

A STUDY ON THE EFFECTIVENESS OF WORKING CAPITAL MANAGEMENT ON THE PERFORMANCE OF TATA STEEL LIMITED

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ABSTRACT

Working capital management is balancing current assets and liabilities in a way that avoids the risk of failing to meet short-term obligations while avoiding excessive current asset investment. The purpose of this study is to determine how working capital investment and financing methods influence the relationship between working capital management efficiency and Tata Steel Limited's financial performance. This research seeks to find out the influence and impact of Tata Steel Limited's working capital management on the company's overall performance. The world knows Tata Steel as a top global iron and steel manufacturer. Everyone in the industry knows that an appropriate level of operating capital is necessary for running a business smoothly, yet Tata Steel Limited's working capital has a negative connection with the firm's performance. Despite having negative working capital, Tata Steel has remained profitable during the study period.

KEYWORDS: Working Capital, Performance, Tata Steel, Sound.

Introduction

Lots of companies close each year due to poor or negative working capital management; others lack working capital altogether, some even with negative working capital. Successful companies in the industry, like McDonald's, have strong working capital management strategies. It makes the need for strong working capital management apparent. For quite some time, the financial community has sought enough financial instruments to safeguard their companies' earnings.

Generally, there are two major categories of resources a company has to work with: long-term and short-term funding. This is done to ensure capital structure optimization, which requires an optimal balance of debt and equity in order to determine the financial value of a business or organisation. A short-term financial study is used to evaluate the working capital management credibility of a company. Working capital management is a critical instrument for capital structure optimization since it is fundamental to overall success. An organization's finance manager is tasked with managing current financial assets to ensure that the company's position with regard to its financial security is improving.

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You need healthy working capital at all times in order to avoid any snags in your operations. The success of a business operates much like the human body in that it requires strong working capital to support "operations". Working capital is provided to all corners of the business. When the communications stop, the business will cease to exist. Working capital is called "circulating capital" because money moves as blood does through the human body." **Agarwal, (2000)**

When it comes to analysing and evaluating a company's financial performance, financial managers are concerned with two things: identifying the productivity and profitability of operations and assessing how effectively a company's money is being used. The phrase "working capital" is used to indicate how much. There is no doubt that proper management plays a vital role in financial management due to liquidity and profitability issues.

Statement of the Problem

Working capital and fixed investment (which generates productive capacity) are mutually exclusive. Researchers in India have undertaken a number of investigations into working capital management in the cement sector. There are very few studies on the steel industry's liquidity in India. Given the importance of working capital, we need to look at how it's progressing and changing. There is no one-size-fits-all approach to working capital. It is possible to discover whether there is adequate working capital for the steel sector by finding out if its usage will result in an increase or decrease in its stock. According to **Kennedy and McMullen (1969)**, "a company should have sufficient working capital to have peace of mind and to be able to conduct business and deal with the unexpected without risking going under financially." The study will be incomplete if the trend in working capital is not measured. This research will provide enough data to clarify whether the current liquidity policy is still suitable or not. There are many things that must be looked at. How much working capital should Indian steel sector firms have? Does the working cash on hand allow the company to gain revenue and cover operational expenses? Have there been any significant changes in working capital? Difficult topics are needed.

Effective management of working capital is necessary to keep an organisation operating smoothly. Working capital is needed to support the daily operations of the business. Excessive working capital hurts profitability, whereas low working capital is bad for liquidity. **Yadav (1986)** discovered that working capital management, which affects daily operations, was a significant cause of failure in businesses.

Review of Literature

Prakash and Shrivastava (1972), Due to the recent work of them, there has been a major drop in total working capital, which includes loans and advances, in all the mills formerly under the control of the Uttar Pradesh State Textile Corporation (UPSTC) as well as those which were later transferred to the National Textile Corporation (NTC). National Textile Corporation is currently resolving its financial problems by returning its debts and advances. The level of all three, inventory, cash, and bank balance, has risen, given the rise in sales and production figures.

Pandey and Jaiswal (2011) examined working capital management's impact on industrial profitability. The study period for this paper was 2005–2010. The author uses correlation and regression analysis for the study (two different methods: the fixed effects model and the ordinary least squares model). This study found a negative association between profitability and debtors, inventory, and creditor days. Both methods of regression analysis show that cash velocity, business size, and net working capital leverage are significant.

Dr. Ashok Kumar Panigrahi (2012), the influence of working capital management on ACC Cement's profitability. The research uses secondary data from money control and corporate websites and covers a 10-year period from 1999-2000 to 2009-2010. A correlation coefficient, multiple correlation analysis, and multiple regression analysis were utilised in this study. Several factors in this article have a strong positive link with profit, whereas others do not. The findings demonstrate a modest link between working capital efficiency and profitability.

A Profile of Tata Steel Limited

Founded in 1907 in Jamshedpur, a city in the state of Jharkhand, Tata Iron and Steel Limited is now known as Tata Steel Limited. Tata Steel is a metal-making company in India that is owned by Tata Sons, a conglomeration of companies that encompasses over 80 industries. The Tata family founded every major Tata Corporation branch. Tata Steel is the largest privately-owned steel firm in India, controlling approximately 13% of the market. The company is the second-largest steel manufacturer in

the nation. The company makes numerous finished and semi-finished steel goods, including such items as forge quality steel, construction bars, ferro alloys, rods, structurals, strips, bearings, plant and material handling equipment, and various minerals. They also provide process control software and cargo handling services. Additionally, the company gives supplies, provides services, and offers various resources to projects that are taking place in other countries.

Objectives of the Study

This research study is designed to examine management of working capital in Tata Steel Limited in Jharkhand State. Following are the Specific and general Objectives of the Study:

- To study the working capital management of Tata Steel Limited
- To examine the working capital of Tata Steel Ltd. provides adequate liquidity and ensuring profitability.
- To consolidate the findings and offer suggestions for improvement of working capital management The Tata Steel Ltd.

Hypothesis of the Study

In the course of analysis, it is proposed to test the following Hypothesis for the study purpose. However, the testing of different Hypothesis is applied only in Tata Steel Ltd. The Hypotheses are:

H₁⁰ Earning Per Share is not influenced by Liquidity ratio.

H₂⁰ There is no significant difference between Total assets and shareholders' funds.

H₃⁰ There is no significant relationship between PAT and current liabilities.

Research Methodology

The present study, entitled "A Study on the Effectiveness of Working Capital Management on Tata Steel Limited's Performance," used secondary data. Data will be collected via Tata Steel's annual reports, and this process will last for five years, starting in 2015 and ending in 2019. The data was obtained from Tata Steel's headquarters. We obtained information about the metal industry from a variety of sources.

To better understand working capital, several financial ratios may be used. The following ratios are often used: earnings per share, current ratio, quick ratio, inventory turnover ratio, and receivable turnover ratio.

We collected, analysed, and presented the information in tables. To verify specific results and claims and use data tools to support a claim, basic averages and a linear regression model will be used.

Results and Discussions

Working Capital

Working capital is an important part of business that affects day-to-day activities. It reveals the operational liquidity available to a firm, organisation, or other body, including governments. Working capital is defined as a company's ability to pay off short-term debt using short-term assets. A company with a lot of working capital is more likely to have a good short-term financial situation, whereas a lack of working capital, or worse, a negative number, is a poor indicator of the company's financial health.

Table 1

(₹ in crores)

Year	Current Assets	Current Liabilities	Working Capital
2015-16	14421.49	21087.99	-6666.5
2016-17	20110.40	23056.33	-2945.93
2017-18	34643.91	25607.34	9036.57
2018-19	17035.58	25593.65	-8558.07
2019-20	20009.19	30871.30	-10862.11

Sources:- Integrated reports of Tata Steel Ltd.

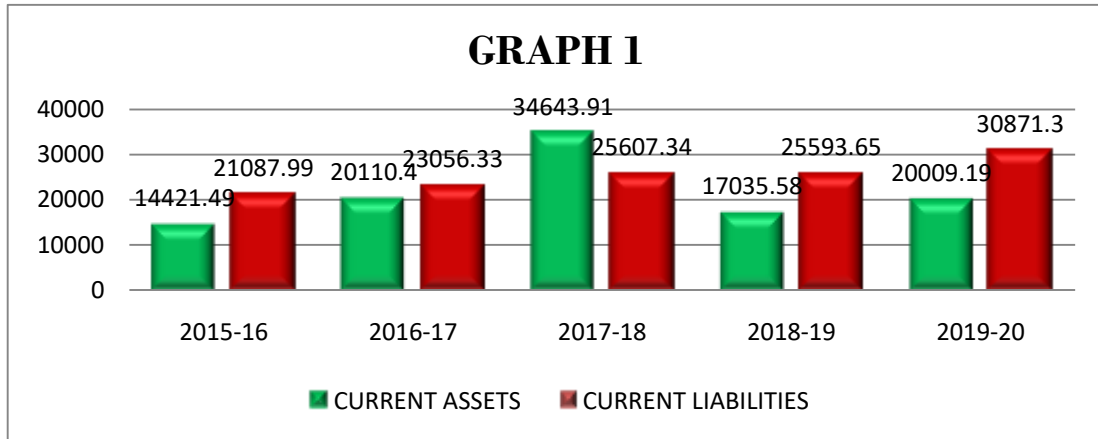


Table 1 shows the working capital of Tata Steel Ltd. When looking at the table, it is clear that the amount of working capital in 2015-16, 2016-17, 2018-19, and 2019-20 is **-6666.5**, **-2945.93**, **-8558.07**, and **-10862.11**, respectively, indicating negative working capital. However, the amount of working capital in 2017-18 is **9036.57**, indicating positive working capital. It demonstrates Tata Steel Ltd's dismal short-term financial situation.

Current Ratio

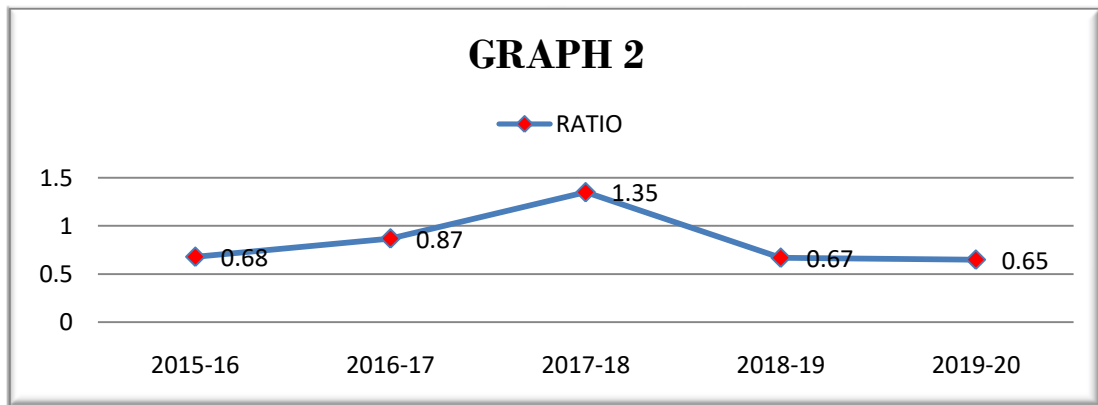
A sensible approach to cash management mandates the use of available money to purchase a company's most valuable holdings in order to gain more liquidity and avoid the stress of risky investments, while also allowing for the reduction of near-term debt obligations. In contrast to cash flows, although dividends and interest rates are often subject to leverage, financing costs may be adversely impacted if they don't line up with debt and equity levels. In the context of corporate finance, current assets and current liabilities are two essential ratios used to determine a company's liquidity. The current ratio, also known as the acid-test ratio, is derived by dividing current assets by current liabilities.

Table 2

(₹ in crores)

Year	Current Assets	Current Liabilities	Ratio
2015-16	14421.49	21087.99	0.68
2016-17	20110.40	23056.33	0.87
2017-18	34643.91	25607.34	1.35
2018-19	17035.58	25593.65	0.67
2019-20	20009.19	30871.30	0.65
Average			0.84

Sources:- Annual reports of Tata Steel Ltd.



According to the results of this study, the assets and liabilities of the firm are now matched. On average, **0.84** rupees' worth of current assets were accessible for every rupee of current obligations. It is clear that there is a shortfall of current assets to cover current liabilities, as well as an excessive burden of current commitments. Despite the fact that the ratio was low, the liquidity was still unacceptable. Generally, the more current assets a company has, the better its ability to pay down its debts. We found that Tata Steel Ltd. has a difficult time fulfilling short-term debt commitments.

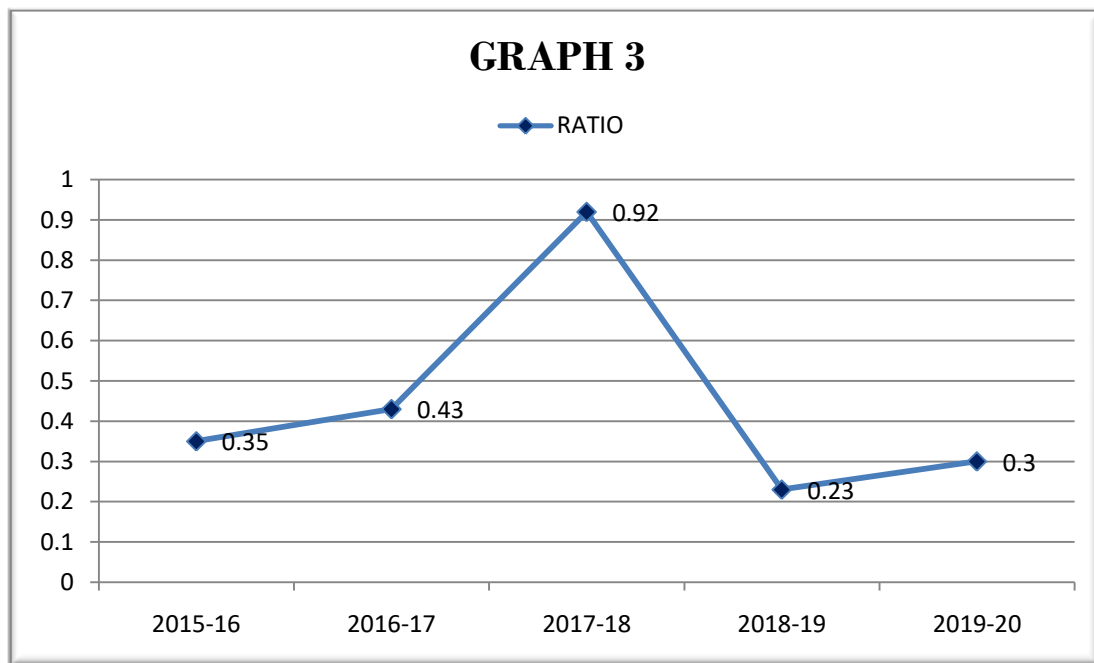
Liquid Ratio

Table 3

(₹ in crores)

Year	Liquid Assets	Current Liabilities	Ratio
2015-16	7337.68	21087.99	0.35
2016-17	9873.55	23056.33	0.43
2017-18	23620.50	25607.34	0.92
2018-19	5780.24	25593.65	0.23
2019-20	9292.53	30871.30	0.30
Average			0.45

Sources:- Annual reports of Tata Steel Ltd.



The location of the liquid ratio is considerably below the widely recognised norm of 1:1 in this research. When Tata Steel Ltd's data is examined, it is discovered that the quick ratio in 2015-16, 2016-17, 2018-19, and 2019-20 was **0.35**, **0.43**, **0.23**, and **0.30**, respectively, which is far below the standard level of liquid ratio. Only in 2017-18 was the liquid ratio **0.92**, which is close to the standard level but still below the standard level. Tata Steel Ltd has a weak liquidity situation, with an average liquidity ratio of **0.45** during the research period.

Net Profit Ratio

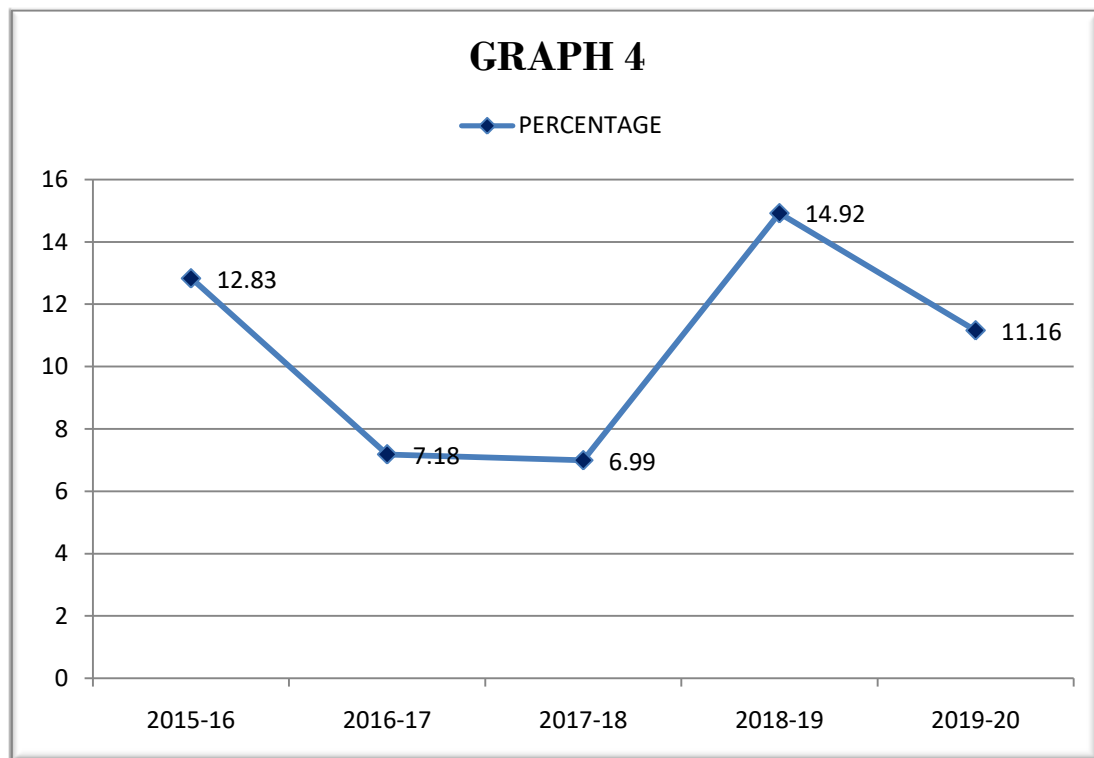
The **PAT** method, or Partial Adjustment T method, is a common and major tool used by financial analysts and has a large effect on their ability to make sense of ratios and data, in turn improving their work overall. A company's payouts to shareholders rely on PAT, and as such, it is essential to investors. A poorly optimised business has many disadvantages, including decreasing revenue, poor customer service, and costlier and inefficient management.

Table 4

(₹ in crores)

Year	Profit after Tax	Revenue From Operation	Percentage
2015-16	4900.95	38210.34	12.83
2016-17	3444.55	47993.02	7.18
2017-18	4169.55	59616.82	6.99
2018-19	10533.19	70610.71	14.92
2019-20	6743.80	60435.97	11.16
Average			10.62

Sources:- Annual reports of Tata Steel Ltd.



Net profit is a key metric for assessing a company's success. The net profit ratio of Tata Steel Ltd is shown in the table above. According to the data, Tata Steel Ltd's net profit in 2015-16 was **12.83** percent. It fell to 7.18 percent again in 2016-17. In 2017-18, it was 6.99 percent. In 2018-19 and 2019-20, it exhibited significant growth and earned a profit of **14.92** percent and **11.16** percent, respectively. According to an analysis of net profit, Tata Steel Ltd is consistently profitable.

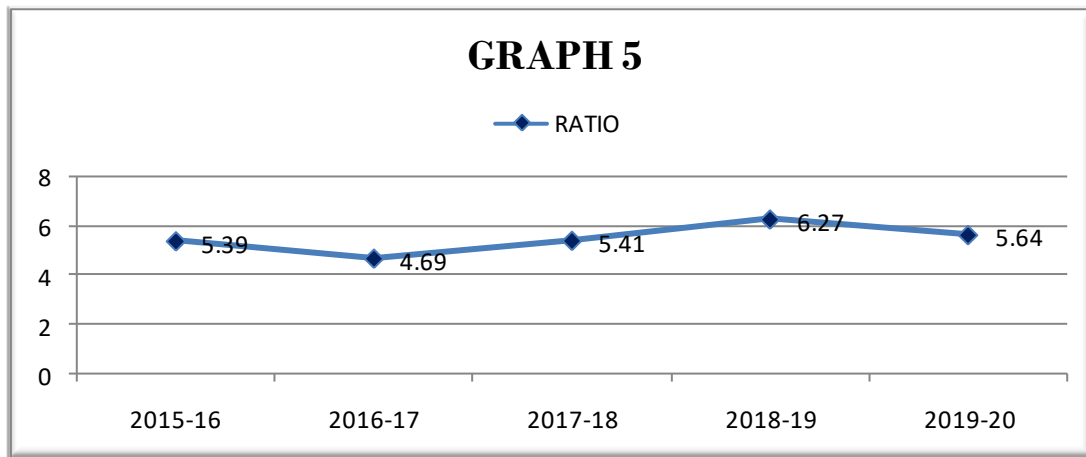
Inventory Turnover Ratio

Table 5

(₹ in crores)

Year	Revenue From Operations	Average Inventory	Ratio
2015-16	38210.34	7083.81	5.39
2016-17	47993.02	10236.85	4.69
2017-18	59616.82	11023.41	5.41
2018-19	70610.71	11255.34	6.27
2019-20	60435.97	10716.66	5.64
Average			5.48

Sources:- Annual reports of Tata Steel Ltd.



An inventory turnover ratio is a financial metric that measures how many times a company's inventory has been replenished in a certain time period. Having an inventory turnover ratio that is high means that merchandise or inventory is moving off the shelves quickly, while an inventory turnover ratio that is low means merchandise or inventory is moving slowly. The inventory turnover ratio was found to be **5.39** times in 2015-16, then it decreased to **4.69** times in 2016-17, before rising to **5.47** times in 2017-18. It has risen dramatically from 2017-18 to 2018-19, but is projected to drop somewhat by 2019-20. It is evident from the inventory turnover rate of Tata Steel that the company has a positive inventory turnover.

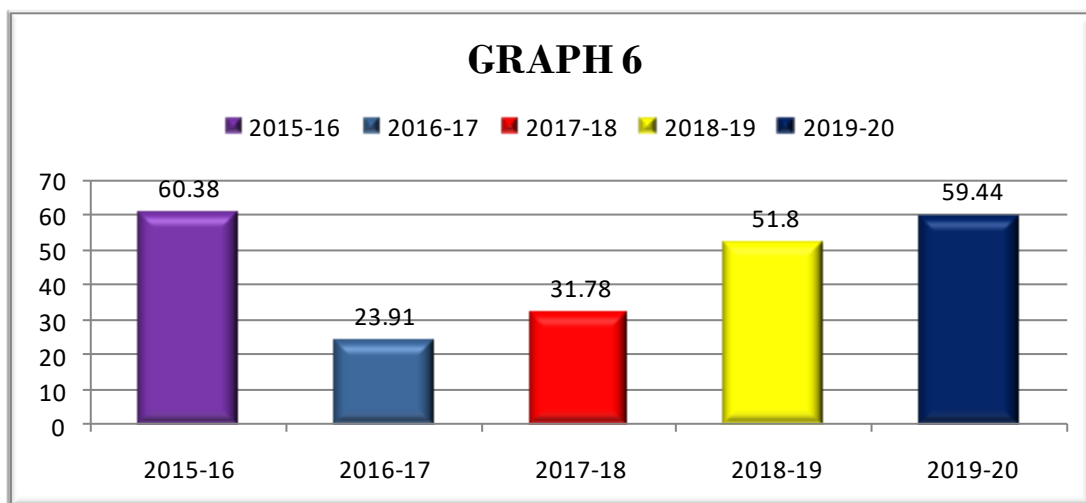
Receivable Turnover Ratio

Table 6

(₹ in crores)

Year	Revenue From Operations	Average Receivables	Ratio
2015-16	38210.34	632.80	60.38
2016-17	47993.02	2006.52	23.91
2017-18	59616.82	1875.63	31.78
2018-19	70610.71	1363.04	51.80
2019-20	60435.97	1016.73	59.44
Average			45.46

Sources:- Annual reports of Tata Steel Ltd.



The company's capacity to get money back from customers or clients is determined by the Trade Receivable Turnover Ratio, a crucial accounting measure. This ratio evaluates a company's ability to use the credit it extends to consumers and to recoup debt owed over the near term. If a company collects a lot of money from customers, its trade receivable turnover ratio will be high. The amount of time it took to get people to pay off their debts increased in the years 2015-16 and 2016-17, respectively. In 2017-18, it increased 31.78 times; in 2018-19, it rose 51.80 times; and in 2019-20, it rose 59.44 times. The researchers found that the firm's debtors repaid debts with an average of 45.46 turns. This implies that management's strategies are working to maximise receipts from customers.

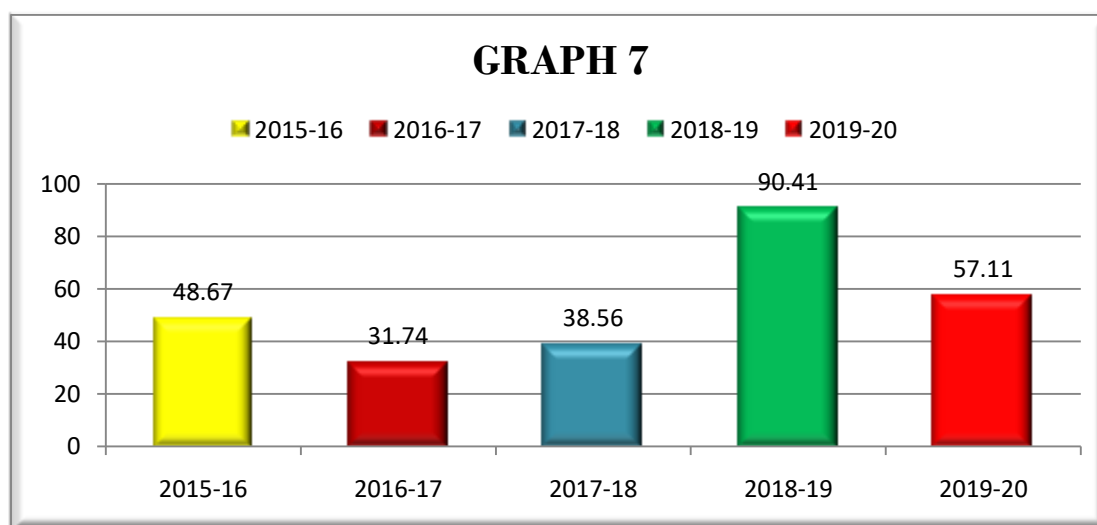
Earning Per Share

Table 7

(in crores)

Year	PAT	No. of Average Shares	Ratio
2015-16	4900.95	100.70	48.67
2016-17	3444.55	108.52	31.74
2017-18	4169.55	108.14	38.56
2018-19	10533.19	116.50	90.41
2019-20	6743.80	117.47	57.11
Average			53.30

Sources:- Annual reports of Tata Steel Ltd.

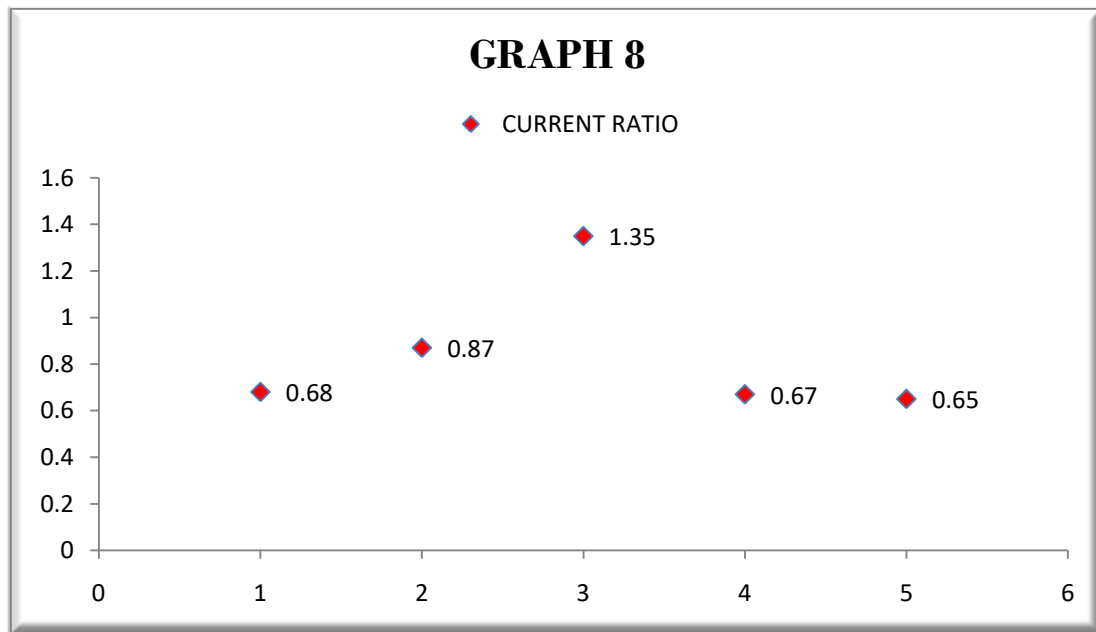


A company's operational efficiency is measured by its earnings per share (EPS). The company's profits after taxes are divided by the number of shares it has. When analysing equity shares, it's obvious that the company has fully paid up, partly paid up, and forfeited equity shares. EPS is calculated using the weighted average number of equity shares since it takes into account the whole amount invested in the business. Over the course of the study, EPS was **48.67** in 2015-16, 31.74 in 2016-17, and **38.56** in 2017-18. A significant jump was seen in 2018-19 to **90.41**, but it was followed by a big decrease to **57.11** in 2019-20. The company's profits per share are **53.30**, according to Tata Steel.

H₁⁰ **EPS is not influenced by Liquidity ratio.**

Table 8

Year	EPS	Current Ratio
2015-16	48.67	0.68
2016-17	31.74	0.87
2017-18	38.56	1.35
2018-19	90.41	0.67
2019-20	57.11	0.65



Here, Current Ratio has taken as the dependent variable and EPS as independent variable.

The analysis of following table summarizes the results:-

Table 9

Parameter	Estimate	Standard error	t- statistic	P-value
Intercept	1.211732	0.361349	3.353354	0.043949
Slope	-0.0069	0.006329	-1.09014	0.355382

Correlation	R-squared(R ²)	Adjusted R – squared(R ²)	Residual Std. Error
0.53267	0.283738	0.044984	0.289701

Inference

The **P-value** for the slope is **0.355382**, which is less than **0.05**. As a result, at 95.0 percent confidence, the confidence interval reveals a relationship between EPS and current ratio.

The fitted model explains **28.37%** of the current ratio variation, as measured by the R-Squared statistic. There is a moderate relationship between the variables based on the correlation value of **0.53267**. The standard error of the estimate has a residual standard deviation of **0.289701**.

Therefore Null Hypothesis is Rejected.

Table 9

H₂⁰ There is no significant difference between Total assets and shareholders' funds.

Table 10

Year	Total Assets	Shareholder's Funds
2015-16	123,208.15	70,476.72
2016-17	111,465.41	49,659.00
2017-18	125,114.34	61,514.82
2018-19	137,498.36	70,454.71
2019-20	150,392.56	74,563.12

Here, Shareholder's Funds has taken as the dependent variable and Total Assets as independent variable.

The following table summarizes the results of the above analysis:

Table 11

Parameter	Estimate	Standard error	t- statistic	P-value
Intercept	-8015.13	27052.33	-0.29628	0.786341
Slope	0.566244	0.207748	2.725623	0.072206

Correlation	R-squared(R ²)	Adjusted R – squared(R ²)	Residual Std. Error
0.844003	0.712341	0.616455	6178.668

Inference

A statistically significant relationship exists between the two variables because the **P-value** of the slope is lower than **0.05**.

71.23% of the variance in the shareholder's funds is explained by the model, according to the R-Squared statistic. The correlation value of **0.844003** clearly indicates that the variables are strongly linked. The residuals' standard deviation is **6178.668**, based on the estimated inaccuracy.

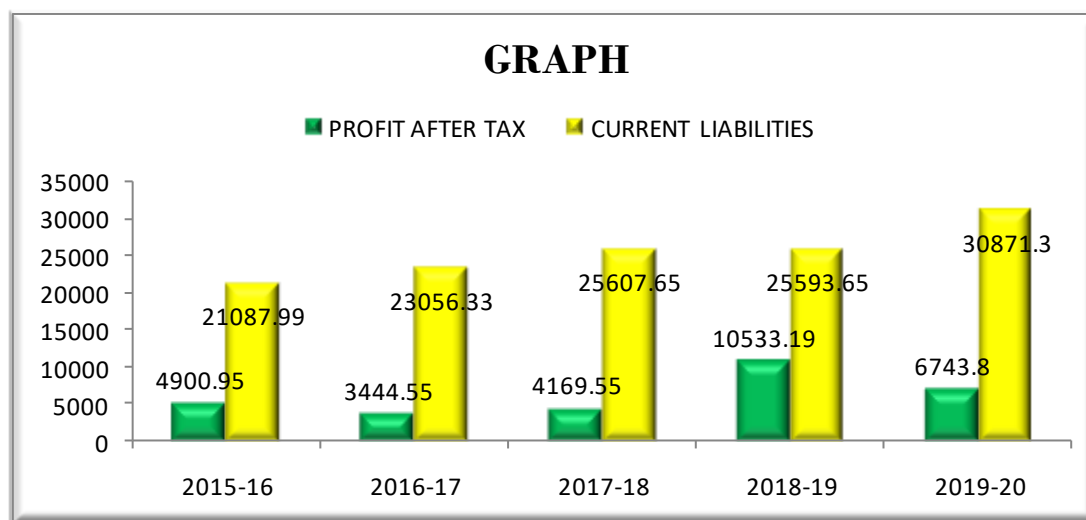
Therefore Null Hypothesis is REJECTED.

H₃⁰ There is no significant relationship between PAT and current liabilities.

Table 12

Year	Profit after Tax	Current Liabilities
2015-16	4900.95	21087.99
2016-17	3444.55	23056.33
2017-18	4169.55	25607.34
2018-19	10533.19	25593.65
2019-20	6743.80	30871.30

Here, Current Liabilities has taken as the dependent variable and PAT as independent variable.



The following table summarizes the results of the above analysis:-

Table 13

Parameter	Estimate	Standard error	t- statistic	P-value
Intercept	22430.25	4499.274	4.985304	0.015517
Slope	0.471801	0.694058	0.679772	0.545403

Correlation	R-squared(R ²)	Adjusted R – squared(R ²)	Residual Std. Error
0.365337	0.133471	-0.15537	3948.604

Inference

Since the **P-value** for the slope is **0.545403**, it's significant to **95.0%** certainty that there is no significant relationship between PAT and current liabilities, because the **P-value** for the slope is greater than **0.05**.

Current liabilities' variance can be explained by **13.35%** of the variance from the fitted model. The variables in question have a moderate connection, as indicated by the correlation coefficient of **0.365337**. The standard error of the estimate shows that the residuals have a standard deviation of **3948.604**.

Therefore, Null Hypothesis is ACCEPTED.

Conclusion

During the research, working capital ratios, fluctuations in working capital, and linear regression fit model findings were studied. A corporation must have adequate operating capital in order to operate effectively. Having low or negative working capital may have a detrimental impact on a company's operations. This working capital theory will have no effect on Tata Steel. Although Tata Steel had a negative impact on profitability throughout the study period, they nonetheless managed to generate money. Tata Steel's latest financial results show that the company is running well on a daily basis. How can a business succeed if its working capital is negative? Mysterious Net working capital is an issue that the firm must address by increasing the amount of money it spends on current assets.

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