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A Comparative Study on the Ratio Analysis of Indian Steel Industry for the Period Between 2018-2023

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ABSTRACT

This study investigates the profitability performance of the Indian steel industry through a comparative analysis. Utilizing financial data from major steel companies, various profitability ratios such as return on assets (ROA), return on equity (ROE), and gross profit margin are examined over a specified period. The research aims to identify key factors influencing profitability and to assess the competitive landscape within the Indian steel sector. Additionally, the study explores the implications of economic trends, government policies, and global market dynamics on the industry's profitability. The findings contribute to a deeper understanding of the financial health and competitive positioning of Indian steel companies, providing valuable insights for stakeholders, investors, and policymakers.

KEYWORD: Ratio analysis, financial performance, TATA, JSW, Liquidity, Profitability, Activity

I. INTRODUCTION

India's steel industry, which has been around for almost a century, is very important to the country's economy because of the growing demand it has in both domestic and foreign markets from industries like real estate, infrastructure, and autos. One major factor influencing the nation's socioeconomic development is the amount of steel consumed per person.

Primary and secondary sectors comprise the Indian steel industry. A small number of sizable integrated steel producers that produce slabs, hot rolled coils, and billets make up the primary industry. Small businesses producing value-added goods such cold rolled coils, galvanized coils, angles, columns, beams, and other re-rollers, as well as sponge iron units, are included in the secondary sector. Both industries serve various market niches. The steel sector in India has entered. In Armenia, ironworking has a history dating back to 3,500 BC. The Bessemer process, separately developed in the 1850s by William Kelly in the United States and Henry Bessemer in England, enabled the mass manufacturing of inexpensive steel; the open-hearth process, initially implemented in the United States in 1888, simplified the utilization of domestic iron ores. The United States became the world's leading producer of steel rails by the 1880s because to the increasing demand for them. From 1910 until 1960, the steel industry was controlled by the open-hearth method. After that, it was replaced by the basic oxygen process, which produced steel more quickly, and the electric arc furnace process, which made it simpler to recycle scrap steel and develop alloys like stainless steel.

II. LITERATURE REVIEW

Pal, S. (2012). The **gift** paper is an **undertaking** to **look at** the **monetary overall performance** of the Indian **metal businesses** and **set up** the linear **courting among** liquidity, leverage, **performance** and profitability of **the chosen businesses**. Indian **metal businesses** are **decided on** for the **look at** on **the idea** of **marketplace percentage** in 2008-09 for a **duration** of **two decades starting from** 1991-**ninety two** to 2010-2011. The public **quarter organization** Steel Authority of India is **conserving the very best marketplace percentage accompanied via way of means** of the following: Rastraispal Nigam **Constrained**, Jindal Steel and **Control Constrained**, Bhushan Steel **Constrained**, Lloyds Steel **Businesses Constrained**, National Steel and agro **Businesses Constrained**, Tata Steel **Restricted**, JSW Steel **Constrained**, Essar Steel **Constrained**, JSW Ispat and Steel **Restricted**. **A number of relapse investigations** are conducted in **arrange** to **assess** the **affect** of **chosen factors** on **benefit**, and **styles** are **expected** for this reason.

Moorthi, M. K., & Ramesh, M. (2012). A **enterprise ought to** earn **earnings** to **live to tell the tale** and **develop** over **an extended length** of **enterprise relies upon** on its profitability, the secondary **statistics have been** used for this **take a look at** and analysed the **statistics with the aid of using the use of** of Mean, SD, ANOVA and correlation Student t-**take a look at subsequently** it **finish** that **decided on groups** are maintained **comparable degree** in NP and OP ratioby `t` **take a look at**, **there's** no correlation **amongst** SAIL to TATA and Bhushan to JSW of NP ratio and SAIL to TATA and SAIL to TATA and Bhushan to JSW of OP ratio and in ANOVA **take a look at**, **there's** no **widespread distinction withinside the** ROI of SAIL, TATA, Bhushan, VISA, & JSW.

Popat, K. H. (2012). For this **motive** researcher **would really like to assess** the profitability **evaluation on the subject of diverse** ratios like, PBDT to Gross Sales, PAT to Gross Sales, PAT to Net Sales, PAT to Shareholders fund and PAT to Total Assets to **tested** the **economic end result** of **decided on metallic** industries in India. This **studies deliver** us **end result** of profitability **on the subject of examine length** from 2006-07 to 2010-11.

Sumathi, N. (2018). The **motive** of this **observe** is to **have a look at running** capital adequacy and its **effect** on profitability of the **choose metal groups** in India; The **observe** used secondary **information gathered** from **all of the 5 indexed metal production** Companies in India **protecting** the **duration** from 2006-2015

Burange, L. G., & Yamini, S. (2010). The paper examines the **overall performance** of Indian iron and **metallic enterprise withinside the** pre and post-liberalisation **intervals** in **phrases** of **number one signs which includes** production, **intake** and **overseas** trade. On **the premise** of **typical** competitiveness, **in addition to economic** and non-**economic elements** of competitiveness, the **enterprise** is **primarily ruled via way of means of** Tata Steel Ltd., **despite the fact that** SAIL has a **more marketplace percentage** and proves to be **advanced** with **appreciate** to non **economic signs**. JSW Steel Ltd. stands tall **at the** index for `**foremost** producers`, **while** Bhushan Power & Steel Ltd. leads the `**different** secondary producers` index of competitiveness.

Arab, R. O., Masoumi, S. S., & Barati, A. (2015). This **studies gift** paper examines the **monetary overall performance** of **diagnosed devices withinside the metal enterprise** in India in **phrases** of **monetary** ratios **which includes** Liquidity, Solvency, Activity and Profitability position. A **institution businesses indexed withinside the inventory** exchanges in India namely, Tata Steel Ltd., Jindal Steel & Power Ltd., J S W Steel Ltd., Bhushan Steel Ltd. and Steel Authority of India Ltd. are **decided on** for this study. To **compare** the **effect** of **decided on** variables **at the monetary overall performance** of **diagnosed devices withinside the metal enterprise**, ANOVA-Test **evaluation** is use

Rashmi, BH, Mohankumar, MS, Nayana KS, (2011) The purpose of this study is to examine the effect and relationship between working capital management practices, Liquidity & profitability of IT firms in India. For this purpose, they have obtained last five-year working capital data (2011-2015) and the study suggest that current assets of both company related with each other and also there is significant difference between working capital of both the organization.

Patel, R., & Prajapati, K. (2012). Steel Authority of India Ltd., Tata Steel Ltd., JSW Steel Ltd., Essar Steel Ltd., and Jindal Steel & Power Ltd. are the five steel companies that are the subject of the study. Using data from the years 2006 to 2011, the study was conducted to determine how steel businesses compare in terms of working capital management. A variety of analyses, including size-wise, ratio, and operating cycle studies, were applied. According to the report, Tata Steel Ltd. saw the largest increase in net working capital throughout the holding period, followed by Jindal Steel Ltd. and JSW Steel. With an average gross operational cycle of 92.36 days, Essar Steel Ltd. has the highest average, followed by SAIL (88.38 days) and Jindal Steel (69.50 days). Tata Steel and Jindal Steel's net operating cycles are.

Rout, B., Patjoshi, P. K., & Khuntia, S. S. (2018). By correctly establishing a relationship between the elements of the balance sheet and profit and loss account, the current study seeks to determine the financial strength and weaknesses of the Indian Steel and Mines sectors. The study was conducted over a ten-year period, from 2006–07 to 2015–16, and the CMIE database provided the data. This study examines the financial performance of Jindal Steel Works and Tata Steel using the following metrics: market value ratio, leverage ratio, profitability, efficiency, and liquidity. This will assist the company in learning about its profitability and growth prospects, as well as the investor in making investment decisions.

Paul, P., & Mukherjee, P. M. (2016). This study calculates the managerial efficiency of five significant steel industry players. Five key ratios are considered in order to compute the efficiency: the ratios for inventory turnover, debtor turnover, investment turnover, fixed asset turnover, and total assets turnover. The research is carried out between 2006 and 2015. To test the hypothesis, two-way ANOVA and the mean are utilized.

Gokila, M., & Jayaprakasam, M. (2019). Numerous factors, including financial facts, financial ratios, financial health, financial strength, and asset utilization, can be used to analyze the financial performance of the steel business. The cost and revenue components of the steel business can impact its operational and financial efficiency, hence affecting its financial performance. In light of this, the researcher has examined the performance of the Indian steel sector in terms of financial strength, capital structure, performance growth, profitability, and asset utilization. The nature of the relationships between the different components of financial success has also been attempted to be determined by the researcher.

Maheshwari, M. (2014). Steel Authority of India Ltd., Tata Steel Ltd., JSW Steel Ltd., and Essar Steel Ltd. are the main and important players in the public and private sectors of the industry that will be the subject of an extensive study on working capital management in the Indian steel industry. This study's goal is to assess the working capital management effectiveness of a subset of Indian steel companies, with the efficiency of the chosen companies being evaluated using various activity ratios. An effective way to evaluate how well a business is managing its working capital is to look at its Cash Conversion Cycle (CCC).

Sivaranjani, R., & Kishori, B. (2016). Examine the connection between the company's profitability and its working capital operating cycle in this study. Steel Authority of India Ltd., Tata Steel Ltd., JSW Steel Ltd., Steel Authority of India Ltd., and Jindal Steel & Power Ltd. are the five steel companies that are the subject of this study. Using data from 2011 to 2015, the study was conducted to determine how steel companies compare to one another in terms of working capital management. A variety of analyses, including correlation, regression, and chi-square, were used. According to the study, the company's operating cycle is increasing its profitability. Profitability and operating cycle have a linear relationship, with JSW ranking operating cycle management first.

Patjoshi, P. K., & Nandini, G. (2020). The focus of the research is secondary data. The study's data was compiled from the BSE website between January 4, 2010 and December 31, 2019, a span of ten years. Numerous techniques, including correlation, descriptive statistics, and the t test, have been used to both investigate the hypothesis and achieve the aforementioned goal.

Venkatesan, T., & Nagarajan, S. K. (2012). The **information** is based **exclusively** on **auxiliary productivity**, which is **fundamentally decided** by **coordinate** and **backhanded costs**. Two ANOVAs of the ROI of the chosen steel company **uncovered** that, on **normal**, the **chosen** steel company **keeps up distinctive** levels of returns on its **venture**. **Moreover**, the **relationship** between **cruise** and Tata's Net **Benefit** and bhushan and JSW's OP was positive, **demonstrating** that they **keep up comparable** levels of Net **Benefit**. **At last**, in terms of **gaining control**, **Cruise** has **beated Cruise within the to begin with put**. The second-best **entertainers** in terms of **add up to gaining control** are Bhushan and JSW. Visa's **money related** standing **isn't great**

Burange, L. G., & Yamini, S. (2010). The performance of the Indian iron and steel industry is examined in this paper both before and after liberalization, with a focus on key metrics like production, consumption, and international trade. Consequently, using composite competitiveness indices, we look into how competitive the sample firms are in the market. Tata Steel Ltd. dominates the industry primarily in terms of overall competitiveness, as well as financial and non-financial aspects of competitiveness, despite the fact that SAIL has a larger market share and outperforms it in terms of non-financial indicators. On the competitiveness index for "major producers," JSW Steel Ltd. commands a commanding position, while Bhushan's Power & Steel Ltd. tops the list for "other secondary

III.NEED FOR THE STUDY

A comparative study between 2 companies through ratio analysis is very important in order to provide financial performance of the companies for investors and even understand where the companies stand in the market. Liquidity analysis is important because it provides us with current ratio and quick ratio of the company which tell the liquidity position of the company. Similarly, profitability ratios is also important is order to ascertain the profitability of the company.

IV.OBJECTIVE OF STUDY

- To study the financial performance of Tata steel and Jindal steel.
- To compare the financial performance of Tata steel and Jindal steel.

V.RESEARCH METHODOLOGY

Research methodology is a process where specific procedure or technique is used to analyse a particular information about the topic.

There are basically two types of data i.e. primary data and secondary data.

Primary data are those data which are collected for the first time, to meet the objective of research only.

Secondary data is data which has been already collected and used for any other purpose and can be used for this research also. This study is based on financial statements of companies, which is secondary data.

SAMPLE DESIGN

Convenient sampling is a process where data collection and research on a particular data is conducted on the basis of availability of that data.

The convenient sampling technique is used for the study.

The selection of sample companies is on the basis of consumer preference and their position in the market.

Following is the list of 2 IT companies which are chosen from top ten IT companies in India as sample size for the study. **1. Tata Steel and 2. Jsw.**

PERIOD OF STUDY

The study covers a period of 2 years covering a period from **2018-19 to 2022-23.** It is also decided by taking into consideration of the availability of data.

SOURCE OF DATA

This study is based mainly on secondary data. The data relating to the study is obtained from Moneycontrol.com, Investopedia, Grow and Company website. In addition, the annual reports of the sample companies, Magazines, Journals were also referred for finalizing the methodology for the study

Statement of data:

P&L account

Balance sheet

Tools to analyze: ratio analysis and Graphs for presentation

VI.DATA ANALYSIS

KEY FINANCIAL RATIOS –

The 5 category of Ratios that have been used in ratio analysis of TCS and Wipro are as follows –

1. LIQUIDITY RATIO –

a. Current ratio

b. Quick ratio

2. LONG-TERM SOLVENCY RATIO –

a. Debt-Equity ratio

b. Debt-Asset ratio

c. Proprietary Ratios

3. ACTIVITY RATIO –

a. Working capital turnover ratio

b. Debtors' turnover ratio

c. Creditors turnover ratio

4. PROFITABILITY RATIO (%) –

a. Net Profit margin

b. Return on Equity

c. Return on Capital Employed

RESULT AND DISCUSSION –

DESCRIPTIVE STATISTICS –

Table 1 to Table 2 shows the values of various financial ratios of TCS and Wipro respectively for comparing their performance 0f last 5 years from March 2019 to March 2023. Various ratios have been taken which are Current ratio and quick ratio under Liquidity ratio, Debt-Equity ratio, Debt-Asset ratio and Proprietary ratio under Long-term solvency ratio, working capital ratio under activity ratio and Finally under Profitability Ratio there comes Net profit margin, return on equity, return on asset and Return on Capital employed.

SOURCE – SELF CALCULATED

TABLE 1 - FINANCIAL RATIOS OF TATA STEEL					
RATIOS	**Mar-23**	**Mar-22**	**Mar-21**	**Mar-20**	**Mar-19**
LIQUIDITY RATIO -					
1. CURRENT RATIO	0.89	1.02	0.84	0.95	0.96
2. QUICK RATIO	0.33	0.48	0.38	0.44	0.44
LONG-TERM SOLVENCY RATIO -					
1. DEBT-EQUITY RATIO	0.84	0.66	1.22	1.67	1.44
2. DEBT-ASSET RATIO	0.30	0.26	0.36	0.47	0.41
3. PROPRIETARY RATIO	0.35	0.40	0.29	0.28	0.28
ACTIVITY RATIO -					
WORKING CAPITAL RATIO	0.79	0.68	0.59	0.58	0.52
PROFITABILITY RATIO - (%)					
1. NET PROFIT MARGIN	16.47	33.97	21.05	13.66	22.38
2. RETURN ON EQUITY	0.84	3.50	0.99	0.19	1.51
3. RETURN ON CAPITAL EMPLOYED	1.60	3.18	1.63	0.90	1.75

SOURCE – SELF CALCULATED

TABLE 2 - FINANCIAL RATIOS OF JSW					
RATIOS	**Mar-23**	**Mar-22**	**Mar-21**	**Mar-20**	**Mar-19**
LIQUIDITY RATIO -					
1. CURRENT RATIO	0.97	1.1	0.82	0.83	0.79
2. QUICK RATIO	0.50	0.54	0.49	0.51	0.45
LONG-TERM SOLVENCY RATIO -					
1. DEBT-EQUITY RATIO	1.22	1.06	1.13	1.4	1.04
2. DEBT-ASSET RATIO	0.38	0.36	0.35	0.40	0.31
3. PROPRIETARY RATIO	0.31	0.34	0.31	0.27	0.30
ACTIVITY RATIO -					
WORKING CAPITAL RATIO	3.28	4.28	3.98	3.29	2.85
PROFITABILITY RATIO - (%)					
1. NET PROFIT MARGIN	2.51	19.15	14.4	4.58	12.97
2. RETURN ON EQUITY	0.63	3.07	1.69	1.10	2.19
3. RETURN ON CAPITAL EMPLOYED	0.80	2.25	0.81	2.01	0.90

SOURCE – SELF CALCULATED

INSIGHTS –

Now the results related to each specific ratio of each company is presented and discussed as follows –

1. **LIQUIDITY RATIO** – It **alludes** to the firm's **capacity** to meet its current **commitments** i.e. Short-term Liabilities. It is of 2 types –

    a. **CURRENT RATIO -** It **sets up** a relationship between Current **resources** and current liabilities, it **shows** whether the **venture** will be able to meet its short-term **commitments** as and when they **gotten to be** due for **installment**. **Equation** of current **proportion** is

IDEAL CURRENT RATIO – **2:1** which means,

- If Current ratio is more than 2 Firm is capable of meeting their short-term obligations.
- If current ratio is less than 2 Firm may face challenges in meeting their Short-term obligations.

Hight current ratio means better liquidity position.

Hight current ratio means better liquidity position.

a.1. **CURRENT RATIO OF TATA STEEL –**

March 2018 – March 2019: 86666/97295 = 0.89:1

March 2019 – March 2020: 92557/90588 = 1.02:1

March 2020 – March 2021: 60212/70867 = 0.84:1

March 2021 – March 2022: 58733/61661 = 0.95:1

March 2022 – March 2023: 58991/61034 = 0.96:1

a.2. **CURRENT RATIO OF JSW –**

March 2018 – March 2019: 33555/42008 = 0.79:1

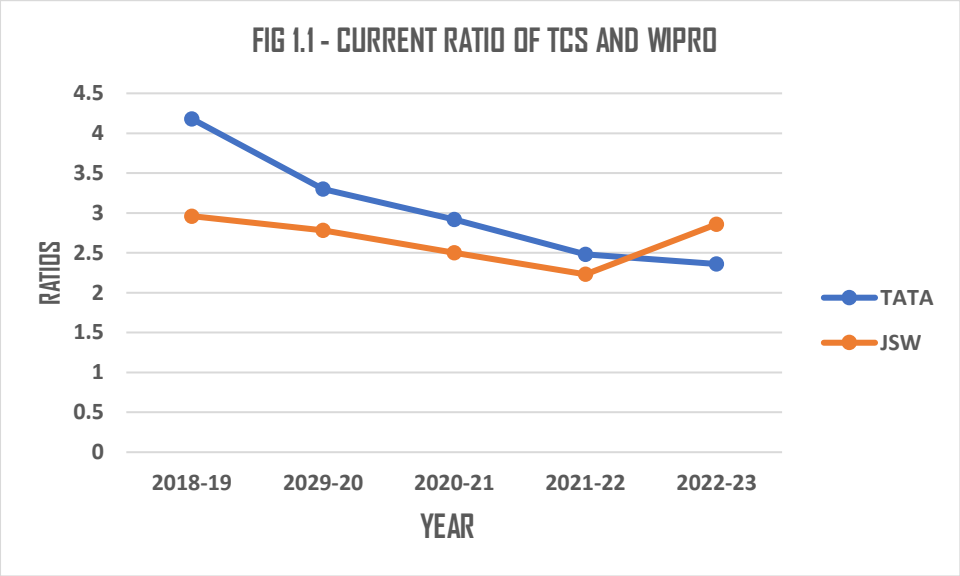
March 2019 – March 2020: 36478/43688 = 0.83:1

March 2020 – March 2021: 35852/43299 = 0.82:1

March 2021 – March 2022: 65374/57551 = 1.1:1

March 2022 – March 2023: 68150/69963 = 0.97:1

(NOTE – Current assets and current liabilities have been taken from Balance sheet of TATA and JSW from Annexure)



INTEPRETATION –

- From Fig. 1.1 we can see that Current ratio of JSW was highest in 2021-22 which was 1.1 which means that JSW were able to meet their short-term obligation easily and without any hurdle,
- Similarly, from Fig. 1.1. we can see that the Current ratio of TATA was also highest in year 2019-20 which was 1.02 but it was less from that of JSW in 2021-22 which means TATA was also able to meet their short-term obligations but not comfortably if compared with JSW in the year 2021-22.
- Now, if we watch the trend of TATA and JSW year wise we can see that the current ratio of JSW was gradually declining every year.
- The results show that despite of gradual decline in current ratio of both the companies, TATA manged to come on track quickly as compared to JSW.

b. **QUICK RATIO** –Liquid/quick/acid-test **proportion could be a** liquidity **proportion** which measures the **capacity** of **undertaking** to meet its short-term **monetary commitments** i.e. Current Liabilities. It **builds up** the relationship between **Fluid resources** and current liabilities.

Quick Ratio Formula

$$\text{Quick Ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$$

IDEAL RATIO – Quick ratio of 1;1 is an accepted standard, since for every rupee of current liabilities, there is rupee of quick assets.

In case, Liquid ratio is less than 1, it means that current liabilities are more than its liquid assets, as a result the enterprise may not able to meet its short-term financial obligations.

b.1. **QUICK RATIO OF TATA –**

March 2018 – March 2019 – 58991-31656/61034 = 27335/61034 = 0.44

March 2019 – March 2020 – 58733-31069/61661 = 27664/61661 = 0.44

March 2020 – March 2021 – 60212-33276/70867 = 26936/70867 = 0.38

March 2021 – March 2022 – 92557-48824/90588 = 43733/9088 = 0.48

March 2022 – March 2023 – 86666-54415/97295 = 32251/97295 = 0.33

b.2. QUICK RATIO OF JSW –

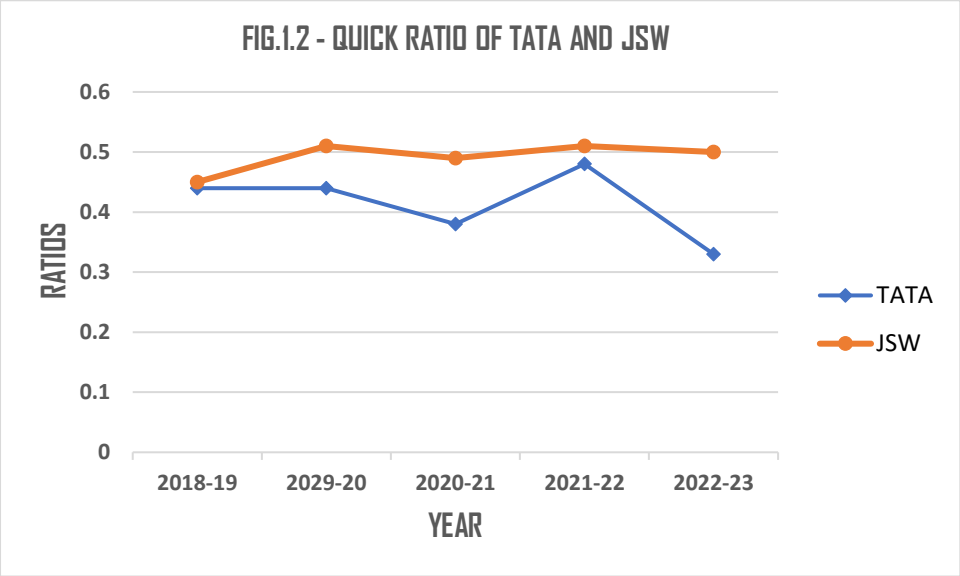
March 2018 – March 2019 – 33555-14548/42008 = 0.45

March 2019 – March 2020 – 36478-13773/43688 = 0.51

March 2020 – March 2021 – 35852-14249/43299 = 0.49

March 2021 – March 2022 – 65374-33787/57551 = 0.54

March 2022 – March 2023 – 68150-33135/69963 = 0.50



INTEPRETATION –

- From Fig. 1.2 we can see that Quick ratio of JSW was highest in 2021-22 which was 0.54 which means that JSW were not able to meet their short-term financial obligation i.e. Current Liabilities more than current asset.
- Similarly, from Fig. 1.2. we can see that the Quick ratio of TATA was also highest in year 2021-22 which was 0.48 but it was less from that of JSW in 2021-22 which means JSW was also not able to meet their short-term financial obligations.

Now, if we watch the trend of TATA and JSW year wise we can see that the Quick ratio of TATA was gradually declining every year.

- The results show that despite of gradual decline in Quick ratio of both the companies, JSW managed to come on track quickly as compared to TATA

2. LONG-TERM SOLVENCY RATIO – Ensuring the long-term viability of a business involves its ability to fulfil its obligations over an extended period as they arise. Solvency ratios are metrics used to gauge whether a company can meet its long-term financial commitments.

a. DEBT-EQUITY RATIO (D/E RATIO) – The debt-equity ratio indicates the proportion between a company's long-term external obligations, such as debts, and its internal equities, like shareholder funds. This ratio is computed to evaluate the company's long-term financial stability.

$$\text{Debt to Equity Ratio (D/E)} = \frac{\text{Total Debt}}{\text{Total Shareholders Equity}}$$

(TOTAL DEBT = LONG - TERM DEBT + SHORT – TERM DEBT)

(LONG TERM DEBT = LONG-TERM BORROWING + LONG-TERM PROVISION)

(SHORT-TERM DEBT = SHORT-TERM BORROWING + SHORT-TERM PROVISION)

IDEAL RATIO – 2:1

a.1. **DEBT-EQUITY RATIO OF TATA –**

March 2018 – March 2019 – 96438/66650 = 1.44

March 2019 – March 2020 – 119186/71301 = 1.67

March 2020 – March 2021 – 90083/73460 = 1.22

March 2021 – March 2022 – 76421/114443 = 0.66

March 2022 – March 2023 – 86676/103082 = 0.84

a.2. **DEBT-EQUITY RATIO OF JSW –**

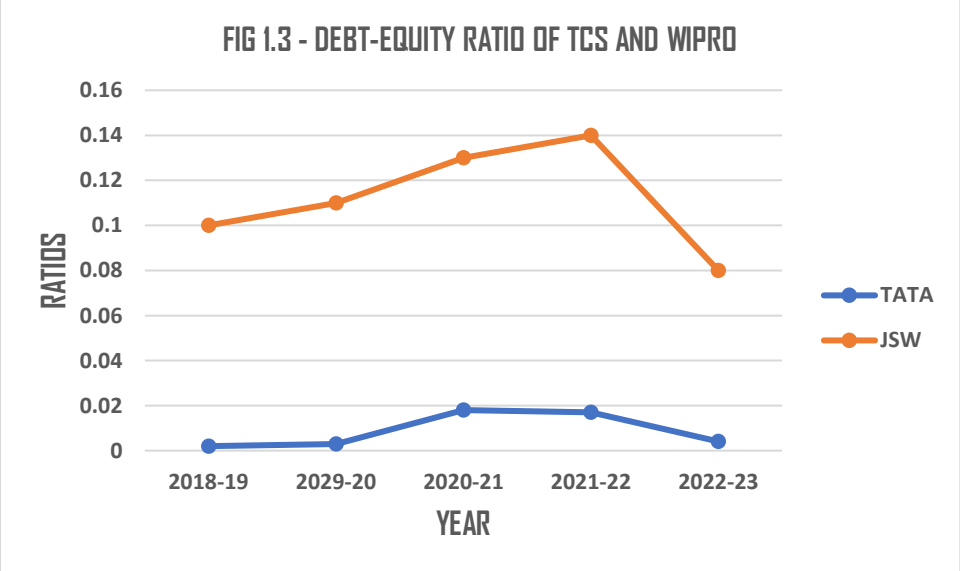
March 2018 – March 2019 – 36381/12127 = 1.04

March 2019 – March 2020 – 53507/36599 = 1.40

March 2020 – March 2021 – 52856/46764 = 1.13

March 2021 – March 2022 – 71712/67297 = 1.06

March 2022 – March 2023 – 80484/65728 = 1.22



INTEPRETATION –

- From fig. 1.3. we can see that Debt-Equity ratio of TATA was 0.002 in 208-19, 0.003 in 2019-20, 0.018 in 2020-21, 0.017 in 2021-22, 0.004 in 2022-23 with highest D/E Ratio in 2020-21 which was 0.018.

- Similarly, Debt-equity ratio of JSW was 0.10 in 2018-19, 0.11 in 2019-20, 0.13 in 2020-21, 0.14 in 2021-22 and 0.08 in 2022-23 with highest D/E Ratio in 2021-22 which 0.14.
- But if we watch the year wise trend of both TATA and JSW we will see that the D/E Ratio of both the companies were gradually increasing with a healthy rate till 2021-22 but after that ratio decline drastically of both companies in 2022-23.
- This indicates that JSW was able to meet their long-term external equities and internal equities and were able to maintain their financial soundness more comfortably than compared to TATA.

The Debt-to-Asset Ratio (D/A Ratio) evaluates the connection between long-term debts and the assets held by a company, indicating the proportion of long-term debt covered by assets.

An optimal ratio is considered to be 1:1. A higher ratio signifies greater security for lenders investing in the business, whereas a lower ratio suggests reduced security for lenders.

Where,

Total debt = Long-term debt + Short-term debt

Total assets = Current assets + non-current assets

b.1. **DEBT-ASSET RATIO OF TATA –**

March 2018 – March 2019 – 96438/233582 = 0.41

March 2019 – March 2020 – 119186/2850419 = 0.47

March 2020 – March 2021 – 90083/245487 = 0.36

March 2021 – March 2022 – 76421/285445 = 0.26

March 2022 – March 2023 – 86676/28021= 0.30

b.2. **DEBT-ASSET RATIO OF JSW –**

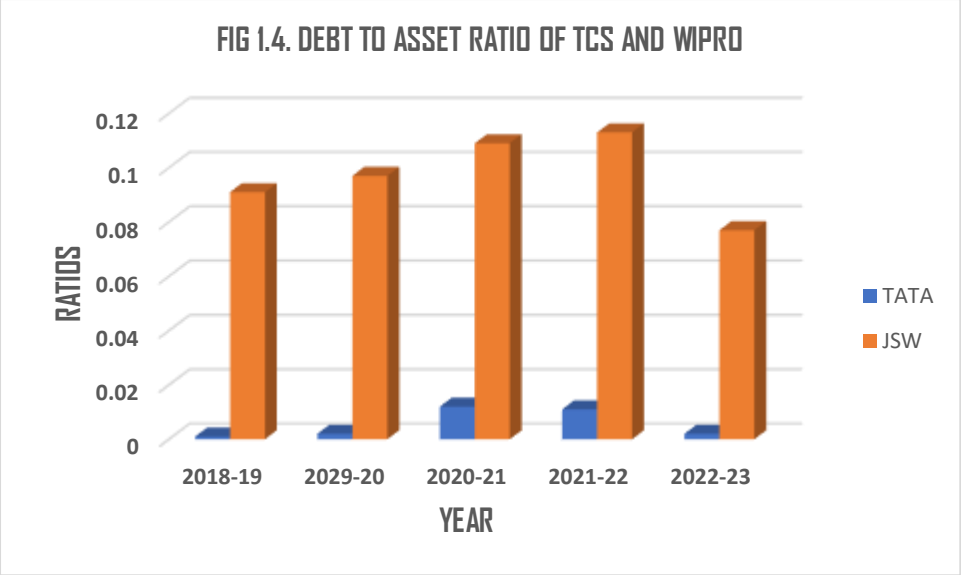
March 2018 – March 2019 – 36381/114914 = 0.31

March 2019 – March 2020 – 53507/131820 = 0.40

March 2020 – March 2021 – 52856/148317 = 0.35

March 2021 – March 2022 – 71712/196485 = 0.36

March 2022 – March 2023 – 80484/211078 = 0.38



INTEPRETATION –

- From fig.1.4. we can see that D/A Ratio of TATA was 0.001 in 2018-19, 0.002 in 2019-20, 0.012 in 2020-21, 0.011 in 2021-22 and 0.002 in 2022-23. With highest being in 2021-22 which was 0.011.
- Similarly, D/A Ratio of JSW was 0.091 in 2018-29, 0.097 in 2019-20, 0.109 in 2020-21, 0.113 in 2021-22 and 0,077 in 2022-23 with highest being 0.113 in 2021-22.
- On observing the year wise trend of D/A Ratio of both TATA and JSW we see that D/A Ratio was increasing of both the companies till 2021-22 but it declined in the year 2022-23.
- But even after increasing and then decreasing trend JSW performed far better than TATA which means if investor will invest money in Wipro there invested amount will be safest while compared with those investors who invested in TCS.

C. **PROPRIETARY RATIO** - This indicates the connection between proprietor's funds and the overall assets. Its purpose is to gauge the extent to which proprietor's funds finance total assets. This ratio holds significance for unsecured creditors and lenders. A high proprietary ratio suggests sufficient security for unsecured creditors and lenders, while a low ratio indicates heightened risk for them.

$$\text{Proprietary Ratio} = \frac{\text{Proprietor's Fund}}{\text{Total Assets}}$$

Where,

Total assets = Current assets + non-current assets

c.1. **PROPRIETARY RATIO OF TATA –**

March 2018 – March 2019 – 66650/233582 = 0.28

March 2019 – March 2020 – 71301/250419 = 0.28

March 2020 – March 2021 – 73460/245487 = 0.29

March 2021 – March 2022 – 114443/285445 = 0.40

March 2022 – March 2023 – 103082/288021= 0.35

c.2. **PROPRIETARY RATIO OF JSW –**

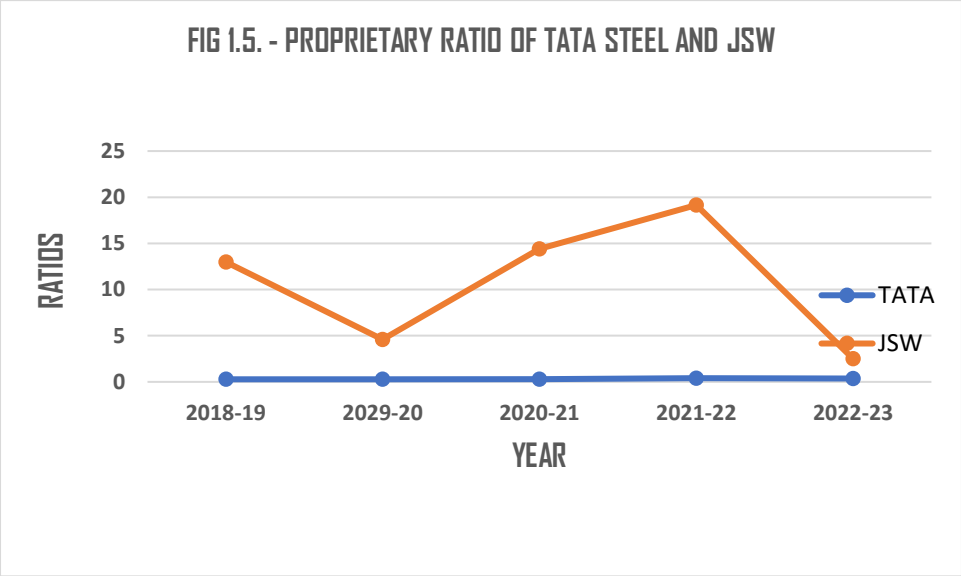
March 2018 – March 2019 – 34795/114914= 0.30

March 2019 – March 2020 – 36599/131820 = 0.27

March 2020 – March 2021 – 46764/148317 = 0.31

March 2021 – March 2022 – 67297/196485 = 0.34

March 2022 – March 2023 – 66762.3/85307.6 = 0.31

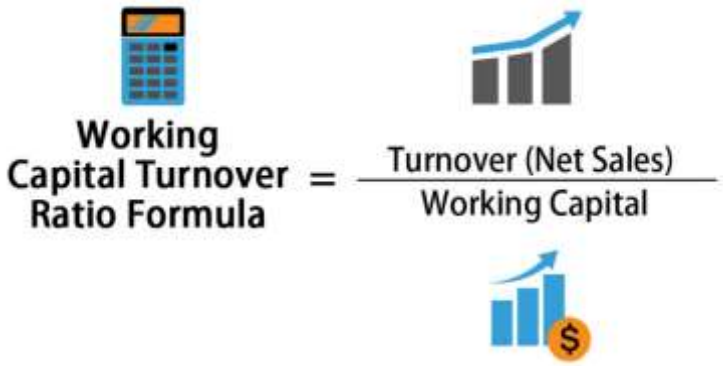


INTEPRETATION –

- If we analyse the year wise trend of proprietary ratio of TATA and JSW we will se that there is not much difference in ratio of each year of both the companies. Ratio of both the companies were declining every year and gradually increased in 2022-23.
- So from the observation we can conclude that both the companies is safe to insecure lenders and creditors because both the companies are in a good position to pay of their creditors and lenders

c. **ACTIVITY RATIO** – Gauges the effectiveness of resource utilization within the enterprise.

a**. The working capital turnover ratio** illustrates the correlation between working capital and revenue generated from operations. It indicates how many times a unit of currency invested in working capital generates sales.



Where,

Working capital – Current assets – current liabilities

A greater ratio indicates effective utilization of working capital, while a lower ratio signifies inefficient utilization.

The higher the ratio, the more favorable it is; however, an excessively high ratio suggests overtrading, indicating that the working capital may be insufficient for the scale of operations.

a.1. **WORKING CAPITAL TURNOVER RATIO OF TCS –**

March 2018 – March 2019 – 1576688/58991-61034 = 157688/20433 = 0.52

March 2019 – March 2020 – 32447/79194-24026 = 32447/55168 = 0.58

March 2020 – March 2021 – 32562/83160-28525 = 32562/54635 = 0.59

March 2021 – March 2022 – 38449/94192-37901 = 38449/56291 = 0.68

March 2022 – March 2023 – 42303/92784-39324 = 42303/53460 = 0.79

a.2. **WORKING CAPITAL TURNOVER RATIO OF WIPRO –**

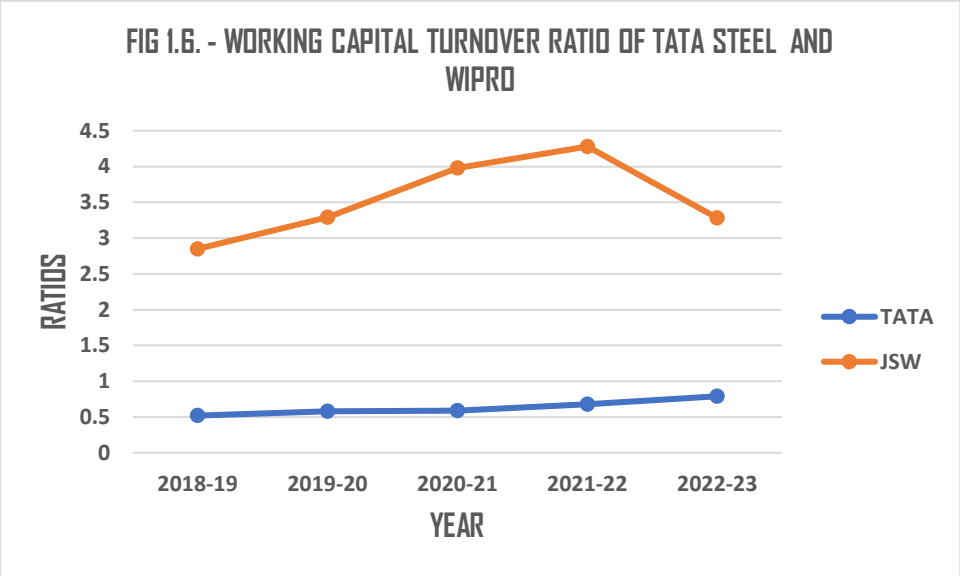
March 2018 – March 2019 – 90179/47730-16114.6 = 90179/51585.4 = 2.85

March 2019 – March 2020 – 97718/45713.3-16443.8 = 97718/29269.5 = 3.29

March 2020 – March 2021 – 108680/45374.5-18132.4 = 108680/27247.1 = 3.98

March 2021 – March 2022 – 122434/51772.2-23173.7 = 122434/28598.5 = 4.28

March 2022 – March 2023 – 113665/53477.8-18842.8 = 113665/34605 = 3.28



INTEPRETATION –

- From the year wise trend, we can see that the Working capital turnover ratio of TATA was Increasing gradually and even Working capital turnover ratio of JSW was increasing but it declined in 2022-23.
- The result we can draw from this evaluation was even increasing and then decreasing phase the Working capital turnover ratio of JSW was far better than TATA which means JSW was much ahead of TATA in managing their Working capital.

c. **PROFITABILITY RATIO** – Efficiency in business is measured by profitability. "Profitability refers to the financial performance of the business.

a. **NET PROFIT MARGIN RATIO** – It establishes the relationship between Net profit and revenue from operations i.e. Net sales.

Net profit ratio is an indicator of overall efficiency of the business, Higher the ratio better the business.

$$\text{Net Profit Margin Formula} = \frac{\text{Net Profit}}{\text{Total Revenue}} \times 100$$

a.1. **NET PROFIT RATIO OF TCS –**

March 2018 – March 2019 – 16341/73015*100 = 22.38%

March 2019 – March 2020 – 8315/60840*100 = 13.66%

March 2020 – March 2021 – 43760/164177*100 = 21.05%

March 2021 – March 2022 – 38449/191754*100 = 33.97%

March 2022 – March 2023 – 42303/225458*100 = 16.47%

a.2. **NET PROFIT RATIO WIPRO –**

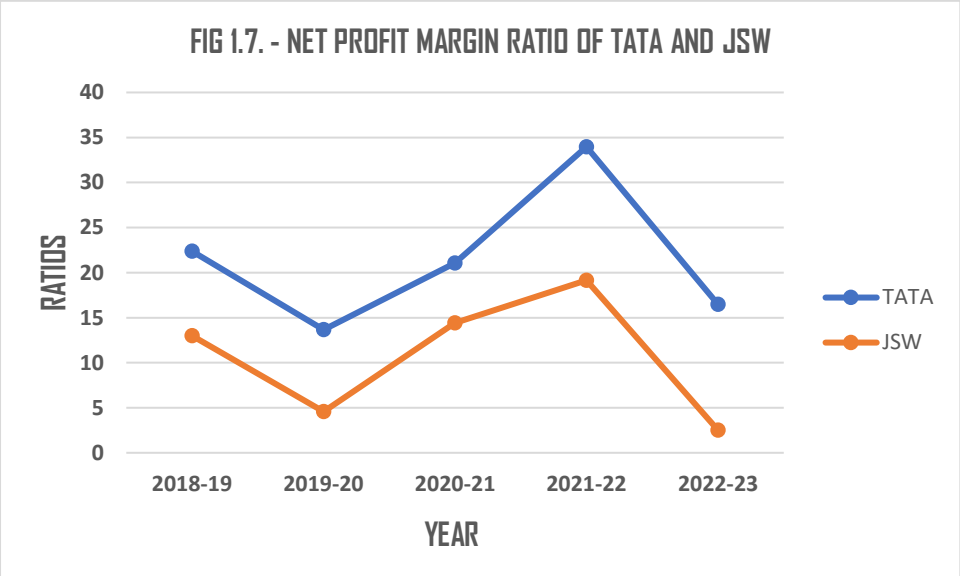
March 2018 – March 2019 – 90179/585845*100 = 12.97%

March 2019 – March 2020 – 97718/610232*100 = 4.58%

March 2020 – March 2021 – 108680/619430*100 = 14.4%

March 2021 – March 2022 – 122434/790934*100 = 19.15%

March 2022 – March 2023 – 4171/165960*100 = 2.51%



INTEPRETATION –

- From year wise trend we can analyse that the net profit margin ratio of Tata first declined till 2019-20 and then increased drastically in 2020-21 but again declined, whereas Ratio of jsw increased till 2020-21 and then declined.
- On comparing year wise trend of both companies, we see that the trend was reverse of both company but JSW performed much better every year and in every trend which says that TATA was much efficient than JSW.

b. **RETURN ON EQUITY RATIO** – It is a ratio that provides with the insight as how efficiently a company is handling the money contributed by it's shareholders.

The higher the ROE, the more efficient a company's management is at generating income and growth from its equity financing.

b.1. ROE RATIO OF TATA –

March 2018 – March 2019 – 30065/78898*100 = 15.1%

March 2019 – March 2020 – 33260/74368*100 = 19%

March 2020 – March 2021 – 30960/74794*100 = 9.9%

March 2021 – March 2022 – 38187/77173*100 = 35.2%

March 2022 – March 2023 – 39106/74538*100 = 84.0%

b.2. ROE RATIO OF JSW –

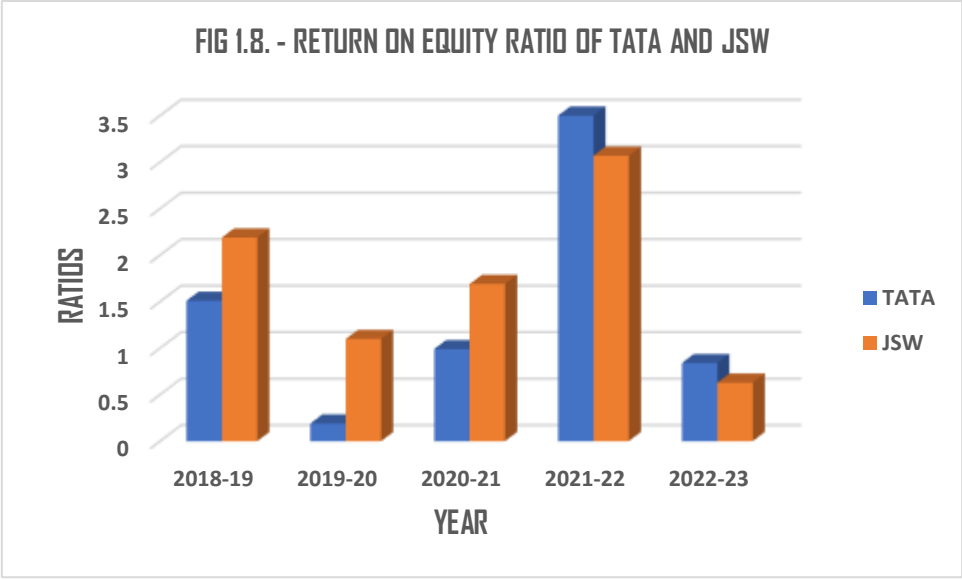
March 2018 – March 2019 – 76140/49392*100 = 21.9%

March 2019 – March 2020 – 86807/46453.7*100 = 11%

March 2020 – March 2021 – 100609/45241.6*100 = 16.9%

March 2021 – March 2022 – 121353/54350.7*100 = 30%

March 2022 – March 2023 – 91767/62762.3*100 = 63%



INTEPRETATION –

- After observing year wise trend of both company we saw that the ROE ratio of JSW was increasing every year with a healthy rate whereas ROE ratio of TATA increased till 2021-22 but then declined.
- Result drawn was that JSW were much better than TATA in maintaining their ROE ratio every year which tells that JSW were able to manage the money given by shareholder's efficiently as compared to TATA.

c. **RETURN ON CAPITAL EMPLOYED RATIO -** It demonstrates the connection between profit (pre-interest and pre-tax profit) and capital utilized. It indicates the company's profitability.

$$\text{Return on Capital Employed} = \frac{\text{EBIT}}{\text{Total Assets} - \text{Total Current Liabilities}}$$

Where,

Capital employed = Total assets – Total current liabilities.

c.1. RETURN ON CAPITAL EMPLOYED RATIO OF TATA –

March 2018 – March 2019 – 40875/99500-18896*100 = 40875/80604*100 = 16%

March 2019 – March 2020 – 42734/104975-24026*100 = 42734/80949*100 = 90.6%

March 2020 – March 2021 – 42657/109381-28525*100 = 42657/75856*100 = 16.3%

March 2021 – March 2022 – 50209/121263-37901*100 = 56209/83362*100 = 31.8%

March 2022 – March 2023 – 52385/119827-39324*100 = 52385/80503*100 = 17.5%

c.2. RETURN ON CAPITAL EMPLOYED RATIO OF JSW –

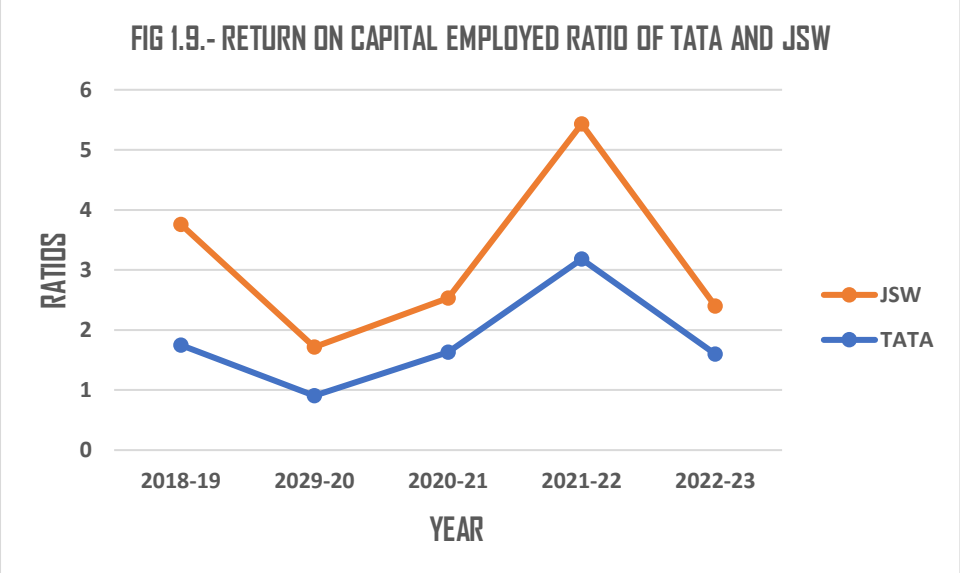
March 2018 – March 2019 – 98705/66998.1-16144.6*100 = 98705/50853.5*100 = 80%

March 2019 – March 2020 – 122519/65306.4-16443.8*100 = 122519/48862*100 = 26.5%

March 2020 – March 2021 – 134029/65736.3-18132.4*100 = 134029/47603.9*100 = 81%

March 2021 – March 2022 – 151408/80382.8-23183.7*100 = 151408/67209.1*100 = 22.5%

March 2022 – March 2023 – 147657/85307.6-18842.8*100 = 147657/66464.8*100 = 80%



INTEPRETATION –

- If we analyse the year wise trend of TATA and JSW we see that the ratio of JSW increased till 2021-22 and then decreased whereas ratio of TATA increased till 2020-21 and then decreased,

- The result we can conclude is that the Return on capital employed ratio of JSW was better and higher than TATA in every year which says that JSW was more profitable than TATA.

VII.FINDINGS

Finding from the data analysis which involved comparative study on Ratio analysis of Tata steel and jsw is as follows –

- The results show that despite of gradual decline in current ratio of both the companies, TATA managed to come on track quickly as compared to JSW.
- The results show that despite of gradual decline in Quick ratio of both the companies, JSW managed to come on track quickly as compared to TATA
- This indicates that JSW was able to meet their long-term external equities and internal equities and were able to maintain their financial soundness more comfortably than compared to TATA.
- The results show that after increasing and then decreasing trend JSW performed far better than TATA which means if investor will invest money in Wipro there invested amount will be safest while compared with those investors who invested in TCS.
- So from the observation we can conclude that both the companies is safe to insecure lenders and creditors because both the companies are in a good position to pay of their creditors and lenders.
- The result we can draw from this evaluation was even increasing and then decreasing phase the Working capital turnover ratio of JSW was far better than TATA which means JSW was much ahead of TATA in managing their Working capital.
- On comparing year wise trend of both companies, we see that the trend was reverse of both company but JSW performed much better every year and in every trend which says that TATA was much efficient than JSW.
- Result drawn was that JSW were much better than TATA in maintaining their ROE ratio every year which tells that JSW were able to manage the money given by shareholder's efficiently as compared to TATA.
- The result we can conclude is that the Return on capital employed ratio of JSW was better and higher than TATA in every year which says that JSW was more profitable than TATA

VIII.CONCLUSION

In this research project on the topic "A comparative study on the Ratio analysis of TCS and Wipro" we conducted many ratio analysis of both the companies in which we saw that in some ratios TCS was better and in some ratio, Wipro was better like –

- In terms of Current ratio, quick ratio, Debt-equity ratio (D/E Ratio), Debt-asset ratio (D/A Ratio) and Working capital turnover ratio Tata Steel performed better than JSW Steel.
- In terms of Proprietary ratio performance of both the company was equally better.
- In terms of Net profit margin ratio, return on equity (ROE) and return on capital employed JSW Steel performed better than Tata Steel.

IX.LIMITATIONS

The limitations from the above project were as follows –

1. Only 2 companies were taken for the comparative study, we could have taken more than 2 companies for better results.
2. Due to time constraint only 2 companies were taken.
3. Data of the company was very small which was from 2018-2023 which could have been little big in size for better results.
4. Data was collected from the online source because we can't get the data from company itself.
5. Apart from ratio analysis many more tools could have been used like Variances, Dupont analysis and ANNOVA, etc. for better results.

X.BIBLIOGRAPHY

a. An analysis of the financial results of Indian steel producers in the context of globalization. International Journal of Financial Management and Accounting Research, 2(4), 1–8.

b. A study on the profitability analysis of particular Indian steel producers. Asian Journal of Humanities and Social Science Research, 2(10), 16–40.

c. A Comparison of Selected Steel Industries' Profitability Analysis. Science of Medicine, 1(12).

d. A comparison of Tata Steel LTD and JSW Steel LTD's profitability with regard to working capital management. Science & Technology International Journal of Research in Applied Management,

e. The companies' competitiveness in the Indian iron and steel sector. Paper Work UDE 33/2/2010. University of Mumbai, Department of Economics, India.

f. A critical analysis of the Indian steel industry's financial performance. 23(6), 1085–1090, Middle-East Journal of Scientific Research.

g. An analysis of how different Indian steel companies manage their working capital. Asian Journal of Research in Management and Business Economics, 2(7).

h. An Analysis of Tata Steel and Jindal Steel Works' Financial Performance.Financial Performance Analysis Study of Jindal Steel Works and Tata Steel. Start-Up Bunesses and Modern Innovation Techniques in the International Market (pp. 166-179). IGI Worldwide.

i. A Critical Analysis of the Financial Efficiency of the Steel Industry in India. Asia-Pacific Journal of Management Research and Innovation, 12(3-4), 242249.

j. A Study On Financial Performance Of Steel Industry. European Journal of Business and Social Sciences, 7(5), 2704-2713.

k. Measuring efficiency and performance of selected Indian steel companies in the context of working capital management. Pacific Business Review International, 6(11), 18-23.

l. A Comparative Analysis of Working Capital Management Among Top 5 NSE Listed Indian Steel Companies. International Journal for Innovative Research in Science & Technology, ISSN, 2349-6010.

m. Comparative risk and return analysis of bombay stock exchanges and steel sector in India. Gedrag & Organisatie Review, 33(2), 795-802.

n. Evaluation of financial performance and profitability analysis of select steel companies in India. Asian Journal of Research in Business Economics and Management, 2(11), 143-159.

o. Competitiveness of the firms in Indian iron and steel industry. Working Paper UDE 33/2/2010. Department of Economics, University of Mumbai, India.

https://www.moneycontrol.com

www.investopedia.com

www.fool.com

www.double-entry-bookkeeping.com

Analysis of Financial statement By T.S. Grewal