# **Final Project Report**

# "A Comparative Study of Working Capital Management in Steel Authority of India Limited and Tata Steel Limited"

# Submitted to: DMSR G. S. College of Commerce & Economics, Nagpur (An Autonomous Institution)

Affiliated to

# Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

In partial fulfilment for the award of the degree of

# **Master of Business Administration**

Submitted by

Vikky H Neware

Under the Guidance of

**Prof. Kamlesh Thote** 

Department of Management Sciences and Research, G.S. College of Commerce & Economics, Nagpur NAAC Re-Accredited "A" Grade Autonomous Institution



Academic Year 2021-2022

# Department of Management Sciences and Research, G.S. College of Commerce & Economics, Nagpur NAAC Re-Accredited "A" Grade Autonomous Institution



Academic Year 2021-22

# INDEX

Sr.No.	Contents	Page No.
1	Introduction	1 -7
2	Literature Review	8-19
3	Research Study	20-23
	<ul> <li>Problem Definition</li> <li>Need of the study</li> <li>Objective of the study</li> <li>Hypothesis</li> </ul>	
4	Research Methodology	24
5	Data Analysis and Interpretation	25-43
6	Conclusion	44
7	Limitation	45-46
8	Findings	47
9	Suggestions	48
10	Bibliography	49

# G.S. College Of Commerce & Economics, Nagpur

# **CERTIFICATE**

This is to certify that **Vikky Hermaj Neware** has submitted the project report titled **"A Comparative Study of Working Capital Management in Steel Authority of India Limited and Tata Steel Limited"**, towards partial fulfillment of **MASTER OF BUSINESS ADMINISTRATION** degree examination. This has not been submitted for any other examination and does not form part of any other course undergone by the candidate.

It is further certified that he/she has ingeniously completed his/her project as prescribed by DMSR - G. S. COLLEGE OF COMMERCE & ECONOMICS, NAGPUR (NAAC Reaccredited "A" Grade Autonomous Institution) affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Prof. Kamlesh Thote (Project Guide) Dr. Sonali Gadekar (Co-ordinator)

Place: Nagpur Date: 27/7/2020

# <u>G.S. College Of Commerce & Economics,</u> <u>Nagpur</u>

# DECLARATION

I here-by declare that the project with title "A Comparative Study of Working Capital Management in Steel Authority of India Limited and Tata Steel Limited" has been completed by me in partial fulfillment of MASTER OF BUSINESS ADMINISTRATION degree examination as prescribed by DMSR -G. S. COLLEGE OF COMMERCE & ECONOMICS, NAGPUR (NAAC Reaccredited "A" Grade Autonomous Institution) affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and this has not been submitted for any other examination and does not form the part of any other course undertaken by me.

Place: Nagpur

Vikky Newar

Date : 27/7/2022

# <u>G.S. College Of Commerce & Economics, Nagpur</u> <u>ACKNOWLEDGEMENT</u>

With immense pride and sense of gratitude, I take this golden opportunity to express my sincere regards to Dr. N.Y. Khandait, Principal, G.S. College of Commerce & Economics, Nagpur.

I am extremely thankful to my Project Guide Prof. Kamlesh Thote for his/her guideline throughout the project. I tender my sincere regards to Co-ordinator, Dr. Sonali Gadekar for giving me guidance, suggestions and invaluable encouragement which helped me in the completion of the project.

I will fail in my duty if I do not thank the Non-Teaching staff of the college for their Co-operation.

I would like to thank all those who helped me in making this project complete and successful.

Vikky Neware

Place:Nagpur

Date:27/7/2022

#### **INTRODUCTION**



Tata Steel is one of the world's largest steel companies with a global annual crude steel production capacity of 34 million tonnes per annum (MnTPA). The company is a diversified steel producer with major operations in India, Europe and South East Asia. The company has manufacturing units in 26 countries and a commercial presence in over 50 countries. Tata Steel is the second largest steel producer in Europe with a crude steel production capacity of over 12.1 million tonnes per annum.

The company together with its subsidiaries, is engaged in the manufacture and sale of steel products in India and internationally. They offer hot and cold rolled coils and sheets, galvanized sheets, tubes, wire rods, construction rebars and bearings. Tata Steel is one of the few steel companies that are fully integrated - from mining to the manufacturing and marketing of finished products.

The company also involves in prospecting, discovering, and mining iron ore, coal, ferro alloys, and other minerals; designing and manufacturing plants and equipment for steel, oil and natural gas, energy and power, mining, railways, ports, aviation, and space industries; and agricultural implements. Further, they offers alumina, dolomite, and monolithic refractories, as well as silica refractories for coke ovens and the glass industry; manufactures bricks; sponge iron lumps and fines; and rolls for applications in integrated steel plants, power plants, and government mint, as well as paper, textile, and food processing sectors.

Tata Steel's operations are grouped under six Strategic Business Units include Bearings Division, Ferro Alloys and Minerals Division, Agrico Division, Tata Growth Shop (TGS), Tubes Division and Wire Division. They have introduced several branded steel products, including Tata Steelium (the world's first branded Cold Rolled Steel), Tata Shaktee (Galvanised Corrugated Sheets), Tata Tiscon (rebars), Tata Pipes, Tata Bearings, Tata Structural, Tata Agrico (hand tools and implements) and Tata Wiron (galvanised wire products). AI DUAL CAMERA rporated in the year 1907 with the name Tata Iron & Steel Company Ltd. In the year 1911, the company commenced the operations of the first Blast Furnace or the 'A' Blast Furnace. In December 2, 1911, the fist collieries were obtained and the first cast of pig iron was dunnd. In the ear 1917 the first inget of steel rolled out of the Sakchi Plant and in October 1912, the Bar Mills started their commercial Show Ticker

Tata Steel Ltd was incorporated in the year 1907 with the name Tata Iron & Steel Company Ltd. In the year 1911, the company commenced the operations of the first Blast Furnace or the 'A' Blast Furnace. In December 2, 1911, the fist collieries were obtained and the first cast of pig iron was produced. In they ear 1912, the first ingot of steel rolled out of the Sakchi Plant and in October 1912, the Bar Mills started their commercial production. Also, the B Blast Furnace became operational during the year. In the year 1918, India's first steel (coke) plant was established in Jamshedpur.



Tata Steel Limited is an Indian multinational steel-making company, based in Jamshedpur, Jharkhand and headquartered in Mumbai, Maharashtra. It is a part of the Tata Group.Formerly known as Tata Iron and Steel Company Limited (TISCO), Tata Steel is among the top steel producing companies in the world with an annual crude steel capacity of 34 million tonnes. It is one of the world's most geographically diversified steel producers, with operations and commercial presence across the world. The group (excluding SEA operations) recorded a consolidated turnover of US\$19.7 billion in the financial year ending 31 March 2020.

It is the second largest steel company in India (measured by domestic production) with an annual capacity of 13 million tonnes after Steel Authority of India Ltd. (SAIL). TATA Steel, along with SAIL and Jindal Steel and Power, are the only 3 Indian steel

companies that have captive iron-ore mines, which gives the three companies price advantages. The Key Managerial Personnel (KMP) at Tata Steel Limited India are Koushik Chatterjee as CFO(KMP) and Parvatheesam Kanchinadham as COMPANY SECRETARY. Koushik Chatterjee, Mallika Srinivasan, Chandrasekaran Natarajan and 7 other members are presently associated as directors.

Tata Steel operates in 26 countries with key operations in India, Netherlands and the United Kingdom, and employs around 80,500 people. Its largest plant (10 MTPA capacity) is located in Jamshedpur, Jharkhand. In 2007, Tata Steel acquired the UK-based steel maker Corus. It was ranked 486th in the 2014 Fortune Global 500 ranking of the world's biggest corporations. It was the seventh most valuable Indian brand of 2013 according to Brand Finance.

In July 2019 Tata Steel Kalinganagar (TSK) was included in the list of the World Economic Forum's (WEF's) Global Lighthouse Network.Tata Steel has been recognised amongst India's Best Workplaces in Manufacturing 2022 by Great Place to Work. This recognition has been received for the fifth time, highlights the company's sustained focus on fostering a culture of high-trust, integrity, growth, and care for the employees. Tata Steel has also been inclusive towards its LGBTQ employees and also provides health insurance benefits for partners of its LGBTQ employees under the new HR policy. In November 2021, Tata Steel became the most profitable company in the Tata Group, overtaking Tata Consultancy Services.

Indian steel industry plays a significant role in the country"s economic growth. The major contribution directs the attention that steel is having a stronghold in the traditional sectors, such as infrastructure & constructions, automobile, transportation, industrial applications etc. Although India's steel industry is growing at a rate higher than a lot of the other developing countries, the effect of the world-wide economic slowdown can be felt in the dampened rate of growth With higher inflation and interest rates, the automotive and construction industry are likely to lower domestic demand in the shortterm. Indian steel companies are ramping up their capacity through both Greenfield and Brownfield projects.

Small companies are developing niche sectors like the production of sponge iron. India has emerged as the fourth largest steel producing nation in the world, as per world steel association in April 2017. India became the 3rd largest producer of steel in 2015 and is now well on track to emerge as the 2nd largest producer after China. There is significant potential for growth given the low per capita steel consumption of 61 Kg in India, as compared to world average of 208 Kg. In this study researcher has focused on the working capital management of government owned SAIL and private player truly global steel company Tata Steel Limited Steel.

Tata Iron and Steel Company (TISCO) was founded by Jamsetji Nusserwanji Tata and established by Sir Dorabji Tata on 26 August 1907. TISCO started pig iron production in 1911 and began producing steel in 1912 as a branch of Jamsetji's Tata Group. The first steel ingot was manufactured on 16 February 1912. During the First World War (1914–1918), the company made rapid progress.

In 1920, The Tata Iron & Steel Company also incorporated The Tinplate Company of India Ltd (TCIL), as a joint venture with then Burmah Shell to manufacture Tinplate. TCIL is now Tata Tinplate and holds 70% market share in India.

By 1939, it operated the largest steel plant in the British Empire. The company launched a major modernisation and expansion program in 1951. Later, in 1958, the program was upgraded to 2 million metric tonnes per annum (MTPA) project. By 1970, the company employed around 40,000 people at Jamshedpur, and a further 20,000 in the neighbouring coal mines.

**NatSteel** in 2004: Tata Steel agreed to acquire the steel making operations of the Singaporebased NatSteel for \$486.4 million in cash NatSteel had ended 2003 with turnover of \$1.4 billion and a profit before tax of \$47 million. The steel businesses of NatSteel would be run by the company through a wholly owned subsidiary called Natsteel Asia Pte Ltd. The acquisition was completed in February 2005. At the time of acquisition, NatSteel had a capacity of about 2 million tonnes per annum of finished steel.

**Millennium Steel** in 2005: Tata Steel acquired a majority stake in the Thailand-based steelmaker Millennium Steel for a total cost of \$130 million. It paid US\$73 million to Siam Cement for a 40% stake and offered to pay 1.13 baht per share for another 25% of the shares of other shareholders. Millennium Steel has now been renamed to Tata Steel Thailand and is headquartered in Bangkok. On 31 March 2013, it held approx. 68% shares in the acquired company.

**Corus** in 2006: Tata Steel signed a deal with Anglo-Dutch company, Corus to buy 100% stake at £4.3 billion (\$8.1 billion) at 455 pence per share. On 19 November 2006, the Brazilian steel company Companhia Siderúrgica Nacional (CSN) launched a counter offer for Corus at 475 pence per share, valuing it at £4.5 billion. On 11 December 2006, Tata pre-emptively upped its offer to 500 pence per share, which was within hours trumped by CSN's offer of 515 pence per share, valuing the deal at £4.9 billion. The Corus board promptly

recommended both the revised offers to its shareholders. On 31 January 2007, Tata Steel won their bid for Corus after offering 608 pence per share, valuing Corus at  $\pounds 6.7$  billion (\$12 billion).

In 2005, Corus employed around 47,300 people worldwide, including 24,000 in the UK. At the time of acquisition, Corus was four times larger than Tata Steel, in terms of annual steel production. Corus was the world's 9th largest producer of Steel, whereas Tata Steel was at 56th position. The acquisition made Tata Steel world's 5th largest producer of Steel.

**Tayo Rolls** in 2008, formerly **Tata-Yodogawa Limited** is a metal fabrication and processing company headquartered in Jamshedpur, India. It was founded in 1968 as a joint venture between Tata Steel and the Japan-based Yodogawa Steels. In 2008, the company made the rights issue which was subscribed for only about 50% of its total value – Rs 60-crore. Due to undersubscription, the promoters acquired them, as result Tayo Rolls became a Tata Steel Subsidiary. Tata Steel owns 55.24% of the Tayo Rolls.

**Steel Engineering** and **Vinausteel** in 2007: Tata Steel through its wholly owned Singapore subsidiary, NatSteel Asia Pte Ltd, acquired controlling stake in both rolling mill companies located in Vietnam: Structure Steel Engineering Pte Ltd (100% stake) and Vinausteel Ltd (70% stake). The enterprise value for the acquisition was \$41 million. With this acquisition, Tata Steel got hold of two rolling mills, a 250,000 tonnes per year bar/wire rod mill operated by SSE Steel Ltd. and a 180,000 tonnes per year reinforcing bar mill operated by Vinausteel Ltd.

**Bhushan Steel** in 2018: Tata Steel acquired the entire company in 2017–18, when Insolvency proceedings were initiated against the former company on 26 July 2017 under IBC. Tata steel emerged as the highest bidder and took over the company through its wholly owned subsidiary Bamnipal Steel Ltd. The company was renamed as Tata Steel BSL. Later in 2021 Tata Steel amalgamated Bamnipal Steel Ltd. and Tata Steel BSL thereby the latter became a direct subsidiary of Tata Steel (72.65%).

Nilachala Ispat Nigam Ltd in 2022: Tata Steel through its wholly owned subsidiary, Tata Steel Long Products (TSLP), acquired controlling stake in NINL. It beat the Jindal Steel and JSW Steel to acquire Odisha-based Neelachal Ispat Nigam Ltd (NINL) for ₹12,100 crore (US\$1.6 billion).

#### **Joint Ventures**

In 2006, Tata Steel and BlueScope Steel launched Tata BlueScope Steel Ltd., as a joint venture for the manufacturing pre-engineered steel products.

In 2014, Tata Steel launched Jamshedpur Continuous Annealing and Processing Company Pvt Ltd (JCAPCPL), as a joint venture with Nippon Steel producing continuous annealed products intended for automotive industry. The plant had a capacity of 600,000 tonnes and was setup with an investment of 2,750 Crores. Tata Steel held 51% of the joint venture.

#### **Steel Authority of India Limited (SAIL)**

Is a government owned steel producer based in New Delhi, India. It is under the ownership of Ministry of Steel, Government of India with an annual turnover of INR 68,452 Crore (US\$9.32 billion) for fiscal year 2020–21. Incorporated on 24 January 1973, SAIL has 61,989 employees (as of 1 May 2022). With an annual production of 16.30 million metric tons, SAIL is the 20th largest steel producer in the world and the largest in India.

The Hot Metal production capacity of the company will further increase and is expected to reach a level of 50 million tonnes per annum by 2025 SAIL operates and owns five integrated steel plants at Bhilai, Rourkela, Durgapur, Bokaro and Burnpur (Asansol) and three special steel plants at Salem, Durgapur and Bhadravathi. It also owns a Ferro Alloy plant at Chandrapur. As a part of its global ambition, the company is undergoing a massive expansion and modernisation programme involving upgrading and building new facilities with emphasis on state of the art green technology. According to a recent survey, SAIL is one of India's fastest growing Public Sector Units. Besides, it has R&D Centre for Iron & Steel (RDCIS), Centre for Engineering in Ranchi, Jharkhand.

SAIL traces its origin to the Hindustan Steel Limited (HSL) which was set up on 19 January 1954. It was initially designed to manage only one plant that was coming up at Rourkela.

For Bhilai and Durgapur Steel Plants, the preliminary work was done by the Iron and Steel Ministry. From April 1957, the supervision and control of these two steel plants were also transferred to Hindustan Steel. The registered office was originally in New Delhi. It moved to Calcutta in July 1956, and ultimately to Ranchi in December 1959.

A new steel company, Bokaro Steel Limited (Bokaro Steel Plant), was incorporated on 29 January 1964 to construct and operate the steel plant at Bokaro. The 1 MT phases of Bhilai

Rourkela Steel Plants were completed by the end of December 1961. The 1 MT phase of Durgapur Steel Plant was completed in January 1962 after commissioning of the Wheel and Axle plant. The crude steel production of HSL went up from 1.58 MT (1959–60) to 1.6 MT. The second phase of the Bhilai Steel Plant was completed in September 1967 after commissioning of the Wire Rod Mill.

The last unit of the 1.8 MT phase of Rourkela – the Tandem Mill – was commissioned in February 1968, and the 1.6 MT stage of Durgapur Steel Plant was completed in August 1969 after commissioning of the Furnace in SMS. Thus, with the completion of the 2.5 MT stage at Bhilai, 1.8 MT at Rourkela, and 1.6 MT at Durgapur, the total crude steel production capacity of HSL were raised to 3.7 MT in 1968–69 and subsequently to 4 MT in 1972–73. IISCO was taken over as a subsidiary in 1978 and later merged in 2006.

Indian steel industry plays a significant role in the country"s economic growth. The major contribution directs the attention that steel is having a stronghold in the traditional sectors, such as infrastructure & constructions, automobile, transportation, industrial applications etc. Although India's steel industry is growing at a rate higher than a lot of the other developing countries, the effect of the world-wide economic slowdown can be felt in the dampened rate of growth With higher inflation and interest rates, the automotive and construction industry are likely to lower domestic demand in the shortterm. Indian steel companies are ramping up their capacity through both Greenfield and Brownfield projects. Small companies are developing niche sectors like the production of sponge iron.

India has emerged as the fourth largest steel producing nation in the world, as per world steel association in April 2017. India became the 3rd largest producer of steel in 2015 and is now well on track to emerge as the 2nd largest producer after China. There is significant potential for growth given the low per capita steel consumption of 61 Kg in India, as compared to world average of 208 Kg. In this study researcher has focused on the working capital management of government owned SAIL and private player truly global steel company Tata Steel Limited Steel

#### **Literature Review**

The present study aims to identify the financial strength and weakness of the Indian Steel and Mines industries by properly establishing relationship between the items of the balance sheet and Profit and loss account. The study has been undertaken for the period of 10 years from 2006-07 to 2015-16 and the data has been obtained from CMIE database. The Mining industry in India is a major economic activity, which contributes significantly to the economy of India. The GDP contribution of the mining industry varies from 2.2% to 2.5% only but going by the GDP of the total industrial sector it contributes around 10% to 11%. This research paper focuses on the financial performance analysis of Tata Steel and Jindal Steel Works based on liquidity, profitability, efficiency, leverage ratio and market value ratio.

This will help the investor to take decision regarding investment, and the company to learn its profitability and growth prospect. Chapter Preview Literature Review Financial performance analysis is vital for the achievement of an enterprise. Financial performance analysis is an appraisal of the feasibility, solidity and productivity of a business.

The different opinion observed during the study are as discussed below: Samiloglu & Damirgunes (2008) pointed that even the profitability is constantly positive, inaccurate working capital management procedures may lead to bankruptcy of the firm. They suggest that current, acid test, and cash ratios measures of liquidity ratios are incompetent cannot provide detailed and accurate information about working capital management effectiveness. Nandi (2011) attempted to examine the influence of working capital management on corporate profitability. An attempt had been undert aken for measuring the sensitivity of return of investment (ROI) to changes in the level of working capital leverage (WCL) of the studying company.

The present study deals with the corporate profitability and working capital management of Steel Authority of India Limited (SAIL). A finance manager is required to take a decision regarding working capital management in such a way that there is a trade-off between liquidity and profitability. Various research finding validates that working capital management has a significant impact on firm liquidity and profitability. The term corporate profitability refers to the ability of corporate to earn profit. It reflects the optimum utilization of available resources by the company.

It acts as a gauge to compute the operational efficiency and performance of the company. Higher the value of profitability indicates the higher performance or vice-versa. There is difference between profit and profitability. Profit is the excess of revenue over the cost (absolute measure) while profitability is the ability to make profit (relative measure). The corporate profitability can be measured through profitability ratio. In this study gross profit ratio, net profit ratio, operating profit ratio, return on capital employed, return on total assets, return on equity and earnings per share has been used.

Many analysts prefer return on capital employed and return on total assets to measure the overall profitability of the company (Bhalla, 2000). Working capital management is one of the financial decision through which a financial manager manages the working capital. Working capital management involves the decision regarding the composition and amount of current assets and current liabilities. Basically it is the management of short term (current) assets and liabilities. A working capital is the life blood of any corporate.

It is the amount which is required for meeting the day-to-day expenses. There are two concept of working capital i.e., gross working capital and net working capital. The gross working capital is the sum total of current assets while the net working capital is the excess of current assets over current liability. There are different approaches to working capital policies i.e., aggressive, conservative, matching and zero working capital policy (Khan and Jain, 2010). An efficient working capital management reflects the corporate ability to continue its operations and shows its ability to meet shortterm obligations.

This leads to the value creation for the shareholders (Neab abd Noriza, 2010). A working capital management also affects the liquidity and profitability of the company. An efficient working capital increases the profitability of the company and ensures sound liquidity (Sen and Eda, 2009). Excess or shortage of working capital is dangerous for the company. Working capital management can be measured with the help of current ratio, liquid ratio, debtor turnover ratio, working turnover ratio, inventory turnover ratio etc. To analyze the efficiency of working capital of SAIL, the above discussed ratio has been used. STEEL INDUSTRY OF INDIA Develop

Practically speaking, working capital management has turn into a standout amongst the most critical issues in the associations where numerous monetary officials are attempting to recognize the essential working capital drivers and the suitable level of working capital (Lamberson 1995). Shin and Soenen (1998), Filbeck and Thomas (2005) in their paper stated that working capital has a significant impact on profitability and liquidity both. The efficient working capital management was mandatory for enhancing the net wealth. They used correlation coefficient and regression analysis to analyze the relationship. Further they stated that there was a strong negative relationship between lengths of firm's net trading cycle and profitability. Deloof (2003) stated that most of Belgian firms had a high proportion of cash in working capital. It can be expected that the way in which working\_capital is managed, will have a significant impact on the profitability of those firms. Through various analyses he concluded that there is a negative relationship between corporate profitability and working capital components. Padachi (2006); Raheman and Nasr (2007) stated the impact of different variables of working capital management on the Net Operating Profitability of Pakistani Firms.

They concluded that there was a strong negative relationship between working capital management variables and profitability. He also stated that with the increase of cash conversion cycle, profitability decreases. So firm and managers should try to reduce the cash conversion cycle to create a positive value for shareholders. In the same line Dong (2010) studied the companies listed in Vietnam stock market. The study reveals that the working capital management has a significant impact (strong negative) on firms' profitability and liquidity.

He also suggested that decrease in account receivable and inventories period will increases the profitability of the firm. The study carried out by Mathuva (2010) presented a positive relationship between working capital management and profitability. Bagchi, Chakrabarti et al (2012) studied the impact of working capital management components on profitability of FMCG firms. He suggested that working capital management is very crucial decision in financial management and have a significant effect on liquidity and profitability of the firm.

The same relationship was seen in the study of Ghosh and Maji (2003). Maheshwari (2014) studied the Indian steel industry by selecting the top four Indian steel Companies including Steel Authority of India Limited (SAIL). The study shows that the performance of steel industry is quite satisfactory. The efficient working capital management performs the crucial role in maintaining proper liquidity, solvency and profitability of the concern.

#### What is working capital management

Working capital management – defined as current assets minus current liabilities – is a business tool that helps companies effectively make use of current assets and maintain sufficient cash flow to meet short-term goals and obligations. By effectively managing working capital, companies can free up cash that would otherwise be trapped on their balance sheets. As a result, they may be able to reduce the need for external borrowing, expand their businesses, fund mergers or acquisitions, or invest in R&D.

Working capital is essential to the health of every business, but managing it effectively is something of a balancing act. Companies need to have enough cash available to cover both planned and unexpected costs, while also making the best use of the funds available. This is achieved by the effective management of accounts payable, accounts receivable, inventory, and cash.

Working capital is calculated by subtracting current liabilities from current assets. That means that the working capital formula can be illustrated as:

Working capital = current assets – current liabilities

Current assets include assets such as cash and accounts receivable, and current liabilities include accounts payable../

Other important working capital metrics include:

- Days Sales Outstanding (DSO) the average number of days taken for the company's customers to pay their invoices.
- Days Payables Outstanding (DPO) the average number of days that the company takes to pay its suppliers.
- Days Inventory Outstanding (DIO) the average number of days that the company takes to sell its inventory.
- Cash Conversion Cycle (CCC) the average time taken for the company to convert its investment in inventory into cash.

CCC is calculated as follows:

CCC = DIO + DSO - DPO

The shorter a company's CCC, the sooner it is converting cash into inventory and then back to cash. Companies can reduce their cash conversion cycle in three ways: by asking customers to pay faster (reducing DSO), extending payment terms to suppliers (increasing DPO) or reducing the time -that inventory is held (reducing DIO).

Objectives of working capital management

Working capital is an essential metric for businesses to pay attention to, as it represents the amount of capital they have on hand to make payments, cover unexpected costs, and ensure business runs as usual. However, working capital management isn't that simple, and there can be multiple objectives of a working capital management program, including:

- Meeting obligations. Working capital management should always ensure that the business has enough liquidity to meet its short-term obligations, often by collecting payment from customers sooner or by extending supplier payment terms. Unexpected costs can also be considered obligations, so these need to be factored into the approach to working capital management, too.
- Growing the business. With that said, it's also important to use your short-term assets effectively, whether that means supporting global expansion or investing in R&D. If your company's assets are tied up in inventory or accounts payable, the business may not be as profitable as it could be. In other words, too cautious an approach to working capital management is suboptimal.
- Optimizing capital performance. Another working capital management objective is to optimize the efficiency of capital usage whether by minimizing capital costs or maximizing capital returns. The former can be achieved by reclaiming capital that is currently tied up to reduce the need for borrowing, while the latter involves ensuring the ROI of spare capital outweighs the average cost of financing it.
  - Speeding up the CCC can improve a company's working capital position, but it may also have other consequences. For example, there is a risk that reducing inventory levels could negatively impact your ability to fulfil orders.

- Where DPO is concerned, your accounts payable is also your suppliers' accounts receivable so if you pay suppliers later, you may be improving your own working capital at the expense of your suppliers' working capital. This may have an adverse effect on your relationships with suppliers and could even make it difficult for cash-strapped suppliers to fulfil your orders on time.
- Effective working capital management therefore means taking steps to improve the company's working capital position without triggering adverse consequences elsewhere in your supply chain. This might include reducing DSO by putting in place

more efficient invoicing processes, so that customers receive your invoices sooner. Or it might mean adopting an early payment program that enables your suppliers to receive payment sooner than they would otherwise.

- <u>Electronic invoicing</u>. Electronic invoice submission can help companies achieve working capital benefits. By streamlining the invoicing process, you can reduce the risk of errors, automate manual processes, and make sure that your customers receive your invoices as early as possible which may ultimately mean you get paid sooner. Electronic invoice submission methods can enable companies to turn purchase orders into invoices automatically or submit high volumes of invoices using system-to-system integration.
- <u>Cash flow forecasting</u>. By forecasting future cash flows such as payables and receivables companies can plan for any upcoming cash gaps and make better use of any surpluses. The more accurately you can predict your future cash flows, the better-informed your working capital management decisions will be.
- <u>Supply chain finance</u>. For buyers, supply chain finance also known as reverse factoring is a way of offering suppliers early payment via one or more third-party funders. Suppliers can improve their DSO by getting paid sooner at a low cost of funding while buyers can preserve their own working capital by paying in line with agreed payment terms.
- <u>Dynamic discounting</u>. Dynamic discounting is another solution that buyers can use to provide early payment to suppliers but this time there's no external funder, as the program is funded by the buyer via early payment discounts. Like supply chain

finance, this enables suppliers to reduce their DSO. What's more, it allows buyers to achieve an attractive risk-free return on their excess cash.

• <u>Flexible funding</u>. Last but not least, working capital providers that offer flexible funding may allow buyers to move seamlessly between supply chain finance and dynamic discounting models, meaning companies can adapt to their varying working capital needs while continuing to support their suppliers.

The availability of money was high in the years prior to the financial crisis of 2008. Companies did not have to look far for capital to fund expansions and thus, goals to increase sales were common. (Kaiser & Young, 2009; Ivashina & Scharfstein, 2009) The outbreak of the financial crisis affected more or less the entire world economy. Many companies where faced with new difficulties, having to fight for their existence in an environment with highly reduced liquidity. With the supply of money drying up, the importance of streamlining operations and collecting every penny possible increased. The result of the changing business environment thus forced companies' to turn their attention towards minimizing cost and managing assets. (Puri, Rocholl, & Steffen, 2011) Working capital management (WCM) refers to the managing of short-term finances.

The basic idea is that assets should be allocated so that their optimal potential is realized and thus minimize waste. (Brealey, Myers & Allen, 2013) Directing attention towards WCM has been proven to be popular during recessions and similar patterns in shifting attention has been observed at previous crises e.g. the oil crises of 1970's. (Scholleova, 2012) The focus on WCM slowly disappeared and remained mainly in smaller-sized companies when the economic climate improved. One explanation for this is that larger-sized companies can, in general, more easily acquire financial support by external means, as they are likely to e.g. have higher credit ratings and have the ability to issue bonds. Because of this, one explanation to the shifts in attention towards WCM is the varying availability of liquidity, which affects the importance of WCM and the impact it has on companies. (Banham, 2013; Sing, 2003; Scholleova, 2012)

Working capital refers to the capital that a company needs in order to run its operations, i.e. the short-term financing of the company. Because of this, the properties of working capital are such that it does not earn interest (e.g. capital tied up in Inventory). Therefore, it is important that companies manage the working capital levels well in order to ensure that it provides the company sufficient amounts of profit (to counter the cost of capital). Working capital is made up of the net sum of current assets minus current liabilities and is often referred to as the net working capital (NWC). (Penman, 2013) WCM is referring to any actions aimed at managing companies' working capital levels and thus does not refer to any specific managing-model or framework. In contrast to long-term financial decisions, WCM deals with the issues of short-term financing. For example, deciding the level of credit a company gives their clients as well as how much credit they should demand from their suppliers. These types of short-term financing decisions are important for the sustainability of companies, as it affects liquidity and profitability. (Aravindan & Ramanathan, 2013) The net balance between current assets and current liabilities is important as the current assets are expected to turn into cash within one year, while current liabilities are commitments that are due to mature within one year.

NWC is thereby a measurement of short-term financial stability as it indicates if the company will be able to live up to its short-term commitments. From this nature, working capital is of high interest from a short-term financing perspective and liquidity analysis. However, working capital is also important for companies' long-term financing because the indication of short-term survival strength and financial-health through short-term liquidity will impact the companies' ability to attain attractive long-term Net Working Capital (NWC) Current Assets Current Liabilities.

FIGURE 1: NET WORKING CAPITAL (PENMAN, 2013) CH 2. Theory 11 financing. A company with poor financial health is likely to have a higher cost of capital than a company with better finances, because of the higher credit risk. (Penman, 2013) According to Aravindan and Ramanathan (2013), WCM deals with decisions regarding the trade-off between liquidity and profitability. In short, Aravindan and Ramanathan (2013) mean that WCM is the managing and planning of liquidity and profitability.

A company with poor WCM may run the risk of locking-up surplus amounts of capital (e.g. excess inventories) and on the other hand a shortage of working capital can damage the flow of operations. (Aravindan & Ramanathan, 2013) For the financial manager, WCM will put focus on three main current assets: inventories, accounts receivable (AR) and cash (and cash equivalents), while the main current liability is accounts payable (AP). Managing current assets is of importance for many companies as it often accounts for the major part of the company's total assets. (Brealey et al., 2013; Kieschnick et al., 2013) However, the details of how these assets should be handled to achieve optimal levels.

working capital is dependent on a number of factors such as the nature of business as well as seasonal variations that might affect product demand. (Aravindan & Ramanathan, 2013) Additionally, the cost of capital in terms of the opportunity cost needs to be considered when referring to optimal levels of working capital. (Brealey et al., 2013) One of the leading institutes on working capital research, REL (a Hackett Group company), tracks the development of working capital through an annual survey.

Working capital refers to the capital that a company needs in order to run its operations, i.e. the short-term financing of the company. Because of this, the properties of working capital are such that it does not earn interest (e.g. capital tied up in Inventory). Therefore, it is important that companies manage the working capital levels well in order to ensure that it provides the company sufficient amounts of profit (to counter the cost of capital). Working capital is made up of the net sum of current assets minus current liabilities and is often referred to as the net working capital (NWC). (Penman, 2013) WCM is referring to any actions aimed at managing companies' working capital levels and thus does not refer to any specific managing-model or framework. In contrast to long-term financial decisions, WCM deals with the issues of short-term financing. For example, deciding the level of credit a company gives their clients as well as how much credit they should demand from their suppliers.

These types of short-term financing decisions are important for the sustainability of companies, as it affects liquidity and profitability. (Aravindan & Ramanathan, 2013) The net balance between current assets and current liabilities is important as the current assets are expected to turn into cash within one year, while current liabilities are commitments that are due to mature within one year. NWC is thereby a measurement of short-term financial stability as it indicates if the company will be able to live up to its short-term commitments. From this nature, working capital is of high interest from a short-term financing perspective and liquidity analysis. However, working capital is also important for companies' long-term financing because the indication of short-term survival strength and financial-health through short-term liquidity will impact the companies' ability to attain attractive long-term Net Working Capital (NWC) Current Assets Current Liabilities.

FIGURE 1: NET WORKING CAPITAL (PENMAN, 2013) CH 2. Theory 11 financing. A company with poor financial health is likely to have a higher cost of capital than a company with better finances, because of the higher credit risk. (Penman, 2013) According to Aravindan and Ramanathan (2013), WCM deals with decisions regarding the trade-off between liquidity and profitability. In short, Aravindan and Ramanathan (2013) mean that WCM is the managing and planning of liquidity and profitability. A company with poor WCM may run the risk of locking-up surplus amounts of capital (e.g. excess inventories) and on the other hand a shortage of working capital can damage the flow of operations. (Aravindan & Ramanathan, 2013) For the financial manager, WCM will put focus on three main current assets: inventories, accounts receivable (AR) and cash (and cash equivalents), while the main current liability is accounts payable (AP). Managing current assets is of importance for many companies as it often accounts for the major part of the company's total assets. (Brealey et al., 2013; Kieschnick et al., 2013) However, the details of how these assets should be handled to achieve optimal levels of working capital is dependent on a number of factors such as the nature of business as well as seasonal variations that might affect product demand. (Aravindan & Ramanathan, 2013) Additionally, the cost of capital in terms of the opportunity cost needs to be considered when referring to optimal levels of working capital.

(Brealey et al., 2013) One of the leading institutes on working capital research, REL (a Hackett Group company), tracks the development of working capital through an annual survey.

Working capital refers to the capital that a company needs in order to run its operations, i.e. the short-term financing of the company. Because of this, the properties of working capital are such that it does not earn interest (e.g. capital tied up in Inventory). Therefore, it is important that companies manage the working capital levels well in order to ensure that it provides the company sufficient amounts of profit (to counter the cost of capital). Working capital is made up of the net sum of current assets minus current liabilities and is often referred to as the net working capital (NWC). (Penman, 2013) WCM is referring to any actions aimed at managing companies' working capital levels and thus does not refer to any specific managing-model or framework.

In contrast to long-term financial decisions, WCM deals with the issues of short-term financing. For example, deciding the level of credit a company gives their clients as well as how much credit they should demand from their suppliers. These types of short-term financing decisions are important for the sustainability of companies, as it affects liquidity and profitability. (Aravindan & Ramanathan, 2013) The net balance between current assets and current liabilities is important as the current assets are expected to turn into cash within one year, while current liabilities are commitments that are due to mature within one year. NWC is thereby a measurement of short-term financial stability as it indicates if the company

will be able to live up to its short-term commitments. From this nature, working capital is of high interest from a short-term financing perspective and liquidity analysis. However, working capital is also important for companies' long-term financing because the indication of short-term survival strength and financial-health through short-term liquidity will impact the companies' ability to attain attractive long-term Net Working Capital (NWC) Current Assets Current Liabilities FIGURE 1: NET WORKING CAPITAL (PENMAN, 2013) CH 2. Theory 11 financing. A company with poor financial health is likely to have a higher cost of capital than a company with better finances, because of the higher credit risk. (Penman, 2013) According to Aravindan and Ramanathan (2013), WCM deals with decisions regarding the trade-off between liquidity and profitability.

In short, Aravindan and Ramanathan (2013) mean that WCM is the managing and planning of liquidity and profitability. A company with poor WCM may run the risk of locking-up surplus amounts of capital (e.g. excess inventories) and on the other hand a shortage of working capital can damage the flow of operations. (Aravindan & Ramanathan, 2013) For the financial manager, WCM will put focus on three main current assets: inventories, accounts receivable (AR) and cash (and cash equivalents), while the main current liability is accounts payable (AP).

Managing current assets is of importance for many companies as it often accounts for the major part of the company's total assets. (Brealey et al., 2013; Kieschnick et al., 2013) However, the details of how these assets should be handled to achieve optimal levels of working capital is dependent on a number of factors such as the nature of business as well as seasonal variations that might affect product demand. (Aravindan & Ramanathan, 2013) Additionally, the cost of capital in terms of the opportunity cost needs to be considered when referring to optimal levels of working capital. (Brealey et al., 2013) One of the leading institutes on working capital research, REL (a Hackett Group company), tracks the development of working capital through an annual survey.

Working capital refers to the capital that a company needs in order to run its operations, i.e. the short-term financing of the company. Because of this, the properties of working capital are such that it does not earn interest (e.g. capital tied up in Inventory). Therefore, it is important that companies manage the working capital levels well in order to ensure that it provides the company sufficient amounts of profit (to counter the cost of capital). Working capital is made up of the net sum of current assets minus current liabilities and is often referred to as the net working capital (NWC). (Penman, 2013) WCM is referring to any actions aimed at managing companies' working capital levels and thus does not refer to any

specific managing-model or framework. In contrast to long-term financial decisions, WCM deals with the issues of short-term financing. For example, deciding the level of credit a company gives their clients as well as how much credit they should demand from their suppliers. These types of short-term financing decisions are important for the sustainability of companies, as it affects liquidity and profitability. (Aravindan & Ramanathan, 2013) The net balance between current assets and current liabilities is important as the current assets are expected to turn into cash within one year, while current liabilities are commitments that are due to mature within one year. NWC is thereby a measurement of short-term financial stability as it indicates if the company will be able to live up to its short-term commitments. From this nature, working capital is of high interest from a short-term financing perspective and liquidity analysis. However, working capital is also important for companies' long-term financing because the indication of short-term survival strength and financial-health through short-term liquidity will impact the companies' ability to attain attractive long-term Net Working Capital (NWC) Current Assets Current Liabilities

FIGURE 1: NET WORKING CAPITAL (PENMAN, 2013) CH 2. Theory 11 financing. A company with poor financial health is likely to have a higher cost of capital than a company with better finances, because of the higher credit risk. (Penman, 2013) According to Aravindan and Ramanathan (2013), WCM deals with decisions regarding the trade-off between liquidity and profitability. In short, Aravindan and Ramanathan (2013) mean that WCM is the managing and planning of liquidity and profitability. A company with poor WCM may run the risk of locking-up surplus amounts of capital (e.g. excess inventories) and on the other hand a shortage of working capital can damage the flow of operations. (Aravindan & Ramanathan, 2013) For the financial manager, WCM will put focus on three main current assets: inventories,

accounts receivable (AR) and cash (and cash equivalents), while the main current liability is accounts payable (AP). Managing current assets is of importance for many companies as it often accounts for the major part of the company's total assets. (Brealey et al., 2013; Kieschnick et al., 2013) However, the details of how these assets should be handled to achieve optimal levels of working capital is dependent on a number of factors such as the nature of business as well as seasonal variations that might affect product demand. (Aravindan & Ramanathan, 2013) Additionally, the cost of capital in terms of the opportunity cost needs to be considered when referring to optimal levels of working capital. (Brealey et al., 2013) One of the leading institutes on working capital research, REL (a Hackett Group company), tracks the development of working capital.

#### **PROBLEM DEFINITION**

- Herbert & Sue (1998), has Undertaken one study on Industry practice relating to aggressive conservative working capital policies. The study looked at ten diverse industry groups over an extended time period to examine the relative relationship between aggressive and conservative working capital practices. Results strongly show that the industries had significantly different current asset
- Management policies. Additionally, the relative industry ranking of the aggressive/conservative asset policies exhibited remarkable stability over time. Industry policies concerning relative aggressive/conservative liability management were also significantly different.
- Kesseven Padachi (2006) has undertaken a study on trends in working capital management and its impact on firms' performance by analyzing mauritian small manufacturing firms. The study was undertaken by taking data from 1998- 2003 for 58 firms. The key
- variables used in the analysis were inventory days, accounts receivable days, accounts payable days and cash conversion cycle. A strong significant relationship between working capital management and profitability has been found in previous empirical work profitability has been found in previous empirical work
- An analysis of the liquidity, profitability and operational efficiency of the five industries shows significant changes and how best practices in the paper industry have contributed to performance.

#### **NEED OF THE STUDY**

- Working capital management is essentially an accounting strategy with a focus on the maintenance of a sufficient balance between a company's current assets and liabilities.
- An effective working capital management system helps businesses not only cover their financial obligations but also boost their earnings
- Working capital management involves the relationship between a firms short term.
- Efficient working capital management helps ensure your business runs smoothly and includes managing your inventory, accounts receivables, and accounts payables.
- Assets and its short term liabilities the goal of Working capital management is to. ensure that a firm is able to continue it's a operations and that it has sufficient.
- It also takes maintaining both your short term assets and liabilities to ensure you have the liquid assets necessary to run your daily operations

# **OBJECTIVE OF THE STUDY**

- To study the structure of the working capital of selected steel companies.
- To study the management of working capital components by steel companies.
- To know the comparative position of steel companies in working capital management.
- To study the efficiency of working capital in steel majors through financial ratio.
- To make a comparative study of working capital management between SAIL and Tata Steel Ltd recommend ways and means to improve present condition.
- To give suggestions to improve the working capital management in such a cash intensive sector.

#### HYPOTHESIS

#### Hypothesis Number 01:-

**Null Hypothesis : H0 :** There is no significant difference between the working capital ratios of steel authority of India ltd & Tata steel ltd.

#### **Alternative Hypothesis : H1 :**

There is significant difference between the working capital ratios of steel authority of India ltd & Tata steel ltd.

# Hypothesis Number 02:-

**Null Hypothesis : H0 :** There is no difference between the mean of working capital of both companies.

Alternative Hypothesis : H1: There is difference between the mean of working capital of both companies

# **RESEARCH METHODOLOGY**

- **Primary data :** Primary data was collected from the Tata steel ltd and Steel Authority of India service sector by using collected all information.
- This report has prepared through extensive use of primary data. It is collected from group of people who are related with this company the following method are used in collecting primary data. Data used in research originally obtained through the direct efforts of the researches.
- Secondary data : The basic data for this current study has been collected from the Internet, Books, Journals and Electronic database.
- Secondary data is collected from the company's collected from the company's manuals report and brochures through company's records. Secondary data can be collected through references as website, journal, books, magazine etc.

# Data Analysis and Interpretation

# Profit & Loss - Steel Authority of India (SAIL) Ltd.

Rs (in Crores)

	Mar'22	Mar'21	Mar'20	Mar'19	Mar'18		
	12Months	12Months	12Months	12Months	12Months		
INCOME:	INCOME:						
Sales Turnover	103473.32	69110.02	61660.55	66967.31	58962.36		
Excise Duty	.00	.00	.00	.00	1403.90		
NET SALES	103473.32	69110.02	61660.55	66967.31	57558.46		
Other Income	1042.0300	1011.6900	985.2200	532.8200	484.4500		
TOTAL INCOME	104515.35	70121.71	62645.77	67500.13	58042.91		
EXPENDITURE:							
Manufacturing Expenses	.00	5709.46	6191.55	6052.52	5809.81		
Material Consumed	42491.47	30630.90	27381.61	32551.57	30220.12		
Personal Expenses	12846.24	10445.94	8781.32	8830.34	8850.07		
Selling Expenses	.00	.00	.00	.00	.00		
Administrative Expenses	26813.46	9595.67	9107.06	9798.77	8060.61		
Expenses Capitalised	.00	.00	.00	.00	.00		
Provisions Made	.00	.00	.00	.00	.00		
TOTAL EXPENDITURE	82151.17	56381.97	51461.54	57233.20	52940.61		
Operating Profit	21322.15	12728.05	10199.01	9734.11	4617.85		
EBITDA	22364.18	13739.74	11184.23	10266.93	5102.30		
Depreciation	4274.17	4102.00	3755.05	3384.72	3064.92		
Other Write-offs	.00	.00	.00	.00	.00		
EBIT	18090.01	9637.74	7429.18	6882.21	2037.38		
Interest	1697.88	2817.14	3486.76	3154.92	2822.75		
EBT	16392.13	6820.60	3942.42	3727.29	-785.37		
Taxes	4023.68	3029.01	1149.12	1159.07	-277.23		
Profit and Loss for the Year	12368.45	3791.59	2793.30	2568.22	-508.14		
Non Recurring Items	-353.41	326.08	-900.20	-174.78	203.96		
Other Non Cash Adjustments	.00	.00	.00	.00	.00		

Other Adjustments	.00	-267.65	128.44	-214.62	-177.53	
REPORTED PAT		12015.04	3850.02	2021.54	2178.82	-481.71
KEY ITEMS						
Preference Dividend		.00	.00	.00	.00	.00
Equity Dividend		.00	.00	.00	.00	.00
Equity Dividend (%)		.00	.00	.00	.00	.00
Shares in Issue (Lakhs)		41305.30	41305.25	41305.25	41305.25	41305.25
EPS - Annualised (Rs)		29.09	9.32	4.89	5.27	-1.17
Rs (in Crores)						

For the fiscal year ended 31 March 2022, Steel Authority of India Limited revenues increased 50% to RS1.035T. Net income increased from RS41.48B to RS122.43B. Revenues reflect an increase in demand for the Company's products and services due to favorable market conditions. Dividend per share increased from RS2.80 to RS8.75. Basic Earnings per Share excluding Extraordinary Items increased from RS10.04 to RS29.64.

Gross margin TTM	58.82%
Operating margin TTM	16.49%
Net Profit margin TTM	11.83%
Return on Investment TTM	13.91%

# BalanceSheet - Steel Authority of India (SAIL) Ltd.

Rs (in Crores)

Particulars	Mar'22	Mar'21	Mar'20	Mar'19	Mar'18
Liabilities	12 Months				
Share Capital	4130.53	4130.53	4130.53	4130.53	4130.53
Reserves & Surplus	47886.61	39364.35	35646.85	34021.04	31583.14
Net Worth	52017.14	43494.88	39777.38	38151.57	35713.67
Secured Loan	13385.65	35576.20	51200.81	41433.88	30180.65
Unsecured Loan	.00	.00	.00	.00	11840.83
TOTAL LIABILITIES	65402.79	79071.08	90978.19	79585.45	77735.15
Assets					
Gross Block	77673.89	112636.59	112199.71	100978.84	95077.25
(-) Acc. Depreciation	.00	45036.83	43180.67	39619.63	36465.70
Net Block	77673.89	67599.76	69019.04	61359.21	58611.55
Capital Work in Progress	.00	8878.48	8751.56	16013.50	18395.43
Investments	1624.49	1595.01	1584.98	1584.75	1491.30
Inventories	19569.31	19508.30	23747.20	19441.80	16996.67
Sundry Debtors	4736.83	7124.00	8812.39	4495.05	3869.94
Cash and Bank	647.83	680.52	363.25	219.42	254.06
Loans and Advances	13488.79	11773.59	12819.39	13324.00	14570.85
Total Current Assets	38442.76	39086.41	45742.23	37480.27	35691.52
Current Liabilities	45836.86	34795.58	27655.89	30248.10	30177.19
Provisions	6501.49	3293.00	6463.73	6604.18	6277.46
Total Current Liabilities	52338.35	38088.58	34119.62	36852.28	36454.65
NET CURRENT ASSETS	-13895.59	997.83	11622.61	627.99	-763.13
Misc. Expenses	.00	.00	.00	.00	.00
TOTAL ASSETS(A+B+C+D+E)	65402.79	79071.08	90978.19	79585.45	77735.15

Rs (in Crores)

# Profit & Loss - Tata Steel Ltd.

Rs (in Crores)

s	Mar'22	Mar'21	Mar'20	Mar'19	Mar'18
	12Months	12Months	12Months	12Months	12Months
INCOME:					
Sales Turnover	129021.35	84132.92	60435.97	70610.92	60519.37
Excise Duty	.00	.00	.00	.21	902.55
NET SALES	129021.35	84132.92	60435.97	70610.71	59616.82
Other Income	1452.0200	755.1100	404.1200	2405.0800	763.6600
TOTAL INCOME	130473.37	84888.03	60840.09	73015.79	60380.48
EXPENDITURE:					
Manufacturing Expenses	4663.69	3746.26	3104.40	3033.34	2925.20
Material Consumed	44485.53	30054.75	23021.77	25134.09	21376.65
Personal Expenses	6365.80	5741.94	5036.62	5131.06	4828.85
Selling Expenses	.00	.00	.00	.00	.00
Administrative Expenses	22376.48	17466.26	14411.61	16749.28	14707.16
Expenses Capitalised	.00	.00	.00	.00	.00
Provisions Made	.00	.00	.00	.00	.00
TOTAL EXPENDITURE	77891.50	57009.21	45574.40	50047.77	43837.86
Operating Profit	51129.85	27123.71	14861.57	20562.94	15778.96
EBITDA	52581.87	27878.82	15265.69	22968.02	16542.62
Depreciation	5463.69	5469.26	3920.12	3802.96	3727.46
Other Write-offs	.00	.00	.00	.00	.00
EBIT	47118.18	22409.56	11345.57	19165.06	12815.16
Interest	2792.08	4541.02	3031.01	2823.58	2810.62
EBT	44326.10	17868.54	8314.56	16341.48	10004.54
Taxes	11079.47	1531.87	-132.82	5694.06	2468.70
Profit and Loss for the Year	33246.63	16336.67	8447.38	10647.42	7535.84
Non Recurring Items	-229.78	805.31	-2048.76	-110.35	-3210.90
Other Non Cash Adjustments	.00	.00	.00	.00	.00
Other Adjustments	-5.67	-64.01	345.18	-3.88	-155.39
REPORTED PAT	33011.18	17077.97	6743.80	10533.19	4169.55
KEYITEMS					
Preference Dividend	.00	.00	.00	.00	.00
Equity Dividend	3007.08	1145.92	1191.96	921.06	1141.64

Equity Dividend (%)	246.00	95.59	104.00	80.36	99.61
Shares in Issue (Lakhs)	12223.45	12041.27	12041.27	12041.26	12041.19
EPS - Annualised (Rs)	270.06	141.83	56.01	87.48	34.63

Rs (in Crores)

# BalanceSheet - Tata Steel Ltd.

Particulars	Mar'22	Mar'21	Mar'20	Mar'19	Mar'18
Liabilities	12 Months				
Share Capital	1222.37	1202.56	1146.13	1146.12	1146.14
Reserves & Surplus	124211.39	93207.56	73416.99	69308.59	60368.70
Net Worth	125433.76	94410.12	74563.12	70454.71	61514.84
Secured Loan	32275.47	33305.09	41514.23	28934.28	4803.86
Unsecured Loan	.00	.00	.00	.00	22709.97
TOTAL LIABILITIES	157709.23	127715.21	116077.35	99388.99	89028.67
Assets					
Gross Block	126557.53	124244.11	90353.13	86575.39	83444.46
(-) Acc. Depreciation	32267.10	27100.83	19119.75	15353.37	11715.38
Net Block	94290.43	97143.28	71233.38	71222.02	71729.08
Capital Work in Progress	14541.96	10908.28	8247.05	5796.29	5673.27
Investments	43497.54	36184.13	50096.07	39406.72	24276.93
Inventories	19942.94	12857.51	10716.66	11255.34	11023.41
Sundry Debtors	3280.30	2878.58	1016.73	1363.04	1875.63
Cash and Bank	2855.29	2396.90	1226.87	718.11	4696.74
Loans and Advances	43577.76	18122.25	7855.80	7736.84	5839.28
Total Current Assets	69656.29	36255.24	20816.06	21073.33	23435.06
Current Liabilities	60509.57	49126.58	31537.79	35412.96	33389.18
Provisions	3767.42	3649.14	2777.42	2696.41	2696.49
Total Current Liabilities	64276.99	52775.72	34315.21	38109.37	36085.67
NET CURR	5379.30	-16520.48	-13499.15	-17036.04	-12650.61

ENT ASSETS					
Misc. Expenses	.00	.00	.00	.00	.00
TOTAL ASSETS(A+B+C+D+E)	157709.23	127715.21	116077.35	99388.99	89028.67

#### **Formulae :**

- 1) Current Ratio = Current Assets / Current Liabilities
- 2) Liquid Ratio = Liquid Assets / Liquid Liabilities
- 3) Fixed Assets Ratio = Fixed Assets / Proprietory fund
- 4) Fixed Assets turnover ratio = Sales / Net Fixed assets\*100
- 5) Fixed Assets to long term liabilities = Fixed assets / Long term liabilities
- 6) Current Assets to Proprietory fund ratio = Current ratio / Propretory fund
- 7) Debtor turnover ratio = Debtors + Bill Receivable / Credit sales \* Working days of year
- 8) Debtor Velocity ratio = Net Credit Sales / Debtors + Bills Receivable
- 9) Creditor turnover ratio = Creditors + Bills Payable /Credit Purchase \*Working days of year
- 10) Working Capital ratio = Working capital/ Next fixed Assets
- 11) Inventory to working capital ratio = Inventory /Working capital
- 12) Ratio of Current Assets to Fixed assets = Current assets / Fixed assets
- 13) Dividend payout ratio = Dividend per share/ Earning per share
- 14) Dividend yield ratio = dividend per share / Market per share
- 15) Price Earning Ratio = Market price per equity share / Earning per equity share
- 16) Stock to current asset ratio = Stock / Current Assets

#### **Current Ratio :-**

The current ratio measures the ability of an organization to pay its bills in the near-term. It is a common measure of the short-term liquidity of a business. The ratio is used by analysts to determine whether they should invest in or lend money to a business. To calculate the current ratio, divide the total of all current assets by the total of all current liabilities.

#### Liquid Ratio :-

A liquidity ratio is a type of financial ratio used to determine a company's ability to pay its short-term debt obligations. The metric helps determine if a company can use its current, or liquid, assets to cover its current liabilities.

#### Fixed assets ratio :-

Fixed Assets ratio is a type of solvency ratio (long-term solvency) which is found by dividing total fixed assets (net) of a company with its long-term funds. It shows the amount of fixed assets being financed by each unit of long-term funds.

#### Fixed Assets turnover ratio :-

The fixed asset turnover ratio reveals how efficient a company is at generating sales from its existing fixed assets. A higher ratio implies that management is using its fixed assets more effectively. A high FAT ratio does not tell anything about a company's ability to generate solid profits or cash flows.

#### Fixed Assets to long term liabilities :-

The fixed-assets- to long-term-liabilities ratio is a way of measuring the solvency of a company. A company's long-term debts are often secured with fixed assets, which is why creditors are interested in this ratio. This ratio is calculated by dividing the value of fixed assets by the amount of long-term debt.

#### **Current Assets to Proprietory Fund ratio :-**

The ratio is calculated by dividing the total of current assets by the amount of shareholders' funds. For example, if current assets are Rs 2,00,000 and shareholders' funds are Rs 4,00,000, the ratio of current assets to proprietors' funds in terms of percentage would be.

#### **Debtor Turnover ratio :-**

Accounts Receivables Turnover ratio is also known as debtors turnover ratio. This indicates the number of times average debtors have been converted into cash during a year. This is also referred to as the efficiency ratio that measures the company's ability to collect revenue.

#### **Debtor Velocity Ratio :-**

Debtors velocity indicates the number of times the debtors are turned over during a year. Generally, the higher the value of debtors turnover the more efficient is the management of debtors/sales or more liquid are the debtors.

#### **Creditor turnover ratio :-**

The accounts payable turnover ratio, also known as the payables turnover or the creditor's turnover ratio, is a liquidity ratio that measures the average number of times a company pays its creditors over an accounting period.

#### Working Capital Ratio :-

The working capital ratio is Working Capital Ratio = Current Assets / Current Liabilities. Using figures from the balance sheet above for example, the working capital ratio would be 300,000 / 200,000 = a working capital ratio of 1.5.

**Inventory to working capital ratio :-** Inventory to working capital is a liquidity ratio that measures the amount of working capital that is tied up in inventory. The difference between total current assets and total current liabilities is known as working capital or net working capital.

#### Ratio of Current Assets to fixed assets :-

We can now calculate the fixed asset turnover ratio by dividing the net revenue for the year by the average fixed asset balance, which is equal to the sum of the current and prior period balance divided by two.

#### **Dividend payout ratio :-**

The dividend payout ratio shows how much of a company's earnings after tax (EAT) are paid to shareholders. It is calculated by dividing dividends paid by earnings after tax and multiplying the result by 100.

#### **Dividend yield ratio :-**

The dividend yield is a financial ratio that tells you the percentage of a company's share price that it pays out in dividends each year. For example, if a company has a \$20 share price and pays a dividend of \$1 per year, its dividend yield would be 5%.

#### Stock to current Assets Ratio :-

Current ratio is a popular way for investors to assess the health of a stock's balance sheet. Current ratio is a measure of a company's ability to pay its

current liabilities and obligations due within one year. Mathematically, current ratio is a company's current assets divided by its current liabilities.

## 1) Current ratio :-

Formulae :	Steel Authority of India	Tata Steel Limited
	Limited	
Current assets / Current	38442.76/65402.79 = 0.58778	69656.29/157709.23 = 0.4416
liabilities Year 1		
Year 2	39086.41/79071.08= 0.49	36255.24/127715 = 0.28
Year 3	34 119.62/90978.19 = 0.37	20816.06/116077.35 = 17.93



- From the above table and graph it is found that the current ratio of Steel Authority of India is 0.58 whereas Current ration of Tata Steel Ltd is 0.46 for the year ending March 2022.
- From the above table and graph it is found that the current ratio of Steel Authority of India is 0.49 whereas current ration of Tata steel ltd is 0.28 for the year ending March 2021.
- From the above table and graph it is found that the current ratio of Steel Authority of India is 0.37 whereas Current Ratio of Tata Steel Ltd is 17.93 for the year ending march 2020.

# 2) Liquid Ratio :-

Steel Authority of India	Tata Steel Limited
Limited	
18873.45/5238.35 = 0.361	49713.35/64276.99 = 0.77
79071.08/38088.58 = 2.07	127715.21/36255.24 =35.22
90978.19/11622.61 = 7.82	116077.35/13499.15 = 8.5
	Steel Authority of India Limited 18873.45/5238.35 = 0.361 79071.08/38088.58 = 2.07 90978.19/11622.61 = 7.82



- From the above table and graph it is found that the liquid ratio of Steel Authority of India is 0.361 whereas liquid ration of Tata Steel Ltd is 0.77 for the year ending March 2022.
- From the above table and graph it is found that the Liquid Ratio of Steel Authority of India is 2.07 whereas Liquid ration of Tata steel ltd is 35.22 for the year ending March 2021.
- From the above table and graph it is found that the Liquid ration of Steel Authority of India is 7.82 whereas Liquid ration of Tata Steel Ltd is 8.5 for the year ending march 2020.

Formulae :	Steel Authority of India Limited	Tata Steel Limited		
Fixed     Assets     /       Proprietory fund	77673.89/47886.61 = 1.62	94290.43/124211.39 = 0.75		
Year 2	67599.376 /39364.35 =1.71	97143.28 /94410.12 = 1.02		
Year 3	69019.04/39777.38 = 1.73	71233.38/74563.21 = 0.95		





- From the above table and graph it is found that the Fixed Assets Ratio of Steel Authority of India is 1.62 whereas Fixed Assets Ratio of Tata Steel Ltd is 0.75 for the year ending March 2022.
- From the above table and graph it is found that the Fixed assets ratio of Steel Authority of India is 1.71 whereas Fixed assets ration of Tata steel ltd is 1.02 for the year ending March 2021.
- From the above table and graph it is found that the Fixed assets ratio of Steel Authority of India is 1.73 whereas Fixed assets Ratio of Tata Steel Ltd is 0.95 for the year ending march 2020.

# 4) Current Assets to Proprietory fund ratio = Current ratio / Propretory fund

Formulae :	Steel Authority of India	Tata Steel Limited
	Limited	
Current Assets to Proprietory	38442.76/47886.61 = 0.802	69656.29/124211.39-= 0.560
fund ratio		
Year 2	30888.58/39364.35 = 0.78	16520.48/93207.56 =0.18
	34119.62/35646.85 = 0.95	13499.15 /73416.99 =0.18
Year 3		



- From the above table and graph it is found that the Current Assets to Proprietory fund ratio of Steel Authority of India is 0.80 whereas Current Assets to Proprietory fund ratio of Tata Steel Ltd is 0.56 for the year ending March 2022.
- From the above table and graph it is found that the Current Assets to Proprietory fund ratio of Steel Authority of India is 0.78 whereas Current Assets to Proprietory fund ratio of Tata steel ltd is 0.18 for the year ending March 2021.
- From the above table and graph it is found that the Current Assets to Proprietory fund ratio of Steel Authority of India is 0.95 whereas Current Assets to Proprietory fund ratio of Tata Steel Ltd is 0.18 for the year ending march 2020.

Formulae :	Steel Authority of India	Tata Steel Limited
	Limited	
Fixed assets / Long term	77673.89/65402.79 = 1.18	94290.43/ 157709.23 = 0.59
liabilities		
Year 2	67599.76/79071.08 =0.85	97143.28/127715.21 =0.76
Year 3	69019.04/90978.19 = 0.75	71233.38/116077.35 =61.36

#### 5) Fixed Assets to long term liabilities = Fixed assets / Long term liabilities



- From the above table and graph it is found that the Fixed Assets to long term liabilities of Steel Authority of India is 0.80 whereas Fixed Assets to long term liabilities of Tata Steel Ltd is 0.56 for the year ending March 2022.
- From the above table and graph it is found that the Fixed Assets to long term liabilities of Steel Authority of India is 0.78 whereas Fixed Assets to long term liabilities of Tata steel ltd is 0.18 for the year ending March 2021.
- From the above table and graph it is found that the Fixed Assets to long term liabilities of Steel Authority of India is 0.95 whereas Fixed Assets to long term liabilities Tata Steel Ltd is 0.18 for the year ending march 2020.

# 6) Debtor turnover ratio = Debtors + Bill Receivable / Credit sales \* Working

days of year

Formulae :	Steel Authority of India	Tata Steel Limited
	Limited	
Debtors + Bill Receivable /	4736.83/103473.32 = 0.046	3280.30/129021.35 =0.025
Credit sales		
	7124.00/69110.62 =0.10	2878.58/84132.92 = 0.034
Year 2		
Year 3	8812.39/61660.55 = 0.14	1016.73/60435.97 =0.16



- From the above table and graph it is found that the Debtor turnover ratio of Steel Authority of India is 0.046 whereas Debtor turnover ratio of Tata Steel Ltd is 0.025 for the year ending March 2022.
- From the above table and graph it is found that the Debtor turnover ratio of Steel Authority of India is 0.10 whereas Debtor turnover ratio of Tata steel ltd is 0.034 for the year ending March 2021.
- From the above table and graph it is found that the Debtor turnover ratio of Steel Authority of India is 0.14 whereas Debtor turnover ratio of Tata Steel Ltd is 0.16 for the year ending march 2020.

7	) Debtor	Velocity ratio	= Net Credit Sales	/ Debtors + Bills	s Receivable
	,	•			

Formulae :	Steel Authority of India	Tata Steel Limited	
	Limited		
	103473.32/4736.83=21.84	129021.35/3280.30= 39.332	
Net Credit Sales / Debtors +			
Bills Receivable			
	69110.02/7124 = 9.70	84132.92/2878.58=29.22	
Year 2			
	61660.55/8812.39=6.99	60435.97/1016.73= 59.44	
Year 3			



- From the above table and graph it is found that the Debtor Velocity ratio of Steel Authority of India is 21.84 whereas Debtor Velocity ratio of Tata steel ltd is 39.33 for the year ending March 2022.
- From the above table and graph it is found that the Debtor Velocity ratio of Steel Authority of India is 9.70 whereas Debtor Velocity ratio of Tata steel ltd is 29.22 for the year ending March 2021.
- From the above table and graph it is found that the Debtor Velocity ratio of Steel Authority of India is 6.99 whereas Debtor Velocity ratio of Tata Steel Ltd is 59.44 for the year ending march 2020.

Formulae :	Steel Authority of India Limited	Tata Steel Limited
Tormulae .	Steel Authority of India Ellinted	Tata Steel Elillited
Working Capital ratio	51507.2/77673.33 = 0.66	152329.93/94290.43=1.6
For 1 Year		
	78073.25/67599.76 = 1.15	96784.61/97143.28= 0.99
2 Year		
	39578.2/69019.04 = 0.57	102578.2/71233.38 = 1.44
3 Year		



# 8) Working Capital ratio = Working capital/ Next fixed Assets

- From the above table and graph it is found that the Working Capital ratio of Steel Authority of India is 0.66 whereas Working Capital ratio of Tata steel ltd is 1.6 for the year ending March 2022.
- From the above table and graph it is found that the Working Capital ratio of Steel Authority of India is 1.15 whereas Working Capital ratio of Tata steel ltd is 0.99 for the year ending March 2021.
- From the above table and graph it is found that the Working Capital ratio of Steel Authority of India is 0.57 whereas Working Capital ratio of Tata Steel Ltd is 1.44 for the year ending march 2020.

Formulae :	Steel Authority of India Limited	Tata Steel Limited		
Inventory to working capital ratio	19569.31/77673.33 = 0.25	19942.94/94290.43= 0.21		
Year 2	19508.30/67599.76 = 0.29	12857.51/97143.28= 0.13		
Year 3	23747.20/69019.04 = 0.34	10716.66/71233.38 = 0.15		

#### 9) Inventory to working capital ratio = Inventory /Working capital



- From the above table and graph it is found that the Inventory to working capital ratio of Steel Authority of India is 0.25 whereas Inventory to working capital ratio of Tata steel ltd is 0.21 for the year ending March 2022.
- From the above table and graph it is found that the Inventory to working capital ratio of Steel Authority of India is 0.29 whereas Inventory to working capital ratio of Tata steel ltd is 0.13 for the year ending March 2021.
- From the above table and graph it is found that the Inventory to working capital ratio of Steel Authority of India is 0.34 whereas Inventory to working capital ratio of Tata Steel Ltd is 0.15 for the year ending march 2020.

10)	Stock to	current	asset	ratio =	Stock /	<b>Current</b> A	ssets
-----	----------	---------	-------	---------	---------	------------------	-------

Formulae :	Steel Authority of India	Tata Steel Limited	
	Limited		
Stock to current asset ratio	19569.31/69656.29 = 0.28	19942.94/6956.29 = 2.86	
Year 1			
Stock to current asset ratio	19508.30/39086.41 = 0.49	12857.51/36255.24 = 0.35	
Year 2			
Stock to current assets ratio	23747.20/45742.23 = 0.05	10716.66/20816.06 = 0.51	
Year 3			



- From the above table and graph it is found that the Stock to current asset ratio of Steel Authority of India is 0.28 whereas Stock to current asset ratio of Tata steel ltd is 2.86 for the year ending March 2022.
- From the above table and graph it is found that the Stock to current asset ratio of Steel Authority of India is 0.49 whereas Stock to current asset ratio of Tata steel ltd is 0.35 for the year ending March 2021.
- From the above table and graph it is found that the Stock to current asset ratio of Steel Authority of India is 0.5 whereas Stock to current asset ratio of Tata Steel Ltd is 0.51 for the year ending march 2020.

#### CONCLUSION

The Lower fixed assets ratio of Tata Steel Limited is satisfactory but differs with SAIL as test statistic shows clearly. On the rest of Ratios both the companies is below standard and not encouraging for the entire study period i.e. 2006-07 to 2015-16 except for one or two years.

The study shows that the additional funds raised are invested in fixed assets instead of providing necessary working capital, therefore, the Working Capital turnover ratio is not satisfactory in both the companies. Accordingly, the management may resort to effective utilization of cash and bank balances in attractive investments or to pay back in short term liabilities (current ratio).

The corporate profitability reflects the ability to make profit from the business activity. It is an indicator of management efficiency to utilize the available resources. The corporate profitability can be measured with the help of profitability ratio (relative measure) such as gross profit ratio, net profit ratio, operating profit ratio, return on capital employed, return on total assets, return on equity etc.

Most of analysts prefer ROCE/ROI and ROTA to measure the corporate profitability. There are several factors which affect the corporate profitability; working capital management (WCM) is one of them. WCM deals with the management of working capital. Working capital is the amount which is required to meet the expenses of day-to-day operation. It is just like the heart of business.

The efficiency of working capital is measured through current and liquid ratio, debtor turnover ratio, working capital turnover ratio, inventory turnover ratio. From the study it has been found out that SAIL corporate profitability and working capital management component has strong relationship.

## LIMITATIONS

- This study is based on only secondary data; the limitations of the secondary data would have affected the study.
- Ratios are computed on the basis of financial statements of the selected companies.
- Hence, future performance of these units will not reflect. The financial statements are subject to window dressing by the corporate.
- It will affect the results in the process of analysis.
- The absolute figures may prove decorative as ratio analysis is primarily quantitative analysis and not qualitative analysis. Many people may interpret the results in different ways as ratio is not an end by itself.

# FINDINGS

	SA	SA	SA	TS	TS	TS
Year	1	2	3	1	2	3
Current Ratio	0.58	0.49	0.37	0.44	0.28	17.93
Liquid Ratio	0.36	2.07	7.82	0.77	35.22	8.5
Fixed Assets ratio	1.62	1.71	1.73	0.75	1.02	0.95
Curent Assets to propretry Fund ratio	0.80	0.78	0.95	0.56	0.18	0.18
Fixed Assets to long term liabilities	1.18	0.85	0.75	0.59	0.76	61.36
Debtor turnover ratio	0.40	0.10	0.14	0.25	0.34	0.16
Velocity ratio	21.84	9.70	6.99	39.32	29.22	59.44
Working Capital ratio	0.66	1.15	0.570	1.6	0.94	1.44
Inventory to working ratio	0.25	0.29	0.39	0.21	0.13	0.15
Stock to current ratio	0.28	0.49	0.05	0.86	0.35	0.57

#### HYPOTHESIS TESTING

**Null Hypothesis : H0 :** There is no significant difference between the working capital ratios of steel authority of India ltd & Tata steel ltd.

## Alternative Hypothesis : H1 :

There is significant difference between the working capital ratios of steel authority of India ltd & Tata steel ltd.

#### **Interpretation :-**

From the above research study it is found that form hypothesis number 0.1 alternate hypothesis there is significant difference between the working capital ratio of steel authority of India ltd and Tata steel ltd. Is found to be true hence accepted whereas as null hypothesis i.e There is no significant difference between the working capital ratio of steel authority of Inndia ltd & Tata steel ltd.

#### Hypothesis Number 02:-

**Null Hypothesis : H0 :** There is no difference between the mean of working capital of both companies.

Alternative Hypothesis : H1: There is difference between the mean of working capital of both companies

#### **Interpretation :-**

From the above research study it is found that from the hypothesis number there is difference between the mean of working capital of both companies is found to be true hence accepted whereas as null hypothesis i.e. There is no difference between the mean of working capital of both companies.

# SUGGESTIONS

- It is affected in current ration in increasing in 2022 and 2021.
- IF Liquid ratio is equal to both company it better for company.
- Working capital ratio remains constant.
- All ratio calculated by company's balance sheet .

## BIBLIOGRAPHY

#### **MAGAZINES**

Bsiness world

India Today

## **INTERNET SEARCH :**

https://www.tatasteel.com/media/15928/tata-steel-ir https://www.bajajfinserv.in/what-is-working-capital-management https://en.wikipedia.org/wiki/Steel\_Authority\_of\_India https://www.moneycontrol.com/news/tags/mc-learn.html https://economictimes.indiatimes.com/tata-steel-ltd/balancesheet/companyidhttps://www.taxmann.com/bookstore/product/6956-fundamentals-of-financialmanagement https://aajkalawhouse.co.in/product/taxmanns-financial-management-by-rp-rustagi/ https://onlinelibrary.wiley.com/journal/1467646x

# **BOOKS REFERRED :**

Financial Management by I.M. Pandey, Financial Management by Dr. S.K. Gupta, Working capital management by V. K Bhalla .

#### **ANNUAL REPORT :**

Annual Report of Steel Authority of India 1td 2021-2022 Annual Report of Tata steel 1td 2021-2022