# **Project Dissertation Report on**

# Working Capital Management and Ratio Analysis at TATA Steel

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Under the Guidance of: Dr. Shikha N Khera Associate Professor



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# **CERTIFICATION**

This is to certify that the Project Report titled "Working Capital Management
and Ratio Analysis at TATA Steel", is a bonafied work carried out by
Shashank Tanwar of MBA 2020-2022 and submitted to Delhi School of
Management, Delhi Technological University, Bawana Road, Delhi-42 in
partial fulfillment of the requirement for the award of the degree of Master of
Business Administration.

Signature of Guide **Dr. Shikha N Khera** 

Signature of Head **Dr. Archana Singh** 

Place : Date :

#### **DECLARATION**

I, Shashank Tanwar, student of MBA 2020-22 of Delhi School of Management, Delhi Technological University, Bawana Road, Delhi- 110042 declare that Major Project Report on **"Working Capital Management and Ratio Analysis at TATA Steel"** submitted in fulfillment of degree of Masters of Business Administration is the original work conducted by me.

The information and data given in the report are authentic to my knowledge.

This report is not being submitted to any other university for the award of any other degree, diploma, or fellowship.

Date : Shashank Tanwar 2K20/DMBA/118 MBA (2022-22)

#### **ACKNOWLEDGEMENT**

Accomplishment of a task with desired success calls for dedication towards work and promoting guidance, co-operation and deliberation from seniors.

At the outset, I would like to thank Dr. Shikha N Khera, Delhi School of Management for her support and professional approach in guiding me through the careful details of the project.

I would be failing in my duty if I do not express my deep sense of gratitude to Dr. Archana Singh, H.O.D and all the faculty members for their valuable advice and guidance in this project.

#### **EXECUTIVE SUMMARY**

First of all, what is working capital, It is the fund that is required by the firm to operate its day-to-day activities. It is the difference between its current assets and its current liabilities. The features of working capital will differ based in the type of the business, some businesses can need it for maintaining inventory level, others can need it for the payment of their suppliers. For eg.,

- Wholesalers generally buy or sell goods/products on credit. So, the flow of cash should be managed carefully. Also, such firms can rely on short-term loans and overdrafts.
- Big supermarkets and retailers purchase goods/ products on credit and they generally made their sales in the form of cash and bank transactions. So, they have the significant cash holding, which they used for maintaining inventory level.

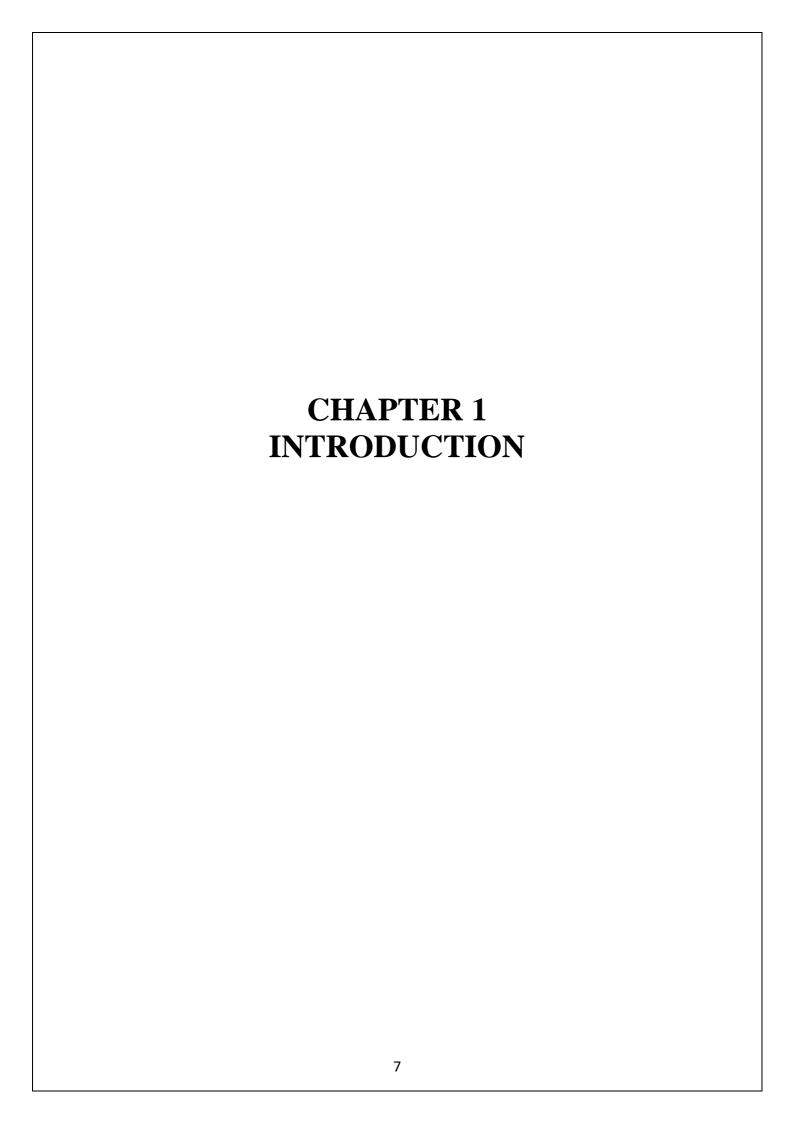
This is because ineffective working capital management can force a firm to suspend operations and possibly lead to bankruptcy. As a result, the goal of working capital management is to maintain a sufficient amount of working capital in addition to managing current assets and current liabilities. Holding a significant number of current assets strengthens the liquidity position and minimises risk, but only at the expense of profitability. As a result, achieving a risk-return trade-off is crucial while keeping current assets. While cash outflows are predictable, cash inflows are not. Any company's sales efforts do not instantly create revenue. There is a temporal lag between the selling of things and the realising of sales. During this time lag, working capital in the form of current assets maintains capital demand. The concept of the operational cycle explains the complete conversion process.

It is concerned with the relationship that exists between a company's short-term holding and short-term obligations. The goal of it is to ensure that a firm can continue to function and that it has enough cash to cover both maturing short-term debt and Keeping track of commodities, accounts receivable and payable, and cash is part of working capital management.

Many ratios relating to a company's performance, activity, funding, and liquidity may be determined using financial documents. The p/e ratio, d/e ratio, EPS, inventory turnover, and working capital are all examples of typical ratios.

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#### **Introduction to TATA Group**

Tata Group is a privately owned business unit of around 100 different companies that operate in a variety of sectors such as automobiles, grocery products, electricity, chemicals, information technology, and services. The headquarters of the firm are in Mumbai.

- Jamsetji Nusserwanji Tata was an entrepreneur, who formed the Tata Group in 1868 as a private commerce firm.
- In 1902, the company established the Indian Hotels Company in order to commission the Taj Mahal Palace & Tower, India's first luxury hotel, which opened the following year.



- In 1904 after the death of Sir Jamsetji Tata, his son Sir Dorab Tata took over as chairman of the Tata Group. Under Dorab's leadership, the firm quickly diversified, embracing a variety of new industries such as in the year 1907 they started steel industry, electricity business was started in the year 1910, then they entered into education system in 1911, started manufacturing consumer goods in 1917, and aviation (1932).
- Sir Nowroji Saklatwala took over as chair of the organisation after Dorab died in 1932. Six years later, Sir JRD Tata took over the responsibility. Tata Group gained international reputation as a result of his ongoing development of the firm into new industries such as chemicals business in 1939, they entered into technology business in 1945, in the year 1952 they entered into cosmetics business,
- They started manufacturing Tata Tea in the year 1962, and
- Software services (1968). Tata Group founded the Tata Engineering and Locomotive Company (TELCO) in 1945 to manufacture engineering and locomotive goods; in 2003, it was renamed Tata Motors.
- J.R.D.'s nephew, Indian business magnate Ratan Tata, took over as chairman of the Tata Group in 1991. Ratan actively tried to develop the company after taking over as CEO, and he progressively concentrated on globalising its operations.
- The firm acquired the London-based Tetley Tea in the year 2000 and in 2004, it purchased Daewoo Motors' truck manufacturing business in South Korea. Tata-AIG, an insurance firm is formed after they formed joint venture with an American International Group, Inc. (AIG) in 2001.
- In 2007 they acquired Anglo-Dutch steel maker 'Corus Group' and accomplished the title of largest corporate acquisition by an Indian Brand.
- The next year, the firm made international news when it entered the automobile market. Tata Motors formally unveiled the Nano on January 10, 2008, a compact and pocket friendly car. In July 2009, the first Nano hit the road in India.
- Also, in 2008, Tata Motors bought the brand (Jaguar and Land Rover) from Ford Motor Company.
- Ratan Tata resigned four years later and was followed by Cyrus Mistry. Mistry was unexpectedly fired as chairman in October 2016, purportedly due to conflicts with members of the Tata family about business strategy, and Ratan took over on an

interim basis. Ratan's second term as chairman ended in January 2017, when Natarajan Chandrasekaran took over.

• In 2022, the Tata Group bought Air India, a 1932 airline created by the Tata family and nationalised in 1953.

#### **Founders of TATA Group**

#### 1. Jamsetji (Jamshedji) Nusserwanji Tata (3 March 1839 – 19 May 1904)

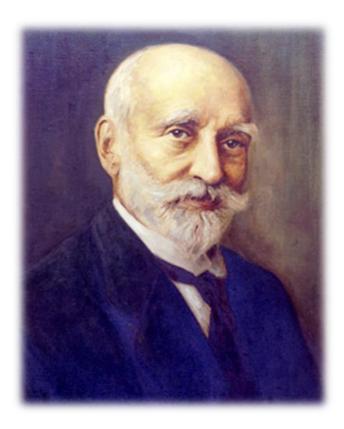
He was the driving force behind Tata Steel. He devoted his entire life in building these three great enterprises: the IIS University in Bangalore, the Hydro-electric schemes and the iron and steel work in Jamshedpur, after he realise that the India's true freedom is in its self-sufficiency. He imagined and planned a steel town, Jamshedpur, down to the least detail.



He had encouraged his sons to undertake and enhance his life's work; his oldest son, Sir Dorabji Tata, carried out the bequest with fervour and distinction. Even though these big projects are envisioned by Jamshedji Tata, but it was Dorabji Tata who really brought them to life and fulfilment. The first chairman of the massive Tata Group is Sir Dorabji Tata.

#### 2. Sir Dorabji Tata (27 August 1859 – 3 June 1932)

Sir Dorabji Tata was born on August 27, 1859, as the firstborn son of the Tata group's founder, the visionary Jamsetji Tata. He inherited not just his father's economic skill, but also a sense of altruism and giving something back to society/environment. He married to the daughter of H. J. Bhabha, Meherbai in 1897. She was a vivacious and tactful woman who loved English literature and played the piano. Social causes like higher education for women and untouchability are causes which she worked for during her lifetime, some as her husband do. She also brought India to the attention of the International Council of Women.



He also build the IIS University in Bangalore, on May 27, 1909, and in 1912 he demoted it the institute. Among his other major gifts were a substantial grant to the University of Cambridge and the establishment of a chair for Sanskrit studies at the Bhandarkar Oriental Research Institute in Pune.

Sir Dorabji Tata's passion for sports was reflected in his humanitarian endeavours. He arranged for four athletes and two wrestlers to compete in the Antwerp Games in 1919. As president of the Indian Olympic Council, he oversaw the funding of the Indian delegation to the 1924 Paris Olympics.

He believed that the money should be use in something constructive and in 1932, he bequeathed his whole lifetime earning to the newly established Sir Dorabji Tata Trust. This included major stakes in Tata Sons, Indian Hotels, and related enterprises, as well as real property and 21 pieces of his wife's jewellery, including the famed Jubilee Diamond. At that time, the value of his contribution was considered to be Rs. 10 million.

The monies were to be used for the development of study and research, humanitarian work, and other philanthropic causes "without regard to location, country, or creed." He also gave the Prince of Wales Museum in Mumbai his collection of paintings, statues, and other art pieces.

Sir Dorabji Tata died at Bad Kissingen, Germany, on 3rd June 1932.

#### 3. Jehangir Ratanji Dadabhoy Tata (29 July 1904 – 29 November 1993)

J.R.D. Tata, an Indian businessman and aviation pioneer who founded India's first airline and managed the rapid rise of the Tata Group, India's largest industrial conglomerate.

Tata was born into one of India's wealthiest families, but his mother was French, and he spent a large part of his life in France. As a result, he grew up speaking French. During a summer vacation, he met aviation pioneer Louis Blériot, and the experience piqued his interest in planes, which grew into a lifetime love. Tata spent a year in the French army after studying in France, Japan, and England. He had intended to study engineering at the University of Cambridge, but was forced to return to India in 1925 to take up his job in the Tata family company. The Tata Group, founded in 1868 by Tata's great-grandfather, was one of India's major commercial enterprises.



Within a year of his father's death, Tata took over as chairman of Tata Sons, the group's flagship firm. In 1929, Tata renounced his French citizenship and became one of the first Indians to get a commercial pilot's certificate. Tata Air Mail, a courier service linking Karachi, Ahmadabad, Bombay (now Mumbai), and Madras, was founded in 1932 by Tata (now Chennai). Tata was the youngest member of the Tata Sons board when he took over as chairman of the Tata Group in 1938, at the age of 34. He renamed his airmail service Tata Airlines, establishing it India's first domestic airline, then changed the company's name to Air India in 1946. Over the following half-century, Tata expanded the group's activities to encompass chemicals, vehicles, pharmaceuticals, financial services, and information technology, while also strengthening core companies like as steel, electricity, and hotels. Tata was retained as chairman of Air India after it was nationalised in 1953, a post he held until 1978. At the age of 87, he stood down from Tata Sons; the more than 80 firms that comprised the Tata Group empire produced nearly \$4 billion each year.

Several institutes were formed under his direction to foster scientific, medical, and artistic endeavours in India. The Tata Institute of Fundamental Research, Tata Memorial Hospital, Tata Institute of Social Sciences, National Institute of Advanced Sciences, and National Centre for Performing Arts were among them. He was an early proponent of family planning (a politically difficult viewpoint), and he founded the Family Planning Foundation in 1971. Tata earned several honours, including the Padma Vibhushan (1957), the Daniel Guggenheim Medal for Aviation (1988), and the United Nations Population Award (2001). (1992). He was awarded the Bharat Ratna, India's highest civilian honour, in 1992.

#### 4. Ratan Naval Tata (28 December 1937 – present)

Ratan Tata is an Indian businessman who served as chairman of the Tata Group, a conglomerate headquartered in Mumbai, from 1991 to 2012, and again in 2016–17. He received his B.S. in architecture from Cornell University in Ithaca, New York, before returning to work in India. He was born into a prominent family of Indian businessmen and philanthropists (see Tata family). He gained experience at several Tata Group firms before being named director in charge of one of them, the National Radio and Electronics Co., in 1971. He became chairman of Tata Industries a decade later, and in 1991, he succeeded his uncle, J.R.D. Tata, as chairman of the Tata Group.

Tata actively attempted to develop the company after taking over as CEO, and he increasingly concentrated on globalising its companies. In 2000, the business paid \$431.3 million for London-based Tetley Tea, and in 2004, it paid \$102 million for Tata won the Padma Bhushan, one of India's most esteemed civilian awards, in 2000, among numerous other honours bestowed upon him over his career.



#### **Company Profile**

#### **Background**

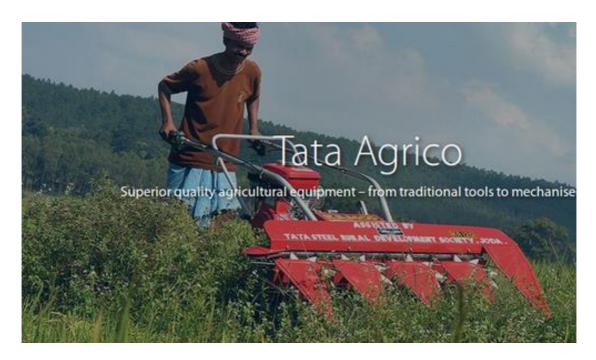
In year 1907, Tata Steel was incorporated. Considering private sector, It is the single largest integrated steel mill in India. The company's product line is extensive, including flat and long steel, tubes, bearings, minerals, and freight handling services. While it is the world's 34th largest steel company, World Steel Dynamics ranked it #1 (for the second time) among 23 world-class steel companies in June 2005. With its facility in Jamshedpur (Jharkhand) and captive iron ore mines and collieries nearby, Tata Steel has a significant competitive edge.



The activities of Tata Steel are separated into main profit centres such as tubes, growth shop, bearings, ferro alloys and minerals, rings, Agrico, and wires. The company has numerous firsts to its name and has been recognised numerous times at various national and multinational forums for its operational efficiency, quality standards, labour relations, corporate social responsibility, corporate governance, leadership, knowledge management, and other key aspects. To accommodate altering market realities, it has continuously reinvented itself technologically and enhanced its product offering. Its attempts to grow and upgrade have been reinforced by a continuing emphasis on maintaining high standards of municipal infrastructure and civic facilities in its planned township at Jamshedpur. Tata Sons, together with other Tata Group firms, hold the majority of the corporation (26.72 percent). The general public owns 26.98% of the firm, with overseas institutional investors and Indian financial institutions owning the remaining 40.89%.

#### **Products and brands**

- **1. Raw Product** Tata Steel mine the three main raw material are iron-ore, chromites and coal. They have a century of experience in the mining process.
- **2. Agricultural Products** They are the first choice of the farmers in purchasing agricultural equipment's. They manufacture superior quality equipment's through its Agrico Division.



**3. Flat Products** – With the strong presence in retail sector, they produce world's first branded cold rolled steek under the brand name of Tata Shaktee Steelium.



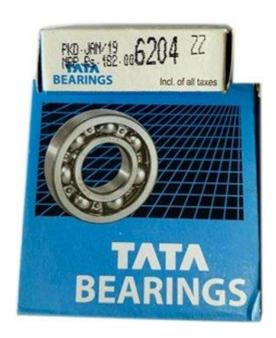
**4. Long Products** – Under the brand name of "TISCON" they manufacture thermo mechanically treated rebars, used in manufacture of houses. Also, they have been recognised as the 'super brand' status in manufacturing these rebars.



- **5. Tubes** Tata Tubes is the business unit under which the manufacturing of tubes takes place. The factory is located at Jamshedpur with the marketing head office in Kolkata. Under this they manufacture three types of tubes Commercial Tubes, Structural Tubes and precision Tubes.
- **6. Wires** Tata Wiron is the brand under which Tata manufactures wire and it comprise 30% of the market of the India. The range includes: Auto segment, Construction Segment, Power Segment, Textile Industry and Galvanized Wires.



**7. Bearings** – With the capacity of 30 million bearings per annum, Tata Steel manufacture bearing and auto assemblies. The range includes: Ball Bearings, Tapered Roller Bearings, Magneto Bearings, etc.



#### **SWOT ANALYSIS**

SWOT Analysis is a proven overall look that allows a brand like Tata Steel or any other firm to compare their business performance with that of their competitors. Strengths and Weaknesses are considers as Internal element, whereas opportunities and threats are considers as external elements.



#### 1. Strengths

The internal attributes that provide a company an advantage in attracting a wider client base and increasing profitability are referred to as its strengths. Let's have a look at how Tata Steel compares to its competitors in terms of competitive strength –

- *Complete manufacturing in India:* The whole process is done in India itself that includes extraction from mines and ores and producing it to steel material. This combined processes overall production time and production cost while maintaining the desired quality.
- *Market Position:* They are the one of the world's most prominent steel makers, and they stood at the 2<sup>nd</sup> position while talking about the geographically diverse steel producer. They have the presence in Asia, the Pacific, and Europe.
- *Products:* As can be seen, They offers a diverse range of goods ranging from flat sheet of steel to tools used in agriculture to building materials and much more. A diverse product portfolio provides revenue from many markets across the world.
- *Goodwill:* They are the world's most trusted brands because of their quality. At the same time, the association with the name generates enormous brand equity to the company.
- *Global Brand:* They has a global footprint in more than 50 nations, with activities in more than 26 countries, increasing its penetration and share.

#### 2. Weaknesses

These are characteristics of a company that should be improved. Some of Tata Steel's biggest problems are as follows:

- Overdependence on Europe: Despite being an Indian brand, you may be aware that more than half of their business originates from Europe, and so any economic crises in Europe has an impact on sales.
- *Mistry's saga:* Tata group reputation was harmed by the controversy happened between Ratan Tata and Cyrus Mistry, which also affects Tata Steel.
- *Operations in Europe:* While they have complete operations in India, but its operations in Europe are disintegrated, and they have to depend on various supplier of other nations. Which results in quality compromised, and expenses rise.
- *Functional Issues:* The operational efficiency of the country is not as good as that of world leaders. On the technological front, it is somewhat trailing.

#### 3. Opportunities

Opportunities are prospective areas in which a company might enhance its outcomes, boost sales, and profit. Tata Steel may take use of the following opportunities:

- *Adapt newer technologies:* There are some new technologies such as Cortex process, Hismelt process and many more, which Tata Steel should adopt.
- *Increasing demand in India:* The demand of the steel is increasing over the last few years as Housing sector and industrial facilities increasing in India. They will undoubtedly gain from this.
- *Global Development:* Increasing number of construction including industrial or domestic and also the growth in automobile sector will drive industry expansion, and Tata Steel will gain from it.

#### 4. Threats

External variables that may have an influence on a company's growth are referred to as threats. Some of Tata Steel's threats are as follows:

- *Tough competition:* There are many big players in steel industry such as JSW Steel, Essar Steel, ArcelorMittal, Jindal Steel, SAIL.
- *Environmental and government regulations:* Increases the cost of compliance for the corporation since Tata Steel is subject to stringent regulatory and environmental standards in both mining and production.
- *Global steel prices are falling:* Because of excess production in China, steel became more affordable, forcing the process to be scaled back globally. Coking coal costs are rising.
- *Miscellaneous issues:* In India, there has been a fierce uprising against land acquisition. Government and regulatory guidelines. International competition is also a hindrance to their business.

#### **OBJECTIVES OF THE STUDY**

- Research the idea and significance of working capital management.
- Research the methodologies and processes of working capital analysis.
- To compare Tata Steel Ltd.'s standing with the leading companies in the steel sector.
- Conduct a comprehensive examination of Tata Steel Ltd. Working Capital.
- Investigate the company's financial health by identifying several parameters such as liquidity, profitability, and turnover.

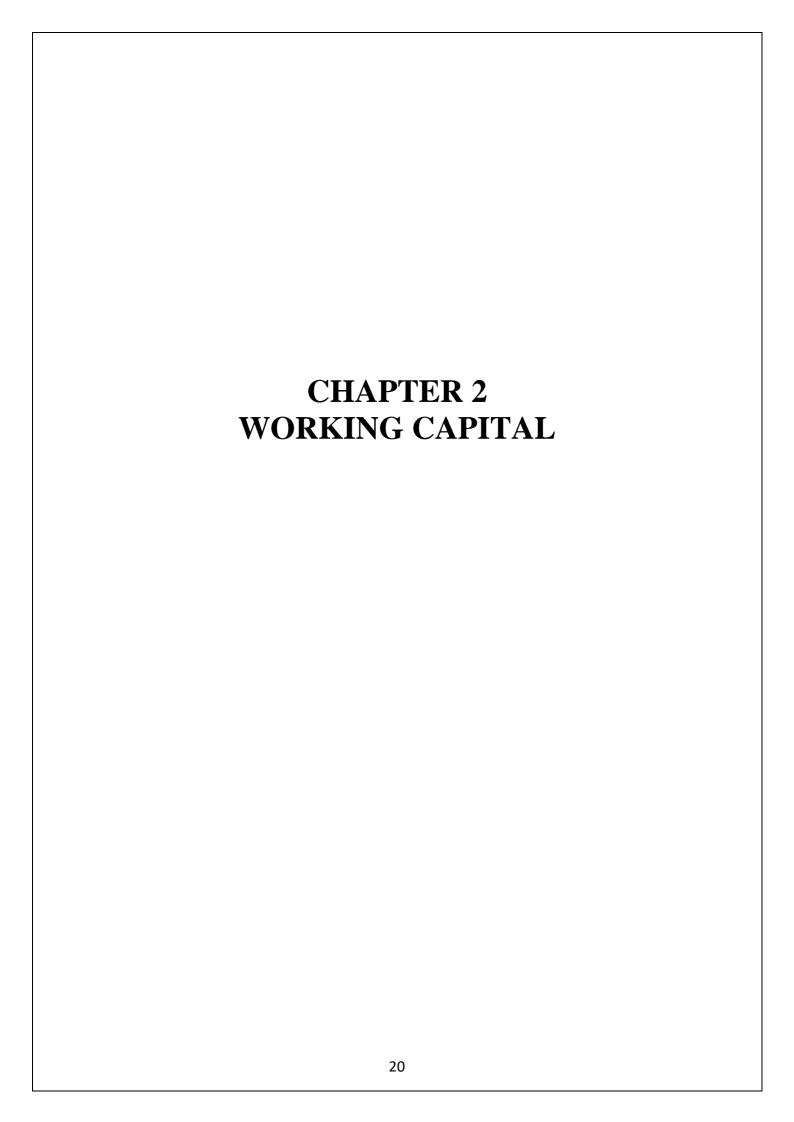
#### RESEARCH METHODOLOGY

The research will be based on Tata Steel's working capital management model's, which requires a detailed investigation. The outcome of the control mechanism may be summarised using Ratio Analysis & Trend Analysis, which will aid in determining the efficacy of the system under examination. The information about the firms under consideration was gathered from their respective websites. Microsoft Excel has been utilised as a tool for various calculations and chart development.

#### **Collection of Data:**

The data has been collected from the secondary sources:

- 1. Annual reports
- 2. Journals and magazines
- 3. Study of files and office documents
- 4. Websites of TATA STEEL and other steel companies.



#### WORKING CAPITAL MANAGEMENT

Working capital is the difference between a company's short-term holdings and short-term obligations. It is a financial indicator that analyses if a company has enough liquid assets to pay off its obligations within a year. When a company has excess current assets, the money can be used for day-to-day operations.

- Positive working capital is a good predictor of a company's short-term financial health since it has enough liquid assets to pay off short-term obligations and fund business development internally. A business with a working capital deficiency may need to borrow more cash from a bank or resort to investment bankers to seek new finance.
- Negative working capital shows that assets are not being used properly, and a company may be experiencing financial difficulties. Even if a company has made significant investments in physical assets, it will face financial and operational issues if liabilities fall due. This might lead to further borrowing, late payments to creditors and suppliers, and a worse corporate credit rating for the organisation.
- Companies can have negative working capital and yet operate well, depending on the
  sort of business. Grocery stores like Walmart and fast-food restaurants like
  McDonald's are examples of businesses that may produce revenue quickly owing to
  high inventory turnover rates and getting payment from customers in a couple of
  days. These businesses require little operating capital to be maintained on hand since
  they can create more in a short period of time.
- Products purchased from suppliers are promptly sold to clients before the vendor or supplier is paid. Capital-intensive enterprises that manufacture heavy equipment and machinery, on the other hand, typically cannot raise funds rapidly since their products are sold on a long-term payment basis. If they are unable to sell quickly enough, cash will not be available promptly during difficult financial circumstances, therefore maintaining appropriate working capital is critical.

CURRENT ASSETS	CURRENT LIABILITIES
1. INVENTORY	1. SUNDRY CREDITORS
a) RAW MATERIAL	2. TRADE ADVANCES
b) WORK-IN-PROGRESS	3. BORROWINGS (short term)
c) FINISHED GOODS	a) COMMERCIAL BANKS
d) OTHERS	b) OTHERS
2. TRADE CREDITORS	4. PROVISIONS
3. LOANS AND ADVANCES	
4.CASH AND BANK BALANCE	

#### WORKING CAPITAL'S IMPORTANCE

The following are some of the benefits of having sufficient operating capital: -

- 1) *Cash Discount*: Firm can take cash discount if they purchase raw material in cash. This is only possible if they maintains a healthy cash balance. Also, it may leads to reducing production cost.
- 2) *Feeling of Security:* It gives a sense of security and confidence to the owner and the management of the company since they don't have to worry about paying business expenses or creditors if they have effective working capital arrangements.
- 3) Strong Goodwill: It is common knowledge among all wise businesspeople that fast payment builds goodwill and expands the debt capacity of the firm. If investors and borrowers are convinced that they will get their due interest and principal payment on time, a company can obtain cash from the market, purchase raw material on credit, and borrow short-term loans from a bank, among other things.
- 4) Availability of Loans: A positive working capital defines that the company have excess short-term holdings over its short-term obligations, which allows them to borrow unsecured loans from the banks. The excess serves as the security and banks prefer to grant loan to the companies with good credit history and goodwill in the market.
- 5) **Production Efficiency:** If the company maintains the positive working capital, it will boost their production efficiency because there will be the continuous supply of raw material, time-to-time technology development and growth programmes. Which further leads to increase staff efficiency and motivates them, cost cutting and creates positive image of the company in the society.

#### **DISADVANTAGES**

#### 1) Excessive Working Capital

To conduct its business operations, every company should have enough working cash. It should neither have superfluous or excessive working capital, nor should it have an insufficient or scarcity of working capital. Working capital balances that are both too high and too low are negative for any firm.

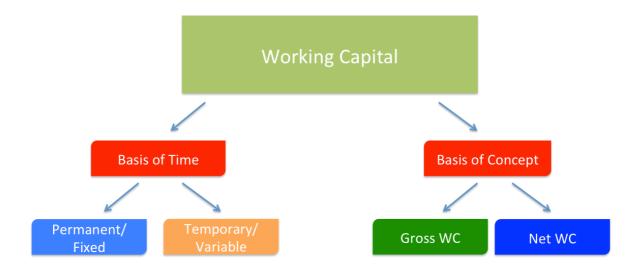
- Excessive working capital refers to funds that are idle and do not generate
  profits for the company, preventing the company from earning a fair rate of
  return on its investments.
- Excessive working capital can lead to wasteful purchases and inventory accumulation, increasing the risk of theft, waste, and losses.
- Excessive working capital suggests a large number of debtors and a flawed credit policy, both of which can lead to a greater rate of bad-debts.
- It may result in the organization's overall inefficiencies.
- When working capital is insufficient, relationships with banks and other financial institutions may be strained.
- The value of shares may decline as a result of the poor rate of return on investments.

#### 2) Insufficient Working Capital

 A company with insufficient operating capital will be unable to meet its shortterm obligations. As a result, it will lose its reputation and will be unable to obtain favourable loan terms.

- The company is unable to cover day-to-day operating expenditures, resulting in inefficiencies, higher costs, and lower earnings.
- Due to a lack of liquid finances, it becomes unable to effectively utilise fixed assets.
- When there is a lack of operating capital, the rate of return on investments lowers.

#### TYPES OF WORKING CAPITAL



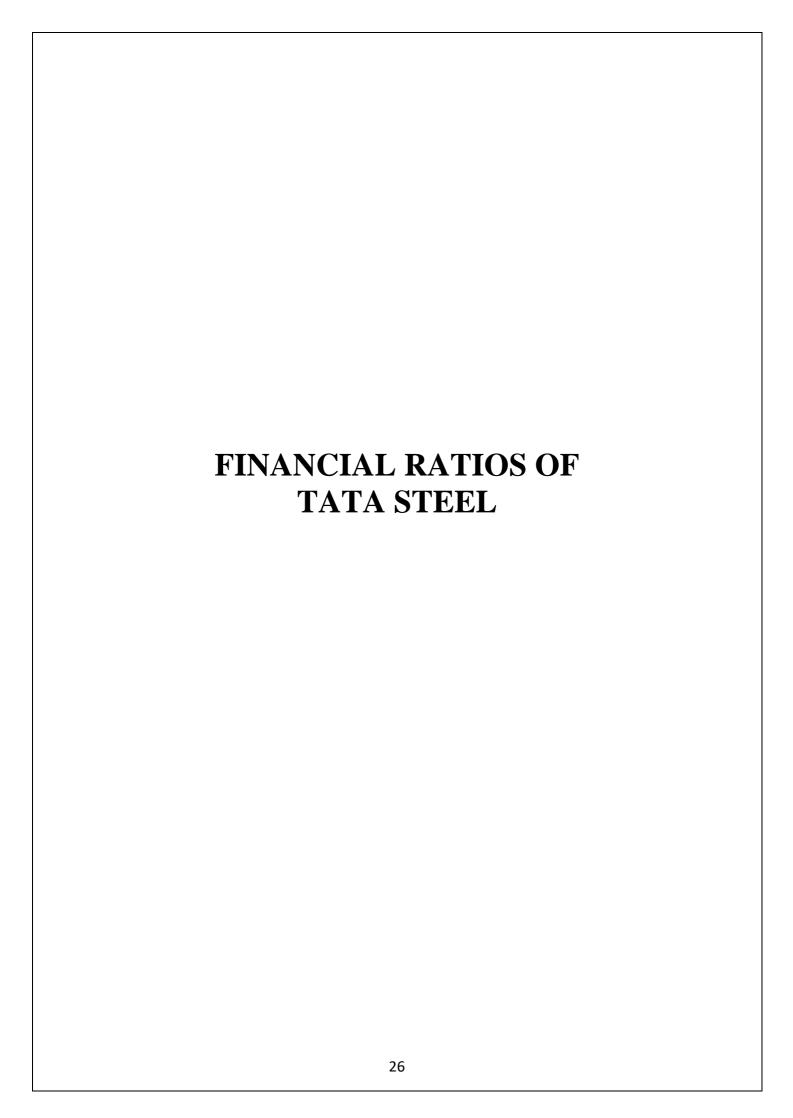
# NET WORKING CAPITAL OF TATA STEEL

CURRENT ASSETS (IN RS CR.)	2016-17	2017-18	2018-2019	2019-2020	2020-2021
CURRENT INVESTMENT	5309.81	14640.37	477.47	3235.16	6404.46
INVENTORIES	10236.85	11023.41	11255.34	10716.66	8603.79
TRADE RECEIVABLES	2006.52	1875.63	1363.04	1016.73	3863.31
CASH AND CASH EQUIVALENTS	960.31	4696.74	718.11	1226.87	1671.71
SHORT TERM LOANS AND ADVANCES	27.14	74.13	55.92	1607.32	1555.95
OTHER CURRENT ASSETS	1559.77	2333.63	3165.70	2206.45	1657.08
TOTAL(A)	20110.40	34643.91	17035.58	20009.19	23756.30
CURRENT LIABILITIES (IN RS CR.)	2016-17	2017-18	2018-2019	2019-2020	2020-2021
	<b>2016-17</b> 3239.67	<b>2017-18</b> 669.88	<b>2018-2019</b> 8.09	<b>2019-2020</b> 7857.27	<b>2020-2021</b>
CR.)					
CR.) SHORT TERM BORROWING	3239.67	669.88	8.09	7857.27	0.00
CR.) SHORT TERM BORROWING TRADE PAYABLE OTHER CURRENT	3239.67 10717.44	669.88 11242.75	8.09 10969.56	7857.27 10600.96	0.00
CR.) SHORT TERM BORROWING  TRADE PAYABLE  OTHER CURRENT LIABILITIES	3239.67 10717.44 8398.62	669.88 11242.75 12959.43	8.09 10969.56 13837.77	7857.27 10600.96 11749.21	0.00 10638.59 17600.30
CR.) SHORT TERM BORROWING  TRADE PAYABLE  OTHER CURRENT LIABILITIES SHORT TERM PROVISION	3239.67 10717.44 8398.62 700.60	669.88 11242.75 12959.43 735.23	8.09 10969.56 13837.77 778.23	7857.27 10600.96 11749.21 663.86	0.00 10638.59 17600.30 1074.43

# PERCENTAGE CHANGE IN NET WORKING CAPITAL

CURRENT ASSETS (IN RS CR.)	2016-17	2017-18	2018-	2019-	2020-
CURRENT ASSETS (IN RS CR.)			2019	2020	2021
CURRENT INVESTMENT	-	175.72	-96.74	577.56	97.96
INVENTORIES	-	7.68	2.10	-4.79	-19.72
TRADE RECEIVABLES	-	-6.52	-27.33	-25.41	279.97
CASH AND CASH EQUIVALENTS	-	389.09	-84.71	70.85	36.26
SHORT TERM LOANS AND ADVANCES	-	173.14	-24.56	2774.32	-3.20
OTHER CURRENT ASSETS	-	49.61	35.66	-30.30	-24.90
TOTAL(A)	-	72.35	-50.83	17.46	18.73

<b>CURRENT LIABILITIES (IN RS</b>	2016-17	2017-18	2018-	2019-	2020-
CR.)			2019	2020	2021
SHORT TERM BORROWING	-	-79.32	-98.79	97023.24	-100.00
TRADE PAYABLE	-	4.90	-2.43	-3.36	0.35
OTHER CURRENT LIABILITIES	-	54.30	6.78	-15.09	49.80
SHORT TERM PROVISION	-	4.94	5.85	-14.70	61.85
TOTAL(B)	-	11.06	-0.05	20.62	-5.05

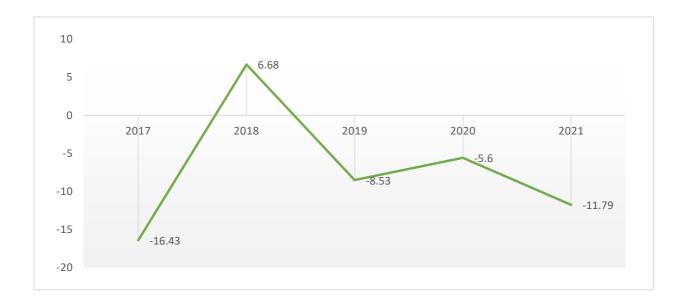


#### 1) WORKING CAPITAL TURNOVER RATIO

It's a ratio that shows how much working capital is required to sustain a certain level of sales. A high ratio shows that the company is well-capitalized, and vice versa.

### FORMULA = <u>NET SALES</u> NET WORKING CAPITAL

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
NET SALES	48407.48	60380.48	73015.79	60840.09	65506.89
NET WORKING CAPITAL	(2945.93)	9036.57	(8558.07)	(10862.11)	(5557.02)
WORKING CAPITAL TUNRNOVER RATIO	-16.43	6.68	-8.53	-5.60	-11.79



#### **INTERPRETATION**

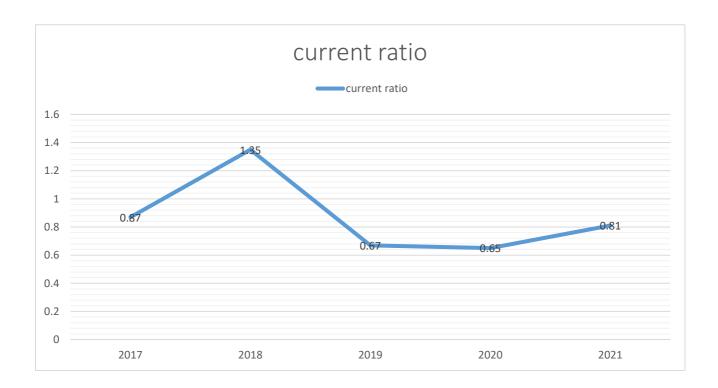
Tata Steel's NWC turnover ratio has been fluctuating over the few years. We can see a heavy drop in the year 2018-2019, when the ratio was negative and was mostly due to a drop in current assets.

#### 2) CURRENT RATIO

The current ratio is a financial statistic that is used to assess a company's total short-term liquidity status. It indicates whether or not a corporation will be able to satisfy its obligations.

# $FORMULA = \underbrace{CURRENT\ ASSETS}_{CURRENT\ LIABILITIES}$

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
CURRENT ASSESTS	20110.40	34643.91	17035.58	20009.19	23756.30
CURRENT LIABILITIES	23056.33	25607.34	25593.65	30871.30	29313.32
CURRENT RATIO	0.87	1.35	0.67	0.65	0.81



#### **INTERPRETATION:**

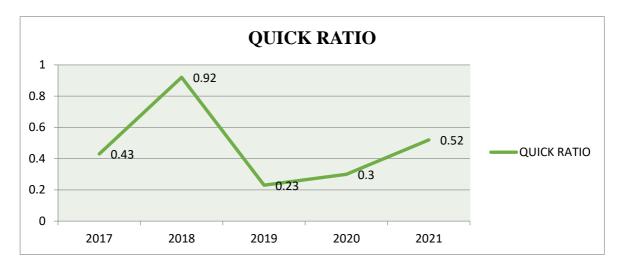
A 2:1 current ratio is thought to be optimum. The present ratio has been progressively rising over time. The ratio has grown to 0.81 in 2020-2021 compared to the prior year in 2018-2019. The cause for the rise might be consistent investments in current assets over time.

#### 3) QUICK RATIO

The quick ratio is a measure of a company's short-term solvency or liquidity. It is also known as Liquid Ratio. The link b/w liquid assets and liabilities is what this term refers to. If an asset can be changed into cash in a short amount of time without losing value, it is considered to be liquid.

 $FORMULA = \underbrace{CURRENT\ ASSETS - INVENTORY}_{CURRENT\ LIABILITIES}$ 

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
CURRENT ASSETS	20110.40	34643.91	17035.58	20009.19	23756.30
INVENTORY	10236.85	11023.41	11255.34	10716.66	8603.79
CURRENT ASSETS- INVENTORY	9873.55	23620.5	5780.24	9292.53	15152.51
CURRENT LIABILTY	23056.33	25607.34	25593.65	30871.30	29313.32
QUICK RATIO	0.43	0.92	0.23	0.30	0.52



#### **INTERPRETATION**

In the event of a rapid ratio, 1:1 is the best criterion. And if it's higher, it's deemed better. The notion is that for every rupee of current liabilities, at least one rupee of liquid assets should be available.

As a result, the quick ratio is a stringent liquidity test that provides a better view of the firm's short-term financial condition. As seen in the graph above, following a severe drop in the quick ratio from 2017-2018 to 2018-2019, there has been a gradual improvement in the quick ratio, and the ratio for 2020-2021 is 0.52, indicating that the firm's liquidity situation has improved due to an increase in cash on hand.

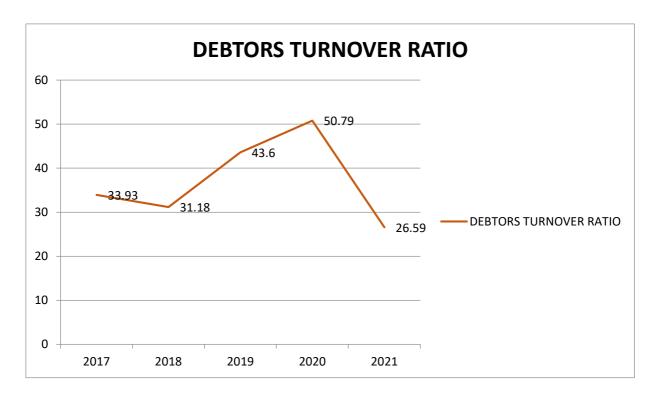
#### 4) DEBTORS TURNOVER RATIO

Receivables Turnover Ratio or Debtors Turnover Ratio The turnover ratio shows how net sales and average debtors are related. It depicts the rate at which cash is created by debtor turnover.

### FORMULA = <u>AVERAGE DEBTORS</u> NET SALES

#### AVERAGE DEBTORS= (OPENING DEBTORS + CLOSING DEBTORS) / 2

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
AVERAGE DEBTORS	1319.66	1941.075	1619.335	1189.885	2440.02
NET SALES	48407.48	60380.48	73015.79	60840.09	65506.89
DEBTORS TURNOVER RATIO	33.93	31.18	43.60	50.79	26.59



#### **INTERPRETATION**

The debtors' turnover ratio is a measure of how quickly money is recovered from debtors. The greater the ratio, the better, because it suggests that the debtors' money is being recovered faster. The faster debtors pay, the smaller the chance of bad debts, and thus decrease the collection costs and boost the firm's liquidity. It is possible to determine if the management's sales policy is efficient or not by comparing the debtors' turnover ratio from the current year to the previous year.

The ratio increased from 0.02 to 0.037 from 2019-2020 to 2020-2021, as seen in the graph above, indicating that the firm's sales management is extremely effective.

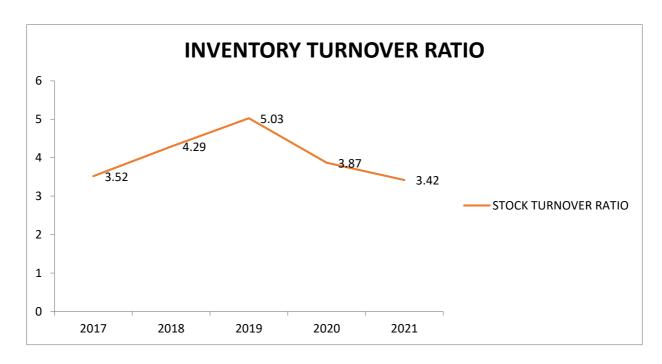
#### 5) INVENTORY TURNOVER RATIO

The Inventory Turnover Ratio is a metric that assesses the effectiveness of a company's inventory management. A greater ratio suggests that merchandise does not linger in warehouses or on shelves for long periods of time, but rather rotates quickly from purchase to sale. A lower inventory turnover ratio indicates that inventories have accumulated rather than being invested in inventory or unsalable items.

# $FORMULA = \underbrace{COST\ OF\ GOODS\ SOLD}_{AVERAGE\ STOCK}$

#### AVERAGE STOCK= (OPENING STOCK+CLOSING STOCK)/2

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
COST OF GOODS SOLD	12,496.78	16,877.63	19,840.29	17,407.03	13,868.60
AVERAGE STOCK	3545.565	3937.71	3942.195	4501.56	4051.7
STOCK TURNOVER RATIO	3.52	4.29	5.03	3.87	3.42



#### **INTERPRETATION**

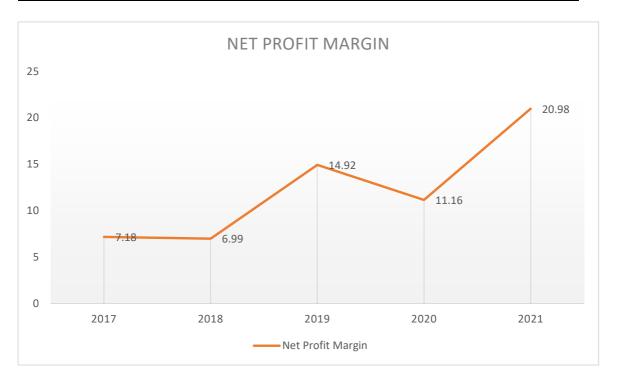
This ratio depicts the link between the cost of products sold and the average stock held over the course of the year. The ratio reflects whether or not the stock was utilised efficiently. It depicts the rate at which stock is converted into sales over the course of the year. Following a rise in the ratio from 2016-2017 to 2018-2019 (3.52-5.03), the ratio then declines from 5.03 to 3.42 in 2020-2021, as seen in the graph above. A high ratio indicates that the stock is rapidly selling.

#### 6) NET PROFIT MARGIN

It calculates the amount of net income earned as a proportion of total revenue. It assists investors in determining if a company's management is earning enough profit from its sales and whether operational and administrative costs are being controlled.

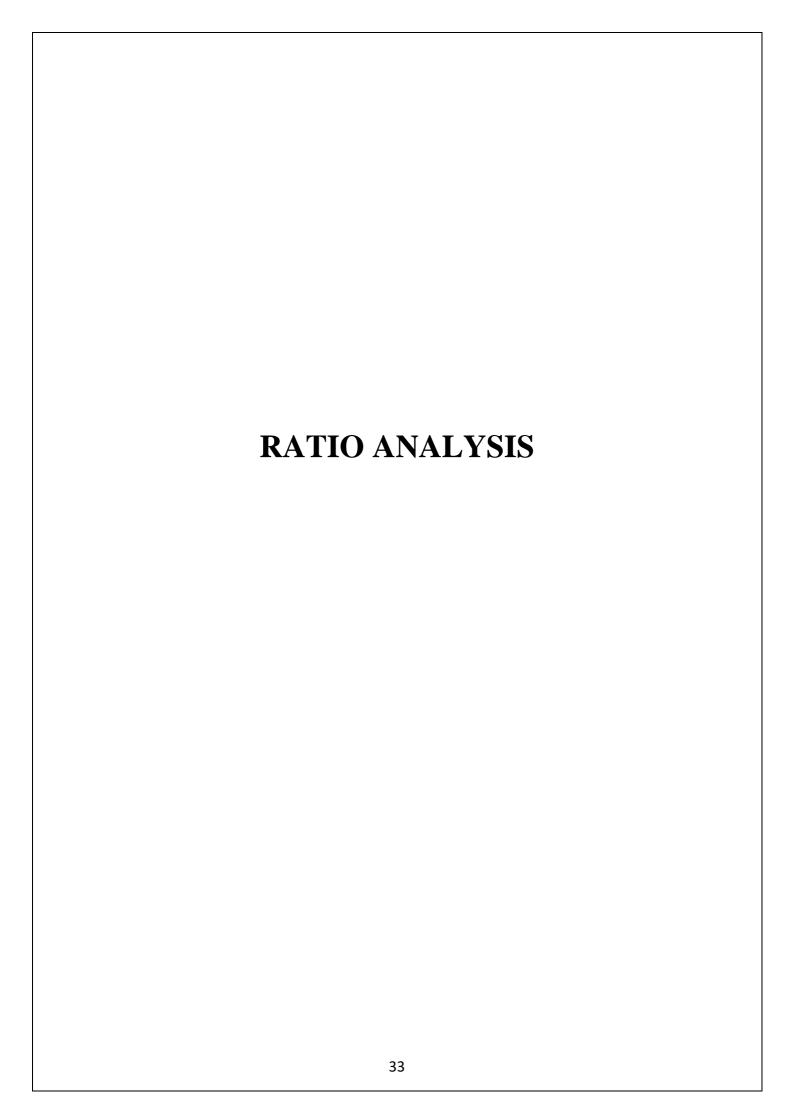
Net Profit Margin = (Revenue – Cost)/Revenue OR Net Profit Margin = Net Profit / Net Sales

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
NET PROFIT MARGIN	7.18	6.99	14.92	11.16	20.98



#### **INTERPRETATION**

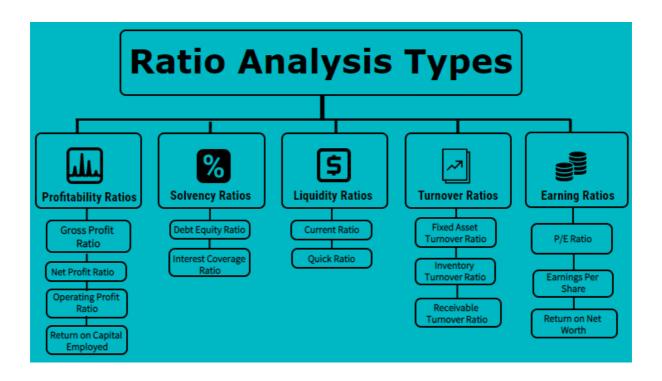
The Net Profit Margin of the Tata Steel is increasing constantly from last five years and it is the highest in the year 2020-2021 which is 21.45 from other competitors. The increasing ratio indicate that the sales of the company is also increasing.



Ratio analysis is a statistical method that examines financial documents such as the balance sheet and income statement to get insight into a company's liquidity, operational efficiency, and profitability. Ratio analysis is an important part of basic equity research.

Ratio analysis is used by investors and analysts to evaluate a company's financial health by comparing prior and current financial statements. Comparative data may demonstrate how a corporation has performed over time and be used to estimate likely future performance. This information may also be used to compare a company's financial state to industry averages and to see how it compares to others in the same industry.

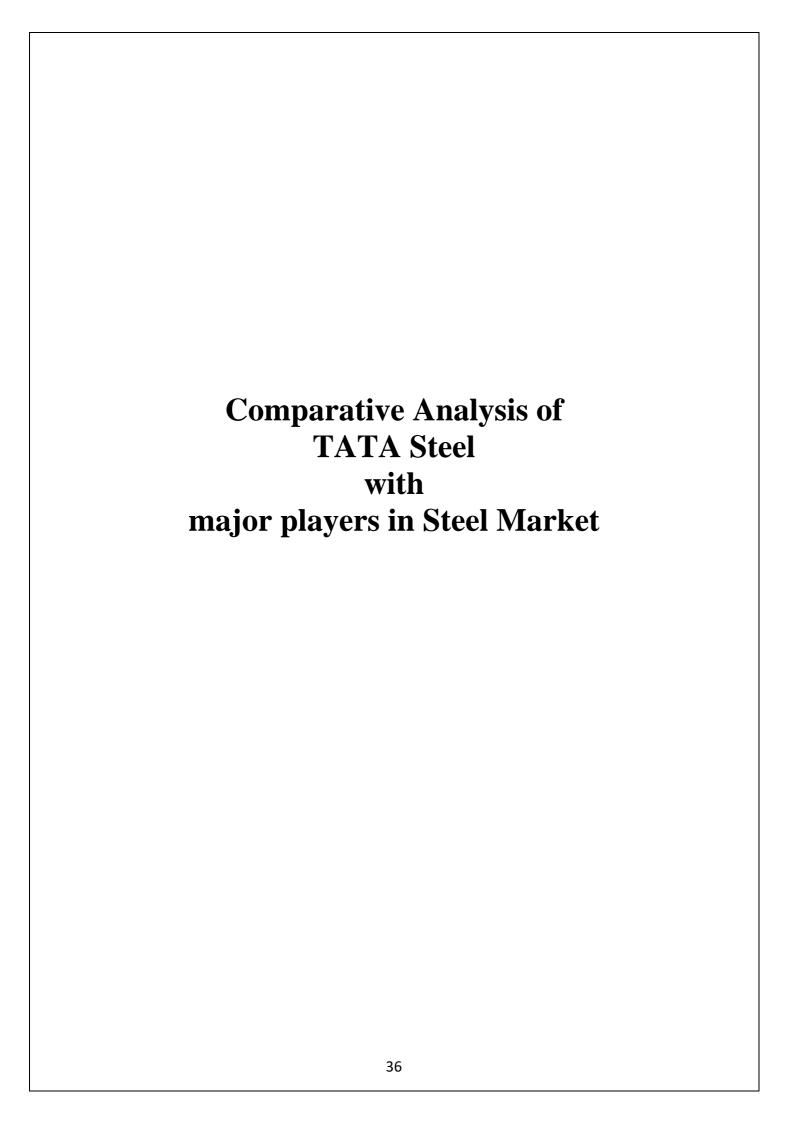
Ratios are calculated by dividing one integer by another. Ratios indicate the relationship between two numbers. It can be written as a co-efficient, a percentage, a proportion, or a rate. For example, on a certain day, a company's current assets and current liabilities are \$200,000 and \$100,000, respectively. The current asset-to-current-liability ratio can be stated as 2 (i.e. 200,000 / 100,000) or 200 percent, or as 2:1 (i.e. current assets are twice as much as current liabilities). The ratio can also be stated as a rate. For example, the ratio of two numerical facts over a period of time, such as three times a year for stock turnover.



### Classification of Accounting Ratios:

To fit any goal, ratios can be categorised in a variety of ways. For different sorts of scenarios, different ratios are chosen. The kind of analysis is mostly determined by the purpose for which the ratios are utilised and the type of data provided. The following are the several types of accounting ratios:

	Classification of Accounting Ratio  (A) Traditional Classification or Statement Ratios  • Profit and loss account ratios or revenue/income statement ratios  • Balance sheet ratios or position statement ratios  • Composite/mixed ratios	(B) Functional Classification or Classification According to Tests  • Profitability ratios  • Liquidity ratios  • Activity ratios  • Leverage ratios or long-term solvency ratios	(C) Significance Ratios or Ratios According to Importance  • Primary ratios • Secondary ratios
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#### STEEL AUTORITY OF INDIA LTD.



It is one of India's leading steel manufacturers and one of the top government-owned enterprises to be given the coveted 'Maharatna' distinction.

They owns and operates five integrated steel mills in Rourkela, Bokaro, Burnpur, Bhilai and Durgapur, as well as three special steel plants in Salem, Bhadravati and Durgapur and at Chandrapur, they have their ferro-alloy manufacturing unit.

With over 37 branch office, 10 customer contact centres and 49 warehouses and yards, they become the India's largest Central Marketing Organization (CMO)

SAIL is also India's second biggest producer of iron ore, supplying 100% of its needs through captive mines. SAIL has the most diverse range of steel products of any Indian company, comprising mild, special, and alloy steel goods in around 50 items, 500 grades, and 5000 dimensions.

#### JINDAL STEEL & POWER

Jindal Steel & Power Ltd (JSPL) is a steel and power company that manufactures steel, sponge iron, pellets, and castings, as well as planning, implementing, developing, and operating power plants. TMT bars, long track rails and heads toughened rails, parallel flange beams and columns, angles and channels, plates, coils, wire rods, and cast round and billets are among the steel products available. Thermal, hydroelectric, and renewable energy sources are used to power the enterprise. In addition, JSPL offers services in aircraft, manufacturing, and real estate development. It operates throughout Asia, Africa, and the Middle East. Steel factories and power generation facilities are located in Odisha, Chhattisgarh, and Jharkhand, respectively. The headquarters of JSPL are in New Delhi, Delhi, India.



History of Jindal Steel and Power

O. P. Jindal (1930–2005) founded the Pipe Unit Jindal India Limited in Hisar, India, in 1969. Much of Jindal's wealth was given to his wife, Savitri Jindal, after his death in 2005. The

administration of the Jindal Group was then divided among his four sons, with Naveen Jindal serving as Chairman of Jindal Steel and Power Limited. Sajjan Jindal, his older brother, is the CEO of JSW Group, which is part of the O.P. Jindal Group.

#### JSW STEEL LTD.



JSW Steel is an unit of the JSW Group, which has operations in steel, energy, infrastructure, cement, ventures, and sports. With an established steel-making capacity of 18 MTPA, JSW Steel is India's largest integrated steel business. JSW Steel's mill at Vijayanagar, Karnataka, has a capacity of 12 MTPA and is the country's largest single site steel manufacturing plant. JSW Steel is the JSW Group's main firm. We are currently one of India's fastest growing enterprises, with a presence in over 100 countries. JSW is also the first business to create sophisticated high-end steel materials with high strength for its automobile divisions. As a steel industry leader in India, we think it is our obligation to develop and update the country's building quality. We are also proud of our CSR operations, which try to make India a better place every day.

We are India's largest steel exporter, exporting to over 100 countries across five continents, and have the greatest product variety in steel.

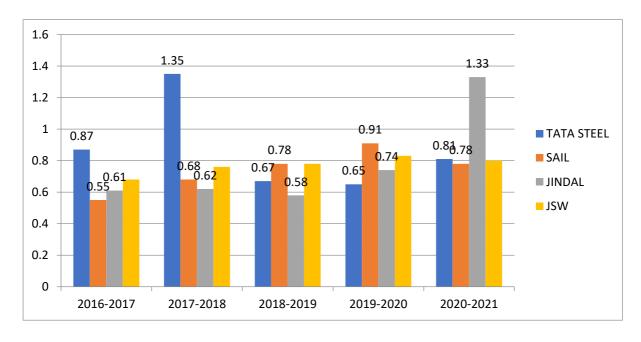
We have been at the forefront of research and cutting-edge technology for the last 35 years. We have opened the door to self-sufficiency and sustainability, thanks to research and innovation along the route.

#### 1) CURRENT RATIO

The current ratio is a financial statistic that is used to assess a company's total short-term liquidity status. It indicates whether or not a corporation will be able to satisfy its obligations.

 $FORMULA = \frac{CURRENT\ ASSETS}{CURRENT\ LIABILITIES}$ 

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
TATA STEEL	0.87	1.35	0.67	0.65	0.81
SAIL	0.55	0.68	0.78	0.91	0.78
JINDAL	0.61	0.62	0.58	0.74	1.33
JSW	0.68	0.76	0.78	0.83	0.80



#### **INTERPRETATION**

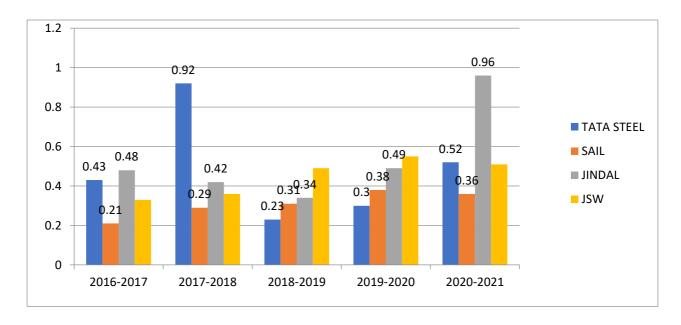
The current ratio of Tata Steel shows a steep decline in the year 2018-2019 (from around 1.35 to 0.67). It should be maintained around its ideal standard and for achieving this the firm should maintain its short-term assets and short-term liabilities in right proportion. On the other comparing Tata steel with its major competitor, Jindal Steel is maintaining its short-term assets and short-term liabilities in correct proportion and its current ratio is increasing over last 5 years.

#### 2) QUICK RATIO

The quick ratio, also known as the liquid ratio, is a measure of a company's short-term solvency or liquidity. The link between liquid assets and liabilities is what this term refers to. If an asset can be changed into cash in a short amount of time without losing value, it is considered to be liquid.

 $FORMULA = \underbrace{CURRENT\ ASSETS - INVENTORY}_{CURRENT\ LIABILITIES}$ 

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
TATA STEEL	0.43	0.92	0.23	0.30	0.52
SAIL	0.21	0.29	0.31	0.38	0.36
JINDAL	0.48	0.42	0.34	0.49	0.96
JSW	0.33	0.36	0.49	0.55	0.51



#### **INTERPRETATION:**

The quick ratio of TATA STEEL has seen a sharp decline in the year 2018-2019 (0.92 to 0.23), after that it is rising slowly, but the company should maintain the ideal quick ratio which is 1:1, i.e., for every 1 amount of current liability there should be a 1 amount of current asset. The quick ratio of SAIL and JSW had been steadily increasing from the year 2016-2017 to 2020-2021 from 0.21 to 0.36 and 0.33 to 0.51 respectively.

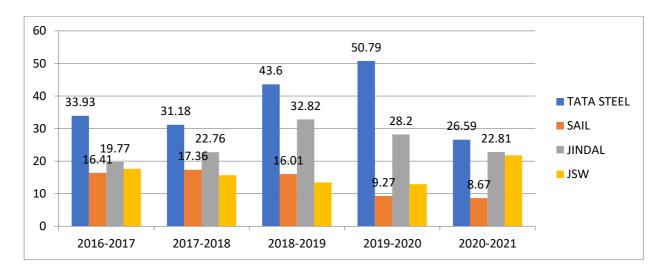
#### 3) DEBTORS TURNOVER RATIO

Receivables Turnover Ratio or Debtors Turnover Ratio The turnover ratio shows how net sales and average debtors are related. It depicts the rate at which cash is created by debtor turnover.

### FORMULA = <u>AVERAGE DEBTORS</u> NET SALES

#### AVERAGE DEBTORS= (OPENING DEBTORS + CLOSING DEBTORS) / 2

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
TATA STEEL	33.93	31.18	43.60	50.79	26.59
SAIL	16.41	17.36	16.01	9.27	8.67
JINDAL	19.77	22.76	32.82	28.20	22.81
JSW	17.62	15.68	13.47	12.94	21.77



#### **INTERPRETATION**

The Debtors Turnover Ratio has shown a positive rising graph throughout which is very good for the company since it shows the time with which the money is being recovered from the debtors except in the year 2020-21, where we can see a sharp decline from 50.79 to 26.59, this can be due to post pandemic effect. A rising graph throughout shows that the sales management team is quite efficient in recovering the money from the debtors.

SAIL on other hand, has the declining debtor turnover ratio which may indicate that the company should revise its sales policy. The company is making credit sales to those debtors who do not deserve so much credit.

JSW has a low fluctuating graph, but in the year 2020-2021 a sudden rise from 12.94 to 22.81 which is the good sign for the company.

Whereas, we can see a constant decline in the ratio of Jindal steel from 32.82 in the year 2018-2019 to 22.81 in the year 2020-2021.

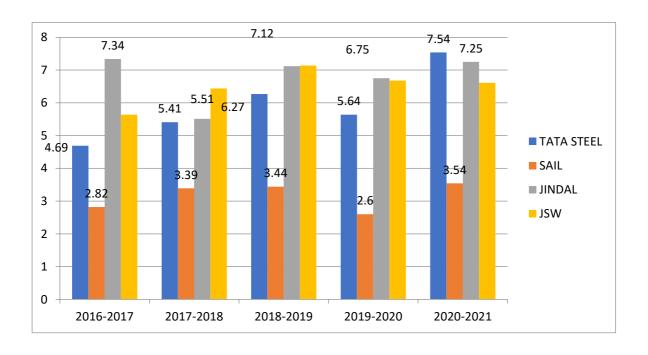
#### 4) INVENTORY TURNOVER RATIO

The Inventory Turnover Ratio is a metric that assesses the effectiveness of a company's inventory management. A greater ratio suggests that merchandise does not linger in warehouses or on shelves for long periods of time, but rather rotates quickly from purchase to sale. A lower inventory turnover ratio indicates that inventories have accumulated rather than being invested in inventory or unsalable items.

# $\begin{aligned} \text{FORMULA} = & \underline{\text{COST OF GOODS SOLD}} \\ & \text{AVERAGE STOCK} \end{aligned}$

#### AVERAGE STOCK= (OPENING STOCK+CLOSING STOCK)/2

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
TATA STEEL	4.69	5.41	6.27	5.64	7.54
SAIL	2.82	3.39	3.44	2.60	3.54
JINDAL	7.34	5.51	7.12	6.75	7.25
JSW	5.64	6.44	7.14	6.68	6.61



#### **INTERPRETATION**

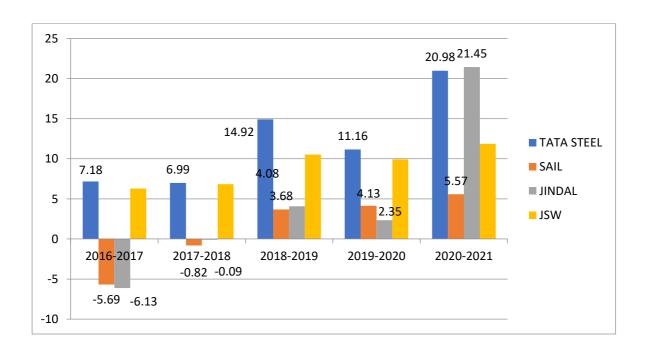
The Inventory turnover ratio of Tata Steel ltd. Has been steadily increasing throughout, except in the year 2019-2020, where there is a slightly decline from 7.12 to 6.75 which may be due to COVID-19 and it get recovered, we see a good increase from 6.75 to 7.54 in the year 2020-2021. This can be because of the cost of goods sold has also been rising with a rise in the average stock maintain with the company. A higher stock ratio turnover is indicate that the stock is selling quickly, that is reflected with the higher sales and the Tata Steel is on the top in this.

#### 5) NET PROFIT MARGIN

It calculates the amount of net income earned as a proportion of total revenue. It assists investors in determining if a company's management is earning enough profit from its sales and whether operational and administrative costs are being controlled.

Net Profit Margin = (Revenue – Cost)/Revenue

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
TATA STEEL	7.18	6.99	14.92	11.16	20.98
SAIL	-5.69	-0.82	3.68	4.13	5.57
JINDAL	-6.13	-0.09	4.08	2.35	21.45
JSW	6.29	6.83	10.52	9.93	11.87



#### **INTERPRETATION**

The Net Profit Margin of the Tata Steel is increasing constantly from last five years and it is the highest in the year 2020-2021 which is 21.45 from other competitors. The increasing ratio indicate that the sales of the company is also increasing.

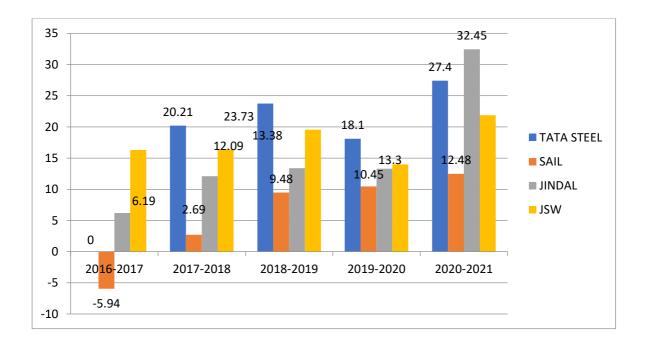
Talking about the others, SAIL, Jindal Steels and JSW, their Net Profit Margin is also increasing, but it is low than that of Tata Steel.

#### 6) GROSS PROFIT MARGIN

Analysts use it to assess a company's financial health by measuring the amount of money left over after subtracting the COGS.

Gross Profit Margin = (Net Sales - COGS)/Net Sales

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
TATA STEEL	-	20.21	23.73	18.10	27.40
SAIL	-5.94	2.69	9.48	10.45	12.48
JINDAL	6.19	12.09	13.38	13.30	32.45
JSW	16.29	16.44	19.55	13.99	21.88



#### **INTERPRETATION**

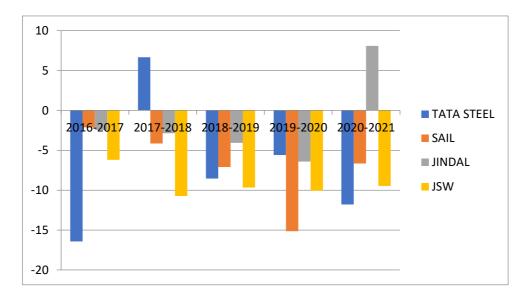
The Gross Profit Margin of all the major players is increasing over the last five years. The Gross Profit margin measure the margin of profit available on sales. The higher the gross profit ratio the better it is. From the above graph, we can see that Tata steel has the maximum gross profit margin as compare to others, which shows Tata Steel's efficiency in producing a good amount of profit for the firm.

#### 7) WORKING CAPITAL RATIO

It's a ratio that shows how much working capital is required to sustain a certain level of sales. A high ratio shows that the company is well-capitalized, and vice versa.

FORMULA = <u>NET SALES</u> NET WORKING CAPITAL

PARTICULARS	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
TATA STEEL	-16.43	6.68	-8.53	-5.60	-11.79
SAIL	-2.11	-4.14	-7.09	-15.14	-6.66
JINDAL	-2.43	-2.87	-4.07	-6.42	8.09
JSW	-6.20	-10.72	-9.66	-10.06	-9.47



#### INTERPRETATION:

The working capital ratio of TATA STEEL has been fluctuating over the years. The reason for negative working capital can be attributed to the decrease in current assets whereas a sharp decrease in working capital is because of the increase in current assets such as cash and bank balances, loans and advances and also because of an increase in the raw material consumption.

The working capital ratio of SAIL Ltd. has been falling constantly from the year 2016-2017 to the year 2019-2020 after which there was an increase in the ratio.

The working capital of JSW has shown a sharp decrease from the year 2016-2017 to 2017-2018 where the working capital ratio remained constantly negative for three consecutive years. The reason for the increase in the ratio is an increase in the current assets, loans and advances.

#### Conclusion

Regardless of the approach used, an organization's success is mainly determined by its ability to maintain its comparative advantage. The project investigates TATA STEEL's Working Capital Management, which is one of the most significant components of any organisation because it deals with managing the total current assets and current liabilities. After analysing the financial statements and doing an in-depth research of the company's working capital cycle and numerous ratios, we find that capital management necessitates an assessment of the costs and advantages associated with each aspect. Tata Steel has a strong working capital position, and its effectiveness in receivable and deferral management is evident in a shrinking operating cycle. The corporation has relied solely on market cash and has reaped the full benefits of its brand name. Before making payments to outsiders, the corporation uses up all of its funds.

Finally, we can conclude that working capital management has a significant impact on company profitability, and managers can create value for shareholders by reducing receivables, accounts, and inventory, and managers must look for methods that will be effective on company profitability through them and proper management.

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