operations. (Schmidgall, et al. 1993) (Segal, 2021)

A cash flow statement is essential since it is challenging for an organization to manage its financial situation. Falsifying earnings is easy for aggressive accountants, but making fake money in the bank is more challenging. Some stakeholders believe the cash flow statement is a more conservative measure of a company's success. (Livnat, & Zarowin, 1990) (Segal, 2021)

Creditors can use the Cash Flow Statement to assess how much liquidity the company has available to pay off debt and fund operating expenses. Because it enables them to determine a company's financial stability, investors place a high value on the Cash Flow Statement. As a result, they may make better and more informed financial decisions by using the statement. (Schmidgall, et al. 1993). (Segal, 2021)

3.2.2 Income Statement

Every company maintains three types of accounting results or statements that summarize the company's operation. The income statement is one of a company's three most crucial financial reports. It is included in the balance sheet and cash flow statement of all firms' financial statements. The purpose of the income statement is to provide readers, creditors, investors, and other users of financial statements with specific financial information about a company's performance over a fiscal year. (Priyanka Tiku, T. 2023)

Accountants, investors, and business owners often review an income statement to see if it is progressing as planned. To identify the shortcomings of a particular strategy and guide it in the right direction, an income statement is examined. (Easton, et al. 1992) (Priyanka Tiku, T. 2023)

The income statement helps the company's promoters make swift, well-informed decisions about how much to spend. It discloses the company's financial situation. It serves as an essential report for comprehending the tax liability or for complying with regulations. An income statement can be used to inform crucial decisions like increasing sales, broadening the target market, shutting a department, and opening a new one. (Penman, S. 2010) (Priyanka Tiku, T. 2023)

3.2.3 Balance Sheet

The balance sheet displays the assets, liabilities, and equity of a company at a certain point in time. It is called a balance sheet because these three components—assets, liabilities, and shareholders' equity—must equalize using the method below. (Kovalev, 1997) (Segal, 2021)

It's a report card that shows the book value of a firm at the end of a given year. Its three components are shareholder equity, liabilities (debt), and assets. The easiest way to calculate a shareholder's equity or book value is to subtract debt from assets. One crucial performance metric that varies based on the company's growing or shrinking financial activity is book value. (Segal, 2021)

3.3 Ratios Analysis

Financial ratios are strongly associated with benchmarking, which is the process of comparing a company's operations to those of other companies or the same organization at a different time. This is because financial ratios make comparisons possible. (Frank et al. 2003)

When it comes to planning and evaluating the efficacy of management over a specific duration, ratios are a helpful management tool for gathering the data and information needed. Ratios are commonly utilized in financial accounting to establish correlations and trends. (Crilly, & Sherman, 2010)

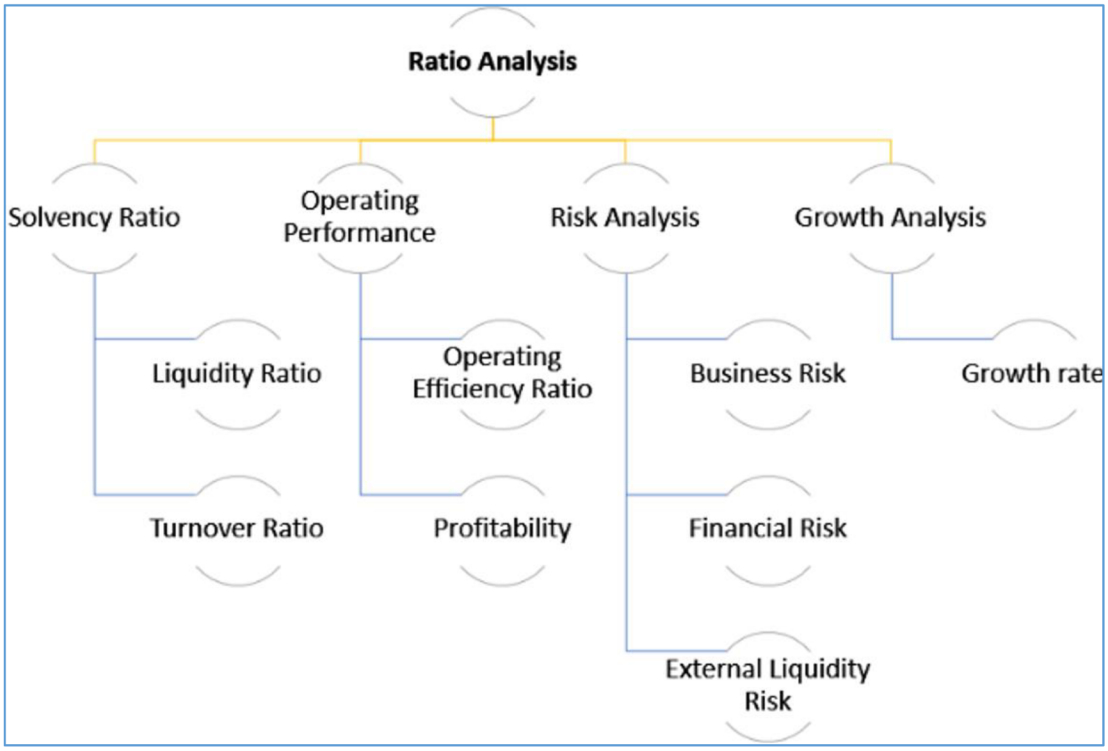
The process of methodically creating ratios from both internal and external reporting to identify important relationships and results and evaluate the financial health of an organization is known as ratio analysis. (Brigham et al. 2001)

Ratios are a valuable tool for determining solvency in asset consumption, liquidity, and profitability in general. Financial activity suggests a second, more suitable method for categorizing ratios.(Frank et al. 2003) (Crilly, & Sherman, 2010)

Ratio analysis has proven to be a valuable method for monitoring, assessing, and improving internal performance levels in businesses. The study discovered a strong correlation between ratio analysis and organizational success. Financial ratios highlight the need for sound management practices inside a company. The study recommended that financial ratios be computed often to pinpoint areas of strength and progress and that ratio analysis be used to assess the profitability of an endeavor. (Crilly, & Sherman, 2010) . The figure below shows how the different ratios are categorized.

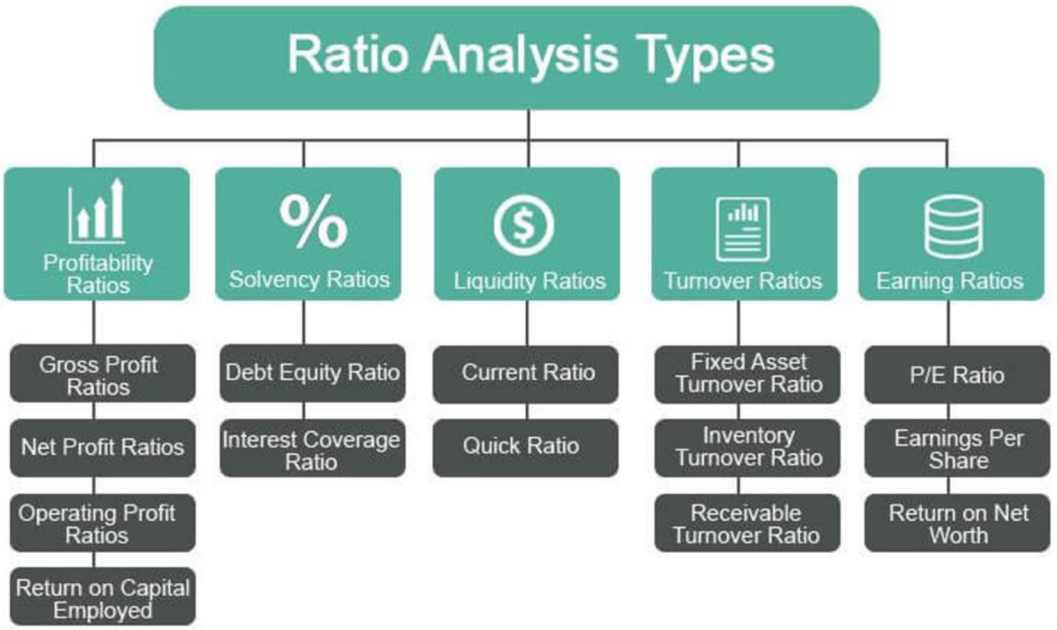
Classification of Ratio Analysis given below in the image which describes the types of ratios in detail.

Figure 3-1 Classification of Ratio Analysis



Source: Rajeshdhnashire (2016)

Figure 3-2 Types of Ratio Analysis



Source: Rajeshdhnashire (2016)

Types of Ratio Analysis from the above images are explained in detail below.

3.3.1 Liquidity Ratios

Liquidity ratios assess a company's ability to meet its obligations by comparing its cash and near-cash levels to payment commitments. Insufficient coverage of the latter by the former indicates that the business would struggle to meet its short-term financial obligations. As a result, this can affect the company's overall operations and profitability. (Saleem Q., & Rehman R. 2011).

3.3.1.1 Current Ratio:

The current Ratio demonstrates how well a business may use its assets to pay down its short-term debt and other liabilities. It is, therefore, occasionally called the current asset to current obligation ratio. It acts as the primary gauge of a business's liquidity. (Nuhu, 2014)

While a high current ratio may indicate that management isn't making the most use of the firm's assets or that there are too many current assets, a low current ratio may indicate that a company won't be able to satisfy its financial obligations soon. As a baseline, current ratios are evaluated using the 2 to 1 standard (2:1). (Nuhu, 2014) (Horrigan, J. O. 1968).

3.3.1.2 Quick Ratio:

Only the most liquid current assets and liabilities are considered in this Ratio. Given its increasing value, the company appears to have significant liquidity. This Ratio does not account for prepaid expenses and inventories, which are difficult to turn into cash (Horrigan, J. O. 1968). Sinha, G. (2012)

A Firm's ability to meet short-term obligations without selling assets or looking for additional finance is determined by the quick Ratio. The fast Ratio is considered a more cautious indicator than the Current Ratio, which includes all current assets as coverage for current commitments. The total current liabilities of the corporation are divided by its most liquid assets to determine the quick Ratio. It comprises securities, receivables, and cash and cash equivalents. One is seen as typical for a rapid ratio. (Tuovila, A) Sinha, G. (2012)

It indicates that the company has the correct quantity of liquid assets to meet all its short-term liabilities. While a company with a fast ratio over one can pay off all its current liabilities immediately, one with a quick ratio below one would not be able to soon. (Seth, 2022)

3.3.2 Profitability Ratios

The ability of a company to generate income as a return on its investment is referred to as profitability. Profitability ratios show how competitive the company is in terms of both quality control and operations. It shows the company's achievements and shortcomings. (Kwok, B. K. B. 2013). The profitability ratios are as follows:

3.3.2.1 Gross Profit Ratio

The gross profit margin ratio shows the potential gross profit on sales. If this Ratio is subtracted from 100%, it shows the remaining amount that must be used to cover both net profit and operating expenses. When compared to the standard Ratio, statistics on the gross profit margin ratio over a variety of periods can reveal information about the trend of the Ratio attained, enabling one to assess whether the firm's achieved margins are already noteworthy (Kwok, B. K. B. 2013). (Robinson et al, 2020)

The Ratio of the company's gross profit to the number of sales made during the same period is known as the gross profit margin, or GPM. Sales prices heavily influence the gross profit margin, the higher a company's profitability, the better. Businesses must compute their gross profit margin to ascertain their profit from the sales of goods and services. There is seldom a straight line between the gross and net profit margins. (Kwok, B. K. B. 2013). (Robinson et al, 2020)

3.3.2.2 Operating Profit Ratio

Operating profit can be computed by deducting operational expenses from gross profit. This Ratio is essential because it shows how profitable regular business operations can be for the company. The decline in this Ratio indicates inadequate control of operating expenses. (Gibson, 2009).

The operating profit margin of a company, sometimes referred to as the profitability or performance ratio, indicates the portion of income that may be utilized to pay for non-operating expenses like taxes and interest in addition to producing a net profit for the company's shareholders. The operational profit margin value increases with its level for the company. (Tuovila, A) (Gibson, 2009).

3.3.2.3 Net Profit Ratio

The net profit margin of a company is one of the most important indicators of its financial health. A business can evaluate the effectiveness of its current procedures and anticipate earnings based on sales by monitoring changes in its net profit margin. (Thakur, 2023)

Regardless of size, comparing the profitability of two or more businesses is simple because the net profit margin is defined as a percentage rather than a numerical amount by organizations. (Horrigan, J. O. 1968). (Thakur, 2023)

Net profit margin is calculated using the corporation's or firm's profit and loss statement, which breaks down the total revenue and expenses of the business into multiple categories. It is the percentage of total revenue left over after all business expenses. (Thakur, 2023)

3.3.2.4 Return on Capital Employed

Return on capital employed (ROCE), a profitability metric, evaluates how well a company uses its capital to generate profits. Return on capital employed statistics is a commonly used metric by investors to determine the financial viability of a specific company. It is thought to be among the best profitability ratios. (Kwok, B. K. B. 2013).

The company's profit, or earnings before interest and tax, is calculated by deducting all costs from revenue and paying interest and taxes. (Kwok, B. K. B. 2013).

3.3.3 Solvency Ratios

The capacity of an organization to satisfy its long-term financial obligations is one definition of "solvency." Put differently, a company's solvency is determined by its ability to settle long-term debt, including principal interest and benefits. (Mills, 1964).The solvency ratios are as follows:

3.3.3.1 Debt Equity Ratio

The debt-to-equity Ratio can be used to calculate a company's level of debt dependency and total liabilities relative to shareholder equity. Since D/E ratios vary by industry, they are typically used to compare a company's immediate competitors or monitor changes in its Sun Pharmaceutical Industry on borrowings over time (Mills, 1964).

3.3.3.2 Interest Coverage Ratio

A company is better positioned financially to withstand a brief decline in sales if its present earnings are significantly higher than the amount required to pay debt interest. A company in highly risky financial circumstances can hardly pay its interest obligations with its current profits; even a little, transient decline in sales could force it into bankruptcy. (Mills, 1964).

Strong, consistent revenue is typically considered for a company with a minimum acceptable rate of interest coverage of at least two. Analysts prefer three coverage ratios or more. A company is not in good financial condition if its coverage ratio is less than one, which suggests that it cannot meet its current interest payment obligations (Mills, 1964).

3.3.4 Turnover Ratios

The portion of a mutual fund and other portfolio assets that have changed over the course of a year is known as the turnover ratio in the world of investments. There are funds with turnover ratios higher than 100% since their stock investments are held for shorter times than a year. All the holdings have not necessarily been altered as a result. How much of the shares have changed over the last 12 months is displayed by the ratio. (Richardson, 1999).The turnover ratios are as follows:

3.3.4.1 Fixed Assets Turnover Ratio

A company's apparent profitability when using its current fixed assets is shown by the fixed asset turnover ratio. This ratio is obtained by dividing net revenues by the average fixed asset quantity. A higher ratio indicates better fixed asset use by management. A high ratio of free cash to assets (FAT) tells us nothing about a company's capacity to produce steady returns on capital. (Kenton, 2023)

To obtain the most accurate knowledge of the return on their capital investments, manufacturing organizations frequently prefer the fixed asset turnover ratio over the asset turnover ratio. Since other assets, like inventory, are used differently, retailers and companies with fewer fixed assets may be less concerned about FAT. (Clayton et al.2005). (Kenton, 2023)

3.3.4.2 Inventory Turnover Ratio

All Itemized goods—whether completed or unfinished—that a business keeps on hand with the intention of selling are considered inventory. The rate of stock sales, consumption, and replacement is known as inventory turnover. To calculate the inventory turnover ratio, divide the cost of each item by the average inventory during a specified time. (Jenkins, 2022)

Stronger sales are usually indicated by higher ratios, whereas poorer sales are usually indicated by lower ratios. On the other hand, a smaller ratio might suggest that you have too much inventory on hand, while a greater ratio may suggest that you have too little. (Clayton et al.2005). (Jenkins, 2022)

3.3.4.3 Receivables Turnover Ratio

A high percentage could be a sign of excellent debt collection strategies and dependable, on-time payment from clients for a company. (Murphy, 2023).

A low ratio may be caused by unworthy or untrustworthy customers, ineffective credit policies, or inefficient collection techniques. Investors should be aware that certain businesses calculate their ratios using total sales instead of net sales. (Richardson, 1999). (Murphy, 2023).

3.3.5 Earnings Ratios

An investor's ability to profit from a company can be assessed using the earnings ratio. Another term for these ratios is market value ratios. Financial measurements, known as market value ratios, are used when evaluating a company's stock price and market value. These figures reveal the market's assessment of the company's value and future growth potential. (Fernando, 2022).

3.3.5.1 Price to Earning Ratio

The profit per share is used by the price-to-earnings (P/E) ratio to assess a company's stock value. The notable P/E ratio may indicate that investors believe a company will grow quickly in the future or it may highlight areas in which a company's stock is overvalued. (Longo, 2017). (Fernando, 2022).

As there is nothing to enter in the denominator of a P/E ratio, businesses with no earnings or losses are unable to calculate one. In practical application, P/E ratios can be either forward or following. For an analyst, a P/E ratio is most useful when compared over a longer time with a specific business or with other companies in the same industry. (Fernando, 2022).

3.3.5.2 Earnings Per Share

Earnings per share (EPS) is computed by dividing a company's net profit by the total number of ordinary shares that have been issued. Since EPS indicates how much money a company makes for each stock it holds, it is a commonly used statistic for determining corporate value. It is a crucial profitability indicator that connects a stock's price to a company's actual earnings. (Fernando, 2022).

In general, a higher EPS is better. Still, it's essential to consider other factors, such as the total number of outstanding shares, the potential for dilution, and long-term profit trends. Since investors would pay more for a company's equity if they thought its revenue exceeded its stock price, a higher EPS indicates better value. (Longo, 2017). (Fernando, 2022).

3.3.5.3 Return on Net Worth

It is a percentage-based metric that shows how profitable a corporation is at producing shareholder equity. This metric aids in figuring out how profitable a company is. When there is a high return on net worth, it is generally assumed that shareholder funds have been used prudently. When a corporation's return on net worth is poor, it is assumed that either capital is being reinvested in unproductive assets or the company is not successfully utilizing its resources efficiently. A return on investment of 20% or more is typically seen as favorable. (Pringle, 1973). (Mahadeva, 2012).

3.3.5.4 Price-to-book value ratio

The price-to-book ratio is used to compare a share's accurate price—which is derived from the difference between its total assets and liabilities—with its actual price. If you want to know if the market has overpriced a company's shares, you may quickly ascertain this ratio. Nevertheless, because it disregards other important variables, this ratio could be misunderstood. (Fernando, 2022).

3.4 Return Concepts

The Return on investment has been the measurement by which investors have been judged to have made money on their investments or not. A measure is used by investors to determine the expected return on the risk they are taking. The right rates for discounting future cash flow are determined by the analyst. Dividend yield and capital appreciation are the two sources of return in the equities market. It is crucial to understand the many types of returns and their attributes (Modigliani, & Pogue, 1974). which include:

a. Holding Period Return
b. Realized and Expected Return
c. Required Return
d. Expected Return Estimates from Intrinsic Value Estimate
e. Discount Rate

3.4.1 Equity Risk Premium

Equity risk premium refers to the additional return an investor needs to keep riskier assets than those not as risky. This refers to the distinction between the necessary return on risk-free assets and the required return on equity. The present expected risk-free return plus the equity risk premium is the necessary return on equity. There are two primary methods for evaluating the stock risk premium. While the other is based on current data estimation, the first is based on the historical average of equities market return, which is less government debt return. (Modigliani, & Pogue, 1974).

3.4.2 Required Return on Equity

The capital asset pricing model (CAPM), multifactor models like the Fama-French and other related models, and the build-up approach, which includes the bond yield plus risk premium method, are the three primary options for determining the needed return on equity. (Modigliani, & Pogue, 1974).

3.4.2.1 The Capital Asset Pricing Model

The CAPM is a key finding of contemporary finance theory that accurately estimates the correlation between an asset's expected return and risk. Owing to its adequate accuracy for critical applications, CAPM is commonly utilized. Essentially, the suppositions from real-world practice form the foundation of the CAPM. (Kenton, 2023)

Investors would assess an asset's risk according to its contribution to systemic risk and the model's central tenet. According to CAPM, the needed return on equity is equal to the equity risk premium times beta times the present projected risk-free return. The return on a riskless investment is known as the risk-free rate. (Perold, A. F. 2004) (Kenton, 2023)

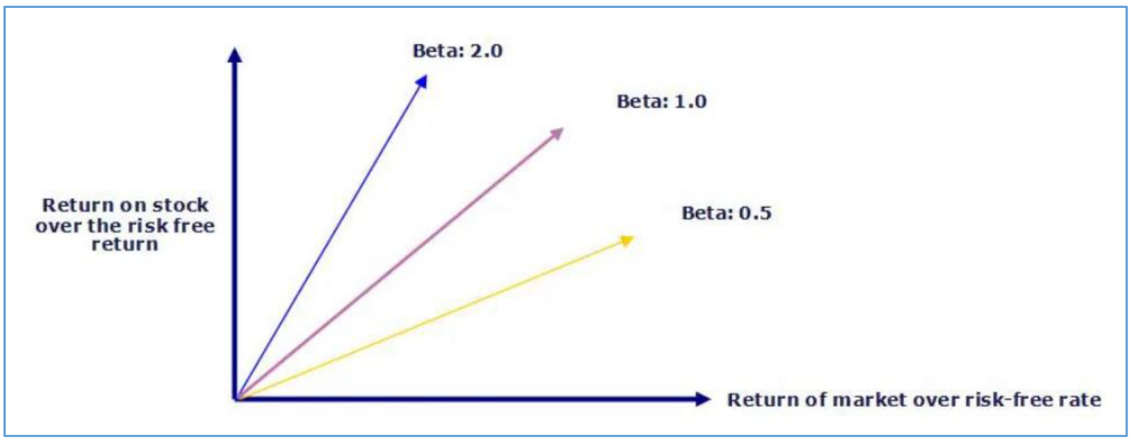
3.4.2.2 Risk Free Rate

The risk-free rate represents the expected return on investment for zero-risk assets. Even the safest investments have a negligible level of risk; therefore, there are no risk-free rates. Risk-free rates represent government debt instruments since they are among the safest investment options. (Modigliani, & Pogue, 1974). (Hayes, 2023)

3.4.2.3 Beta

"Beta is a relative measure of risk, indicating how risky a particular stock is compared to the entire market portfolio of stocks." The measurement of systematic risk associated with a single security that cannot be eliminated by diversification is known as beta. The market portfolio's beta is one. If a security is very volatile, its beta will be greater than 1, and if it is less volatile, its beta will be lower than 1. (Perold, A. F. 2004) (Liberto, 2023)

Figure 3-3 Illustration Beta of Securities



Source: educba (2023)

3.4.2.4 Weighted Average Cost of Capital

To value a company using the discounted cash flow approach, select the appropriate discount rates. Both debt holders and investors want to be compensated for their financial infusion. The expected return on investment for debt and stockholders is the appropriate discount rate for valuation purposes. (Hargrave, 2023)

Finding the weighted average cost of capital is one way to estimate the cost of capital or the discount rate. The weighted average cost of capital (WACC) is the cost of capital for a single company, with a proportionate weight assigned to each category of capital. WACC accounts for capital sources such as equity and loans. (Frank et al. 2015)

The WACC fluctuates along with changes in a company's financial structure since capital structures of businesses tend to vary over time. The objective weights are often used by analysts in place of the current financial structure weight. (Hargrave, 2023) Target weights are determined by considering the firm's target capital structure, which is what the business will probably use in the long run. Target weights could also be useful when the current weights don't accurately reflect the current financial structure of the organization. (Frank et al. 2015)

3.5 Intrinsic Value

Value is a key premise in equity pricing. A publicly traded stock's intrinsic value may be different from its market value. “The intrinsic value of an asset is its value ascertained by an idealized, thorough understanding of its investment qualities. The evaluation of intrinsic value reflects an investor's view of an asset's "true" or "real" value (Pinto et al. 2010). (Alvarez, 2023)

If market value is the best illustration of intrinsic value, value can be ascertained by consulting it. That is basically the foundation of the conventional efficient market theory, which holds that the market price is the most accurate indicator of an asset's intrinsic value. The idea that an asset's market price fairly represents its intrinsic value is significantly refuted theoretically by the Grossman-Stiglitz dilemma. (Alvarez, 2023)

3.5.1 Going-Concern Value and Liquidation Value

A corporation that will stay in business later has a different worth than one that collapses right away. A premise in stock valuation is going concern. A valuation object is assumed to continue producing, selling, and making valuable use of its assets for the foreseeable future under the going concern assumption. (Kenton, 2023)

The going concern assumption is not met if there is a considerable possibility that the company may fail. As a result, one is referred to in alter as liquidation value. Liquidation value pertains to a firm that is dissolved by selling its individual assets because it is unable to continue operating as a business. (Banton, 2023) (Kenton, 2023)

3.5.2 Fair Market Value and Investment Value

The most valuable thing about an analyst might be their inherent worth, yet value could also matter in specific circumstances. Fair market value and investment value are the two evaluations that address an asset's worth. The price at which a willing seller and a willing buyer will exchange an asset (or obligation) without any pressure to sell is known as the fair market value. (Ross, 2023)

On the other hand, investment value adopts a different methodology due to the possibility of collaboration. A buyer will see value differently if their anticipated return differs because of potential synergy. (Ross, 2023)

3.6 Valuation Models Selection

In terms of valuation, having one well-fitting model is crucial; there are many factors to consider while selecting the right model for the business. The sector or business in which the organization operates is one important factor. There are numerous methods for carrying out a value. Three general approaches to valuation are relative valuation model, discounted cash flows, and contingent claim value. (Frank, 2012).

3.6.1 Discounted Cash Flow (DCF) Valuation

According to DCF valuation, an asset's value can be approximated by figuring out the present value of its predicted future cash flow. One well-known kind of cash flow from the standpoint of common stockholders is dividends, which are paid to shareholders with permission from the company's board of directors. "Since dividends are paid to shareholders directly, they represent cash flows at the shareholder level" (Pinto et al., 2010).

An investment's worth can be ascertained using discounted cash flow analysis by looking at the projected cash flows. A projected discount rate is used to calculate the present value of anticipated future cash flows. The opportunity may yield positive returns and be worthwhile if the DCF is higher than the investment's present cost. Because it takes into consideration the rate of return that shareholders demand, companies usually utilize the weighted average cost of capital (WACC) for the discount rate. (Fernando, 2023)

Debt securities have a fixed quantity of cash flow in the future. In contrast, projecting future cash flow in the context of equity valuation is highly uncertain. Future cash flow in terms of equity is subject to more fluctuation than debt securities-specific cash flow due to various corporate, financial, technological, and other reasons. (Pinto et al. 2010).

Debt securities are typically associated with bond ratings and market interest rates; nevertheless, equity valuation entails a subjective evaluation of suitable discount rates. The concept of sensitivity analysis is presented because of the significant uncertainty. One technique for implementing discounted cash flow with a range of intrinsic values dependent on variables is sensitivity analysis. (Fernando, 2023)

4. Practical Part

The analysis and interpretation of the data gathered are the practical part of the study. Data is collected for the research from secondary sources. Sun Pharmaceutical Industries Limited data is gathered for the study's purposes over the years 2018–2023. Based on that, 2024 to 2029 data are projected for the discounted cash flow calculation. Excel tables are used to calculate and fill the data.

4.1 Company Profile

Sun Pharmaceutical Industries Limited is an Indian multinational pharmaceutical firm. Its global headquarters are in Mumbai; the company distributes active pharmaceutical ingredients (APIs) and pharmaceutical formulations to over 100 nations worldwide. It is the fourth-biggest specialty generic pharmaceutical firm globally and the biggest in India. The items serve Numerous therapeutic areas, including neurology, cardiology, diabetes, gastroenterology, ophthalmology, nephrology, urology, dermatology, respiratory, cancer, dentistry, and nutrition.

Dilip Shanghvi Founded Sun Pharmaceuticals. In the beginning, Dilip Shanghvi assisted his father in running his wholesale pharmaceutical shop in Kolkata, which specialized in generic medications. During this work, he considered producing his pharmaceuticals rather than reselling others' goods.

The 27-year-old Shanghvi launched his first manufacturing facility in 1982 with a 10,000 Indian rupee investment. His company is called Sun Pharmaceutical Industries. Situated a short drive from Mumbai in Vapi, Gujarat, the unit's primary output was a single psychiatric medication. But the business soon picked up.

In 1987, goods related to cardiology were introduced, and in 1989, products related to gastroenterology. It currently leads the market in nine distinct medical disciplines in India, including cardiology, gastroenterology, orthopedics, diabetology, dermatology, urology, vitamins, minerals, and nutrients. It is also rated first in terms of prescriptions.

Sun Pharma became the biggest pharmaceutical firm in India, the largest Indian pharmaceutical company in the U.S., and the fourth-largest specialty generic company worldwide with the 2014 acquisition of Ranbaxy.

Markets outside of India account for more than 72% of Sun Pharma's sales, mostly from the U.S. With around 30% of the company's total revenue coming from completed dosage forms or formulations, the U.S. is by far the largest market. Forty-four global locations in Europe, the US, Asia, Africa, and Australia are used for manufacturing. The company offers a wide range of generic products in the U.S. market, and it has a robust pipeline awaiting FDA (Food and Drug Administration) approval. In 1994, Sun Pharma went public on the stock exchange with a 55-times oversubscribed IPO. Most of the business is still owned by the original family.

4.1.1 Joint Ventures and Acquisitions

Sun Pharma has balanced expansion over the past 20 years through strategic acquisitions. In 1996, Sun acquired M.J. Pharma's dosage plant at Halol and Knoll Pharmaceuticals' bulk medicine production facility at Ahmednagar, which the US FDA currently licenses. Sun also purchased the Chennai-based Tamil Nadu Dadha Pharmaceuticals Limited (TDPL) in 1997, mostly for its broad portfolio of cancer and gynecology brands. Sun Pharma entered the lucrative U.S. market in 1997 when it acquired Detroit-based Caraco Pharmaceuticals.

Sun Pharma purchased several respiratory brands from Natco Pharma in 1998. A formulation factory in Bryan, Ohio, and ICN, Hungary was acquired from Valeant Pharma and Able Labs (2005), Milmet Labs and Gujarat Lyka Organics (1999), Pradeep Drug Company (2000), Phlox Pharma (2004), and Chattem Chemicals (2008) are among the other noteworthy purchases. 2010 saw the company purchase a sizable portion of Taro Pharmaceuticals, one of the biggest generic dermatology businesses in the U.S., with operations in Israel and Canada. For over $260 million, the corporation presently owns nearly 69% of Taro.

Sun Pharma and MSD formed a joint venture in 2011 to introduce sophisticated or unique generic medications to developing economies, excluding India. Sun stated in 2012 that it had acquired two U.S. companies: the generic pharmaceutical business URL Pharma and the dermatology device company DUSA Pharmaceuticals. The business and the research firm Intrexon launched a joint venture for ophthalmic research and

development in 2013.

In a historic US$4 billion deal, Sun Pharma purchased Ranbaxy on April 6, 2014, making it the world's fifth-largest specialty generic pharmaceutical firm. Subsequently, Sun Pharma and Merck & Co. Inc. agreed on a tildrakizumab (MK-3222) licensing arrangement to fortify the specialty product pipeline. In the same year, Sun Pharma purchased Pharmalucence in the U.S. to gain access to sterile injectable capacity there.

The Competition Commission of India authorized Sun Pharma's $3.2 billion proposal to acquire Ranbaxy Laboratories in December 2014. However, to ensure the merger doesn't hurt competition, the companies were instructed to divest seven products.

Sun Pharma stated in March 2015 that it had reached a deal to acquire GSK's Australian opiates division to expand its pain treatment offering.

Sun Pharma entered the Japanese market the next year with several noteworthy purchases, including purchasing 14 Novartis brands.

It also purchased Biosintez to increase its market share in Russia and Ocular Technologies, Sarl, to fortify its line of branded ophthalmic products.

Sun Pharma introduced some of its new drugs in the USA between 2016 and 2018. In 2016, BromSiteTM, its first branded ophthalmic product, was introduced. To treat moderate-to-severe plaque psoriasis, the business first introduced its specialized product, Odomzo, in 2017. Two years later, IlumyaTM (tildrakizumab-asmn) was introduced as a follow-up.

Sun Pharma purchased Pola Pharma in Japan in 2019 to increase its footprint in dermatology worldwide. Along with launching a specialty medication called Cequa in the U.S. to treat dry eyes, the company partnered with China Medical System Holdings to reach the Greater China market.

Sun Pharma acquired a 60% share in Vivaldis Animal Health and Foods Pvt ltd, an animal healthcare company, in 2023. For Rs 143.30 crore, Sun Pharma Management announced that it acquired a 60% Vivaldis Health and Foods Private Ltd share from its current owners. The management of Sun Pharma announced in October 2023 that it purchased a 4.04% share in Agasta Software for Rs 4.5 crore and a 38% stake in EzeRx Health Tech Private Ltd. for Rs 28.69 crore. For $30 million, Sun Pharma purchased a

16.7% share in the U.S. company Lyndra Therapeutics in December 2023.

Sun Pharma spent $347.73 million in January 2024 to purchase the remaining stake in Taro Pharma. Taro Pharma, the U.S. division of Sun Pharma Ltd., the top drugmaker in India, has revealed an agreement to merge with its parent firm. In accordance with this agreement, Sun Pharma, the company's controlling shareholder, will acquire all outstanding shares of Taro's subsidiary.

4.2 Balance Sheet

The following discussion focuses on Sun Pharmaceutical Industries Limited's vertical and horizontal balance sheet analyses.

4.2.1 Vertical Analysis of Balance Sheet

The table below provides a vertical analysis of the balance sheet assets for the years 2018–2023. A vertical analysis of the changes in asset values from 2018 to 2023 is included.

Table 4-1 Balance Sheet-Assets Vertical Analysis of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Balance sheet Assets / Years	2018	2019	2020	2021	2022	2023
Tangible Assets	14.24	15.50	15.48	15.13	14.86	12.87
Intangible Assets	6.36	9.05	8.49	7.43	7.94	6.59
Capital Work-In-Progress	2.23	1.41	0.97	1.38	1.14	1.19
Fixed Assets	24.43	26.73	25.77	24.88	24.64	25.61
Non-Current Investments	4.75	6.11	7.69	9.58	7.47	6.76
Deferred Tax Assets [Net]	3.41	0.16	0.09	0.07	0.05	0.04
Long Term Loans and Advances	3.49	0.03	0.00	0.00	0.00	0.00
Other Non-Current Assets	6.00	5.96	6.02	6.01	4.19	3.52
Total Non-Current Assets	50.80	51.98	53.62	55.01	49.84	50.60
Current Investments	6.36	6.11	7.18	4.63	10.94	11.61
Inventories	10.70	12.19	11.54	13.30	12.89	13.02
Trade Receivables	12.15	13.73	13.80	13.39	15.18	14.17
Cash And Cash Equivalents	15.44	11.25	9.51	9.53	7.21	7.15
Short Term Loans and Advances	0.14	0.48	0.22	0.08	0.24	0.05
Other Current Assets	4.40	4.27	4.14	4.07	3.71	3.40
Total Current Assets	49.20	48.02	46.38	44.99	50.16	49.40
Total Assets	100.00	100.00	100.00	100.00	100.00	100.00

Source: Author Based on Money Control, 2023.

All numbers in the vertical analysis of Sun Pharmaceutical Industries Limited's balance sheet assets are given as percentages; from the above analysis, it can be concluded that the company's tangible assets were at their lowest point in 2023 (12.87%) and at their highest point in 2019 (15.50%), indicating a loss in tangible assets. Similarly, the percentage of intangible assets, at 8.49%, peaked in 2020 and reached its 2nd lowest point of 6.59% in 2023.

The company's fixed assets reached their peak in 2019 (26.73%) and their lowest point in 2018 (24.43%), with an average percentage last year, 2023 (25.61). The largest percentage of inventory was 13.30% in 2021, while the lowest percentage was 10.70 % in 2018. The inventory percentage for the last year, 2023, is 13.02 %. The overall amount of non-current assets peaked in 2021 at 55.01%, the lowest amount ever recorded in 2022 at 49.84%, and went to 50.60% in 2023. The total current assets peaked in 2022 at 50.16%, the lowest ever recorded in 2021 at 44.99%, and went to 49.40% in the last year.

Vertical Analysis of Balance Sheet-Liabilities

The vertical analysis of the balance sheet liabilities for 2018 through 2023 is provided in the following table. The vertical analysis of the variations in the liabilities' value between 2018 and 2023 is part of it.

Table 4-2 Balance Sheet- Liabilities Vertical Analysis of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Balance sheet Liabilities / Years	2018	2019	2020	2021	2022	2023
Equity Share Capital	0.37	0.37	0.35	0.35	0.34	0.30
Total Share capital	0.37	0.37	0.35	0.35	0.34	0.30
Reserves and Surplus	58.88	63.64	65.97	68.31	68.44	69.05
Total Reserves and Surplus	58.88	63.64	65.97	68.31	68.44	69.05
Total Shareholders' Funds	59.25	64.01	66.32	68.66	68.78	69.35
Minority Interest	6.04	5.12	5.66	4.46	4.38	4.11
Long Term Borrowings	2.76	2.35	2.97	1.33	0.33	0.00
Deferred Tax Liabilities [Net]	0.34	0.16	0.09	0.07	0.05	0.04
Other Long-Term Liabilities	0.09	0.89	1.21	1.14	1.29	1.42
Long Term Provisions	0.63	0.67	0.75	0.48	0.53	0.42
Total Non-Current Liabilities	3.82	4.07	5.01	3.02	2.20	1.88
Short Term Borrowings	12.41	12.94	8.13	3.61	1.00	7.68
Trade Payables	7.41	6.41	5.25	5.87	6.42	7.04
Other Current Liabilities	3.12	2.92	4.01	7.60	4.12	3.31
Short Term Provisions	7.95	4.53	5.62	6.77	13.11	6.63
Total Current Liabilities	30.89	26.80	23.01	23.86	24.64	24.65
Total Capital and Liabilities	100.00	100.00	100.00	100.00	100.00	100.00

Source: Author Based on Money Control, 2023.

In the equity share capital from the table, the greatest percentage was 0.37% in 2018 and 2019, and the lowest percentage was 0.30% in 2023. The company's reserves and surplus were at its lowest point in 2018, at 58.88%. However, the company's reserves and surplus reached their maximum in 2023 of 69.05%. In 2018, the company's long-term borrowings peaked at 2.76%, but by 2023, they had dropped to 0%. The total non-current liabilities peaked in 2020 at 5.01% And fell to 1.88% in 2023.

In 2020, trade payables were at their lowest point of 5.25%; in 2018, they reached their highest point of 7.41%. In 2023, the percentage was 7.04%. 2018 had the highest total current liabilities, at 30.89%, while 2020 had the lowest, at 23.01%. The total current liabilities in 2023 are 24.65%.

4.2.2 Horizontal Analysis of Balance Sheet

The following table analyzes the balance sheet assets from 2018 to 2023 horizontally. The horizontal analysis of the variations in asset value from 2018 to 2023 is part of it.

Table 4-3 Balance Sheet- Assets Horizontal Analysis of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Balance sheet Assets / Years	2018	2019	2020	2021	2022	2023
Tangible Assets	7.81	9.48	5.39	-3.15	1.33	0.18
Intangible Assets	12.16	43.22	-0.95	-13.2	10.11	-4.01
Capital Work-In-Progress	-8.33	-36.51	-27.6	42.13	-14.84	20.79
Fixed Assets	5.16	10.06	1.70	-4.29	2.17	20.26
Non-Current Investments	217.61	29.47	32.74	23.57	-19.56	4.66
Deferred Tax Assets [Net]	-12.00	-95.25	-44.2	-23.4	-28.42	-0.53
Long Term Loans and Advances	3112.2	-99.24	-95.3	-10.1	0.00	-14.08
Other Non-Current Assets	-13.37	-0.19	6.64	-1.07	-28.02	-2.79
Total Non-Current Assets	14.80	2.93	8.84	1.71	-6.55	17.47
Current Investments	1671.75	-3.42	23.96	-36.1	143.89	22.78
Inventories	0.70	14.61	-0.14	14.25	0.00	16.85
Trade Receivables	8.51	13.68	6.04	-3.82	16.90	7.98
Cash And Cash Equivalents	-34.42	-26.73	-10.8	-0.65	-21.91	14.64
Short Term Loans and Advances	-91.03	238.35	-52.0	-62.2	203.46	-75.69
Other Current Assets	11.91	-2.30	2.22	-2.57	-5.96	6.16
Total Current Assets	-4.00	-1.79	1.88	-3.83	15.02	13.90
Total Assets	4.71	0.61	5.50	-0.86	3.15	15.68

Source: Author Based on Money Control, 2023.

Based on the table above, the Lowest tangible assets were -3.15% in 2021, which was a more significant shift. The highest was 9.48% in 2019 and went to 0.18% in 2023. Intangible assets also had a notable shift; they decreased by -13.23% in 2021, increased by 10.11% at the most significant point in 2022, and went to -4.01% in last year, 2023.

The fixed asset's lowest value was -4.29% in 2021. And went to 20.26% by 2023. The non-current assets underwent a notable shift in 2023, rising by 17.47%, before declining by a more significant amount by -6.55% in 2022. In 2020, inventories decreased by -0.14%, and in 2023, they climbed to a record 16.85%.

In 2021, trade receivables dropped by -3.82%, and in 2023, increased by 7.98%. Cash and cash equivalents fell by -34.42% in 2018, - 26.73 in 2019, -21.91 in 2022, And increased by 14.64% in 2023. In 2018, the total current assets fell by -4.0%; in 2018, they fell by -0.86% in 2021. And it increased by 15.68% in the last year, 2023.

Horizontal Analysis of Balance Sheet-Liabilities

The Horizontal analysis of the balance sheet liabilities for 2018–2023 is provided in the following table. It contains a horizontal analysis of how the value of liabilities changed between 2018 and 2023.

Table 4-4 Balance Sheet-Liabilities Horizontal Analysis of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Balance sheet Liabilities / Years	2018	2019	2020	2021	2022	2023
Equity Share Capital	0.00	0.00	0.00	0.00	0.00	0.00
Total Share capital	0.00	0.00	0.00	0.00	0.00	0.00
Reserves and Surplus	4.01	8.74	9.36	2.66	3.35	16.71
Total Reserves and Surplus	4.01	8.74	9.36	2.66	3.35	16.71
Total Shareholders' Funds	3.99	8.68	9.31	2.65	3.33	16.63
Minority Interest	2.46	-14.69	16.50	-21.84	1.25	8.68
Long Term Borrowings	23.40	-14.08	33.25	-55.73	-74.40	-100.0
Deferred Tax Liabilities [Net]	-30.44	-52.37	-44.25	-23.44	-28.42	-0.53
Other Long-Term Liabilities	-55.44	885.94	43.35	-6.29	16.96	27.06
Long Term Provisions	-66.60	6.41	18.73	-35.98	12.82	-7.09
Total Non-Current Liabilities	-20.66	7.25	30.01	-40.34	-24.89	-0.79
Short Term Borrowings	19.91	4.90	-33.71	-55.94	-71.34	784.44
Trade Payables	8.44	-12.97	-13.60	10.88	12.73	26.84
Other Current Liabilities	-28.79	-5.98	44.92	87.95	-44.16	-6.94
Short Term Provisions	27.24	-42.61	30.83	19.45	99.62	-41.47
Total Current Liabilities	11.05	-12.71	-9.42	2.80	6.53	15.73
Total Capital and Liabilities	4.71	0.61	5.50	-0.86	3.15	15.68

Source: Author Based on Money Control, 2023.

Based on the table above, the total share capital was 0% from 2018 to 2023. The Total shareholders' funds decreased 2.66% in 2020 and an increase of 16.63% in 2023. There was a notable shift in long-term borrowing, which had the highest value of 33.25% in 2020. And it went up to -100% in 2023. In 2018, other long-term liabilities had the lowest value of -55.44%.

However, in 2019, there was a significant growth of 885.94% in other long-term liabilities. In 2021, there was another decrease of -6.29%. In 2023, other long-term liabilities went up to 27.06%. In 2018, the total non-current liabilities were -20.66%; in 2020, it increased by 30.01%.

In 2023, it decreased by -0.79%. In 2020, Trade Payables decreased by -13.60%; in 2023, it increased by 26.84%. Other current liabilities were -28.79% in 2018, -44.16 in 2022, and -6.94% in 2023. They had the highest value of 87.95% in 2021. Total current liabilities had the lowest value of -12.71% in 2021. They increased by 15.73% in 2023.

4.3 Income Statement

Below is a discussion of Sun Pharmaceutical Industries Limited's income statement's vertical analysis and horizontal analysis.

4.3.1 Vertical Analysis of the Income statement

The following table presents the income statement's vertical analysis for the years 2018–2023. Included is a vertical study of the changes in the income statement value between 2018 and 2023.

Table 4-5 Income Statement Vertical Analysis of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Income / Years	2018	2019	2020	2021	2022	2023
Revenue From Operations [Gross]	100.00	100.00	100.00	100.00	100.00	100.00
Other Operating Revenues	1.62	1.32	1.58	1.08	0.59	1.40
Total Operating Revenues	101.34	101.32	101.58	101.08	100.59	101.40
Other Income	3.22	3.57	1.97	2.52	2.40	1.47
Total Revenue	104.56	104.90	103.55	103.60	102.99	102.87
Cost Of Materials Consumed	17.12	20.16	17.06	18.57	18.34	17.97
Purchase Of Stock-In Trade	10.48	8.78	10.56	9.58	8.87	8.25
Operating And Direct Expenses	0.00	0.00	0.00	0.00	1.45	1.30
Changes In Inventories Of FG,WIP And Stock-In Trade	0.89	-1.51	0.93	-1.93	-0.28	-1.59
Employee Benefit Expenses	20.59	20.80	19.68	20.71	19.00	19.17
Finance Costs	1.99	1.94	0.94	0.43	0.33	0.40
Depreciation And Amortization Expenses	5.75	6.11	6.35	6.28	5.58	5.84
Other Expenses	30.75	31.10	31.72	28.53	26.15	29.39
Total Expenses	87.57	87.38	87.25	82.16	79.44	80.73
PBIT	16.99	17.52	16.30	21.44	23.55	22.14
Exceptional Items	-3.65	-4.23	-0.81	-12.99	-11.88	-0.40
Profit/Loss Before Tax	13.35	13.28	15.50	8.45	11.66	21.74
Current Tax	2.54	2.80	4.08	2.89	0.92	4.32
Deferred Tax	-0.28	-0.71	-1.54	-1.34	1.88	-2.36
Total Tax Expenses	3.24	2.09	2.55	1.55	2.80	1.96
Profit/Loss for The Period	10.10	11.19	12.95	6.89	8.86	19.78

Source: Author Based on Money Control, 2023.

From the above table, other income values had the lowest by 1.47% in 2023. It had the highest value by 3.57% in 2019. in 2020, the cost of materials consumed had the lowest value of 17.06%. And in 2019, it had the highest value of 20.16%. In 2023, it went to 17.97%. The purchase of stock-in-trade value was the lowest at 8.25% in 2023. It had the highest value by 10.56% in 2020. Operating and direct expenses were 0% from 2019 to 2021. It was increased by 1.45% in 2022. And it went to 1.30% in 2023.

Finance costs were high by 1.99% in 2018. In 2022, it was low by 0.33% And went to 0.40% in 2023. PBIT was low by 16.30% in 2020. In 2022, this was high by 23.55%. In 2023, it went to 22.14%. Current Taxes were high by 4.08% in 2020. In 2022, it was low by 0.92% And went to 4.32% in 2023. Deferred Tax was high by 1.88% in 2022. In 2023, it was low by -2.36%. Profit/Loss for The Period value had the weakest by 6.89% in 2021. It had the highest value of 19.78% in 2023.

4.3.2 Horizontal Analysis of the Income statement

The following table displays the income statement's horizontal analysis for the 2018–2023 period. The income statement's changes between 2018 and 2023 are displayed using a horizontal analysis.

Table 4-6 Income Statement Horizontal Analysis of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Income / Years	2018	2019	2020	2021	2022	2023
Revenue From Operations [Gross]	-13.87	10.05	12.69	2.52	15.95	12.63
Other Operating Revenues	-67.77	-10.36	34.96	-29.94	-36.46	166.06
Total Operating Revenues	-15.63	10.03	12.98	2.01	15.39	13.53
Other Income	34.60	22.26	-37.98	31.38	10.29	-31.14
Total Revenue	-14.65	10.41	11.24	2.57	15.27	12.49
Cost Of Materials Consumed	-12.92	29.58	-4.63	11.57	14.56	10.33
Purchase Of Stock-In Trade	-16.67	-7.76	35.52	-7.01	7.40	4.74
Operating And Direct Expenses	0.00	0.00	0.00	0.00	0.00	0.63
Changes In Inventories Of FG,WIP And Stock-In Trade	-184.93	-287.74	-169.46	-312.14	-83.14	538.33
Employee Benefit Expenses	9.48	11.18	6.62	7.86	6.39	13.63
Finance Costs	29.46	7.28	-45.48	-53.28	-9.96	35.06
Depreciation And Amortization Expenses	18.59	16.90	17.08	1.32	3.07	17.99
Other Expenses	-2.08	11.31	14.94	-7.81	6.26	26.60
Total Expenses	-0.26	9.82	12.51	-3.46	12.12	14.45
PBIT	-51.04	13.43	4.89	34.82	27.34	5.88
Exceptional Items	0.00	27.76	-78.54	1552.14	6.05	-96.25
Profit/Loss Before Tax	-61.55	9.52	31.48	-44.12	60.08	109.95
Current Tax	63.80	21.30	64.20	-27.48	-62.98	427.45
Deferred Tax	-108.93	181.82	144.90	-11.00	-262.92	-241.67
Total Tax Expenses	-30.24	-28.91	36.93	-37.45	108.96	-21.19
Profit/Loss for The Period	-66.39	21.85	30.46	-45.43	49.07	151.36

Source: Author Based on Money Control, 2023.

According to the above table, Sun Pharmaceutical Industries Limited's other operating revenue dropped by -67.77% in 2018 and by -36.46% in 2022, which was its lowest point. The company's other operating revenue increased by 166.06% in 2023, the most significant growth ever. The company's total revenue increased to a record high of 15.27%, but the following year, it fell by -14.65% in 2018. In 2018, the cost of material consumed dropped by -12.92%. The following year, 2019, was high by 29.58%. In 2023, the value went to 10.33%.

Finance cost value had the lowest by -53.28% in 2021. It had the highest value of 35.06% in 2023. Depreciation And Amortization was low by 1.32% in 2021. In 2018, it was high by 18.59%. In 2023, it went to 17.99%. Profit/Loss Before Tax was low by 61.55% in 2028. In 2023, it was high by 109.95%. The total tax expense had the highest value of 108.96% in 2022, and in 2021, it had the lowest value of -37.45%. In 2023, it went to -21.19%. Profit/Loss for The Period value had the weakest of -66.39% in 2018. It had the highest value of 151.36% in 2023.

4.4 Cashflow Statement

The discussion that follows will focus on Sun Pharmaceutical Industries Limited's income statement's vertical and horizontal analyses.

4.4.1 Vertical Analysis of Cashflow Statement

This table offers a vertical analysis of the cash flow statement for the fiscal years 2018 through 2023. It also examines the vertical trend of changes in the cash inflow and outflow values from 2018 to 2023.

Table 4-7 Cashflow Statement Vertical Analysis of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Cash Flow / Years	2018	2019	2020	2021	2022	2023
Net Profit/Loss Before Extraordinary Items and Tax	-563.65	351.02	-3954.53	117003.8	448.16	-18822.2
Net cash flow From Operating Activities	2355.65	606.06	-1587.47	94415.76	11152.86	-5481.95
Net Cash Used in Investing Activities	-2798.91	211.59	-1798.31	-32706.5	-3946.4	7623.45
Net Cash Used from Financing Activities	547.26	-716.52	3490.33	-61211.4	-7113.85	-1830.38
Foreign Exchange Gains / Losses	-4.0024	-1.13	-4.5587	-397.82	7.390	-211.13
Net Inc/Dec in Cash and Cash Equivalents	100	100	100	100	100	100
Cash And Cash Equivalents Begin of Year	-296.70	47.716	-368.05	11983.7	324.72	-4535.46

Source: Author Based on Money Control, 2023.

According to the above table, net cash flow from operating activities was the lowest ever at 5481.95% in 2023, and the highest recorded in 2022 was 11152.86%. In 2021, the net cash used in investing activities was -32706.5%, the lowest value, and the highest value was 7623.46% in 2023. Net cash from financing activities had the lowest value of -61211.4% in 2021. And it had the highest value of 3490.34% in 2020. The cash and cash equivalents had the highest value of 11983.7% in 2021, while the lowest percentage was -4535.46% in2021.

4.4.2 Horizontal Analysis of Cashflow Statement

The following table displays the horizontal examination of the cash flow statement for the years 2018–2023. It includes a horizontal analysis of the shifts in the values of cash inflows and outflows from 2018 to 2023.

Table 4-8 Cashflow Statement Horizontal Analysis of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Cash Flow / Years	2018	2019	2020	2021	2022	2023
Net Profit/Loss Before Extraordinary Items and Tax	-1768.15	156.71	352.15	-33.81	-85.74	467.37
Net cash flow From Operating Activities	-27.74	-206.1	5.12	33.03	339.56	-93.35
Net Cash Used in Investing Activities	-41.56	-68.83	241.09	-140.6	349.0	-73.90
Net Cash Used from Financing Activities	-63.86	439.72	95.50	-60.77	332.46	-103.4
Foreign Exchange Gains / Losses	-331.39	-216.5	-261.6	-295.2	-169.12	285.96
Net Inc/Dec in Cash and Cash Equivalents	-861.41	-512.2	-140.1	-102.2	3621.19	-113.5
Cash And Cash Equivalents Begin of Year	4.63	-33.70	209.57	-27.17	0.83	88.68

Source: Author Based on Money Control, 2023.

According to the above table, Net cash flow from operating activities had the lowest value of -206.058% in 2023, and the highest ever recorded in 2022 at 339.56%. In 2021, the net cash used in investing activities was -140.68% which was the lowest value, and the highest value was 349% in 2022. Net cash used from financing activities had the lowest value of -103.47% in 2023. And it had the highest value of 439.74% in 2019. Foreign Exchange Gains / Losses value had the lowest of -331.39% in 2018. It had the highest value of 285.96% in 2023. The cash and cash equivalents had highest value of 209.57% in 2020, while the lowest percentage was -33.70% in 2019.

4.5 Ratio Analysis

Ratio analysis focuses on a company's financial report statistics to provide insights into profitability, liquidity, operational performance, and solvency.

4.5.1 Liquidity Ratios

The liquidity ratio shows the company's ability to satisfy its short-term obligations with its existing cash. The liquidity ratio (%) of Sun Pharmaceutical Industries Limited is displayed in the table below.

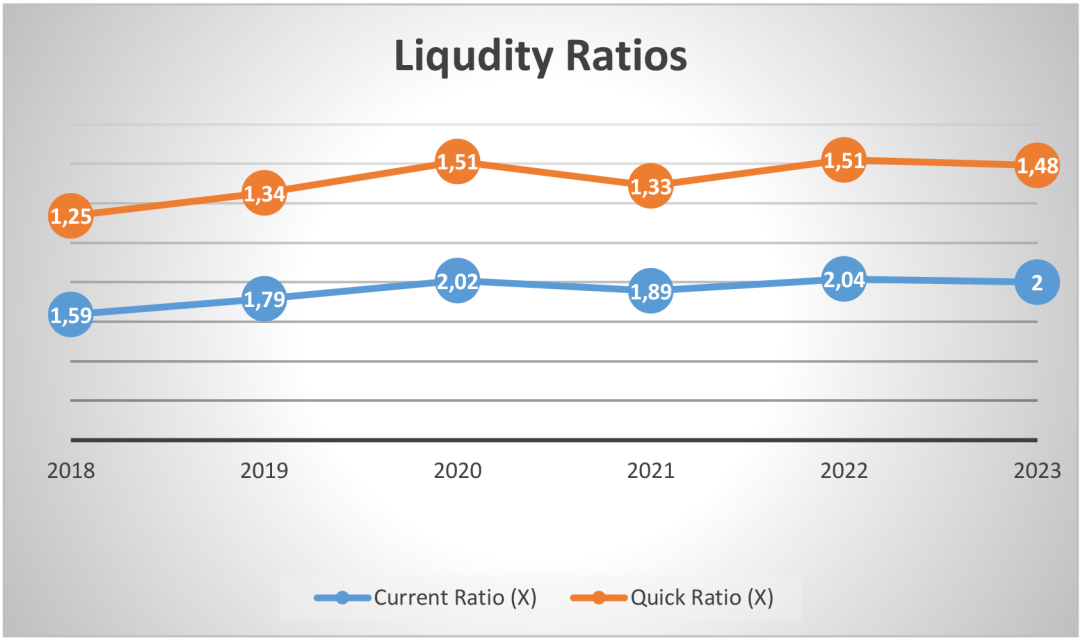
Table 4-9 Liquidity Ratios of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Liquidity Ratios / Years	2018	2019	2020	2021	2022	2023
Current Ratio (X)	1.59	1.79	2.02	1.89	2.04	2
Quick Ratio (X)	1.25	1.34	1.51	1.33	1.51	1.48

Source: Author Based on Money Control, 2023.

The preceding table is shown graphically below to make the comparison of the liquidity ratios.

Figure 4-1 Liquidity Ratios



Source: Researcher's Own Compilation

From the above figure it can be seen that:

Sun Pharmaceutical Industries Limited's current ratio (%) was 1.59 times in 2018, increased to 1.79 times in 2019 and 2.02 times in 2020, 1.89 times in 2021, and reached 2.04 times in 2022 and 2 times in last year 2023. To pay off its debt, a company should have twice as many current assets as current liabilities or a 2:1 ideal current ratio. The above graph shows that the current ratio peaked in 2022 at 2.04 times and reached its lowest point in 2018 at 1.59 times. Based on these Current Ratio observations, Autor can conclude that the company's financial position has strengthened, and it has enough liquid assets to cover its current liabilities.

Sun Pharmaceutical Industries Ltd.'s quick ratio (%) was 1.25 times in 2018, increased to 1.34 times in 2019 and 1.51 times in 2020, 1.33 times in 2021, and reached 1.51 times in 2022 and 1.48 times in last year 2023. The company has enough liquid assets to cover its current liabilities when the quick ratio is 1:1, which is the ideal value. In the instance of Sun Pharmaceutical Industries Limited (%), it is evident that the ratio has been one between 2018 and 2023. Based on these Quick ratio observations, it can be concluded that the company's financial position has strengthened, and it has enough liquid assets to cover its current liabilities.

4.5.2 Profitability Ratios

The profitability ratios show the company's financial performance after its financial year. It indicates the degree to which an organization may profit from its operations. The profitability ratio (%) of Sun Pharmaceutical Industries Limited is displayed in the table below.

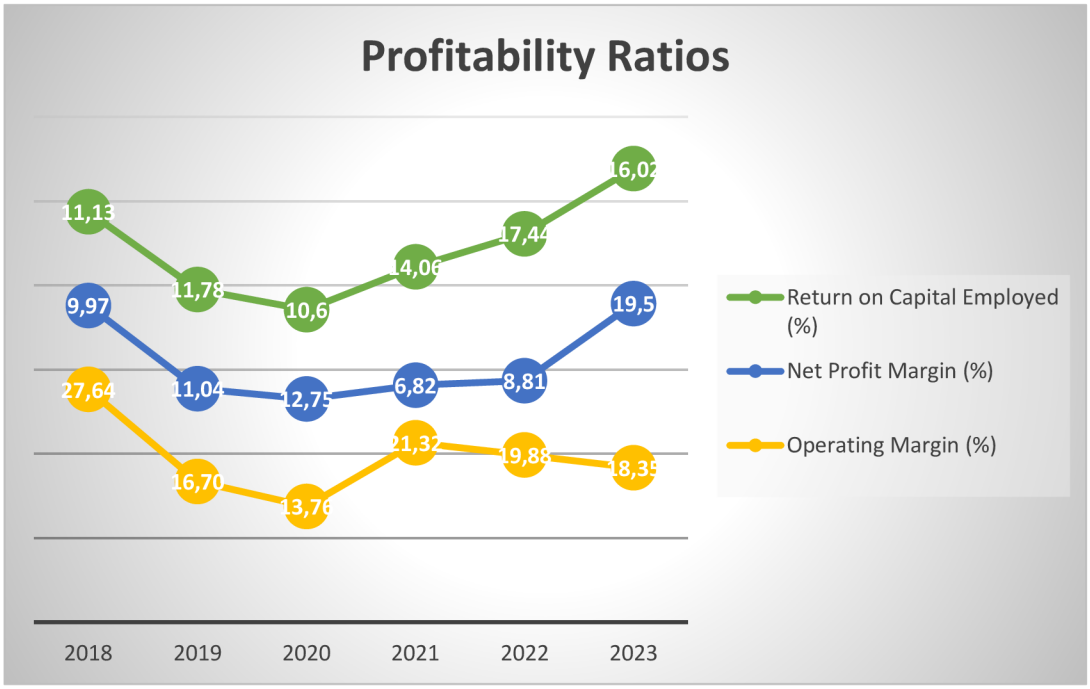
Table 4-10 Profitability Ratios of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Profitability Ratios / Years	2018	2019	2020	2021	2022	2023
Operating Margin (%)	27.64	16.70	13.76	21.32	19.88	18.35
Net Profit Margin (%)	9.97	11.04	12.75	6.82	8.81	19.5
Return on Capital Employed (%)	11.13	11.78	10.6	14.06	17.44	16.02

Source: Author Based on Money Control, 2023.

The table's graphical representation is provided below to make comparing the year-by-year profitability ratios easier.

Figure 4-2 Profitability Ratios



Source: Researcher's Own Compilation

From the above figure it can be seen that:

Sun Pharmaceutical Industries Limited's operating margin (%) was 27.64% in 2018, which was the highest value, but later, it was 16.70% in 2019 and decreased to 13.76% in 2020. It increased to 21.32% in 2021. It declined to 19.88% in 2022 and to 18.25% in 2023. Therefore, it was at its lowest in 2020 and peak in 2018. Compared to 2020, 18.35% in the last year, 2023, indicating that the business is making effective earnings for the owners.

The lowest net profit margin of Sun Pharmaceutical Industries Limited (%) was 6.82% in 2021, and the highest, 19.5%, was recorded in 2023. It increased to 11.04% in 2019 and 12.75% in 2020 compared to 2018. But it fell to 6.82% in 2021 and 8.81% in 2022. But it had a high increased value of 19.5% in 2023. This demonstrates that, in the year 2023, the company was sufficiently efficient to turn sales into real profit.

The percentage of return on capital employed (ROCE) for Sun Pharmaceutical Industries Limited was 11.13% in 2018, 11.78% in 2019, 10.6% in 2020, 14.06% in 2021, 17.44% in 2022, and 16.02% in 2023. It shows that in 2020, the company had the lowest operating income from the capital employed. And in 2022, the company had the highest value of operating income from the capital employed. Compared to 2018, in the last year, 2023, the ROCE had the highest value. This indicates that the company's operating income has increased over a long period.

4.5.3 Solvency Ratio

The company's solvency ratio shows if it has enough cash flow to pay off its long-term debt. The solvency ratios for Sun Pharmaceutical Industries Limited (%) are displayed in the table below.

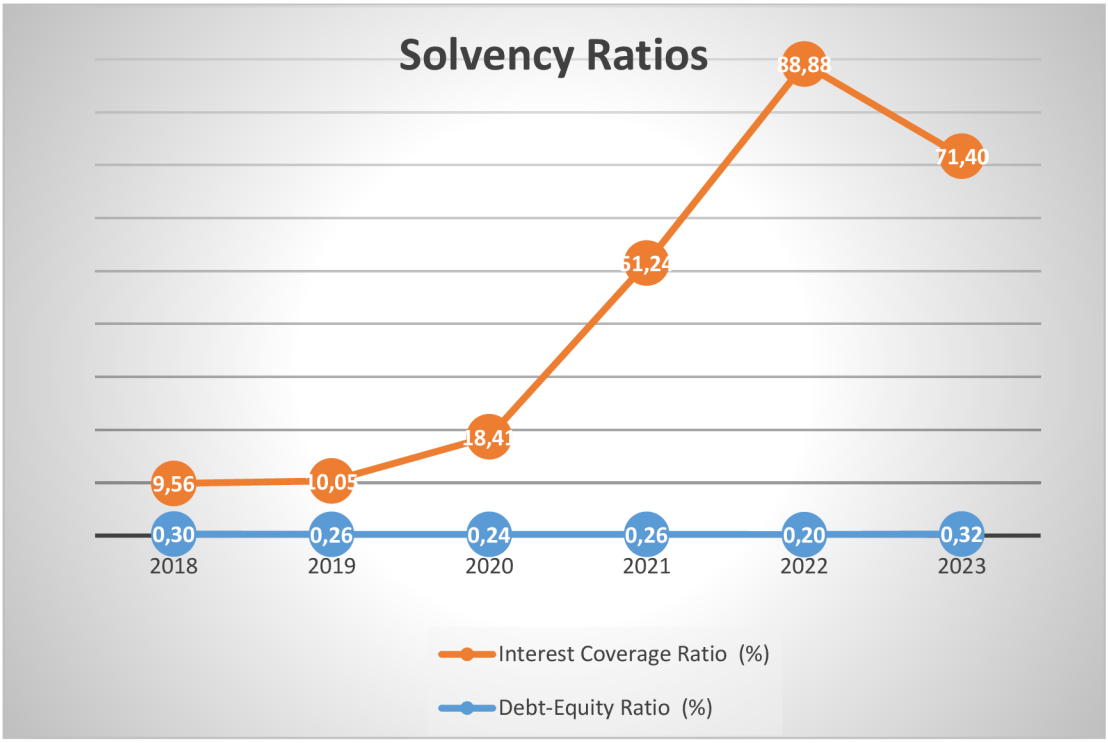
Table 4-11 Solvency Ratios of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Solvency Ratios / Years	2018	2019	2020	2021	2022	2023
Debt-Equity Ratio (%)	0.30	0.26	0.24	0.26	0.20	0.32
Interest Coverage Ratio (%)	9.56	10.05	18.41	51.24	88.88	71.40

Source: Author Based on Money Control, 2023.

The image below provides a graphical representation of the same for easier comprehension and comparison.

Figure 4-3 Solvency Ratios



Source: Researcher's Own Compilation

From the above figure it can be seen that:

Sun Pharmaceutical Industries Limited had a debt-to-equity ratio of 0.30 in 2018, 0.26 in 2019, 0.24 in 2020, 0.26 in 2021, 0.20 in 2022, and 0.32 in 2023. In 2022, it had the lowest value, and in 2023, it had the highest value. If the debt-to-equity ratio is low, then the business is low at risk, which is good. From 2018 to 2022, company risk was gradually reduced, but in 2023 it increased. The company must focus on that to reduce it.

Sun Pharmaceutical Industries Limited's interest coverage ratio was 9.56 in 2018 and increased to 10.05 in 2019, 18.41 in 2020, 51.24 in 2021, and 88.88 in 2020. And decreased to 71.40 in 2023.Ratio value gradually increased from 2018 to 2023. It is indicated that the company has more profit available to cover its interest costs on debt.

4.5.4 Turnover Ratio

The company's turnover ratio displays how many debtors, inventory, or assets are replaced in proportion to sales. The Sun Pharmaceutical Industries Limited (%) turnover ratio is displayed in the table below.

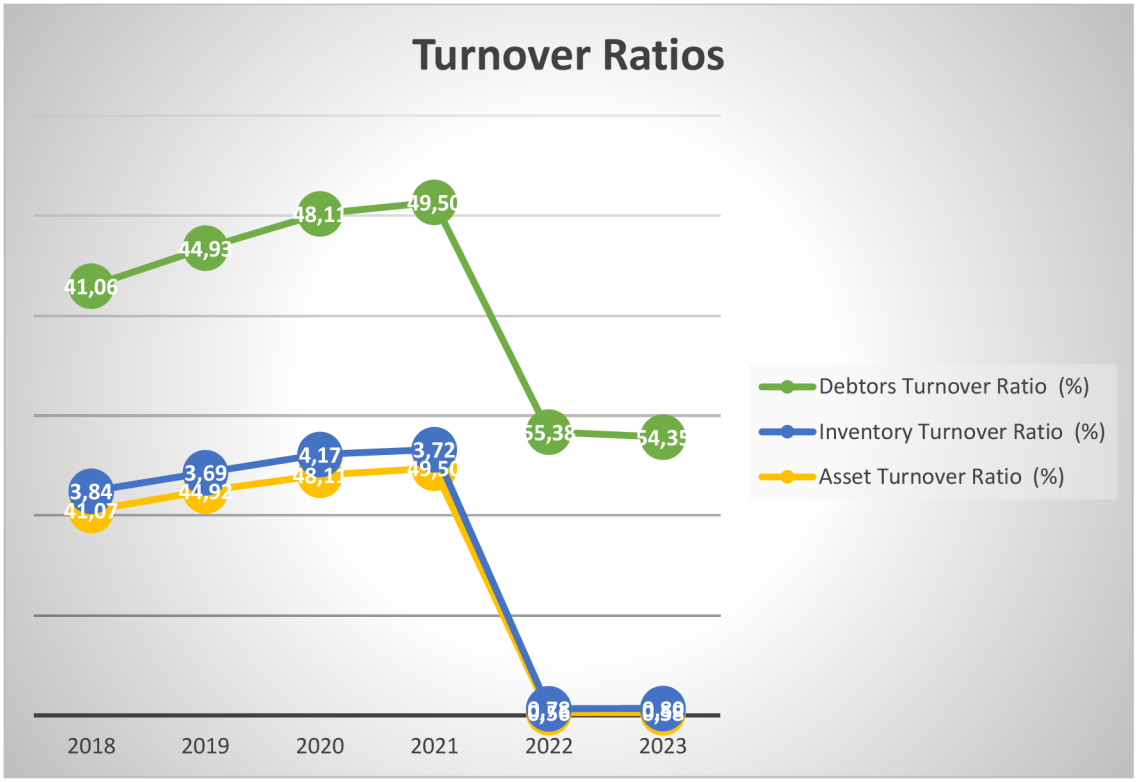
Table 4-12 Turnover Ratios of Sun Pharmaceutical Industries Ltd., 2018-2023 (%)

Turnover Ratios / Years	2018	2019	2020	2021	2022	2023
Asset Turnover Ratio (%)	41.07	44.92	48.11	49.50	0.56	0.58
Inventory Turnover Ratio (%)	3.84	3.69	4.17	3.72	0.78	0.80
Debtors Turnover Ratio (%)	41.06	44.93	48.11	49.50	55.38	54.35

Source: Author Based on Money Control, 2023.

The figure below shows the corresponding graphical representation as a bar graph.

Figure 4-4 Turnover Ratios



Source: Researcher's Own Compilation

From the above figure it can be seen that:

Sun Pharmaceutical Industries Limited's assets turnover ratio (%) was 41.07 in 2018; it increased to 44.92 in 2019, 48.11 in 2020, and 49.50 in 2021. From 2018 to 2021, it gradually increased. This ratio indicates that the company is more efficiently generating revenue from its assets. But it was very high, falling to 0.56 in 2022 and 0.58 in 2023. The company's asset turnover ratio is low, which indicates that its assets are not being used effectively to increase sales.

Sun Pharmaceutical Industries Limited's Inventory turnover ratio (%) was 3.84 in 2018; It increased to 3.69 in 2019 and 4.17 in 2020. And reduced to 3.72 in 2021.

From 2018 to 2020, it gradually increased. It Indicates that the company had good sales from its inventory assets. However, the inventory turnover ratio had a very high fall to 0.78 in 2022 and 0.80 in 2023. Therefore, it can be concluded that the company's low inventory turnover ratio may result from excessive inventory stocking or poor sales performance.

Sun Pharmaceutical Industries Limited's Debtor's turnover ratio or accounts receivable turnover ratio was 41.06 in 2018 and increased to 44.93 in 2019, 48.11 in 2020, 49.50 in 2021, and 55.38 in 2020. And 54.35 in 2023. The ratio values gradually increased from 2018 to 2023. It is indicated that the company's customers are paying on time and the company is good at collecting.

4.5.5 Earnings Ratio

The company's earnings ratios indicate how much profit will be distributed to shareholders or investors. The following table shows the results of the calculations used to determine Sun Pharmaceutical Industries Limited's (%) earnings ratios, return on net worth, P/E ratio, and earnings per share by shareholders.

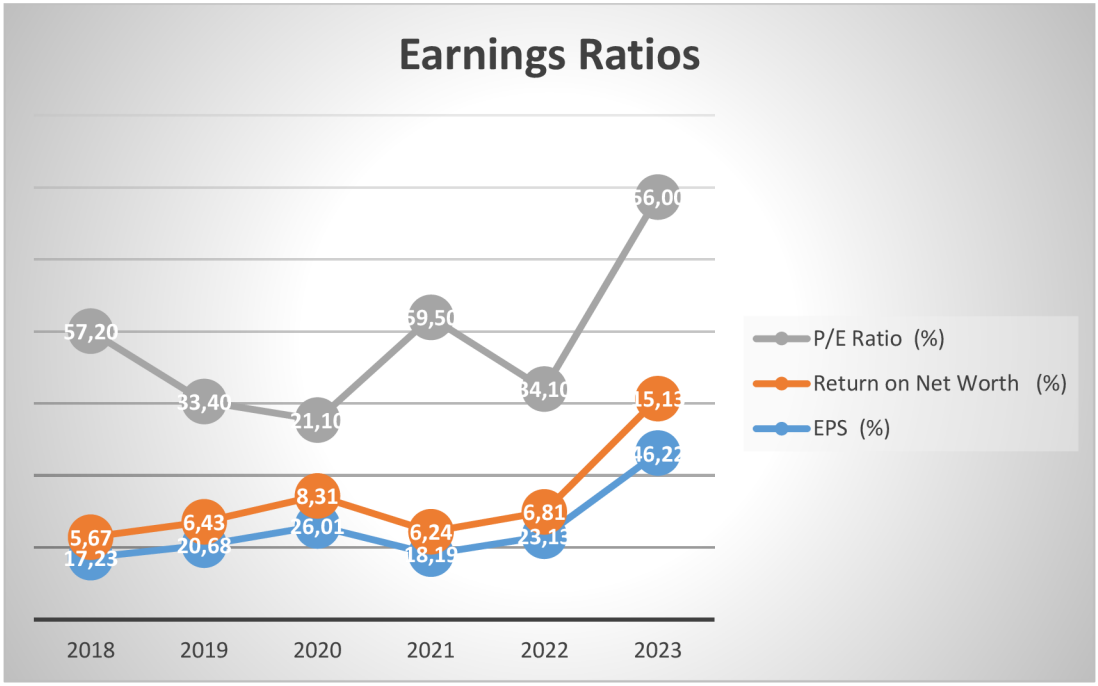
Table 4-13 Earnings Ratios of Sun Pharmaceutical Industries Ltd.,2018-2023 (%)

Earnings Ratios / Years	2018	2019	2020	2021	2022	2023
EPS (%)	17.23	20.68	26.01	18.19	23.13	46.22
Return on Net Worth (%)	5.67	6.43	8.31	6.24	6.81	15.13
P/E Ratio (%)	57.20	33.40	21.10	59.50	34.10	56.00

Source: Author Based on Money Control, 2023.

A bar graph is used in the figure below to illustrate the same concept graphically.

Figure 4-5 Earnings Ratios



Source: Researcher's Own Compilation

From the above figure it can be observed that:

Sun Pharmaceutical Industries Limited's earnings per share (%) was 17.23 in 2018, And it increased to 20.68 in 2019, 26.01 in 2020, And decreased to 18.19 in 2021, Increased to 23.13 in 2022 and 46.22 in the year 2023. It shows that company EPS gradually increased from 2018 to 2023, but in 2021, there was a slight fall. Compared to the year 2018, the year 2023 EPS value was high. It suggests that, in comparison to other years, the company's earnings per share have increased. It indicates that investors paid more for a company's shares.

Sun Pharmaceutical Industries Ltd.'s return on net worth was 5.67 in 2018; It increased to 6.43 in 2019 and 8.31 in 2020. And decreased to 6.24 in 2021, 6.81 in 2022. And increased to 15.13 in the year 2023. The lowest return on net worth was 6.24 in

2021. And the highest net worth was 15.13 in 2023. It indicates the company's potential for profit based on the amount shareholders invest.

Sun Pharmaceutical Industries Ltd.'s P/E ratio was 57.20 in 2018; It decreased to 33.40 in 2019, 21.10 in 2020, and 34.10 in 2022. And increased to 59.50 in 2021 and 56.0 in 2023. Quickly assessing a stock's valuation can be done with the price-to-earnings ratio (P/E ratio). Investment value improves with a lower P/E ratio(25x). So, it indicates that 2020 was the right time for investors to invest in this stock. As per the value of the last year, 2023, the stock value was overvalued.

4.5.6 P/B Ratio

P/B Ratio calculated with price per share and book value per share which is interpreted below.

Table 4-14 P/B Ratio of Sun Pharmaceutical Industries Limited (%)

Price per share	1532.80
Book Value Per Share	212.83
P/B Ratio (%)	7.20

Source: own calculation, (2024)

P/B ratio value of sun pharmaceutical industries Limited is 7.20. If the P/B ratio is under 1 then the stock is undervalued. So, Investor can consider to invest in that stock.

4.6 Intrinsic Value using DCF calculation (Discount cash flow)

To calculate the Intrinsic value or fair value of Sun Pharmaceutical Industries Limited using the DCF model, the below-mentioned indications must be calculated first, and then the Fair value will be calculated.

1. Weighted Average Cost of Capital (WACC)
2. Free Cash Flow to the Firm (FCFF)
3. Terminal value
4. Discounted terminal value.
5. Total equity value
6. Net asset value
7. Intrinsic value of stock

Sun Pharmaceuticals Industries WACC % Calculation

The rate at which a business is anticipated to pay each of its security holders on average to fund its assets is known as the weighted average cost of capital or WACC. The firm's cost of capital, or WACC, is a widely used term. Generally, debt and equity are used to finance a company's assets. The weighted average cost of credit (WACC) is the sum of the costs of several funding sources, each based on how well it fits the scenario. The interest the corporation must pay for each dollar it finances can be determined using a weighted average.

1. Weights:

A company's assets are financed by debt and equity. We need to calculate the weight of equity and the weight of debt. The market value of equity (E) is also called "Market Cap". As of today, Sun Pharmaceuticals Industries' market capitalization (E) is ₹3307003.389 Mil. As of Sep. 2023, Sun Pharmaceuticals Industries' latest one-year quarterly average Book Value of Debt (D) is ₹43957.7333 Mil.

a) weight of equity = E / (E + D) = 3307003.389 / (3307003.389 + 43957.7333) = 0.9869
b) weight of debt = D / (E + D) = 43957.7333 / (3307003.389 + 43957.7333) = 0.0131

2. Cost of Equity:

Capital Asset Pricing Model (CAPM) to calculate the required rate of return. The formula is:

Cost of Equity = Risk-Free Rate of Return + Beta of Asset * (Expected Return of the Market - Risk-Free Rate of Return)

a) The risk-free rate is the 10-year Treasury Constant Maturity Rate. Every day, it gets updated. Right now, there is a 7.22% risk-free rate. Please be aware that the country or region in which the company is headquartered determines the 10-Year Treasury Constant Maturity Rate that we utilize. The 10-Year Treasury Constant Maturity Rate of the United States will be used as the default if the data for that nation or region is not available.

b) The sensitivity of the expected excess returns from assets to the expected excess returns from the market is known as beta. Its beta is 0.70 for Sun Pharmaceuticals Industries.

c) Another name for it is "market premium" (Expected Return of the Market - Risk-Free Rate of Return). demands a six percent market premium.

Cost of Equity = 7.22% + 0.70 * 6% = 11.42%

3. Cost of Debt:

The latest TTM Interest Expense is divided by the latest one-year quarterly average debt to get the simplified cost of debt. As of Sep. 2023, Sun Pharmaceuticals Industries' interest expense (positive number) was ₹2690.9 Mil. Its total Book Value of Debt (D) is ₹43957.7333 Mil.

Cost of Debt = 2690.9 / 43957.7333 = 6.1216%.

4. Multiply by one minus TTM Tax Rate:

To get the tax rate, the most recent TTM Pre-Tax Income is divided by the most recent TTM Tax Expense. There is a range of 0% to 100% for the computed TTM tax rate. It is set to 100% if the computed tax rate is higher than that amount. The tax rate is set to 0% if the calculated rate is less than 0%.

The latest calculated TTM Tax Rate = 13645.4 / 99831.8 = 13.67%.

Sun Pharmaceuticals Industries' Weighted Average Cost of Capital (WACC) for Today is calculated as (Based on Formula 29):

WACC = 0.9869 * 11.42% + 0.0131 * 6.1216% * (1-13.67%) = 11.34 %

The following table shows the Expected Fixed asset values from 2024 to 2028, calculated based on the Sun Pharmaceutical annual report data from 2018 to 2013.

Table 4-14 Fixed Asset schedule of Sun Pharma. Ltd., 2024-2028 million INR

Fixed Asset schedule / Years	2024	2025	2026	2027	2028
Opening Balance	8,309.60	7,633.08	8,475.77	9,305.82	10,101.16
Add: Net Purchase	15847.54	19190.98	20975.25	22662.27	24200.60
Total Fixed Assets	24157.14	26824.06	29451.02	31968.09	34301.76
Less: Depreciation	16524.05	18348.3	20145.2	21866.93	23463.22
Closing Balance	7633.08	8475.77	9305.82	10101.16	10838.54
Rate of depreciation	68%	68%	68%	68%	68%
Fixed asset turnover ratio	20.40	20.40	20.40	20.40	20.40
Other intangible asset schedule					
Opening Balance	1,926.50	2,732.85	2,943.32	2,998.26	3,012.60
Add: net purchase	8,543.52	8,543.52	8,543.52	8,543.52	8,543.52
Total Fixed Assets	10,470.02	11,276.37	11,486.84	11,541.78	11,556.12
Less: Amortization	7,737.17	8,333.05	8,488.58	8,529.18	8,539.78
Closing Balance	2,732.85	2,943.32	2,998.26	3,012.60	3,016.34
Rate of amortization	74%	74%	74%	74%	74%

Source: Own calculation, (2024)

The below table shows the working capital values from 2024 to 2028, which are calculated based on Sun Pharmaceutical's annual report data from 2018 to 2013.

Table 4-15 Changes in the working capital of Sun Pharma. Ltd., 2024-2028 million INR

working capital schedule / Years	2024	2025	2026	2027	2028
Current Assets					
Total Current assets	42,086.88	44,290.42	46,493.95	48,697.49	50,901.03
Current Liabilities					
Total Current Liabilities	20,548.85	21,190.69	21,832.54	22,474.38	23,116.23
Net working capital	21,538.03	23,099.73	24,661.42	26,223.11	27,784.80
changes in working capital	1,561.69	1,561.69	1,561.69	1,561.69	1,561.69

Source: Own calculation, (2024)

The table given below is the free cash flow to the firm values from 2024 to 2028, which is calculated based on the Sun Pharmaceutical annual report data from 2018 to 2013.

Table 4-16 Estimated free cash flow to the firm Sun Pharma. Ltd., 2024-2028 million INR.

FCFF / Years	2024	2025	2026	2027	2028
Sales	492777.21	547179.42	600766.24	652111.57	699715.71
Growth rate of sale %	12.3%	11.0%	9.8%	8.5%	7.30%
EBIT (Operating profit)	96634.71	107303.10	117811.60	127880.53	137215.81
growth rate of EBIT %	19.6%	19.6%	19.6%	19.6%	19.6%
Tax Rates	10.9%	12.7%	14.6%	16.4%	18.3%
PBT	96634.71	107303	117812	127881	137216
Tax Expenses	10500.59	13652.93	17178.35	21021.83	25105.08
NOPAT = EBIT - Taxes					
Less: Taxes	-10500.59	-13652.94	-17178.29	-21021.76	-25105.04
NOPAT	86134.12	93650.16	100633.31	106858.77	112110.77
Depreciation & Amortization	24,261.22	26,681.34	28,633.78	30,396.11	32,003.00
Amortization	7,737.17	8,333.05	8,488.58	8,529.18	8,539.78
Depreciation	16524.05	18348.30	20145.20	21866.93	23463.22
Free cash flow to the Firm					
NOPAT	86134.12	93650.16	100633.31	106858.77	112110.77
Add: Depreciation & Amortization	24,261.22	26,681.34	28,633.78	30,396.11	32,003.00
Add/Less: Working capital changes	1,561.69	1,561.69	1,561.69	1,561.69	1,561.69
Less: Investments in fixed assets	-11,363.80	-14,199.80	-11,920.80	-11,615.30	-16,206.20
FCFF	100593.23	107693.40	118907.98	127201.28	129469.26

Source: Own calculation, (2024)

India's 7.3% GDP growth rate was utilized as the terminated rate to calculate the terminal value for the year 2028.

Terminal value = 129469.26 / (0,1134 -0,073) = 3,204,684.65 mil INR.

Discounted terminal value = 3,204,684.65 / (1+0,1134)^5 = 1,872,989.28 mil INR

The overall equity value is added to the terminal value and the company's total free cash flow. It is computed as follows.

Total equity value = 1,872,989.28 + 583865.15 = 2,456,854.43 mil INR

The next figure that needs to be found in the discounted cash flow model is the net asset value. When the book value of debt is subtracted from the overall equity value, it becomes.

Net asset value = 2,456,854.43 - 43957.7333 = 2,412,896.69 mil INR

The ratio between the net asset value and the total number of shares in the firm determines the fair value of the stock since the company's value is determined by adding up all its shares.

Intrinsic value of stock = 2,412,896.69 / 2400 = 1005.37 INR

5. Results and Discussions

The most important part of the study is the Results and Discussions. Results from the study are presented, and ideas and suggestions regarding the research challenge are provided through the discussions. The following are the findings and analysis from the study:

5.1 Results & Discussions

The Fundamental Analysis of sun pharmaceutical industries limited discloses the results of the financial Analysis, Ratio Analysis, and Discounted cash flow Calculation, which are explained below.

The company's tangible assets have not changed significantly in the vertical Analysis balance sheet analysis (Assets). In 2023, they were at their lowest point of 12.87%, and in 2019, they were at their highest value of 15.50%, indicating that there were changes but not many significant changes. The intangible assets reached their highest in 2019 at 9.05% and their lowest point in 2018 at 6.36%. It went to 6.59% in 2023. Fixed assets had the highest value of 26.71% in 2019 and the lowest value of 24.43 in 2018, which went to 25.61% in 2023. The year 2019 had the highest value of all Assets.

In the horizontal balance sheet analysis (Assets), Inventories decreased by -0.14% in 2020 and increased by 16.85% in 2023. Trade receivables decreased by -3.82% in 2021 and went up by 7.98% in 2023. There was a decrease of --34.42 % in cash and cash equivalents in 2018, -26.73 in 2019, and -21.91 in 2022. as well as a rise of 14.64% in 2023. The total current assets decreased by -4.0% in 2018 and -0.86% in 2021. and increased by 15.68% in 2023, the most recent year.

Based on the Vertical Analysis of the Balance Sheet (Liabilities), the company's reserves and surplus were at their lowest point in 2018, at 58.88%. However, they reached their maximum in 2023 at 69.05%. In 2018, the company's long-term borrowings peaked at 2.76%, but by 2023, they had dropped to 0%.

The horizontal Analysis of the balance sheet's liabilities shows that Total shareholders' funds decreased by 2.66% in 2020 and increased by 16.63% in 2023. There was a notable shift in long-term borrowing, which had the highest value of 33.25% in 2020 and went up to -100% in 2023.

In 2018, other long-term liabilities had the lowest value of -55.44%. However, in 2019, there was a significant growth of 885.94% in other long-term liabilities. In 2021, there was another decrease of -6.29%. In 2023, other long-term liabilities went up to 27.06%.

According to the income statement's vertical Analysis, in 2020, the cost of materials consumed had the lowest value of 17.06%. And in 2019, it had the highest value of 20.16%. In 2023, it went to 17.97%. The purchase of stock-in-trade value was the lowest at 8.25% in 2023. It had the highest value by 10.56% in 2020. Operating and direct expenses were 0% from 2019 to 2021. It was increased by 1.45% in 2022. And it went to 1.30% in 2023. Finance costs were high by 1.99% in 2018. In 2022, this was low by 0.33%, down to 0.40% in 2023.

The horizontal Analysis of the income statement shows that the company's other operating revenue dropped by -67.77% in 2018 and by -36.46% in 2022, which was its lowest point. The company's other operating revenue increased by 166.06% in 2023, the most significant growth ever. The company's total revenue increased to a record high of 15.27%, but in the following year, it fell by -14.65% in 2018. In 2018, the cost of material consumed dropped by -12.92%. The next year, 2019, was high by 29.58%. In 2023, the value went to 10.33%. Finance cost value had the lowest by -53.28% in 2021. It had the highest value of 35.06% in 2023.

The vertical Analysis of the cash flow statement reveals that the net cash flow from operating activities, the lowest ever, was -5481.95% in 2023, and the highest ever recorded in 2022 at 11152.86%. In 2021, the net cash used in investing activities was -32706.5%, which was the lowest value, and the highest value was 7623.46% in 2023. Net cash from financing activities had the lowest value of -61211.4% in 2021. And it had the highest value of 3490.34% in 2020. The cash and cash equivalents had the highest value of 11983.7% in 2021, while the lowest percentage was -4535.46% in 2021.

Based on the horizontal Analysis of the cash flow statement, Net cash flow from operating activities had the lowest value of -206.058% in 2023 and the highest ever recorded in 2022 at 339.56%. In 2021, the net cash used in investing activities was -140.68%, which was the lowest value, and the highest value was 349% in 2022. Net cash from financing activities had the lowest value of -103.47% in 2023. And it had the highest value of 439.74% in 2019. Foreign exchange gains/losses value had the lowest at 331.39% in 2018. It had the highest value of 285.96% in 2023. The cash and cash equivalents had the highest value of 209.57% in 2020, while the lowest percentage was -33.70% in 2019.

The Liquidity ratios show that the current ratio peaked in 2022 at 2.04 times and reached its lowest point in 2018 at 1.59 times. Based on these Current Ratio observations, it can be concluded that the company's financial position has strengthened, and it has enough liquid assets to cover its current liabilities. The Quick ratio has been one between 2018 and 2023. Based on these Quick ratio observations, it can be concluded that the company's financial position has strengthened, and it has enough liquid assets to cover its current liabilities.

From the liquidity ratios, the operating margin was at its lowest at 13.76% in 2020 and its peak at 27.64% in 2018. Compared to 2020, 18.35% in the last year, 2023, indicating that the business is making effective earnings for the owners. The net profit margin of Sun Pharmaceutical Industries Limited (%) was 6.82% in 2021, and the highest, 19.5%, was recorded in 2023. It demonstrates that, in 2023, the company was sufficiently efficient to turn sales into real profit. Return on capital employed shows that 2020, the company had the lowest operating income from the capital employed at 10.6%. And in 2022, the company had the highest value of operating income from the capital employed at 17.44%. Compared to 2018, in the last year, 2023, the ROCE value was the highest. This indicates that the company's operating income has increased over a longer period.

According to the solvency ratios, A debt-to-equity ratio in 2022 had the lowest value of 0.22, and in 2023, it had the highest value of 0.32. If the debt-to-equity ratio is low, then the business is low at risk, which is good. From 2018 to 2022, company risk

was gradually reduced, but in 2023, it increased. The company must focus on that to reduce it. The interest coverage ratio value gradually increased from 2018 to 2023. It is indicated that the company has more profit available to cover its interest costs on debt.

As per the turnover ratio, the assets turnover ratio was very high, falling to 0.56 in 2022 and 0.58 in 2023. The company's asset turnover ratio is low, which indicates that its assets are not being used effectively to increase sales. The inventory turnover ratio had a very high fall to 0.78 in 2022 and 0.80 in 2023. Therefore, it can be concluded that the company's low inventory turnover ratio may result from excessive inventory stocking or poor sales performance. Debtors' turnover ratio values gradually increased from 2018 to 2023. It is indicated that the company's customers are paying on time and the company is good at collecting.

From the Earnings ratios, earnings per share gradually increased from 2018 (17.23) to 2023 (46.22). Compared to the year 2018, the year 2023 EPS value was high. It suggests that, in comparison to other years, the company's earnings per share have increased. It indicates that investors paid more for a company's shares. The lowest return on net worth was 6.24 in 2021. And the highest net worth was 15.13 in 2023. It indicates the company's potential for profit based on the amount shareholders invest.

The P/E ratio was 57.20 in 2018; It decreased to 33.40 in 2019, 21.10 in 2020, and 34.10 in 2022. And increased to 59.50 in 2021 and 56.0 in 2023. Quickly assessing a stock's valuation can be done with the price-to-earnings ratio (P/E ratio). Investment value improves with a lower P/E ratio(25x). So, it indicates that 2020 was the right time for investors to invest in this stock. As per the value of the last year, 2023, the stock value was overvalued.

The Intrinsic Value or fair value according to the discounted cash flow model is 1005.37 INR. As of 2024, February 11th, the NSE Real Time Price of Sun Pharmaceutical Industries Limited is 1534.80 INR. The stock price is clearly overpriced, as indicated by the fair value findings. The Analysis's fair value evaluation using a discounted cash flow method concludes that Sun Pharmaceutical Industries Limited's stock is overpriced.

6. Conclusion

The diploma thesis consists of an aim and methodology, a literature review, and a practical part. The main objective of the diploma thesis was to determine the Intrinsic Value of Sun Pharmaceutical Industries Ltd. The purpose is to evaluate sun pharmaceutical industries Limited's Financial Stability. Fundamental Analysis was used for this goal in the practical section, and the evaluation findings were then presented in the results and discussion. The second sub-aim evaluates investors' profitability in Sun Pharma stocks.

The methodology of the thesis explained that a fundamental Analysis tool is used to identify the intrinsic value of a stock after five years based on the annual report of Sun Pharmaceutical Industries Ltd from 2018 to 2023 and sources like published journals, Yahoo Finance, and Money Control.

This has two major parts. One is a literary review. Another is the practical part. In the literature review, fundamentals analysis, financial statement analysis, ratio analysis, return concept, intrinsic value, and Valuation Model selection were explained Based on the Published journals. In fundamental Analysis, Economic Analysis, industry analysis, and company analysis were explained.

In Financial Analysis, the cash flow statements, Income statements, and Balance sheets were explained. In ratio Analysis, Liquidity ratios, profitability ratios, solvency ratios, turnover ratios, and earnings ratios were presented, and the formula was described. The fourth chapter of the literature review was Return Concepts. The return concepts explained equity risk premium and required return on Equity. The next chapter was Intrinsic Value, where the going concern value liquidation value, fair market value, and investment value were explained.

The last chapter of the literature review was about Valuation model selection, where Discounted cash flow valuation, relative valuation, and contingent claim valuation were explained. The DCF valuation model was selected from these three valuation models for the practical part of the thesis. The discounted cash flow (DCF) evaluation method was used to identify the intrinsic value of Sun Pharmaceutical Industries Limited in 2029.

The practical part of the diploma thesis has six chapters; the orders are followed by the company Profile, Balance sheet, Income statement, cash flow statement, Ratio Analysis, and Intrinsic value using DCF calculation. Company history, Joint ventures and Acquisitions, and Awards were discussed in the first chapter of the practical part about Sun Pharmaceutical Industries Limited. From this first chapter, it was concluded that Sun Pharma had a vision of aggressive growth and developed the branch all over the world by accruing other companies.

Research, development, and innovation in Sun Pharmaceuticals have played a significant role in the company's growth. Sun Pharma was awarded the Indo-American Corporate Excellence Awards' Best Innovative Company of the Year 2021. And won the "Best New Product Introduction/Promotion" category of the Distribution Industry Award for Notable Achievements in Healthcare (DIANA). And was Included in the 2020 Forbes World's Best Employers list. The Omniscient Group's Blue Bytes and TRA Research, two of the industry's top media analytics companies, conducted research titled "India's Most Reputed Brands (Pharmaceutical)," in which Sun Pharma came in second.

The second chapter of the Practical part was the Balance sheet, where Vertical Analysis of the balance sheet and Horizontal Analysis of the balance sheet were discussed based on Assets and Liabilities. From the Balance sheet, it could be concluded that Tangible assets and Intangible assets were slightly reduced compared to previous years. Fixed assets were increased in the year 2023. Total non-current assets values were high in the years 2020 and 2021. Inventories increased in the year 2023. Other current assets gradually decreased from 2018 to 2023. From the Balance sheet, Liabilities could be concluded that Equity per capital and Total share capital were progressively reduced from 2018 to 2023. It shows that the company buys back its shares from share Holders. Other long-term Liabilities were increased gradually from 2018 to 2023. Total current Liabilities were reduced in 2023 compared to 2018. It shows that the company paid off debt.

The third chapter of the Practical part was the Income statement, where the Vertical Analysis of the Income statement and the Horizontal Analysis of the Income statement were discussed. From that table, it could be concluded that Total Operating

revenues slightly decreased in 2023 compared to 2018. This shows that Sun Pharma's operating expenses were high. Total revenues decreased slightly from 2018 to 2023. Profit/Loss before tax increased in 2023 compared to 2018, which shows that Sun Pharma's income probably increased from 2018 to 2023.

The Cash flow statement was the fourth chapter in the practical part of the thesis, where Horizontal and Vertical Analyses were made and interpreted. From that, it could be concluded that Net cash used from Investing activities increased more, which shows that Sun Pharma has more investment. Cash and cash equivalents were changed everywhere, and no significant growth existed.

Ratio Analysis was the 5th chapter in the practical part of the thesis. In this chapter, liquidity ratios, profitability ratios, solvency ratios, turnover ratios, earnings ratios, and P/B ratios were found and interpreted. In Liquidity Ratios, based on the Current Ratio observations, it can be concluded that Sun Pharma's financial position has strengthened, and it has enough liquid assets to cover its current liabilities. Based on these Quick ratio observations, it can be concluded that Sun Pharma's financial position has strengthened, and it has enough liquid assets to cover its current liabilities. This shows that Sun Pharma has good financial Stability.

Based on operating margin, profitability ratios were at their lowest in 2020 and peak in 2018. Compared to 2020, it had more percent in the last year, 2023, indicating that the business is making effective earnings for the owners. The net profit margin had a higher value in 2023 than in 2018. , the company was sufficiently efficient in turning sales into real profit. The percentage of return on capital employed (ROCE) for Sun Pharmaceutical Industries Limited was high in 2023 compared to 2018. It concluded that the company's Operating income increased over a longer period.

In terms of Solvency Ratios, Sun Pharmaceutical Industries Limited had the lowest debt-to-equity ratio in 2022 and the highest in 2023. If the debt-to-equity ratio is low, then the business is low at risk, which is good. From 2018 to 2022, company risk was gradually reduced, but in 2023 it increased. The company must focus on that to reduce it.

Sun Pharmaceutical Industries Limited's interest coverage ratio gradually increased from 2018 to 2023. This indicated that the company had more profit available to cover its interest costs on debt.

In Turnover Ratios, Sun Pharmaceutical Industries Limited's assets turnover ratio fell very high in the years 2022 and 2023. The company's asset turnover ratio was low, and from this result, it could be concluded that its assets are not being used effectively to increase sales. Sun Pharmaceutical Industries Limited's inventory turnover ratio fell very high in 2022 and 2023. Therefore, it can be concluded that the company's low inventory turnover ratio may result from excessive inventory stocking or poor sales performance. Sun Pharmaceutical Industries Limited's Debtors turnover ratio or accounts receivable turnover ratio values gradually increased from 2018 to 2023. It can be concluded that the company's customers are paying on time and the company is good at collecting.

In Earnings ratios, Sun Pharmaceutical Industries Limited's earnings per share gradually increased from 2018 to 2023, but in the year 2021, there was a slight fall. Compared to the year 2018, the year 2023 EPS value was high. It suggests that, in comparison to other years, the company's earnings per share have increased. It can be concluded that investors pay more for a company's shares. Sun Pharmaceutical Industries Ltd.'s return on net worth had the lowest return in 2021. And the highest net worth was in 2023. It can be concluded that the company's potential for making a profit was based on the amount invested by shareholders. Sun Pharmaceutical Industries Ltd.'s P/E ratio was low in 2018. As per the value of the last year, 2023, the stock value was overvalued. So, it can be concluded that 2020 was the right time for investors to invest in this stock.

The P/B ratio value of Sun Pharmaceutical Industries Limited was 7.20. If the P/B ratio is under 1, then the stock is undervalued. So, Investors can invest in that stock. But Sun Pharma has 7.20, which means it is overvalued in the stock market.

The Intrinsic Value using DCF calculation was the sixth chapter in the practical part of the thesis. Based on the calculations, the stock's intrinsic value was 1005.37 INR. As of March 7, 2024, the National Stock Exchange (NSE) value was 1607.95 INR. Compared to the calculated Intrinsic Value, the stock value is high. It is overvalued.

However, the stock had given more profits for the investors over six years, from 2019 to 2023. On February 15, 2018, the NSE price was 680.55 INR. On March 7, 2024, the NSE price was 1607.95 INR.

The primary objective of the thesis was to find the intrinsic value of sun pharmaceutical industries Limited. It was found by using a discounted cash flow calculation. The secondary aim of the thesis was to evaluate Sun Pharma's stocks and its profitability for investors. Sun Pharmaceutical Industries Limited made a 250% profit over the five years from 2019 to 2023. Even though Stock value is overvalued, investors can consider the stock longer. Because of COVID-19, Sun Pharma has played a significant role in the medical industry. Sun Pharmaceutical Industries Limited acquired many companies and has 50 percent of its revenue from the USA. Based on the thesis analysis, it has a high potential to grow. Investors should consider Sun Pharmaceutical Industries Limited's stock for more than five years.

The secondary objective of the thesis was to evaluate the financial Stability of Sun Pharmaceutical Industries Limited. Revenue increased to INR 124,860.2 million from INR 110,375 million in the previous year. Net income increased to INR 23,755.1 million from INR 22,622.2 million last year. Based on the Analysis from the Practical part, even though there are slight changes every year, Sun Pharma has had good financial Stability over the years. So, the aims were identified, and the research questions of the thesis were answered.

Finally, Sun Pharmaceutical Industries Limited is a globally recognized company expanding steadily. It is crucial to hold off on purchasing this share until its price drops below its fair value because it has excellent potential to grow and surpass its rivals.

7. References

Pinto et al. (2010) *Equity Asset Valuation*, *Equity asset valuation.* Available at: https://library.ncirl.ie/items/18363; ISBN 13: 9780470395219

Hasanaj, P. and Kuqi, B. (2019) Analysis of financial statements. ISSN 2576-3024

Abarbanell, J. S., & Bushee, B. J. (1997). Fundamental Analysis, Future Earnings, and Stock Prices. *Journal of Accounting Research*, *35*(1), 1–24. ISBN: 9781680834512.

Jones, G.G. (1998) *The economic analysis of multinational companies: Geoffrey G Jones*. Available at: https://www.taylorfrancis.com/books/edit/10.4324/9780203450703/multinational-traders-geoffrey-jones?refId=7b3a5e97-b4ff-4f4a-8e86-f28646fba54f&context=ubx

McAfee, R. P. (2002). Industry Analysis. In *Competitive Solutions: The Strategist's Toolkit* (pp. 9–35). Princeton University Press. https://doi.org/10.2307/j.ctvcm4hsb.5

Frank K. Reilly., & Keith C. Brown (2012). Investment Analysis & Portfolio Management. ISBN 10: 0538482109

Wright, Peter. "A Refinement of Porter's Strategies." *Strategic Management Journal* 8, no. 1 (1987): 93–101.

Longo, F. (2017) *Price to earnings ratio, value to book ratio and growth*, *Academia.edu*. ISBN 9781626209572

Richardson, G. B. (1972). The Organisation of Industry. *The Economic Journal*, *82*(327), 883–896.

Mensah, Maxwell & Peprah, Williams & Adu, Bismark & Mensah, Morris & Daniel, Bamfo. (2022). Influence of Stocks Intrinsic Valuation on Investment Decision Making: A Literature Review. International Journal of Research in Business and Social Science (2147-4478). 12. 1268-1275. 10.6007/IJARBSS/v12-i5/13341.

Modigliani, F., & Pogue, G. A. (1974). An Introduction to Risk and Return:

Concepts and Evidence. *Financial Analysts Journal*.

Perold, A. F. (2004). The Capital Asset Pricing Model. *The Journal of Economic Perspectives*, *18*(3), 3–24. http://www.jstor.org/stable/3216804

Laws, J. (2018). The weighted average cost of capital. In *Essentials of Financial Management* (pp. 107–116). Liverpool University Press. http://www.jstor.org/stable/j.ctvt6rjjs.9. ISBN-13: 978-1786942050

Murray Z. Frank a *et al.* (2015) *Investment and the weighted average cost of capital*, *Journal of Financial Economics*. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0304405X15001683?via%3Dihub (Accessed: 29 January 2024).

Xhafa, H. (2005). Analysis of Financial Statements, third edition, Pegi, Tirana, 52-225. ISBN-10. 0471375942.

Schmidgall, R. S., Geller, A. N., & Ilvento, C. (1993). Financial Analysis Using the Statement of Cash Flows.

J. Livnat and P. Zarowin. The incremental information content of cash flow components, Journal of Accounting and Economics Vol. 13, 25-46, 1990.

Easton, P., T. Harris, and J. Ohlson. 1992. Accounting earnings can explain most of security returns: The case of long-event windows. Journal of Accounting and Economics 15: 119-142.

Penman, S. 2010. Financial Statement Analysis and Income Statement Analysis, 4th edition. New York: The McGraw Hill Companies. ISBN 9780078025310

Efimova, O.V., 2002. Financial Analysis. Fourth Updated Edition, M.: Accounting Publisher, pp: 528.

Kovalev, V.V., 1997. The Financial Analysis: Capital Management. Selection of Investments. Accounting Analysis. M.: Finances and Statistics.

Frank J. Fabozzi, Pamela P. Peterson, Financial Management and Analysis, Second Edition, John Wiley & Sons, Inc., Hoboken, New Jersey, 2003

Brigham, Eugene F., and Joel F. Houston. Fundamentals of Financial Management, Ninth Edition, Harcourt College Publishers, Fort Worth, 2001. ISBN-13. 9781305635937

Crilly, W. M., & Sherman, A. J. (2010). Financial Ratio Analysis. (Revised and updated, pp. 639–656).

Rajeshdhnashire (2016). *Financial statement analysis / ratio analysis*, *Data Science Central*. Available at: https://www.datasciencecentral.com/guide-to-financial-statement-analysis-ratio-analysis/ (Accessed: 1 January 2024).

Tuovila, A. Financial analysis: Definition, importance, types, and examples, Investopedia. Available at: https://www.investopedia.com/terms/f/financial-analysis.asp

Mills, R. H. (1964). Cash Flow and Solvency of Life Insurance Companies. *The Journal of Risk and Insurance*. ISBN-10. 0939921804.

Richardson, R. (1999). Measuring the Impact of Turnover on Sales. *The Journal of Personal Selling and Sales Management*.

Clayton, M. C., Hartzell, J. C., & Rosenberg, J. (2005). The Impact of CEO Turnover on Equity Volatility. *The Journal of Business*.

Pringle, J. J. (1973). Price Earnings Ratios, Earnings-Per-Share, and Financial Management. *Financial Management*. ISBN: 9781118204238.

Beta & Important use of calculations - CAPM formula (2023) EDUCBA. Available at: https://www.educba.com/what-is-beta/ (Accessed: 07 March 2024).

Sun Pharmaceutical Share Price Today-Sun Pharmaceutical Ltd Stock Price Live NSE/BSE, Grow. Available at: https://groww.in/stocks/sun-pharmaceutical-industries-ltd (Accessed: 1 January 2024).

Pandiarajan, V. (2022). Business Innovation: A Case Study Approach (1st ed.). Routledge. https://doi.org/10.4324/9781003190837. ISBN 9781003190837.

Investors-annual reports & presentations-sun pharmaceutical industries ltd. Sun Pharmaceutical Industries Ltd. Available at: https://sunpharma.com/investors-annual-reports-presentations.

Goodwin, T. H. (1998). The Information Ratio. *Financial Analysts Journal*, *54*(4), 34–43. http://www.jstor.org/stable/4480091.

Kwok, B. K. B. (2013). Significance of Accounting Ratios in Financial Analysis. In *Financial Analysis in Hong Kong: Qualitative Examination of Financial*

Statements (2nd edition) for CEOs and Board Members (pp. 87–98). The Chinese University of Hong Kong Press. https://doi.org/10.2307/j.ctt1p9wqmp.11.

Horrigan, J. O. (1968). A Short History of Financial Ratio Analysis. *The Accounting Review*, *43*(2), 284–294. http://www.jstor.org/stable/243765

Frank E. Block. (1995). A Study of the Price to Book Relationship. *Financial Analysts Journal*, *51*(1), 63–73. http://www.jstor.org/stable/4479809

Leibowitz, M. L., & Kogelman, S. (1990). Inside the P/E Ratio: The Franchise Factor. *Financial Analysts Journal*, *46*(6), 17–35. http://www.jstor.org/stable/4479377.

Mulder, K. J. (1969). Discounted Cash Flow Analysis and Investment Policy. *Management International Review*, *9*(4/5), 131–141. http://www.jstor.org/stable/40226702

Golbe, D. L., & Schachter, B. (1985). The Net Present Value Rule and an Algorithm for Maintaining a Constant Debt-Equity Ratio. *Financial Management*, *14*(2), 53–58. https://doi.org/10.2307/3665157

Miller, S. E., & Bradford, G. L. (2001). Teaching Net Present Value Analysis: Returns-to-Assets versus Returns-to-Equity. *Review of Agricultural Economics*, *23*(1), 223–241. http://www.jstor.org/stable/1349918

Lev, B., & Thiagarajan, S. R. (1993). Fundamental Information Analysis. *Journal of Accounting Research*, *31*(2), 190–215. https://doi.org/10.2307/2491270

Malvin C. Spooner. (1984). Origin of Fundamental Analysis. *Financial Analysts Journal*, *40*(4), 79–80. http://www.jstor.org/stable/4478764

Lawson, T. (1988). Probability and Uncertainty in Economic Analysis. *Journal of Post Keynesian Economics*, *11*(1), 38–65. http://www.jstor.org/stable/4538115.

Markham, J. W. (1954). ECONOMIC ANALYSIS. *Section of Antitrust Law*, *4*, 145–156. http://www.jstor.org/stable/25749932

Kumar, R. and Vashishtha, S.D. (2012) Technical and fundamental analyses of sensex representative companies. thesis. Inflibnet Centre.

Sharma, M., & Prashar, E. (2013). A Conceptual Framework for Relative Valuation. *The Journal of Private Equity*, *16*(3), 29–32. http://www.jstor.org/stable/43503771

Twin, A. (2012) *Company analysis: Definition, types, and importance*, *Investopedia*. Available at: https://www.investopedia.com/terms/i/investment-analysis.asp

Segal, T. (2021) *Fundamental analysis: Principles, types, and how to use it*, *Investopedia*. Available at: https://www.investopedia.com/terms/f/fundamentalanalysis.asp (Accessed: 1 January 2024).

Segal, T. (2020) *What is a turnover ratio? definition, significance, and analysis*, *Investopedia*. Available at: https://www.investopedia.com/terms/t/turnoverratio.asp (Accessed: 1 January 2024).

Priyanka Tiku, T. (2023) *What is an income statement and why is it important?* Deskera Blog. Available at: https://www.deskera.com/blog/income-statement/ (Accessed: 1 January 2024).

Saleem Q., Rehman R. (2011). "Impacts of liquidity ratios on profitability (Case of oil and gas companies of Pakistan)". Interdisciplinary Journal of Research in Business, Vol. 1, No.7, pp-95-98.

Seth, S. (2022) *Quick ratio formula with examples, pros and cons*, *Investopedia*. Available at: https://www.investopedia.com/terms/q/quickratio.asp#:~:text=The%20quick%20ratio%20measures%20a,as%20coverage%20for%20current%20liabilities. (Accessed: 1 January 2024).

Sinha, G. (2012) *Financial Statement Analysis Eastern Economy*. Prentice-Hall of India Pvt.Ltd.

Robinson, T.R., Henry, E. and Broihahn, M.A. (2020) *International Financial Statement Analysis*. Hoboken: Wiley.

Gibson, C.H. (2009) *Financial Reporting and Analysis*. 11th edn. Mexico, OH: Cengage Learning.

Thakur, M. (2023) *Net profit margin formula: Calculator (Excel template)*, *EDUCBA*. Available at: https://www.educba.com/net-profit-margin-formula/ (Accessed: 1 January 2024).

Jenkins (2022) *Inventory turnover ratio: Trouble or Paradise? Oracle NetSuite*. Available at: https://www.netsuite.com/portal/resource/articles/inventory-management/inventory-turnover-ratio.shtml (Accessed: 3 January 2024).

Kenton, W. (2023) *Fixed asset turnover ratio explained with examples*, *Investopedia*. Available at: https://www.investopedia.com/terms/f/fixed-asset-turnover.asp (Accessed: 3 January 2024).

Murphy, C.B. (2023) *Cash flow statement: What it is and examples*, *Investopedia*. Available at: https://www.investopedia.com/investing/what-is-a-cash-flow-statement/ (Accessed: 3 January 2024).

Fernando, J. (2022) *P/E ratio definition: Price-to-earnings ratio formula and examples*, *Investopedia*. Available at: https://www.investopedia.com/terms/p/price-earningsratio.asp (Accessed: 3 January 2024).

Fernando, J. (2022) *Earnings per share (EPS): What it means and how to calculate it*, *Investopedia*. Available at: https://www.investopedia.com/terms/e/eps.asp (Accessed: 5 January 2024).

Mahadeva, L. (2012). Interpretation of the real return on net assets. In *Optimal fiscal policy in the face of oil windfalls and other known unknowns* (pp. 12–14). Oxford Institute for Energy Studies. http://www.jstor.org/stable/resrep32333.6

Fernando, J. (2022b) *Price-to-book (pb) ratio: Meaning, formula, and example*, *Investopedia*. Available at: https://www.investopedia.com/terms/p/price-to-bookratio.asp (Accessed: 5 January 2024).

Kenton, W. (2023) *What is the Capital Asset Pricing Model (CAPM)?*, *Investopedia*. Available at: https://www.investopedia.com/terms/c/capm.asp (Accessed: 5 January 2024).

Hayes, A. (2023) What is the risk-free rate of return, and does it really exist? Investopedia. Available at: https://www.investopedia.com/terms/r/risk-freerate.asp (Accessed: 11 January 2024).

Liberto, D. (2023) What beta means when considering a stock's risk, Investopedia. Available at: https://www.investopedia.com/investing/beta-know-risk/ (Accessed: 11 January 2024).

Hargrave, M. (2023) Weighted average cost of capital (WACC) explained with formula and example, Investopedia. Available at: https://www.investopedia.com/terms/w/wacc.asp (Accessed: 11 January 2024).

Alvarez, S. (2023) Intrinsic value of a stock: What it is and formulas to calculate it, Investopedia. Available at: https://www.investopedia.com/articles/basics/12/intrinsic-value.asp (Accessed: 13 January 2024).

Kenton, W. (2023) Going-concern value defined, how it works, example, Investopedia. Available at: https://www.investopedia.com/terms/g/going_concern_value.asp (Accessed: 13 January 2024).

Banton, C. (2023) Liquidation value: Definition, what's excluded, and example, Investopedia. Available at: https://www.investopedia.com/terms/l/liquidation-value.asp (Accessed: 15 January 2024).

Ross, S. (2023) Fair market value vs. investment value: What's the difference? Investopedia. Available at: https://www.investopedia.com/articles/investing/110315/investment-value-vs-fair-market-value-how-they-differ.asp (Accessed: 15 January 2024).

Fernando, J. (2023) Discounted cash flow (DCF) explained with formula and examples, Investopedia. Available at: https://www.investopedia.com/terms/d/dcf.asp (Accessed: 15 January 2024).

8. List of pictures, tables, graphs, and abbreviations

8.1 List of pictures

8.2List of tables

8.3 List of abbreviations

DCF- Discounted Cashflow

WACC- Weighted Average Cost of Capital

EBIT – Earnings Before Interest & Tax

ROCE-Return on Capital Employed

ROIC - Return on Invested Capital

ROE – Return on Equity

ROA – Return on Asset

RONW- Return on Net Worth

FCFF- Free Cash Flow to Firm

P/E- Price to Earnings Ratio

P/B-Price to Book ratio.

8.4 List of Formulas