Financial Ratio Analysis Report

ON
TATA STEEL
Year 2019 to 2023

Finance Ratios

1.Liquidity Ratio:

(1) Current Ratio = $\frac{Current\ Assests}{Current\ Liabilities}$

(2) Quick Ratio = $\frac{Quick\ Assests}{Current\ Liabilities}$

- *Quick Assets = Total current assets - Inventory*

(3) Cash Ratio / Absolute Cash Ratio = $\frac{Cash\ \&\ Bank}{Current\ Liabilities}$

2.Profitability Ratio:

(1) Gross Profit Margin = $\frac{Gross\ Profit}{Net\ Sales} * 100$

- *Gross Profit = Gross Sales - Cost of Goods sold*
- *COGS = Increase / Decrease in stock +*
  Raw material consumed +
  Power and fuel cost +
  Employee Cost +
  Other manufacturing Expenses

(2) Operating Profit Margin = $\frac{Operating\ Profit}{Net\ Sales} * 100$

(3) EBIT Margin / PBIT Margin = $\frac{EBIT}{Net\ Sales} * 100$

- *EBIT = Operating Profit – Depreciation*

(4) EBT / PBT Margin = $\frac{EBT}{Net\ Sales} * 100$

- EBT = *EBIT - Interest*

(5) Net Profit Margin = $\frac{Profit\ after\ Tax}{Net\ Sales} * 100$

(6) Return on Assets = $\frac{Net\ Profit}{Average\ total\ assets} * 100$

- Average total assets = $\frac{Closing\ balance\ of\ previous\ year + Closing\ balance\ of\ current\ year}{2}$

(7) Return on Equity = $\frac{Net\ Sales}{Average\ share\ holder's fund}$

- *Average Shareholder's fund =* $\frac{Previous\ year\ fund + Current\ year\ fund}{2}$

(8) Return of Capital Employed = $\frac{EBIT}{Average\ capital\ employed}$

- *EBIT = Operating profit – Depreciation*
- *Average capital Employed = Total liabilities – Total current liabilities OR*
- *Average capital Employed =* $\frac{Capital\ employed\ previous\ year + capital\ employed\ current\ year}{2}$
- *Capital Employed = Shareholder's fund + Total non-current liabilities*

3. Efficiency Ratio:

(1) Inventory Turnover Ratio = $\frac{COGS}{Average\ Inventory}$

- COGS = *Increase / Decrease in stock +*
  Raw material consumed +
  Power and fuel cost +
  Employee Cost +
  Other manufacturing Expenses
- Average inventory = $\frac{Previous\ year\ Inventory + Current\ year\ inventory}{2}$

(2) Inventory Turnover period = $\frac{365}{Inventory\ Turnover\ Ratio}$

(3) Debtors Turnover Ratio = $\frac{Net\ Sales}{Average\ Debtors\ or\ Sundry\ Debtors}$

(4) Average Collection period = $\frac{365}{Debtors\ Turnover\ Ratio}$

(5) Working Capital Turnover Ratio = $\frac{Net\ Sales}{Net\ working\ capital\ or\ Net\ current\ assets}$

(6) Fixed Assets Turn Over Ratio = $\frac{Net\ Sales}{Average\ fixed\ assets\ or\ Average\ total\ non-current\ assets}$

- Average total non-current assets = $\frac{Previous\ year\ total + Current\ Year\ total}{2}$

(7) Total Assets Turnover Ratio = $\frac{Net\ Sales}{Average\ Total\ assets}$

- Average total assets = $\frac{Previous\ year\ total\ assets + current\ year\ total\ assets}{2}$

4.Solvency Ratio:

(1) Debt Equity ratio = $\frac{Total\ Debts}{Shareholder's\ Funds}$

(2) Total debt to assets Ratio = $\frac{Total\ Debts}{Total\ assets}$

(3) Proprietary ratio = $\frac{Shareholder's funds}{Total\ assets}$

(4) Interest Coverage Ratio = $\frac{EBIT}{Interest}$

5.Valuation Ratio:

(1) Dividend Yield = $\frac{Dividend\ per\ share}{MPS}$

- *Dividend per share = Equity dividend % * face value*

(2) Price Earning Ratio = $\frac{MPS}{EPS}$

(3) Enterprise value to EBIDTA Ratio = $\frac{Enterprise\ value}{EBIDTA}$

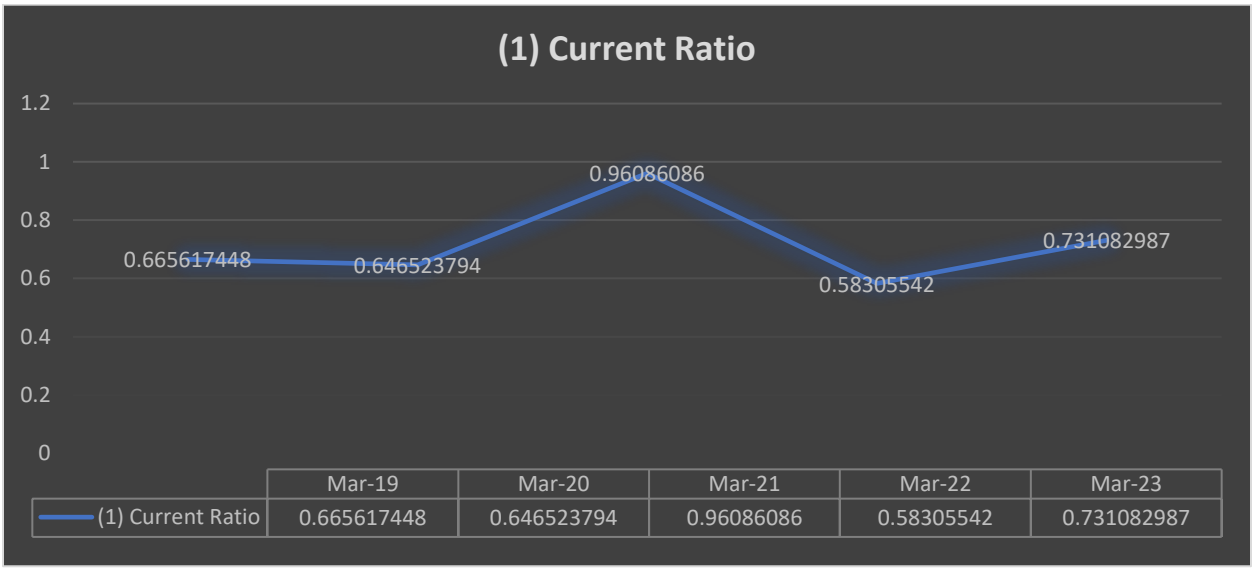
- *Enterprise Value = MPS * Number of shares*
- *EBIDTA = Operating Profit*
- *Number of shares =* $\frac{Profit\ after\ tax}{EPS}$

(4) DU-Pont Analysis = Net Profit Margin * Total assets turnover ratio

- *Net Profit Margin =* $\frac{Profit\ after\ tax}{Net\ Sales}$ ** 100*
- *Total assets turnover ratio =* $\frac{Net\ sales}{Average\ total\ Assets}$

Ratio's Graphs

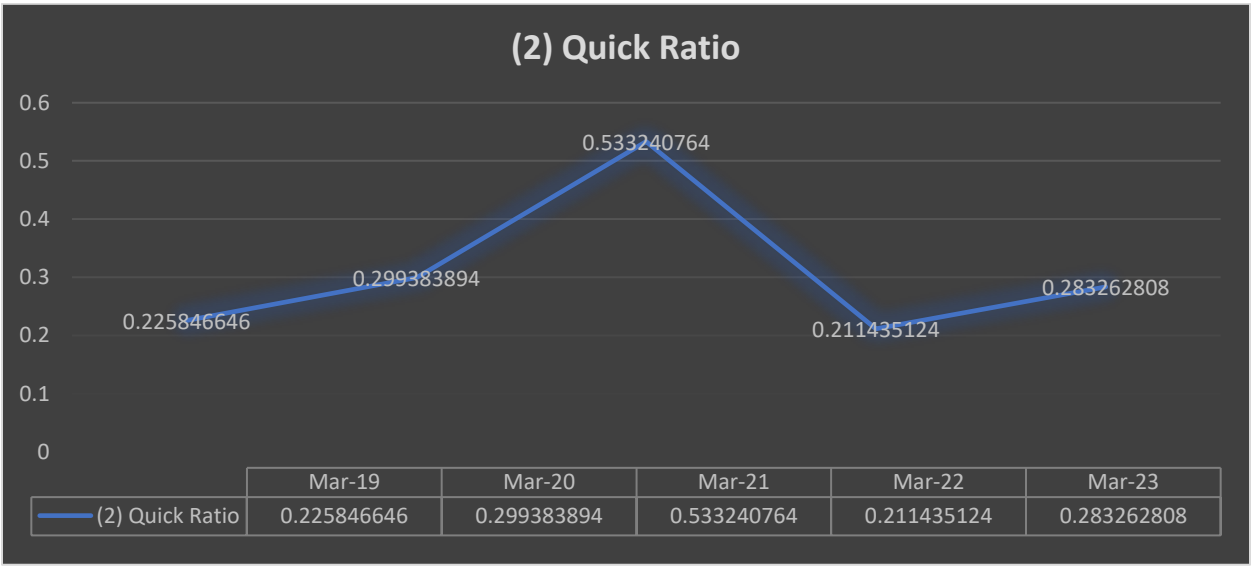
1. Current Ratio:



Interpretation:

The current ratio has been fluctuating over the past five years. It decreased from 2019 to 2020, increased in 2021, decreased again in 2022, and increased in 2023. This indicates some variability in the company's ability to meet its short-term obligations. A current ratio above 1 (which all the values are) generally suggests that the company has more current assets than current liabilities. This implies that, in the short term, the company should be able to cover its obligations.

2. Quick Ratio:

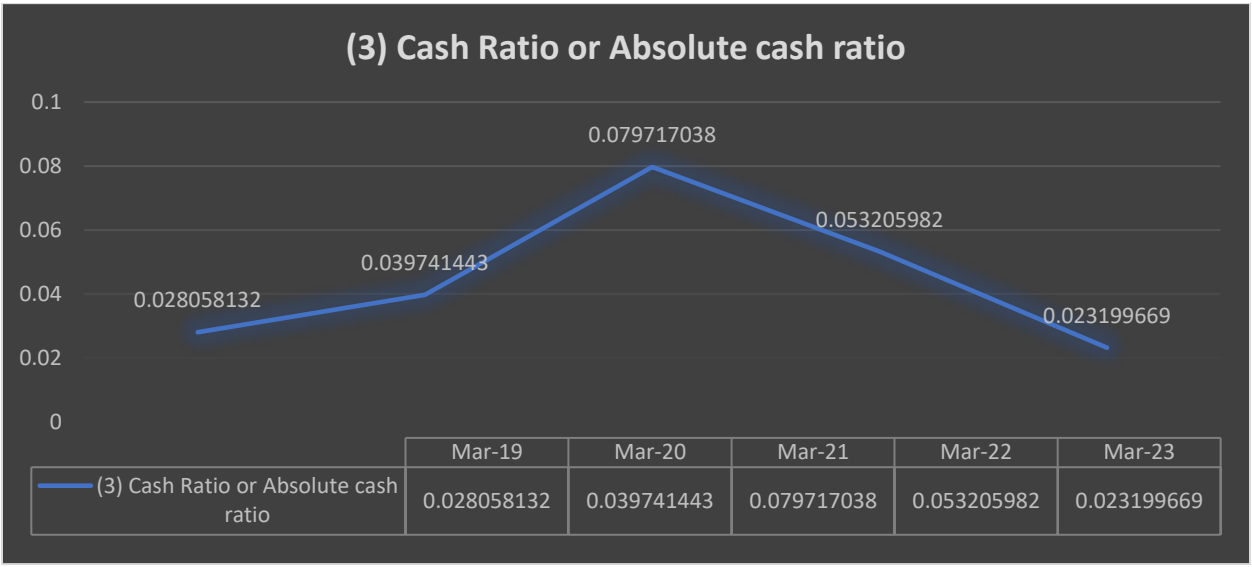


Interpretation:

The quick ratio in March-2021 is the highest which is 0.533 which interprets that company for every 1 Rupee of current liabilities there is only rupee 0.533 of quick assets which also indicates that they have roughly shortage of rupee 0.467. The lowest is in March-22, the ratio overall isn't impressive because the company doesn't have good amounts of quick ratio to re-pay for the current liabilities.

Similar to the current ratio, the quick ratio has also been fluctuating over the past five years. It decreased from 2019 to 2020, increased in 2021, decreased in 2022, and decreased further in 2023. This indicates variability in the company's ability to cover its short-term liabilities with its most liquid assets. A quick ratio above 1 (which all the values are) suggests that the company has more liquid assets than short-term liabilities. This indicates a positive ability to meet immediate financial obligations without relying on the sale of inventory.

3. Cash Ratio or Absolute cash ratio:

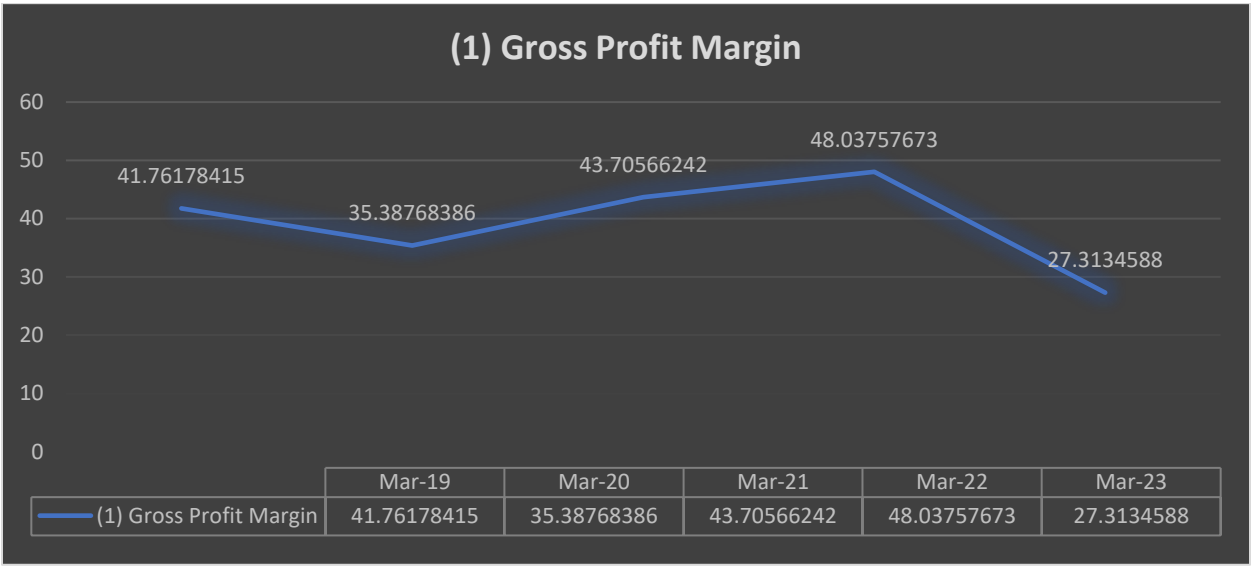


Interpretation:

The highest Cash ratio is in March-2021 which indicates that in 2021 they have current liabilities worth rupee 1 but the cash worth rupee 0.08 which means out of all the assets they have they can only convert rupee 0.08 worth assets readily into cash which is a good number in general as they readily repay the current liabilities worth rupee 0.08 , but when we look at March-2023 the assets that can be converted to cash are of value rupee 0.02 which is very low and indicates that company might have high assets but not those assets that can be converted to cash readily.

With a cash ratio below 1 for all the years, it suggests that the company may have limited liquidity in terms of covering its short-term obligations with cash and cash equivalents alone. This could potentially make it more challenging to meet immediate financial commitments without relying on other sources of funds. The cash ratio has been on a declining trend over the past five years. This trend suggests that the company's ability to cover its short-term liabilities with its cash and cash equivalents has been decreasing. A declining cash ratio can be a cause for concern because it indicates that the company has less cash on hand relative to its short-term liabilities.

4. Gross Profit Margin:

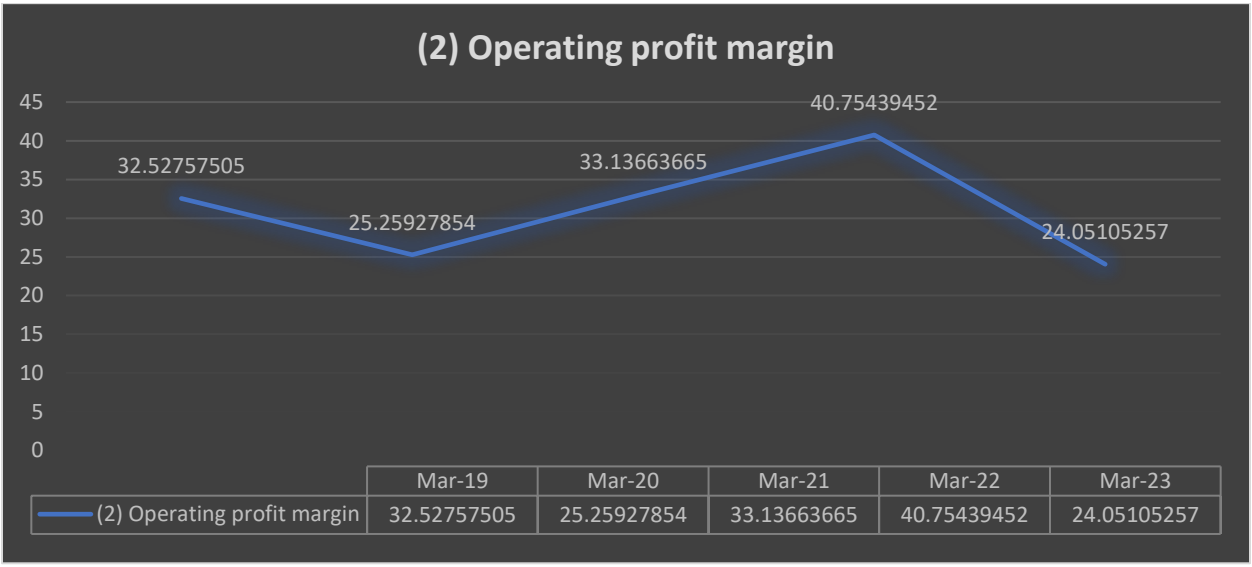


Interpretation:

The highest Gross profit Ratio is in the March-22 which indicates that for every Rupee 100 of sales the company made a profit of 48.04% which is a good percentage, whereas the lowest ratio is in March-2023 which indicates that for every rupee 100 of sales the company earns 27.31% of profit which is low as compared to March-2022.

The gross profit margin is a key indicator of a company's profitability. A higher gross profit margin generally indicates better profitability. The decline in the margin from 2022 to 2023 is noteworthy. It may be a result of various factors such as changes in pricing, cost of goods sold, or sales mix.

5.Operating Profit Margin:

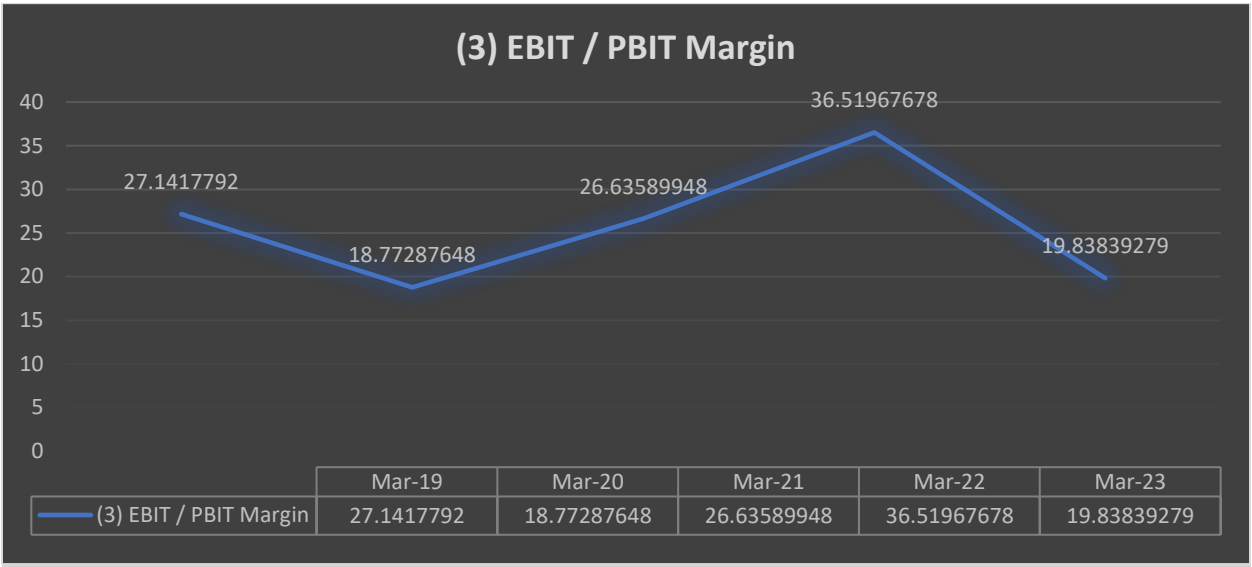


Interpretation:

The highest ratio is in March-2022 with ratio of 40.75 which indicates that for every rupee 100 of sales the company can generate 40.75% of operating profits, the lowest ratio is in March- 2023 2ith ratio of 24.05 it indicates that with every rupee 100 of sales the company is able to generate 24.05% of operating profits which is low as compared to March-2022.

The operating profit has shown fluctuations over the past five years. It decreased from 2019 to 2020, then increased in 2021, decreased again in 2022, and decreased further in 2023. These fluctuations suggest changes in the company's ability to generate profits from its core business activities. The declining trend in operating profit from 2022 to 2023 is notable and may raise concerns. It's important to investigate the reasons behind this decline. Factors such as changes in revenue, cost structure, and operating efficiency could be contributing to this trend.

6. EBIT / PBIT Margin:

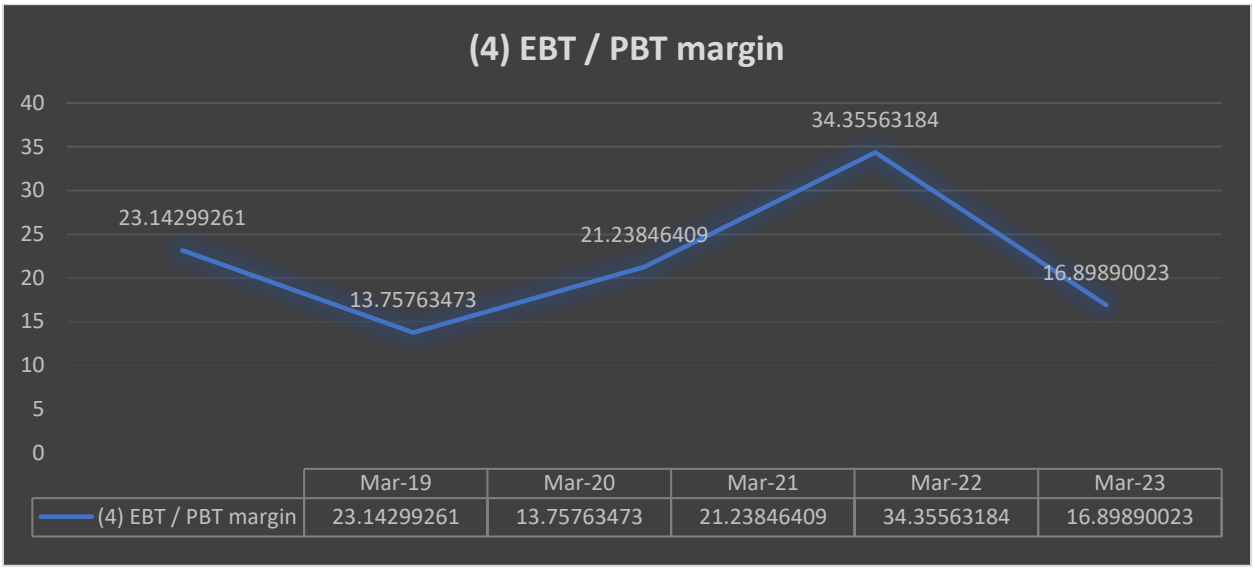


Interpretation:

The small difference that exists between operating profit and (EBIT) margin is because of value reduction of depreciation in (EBIT) margin, the highest value of (EBIT) margin ratio is in March-2022 which is 36.52% which indicates that for rupee 100 of sales the company generates 36.52% of (EBIT) that is earnings before profits and taxes.

Similar to the operating profit trend, the EBIT has shown fluctuations over the past five years. It decreased from 2019 to 2020, increased in 2021, decreased in 2022, and decreased further in 2023. These fluctuations indicate changes in the company's ability to generate earnings from its core operations. The decline in EBIT from 2022 to 2023 is significant and may raise concerns. It's essential to investigate the reasons behind this decline. Factors such as changes in revenue, operating expenses, and operating efficiency could be contributing to this trend.

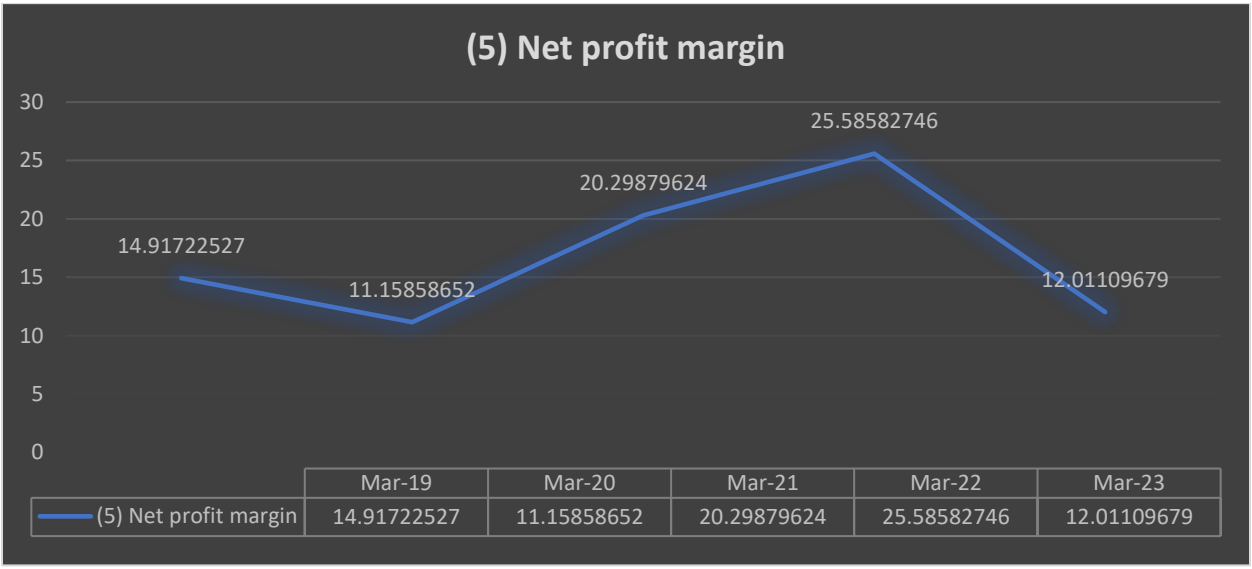
7. EBT / PBT Margin:



Interpretation:

The difference in value of (EBIT) and (EBT) is because of interest on loans and exceptional income expenses, the highest ratio is 34.36% in Mrch-2022 which indicates that for rupee 100 of sales the company can generate 34.36% of (EBT) margin, the lowest ratio is 13.72 in March-2020 which is low as compared to March-2022.

8. Net Profit Margin:

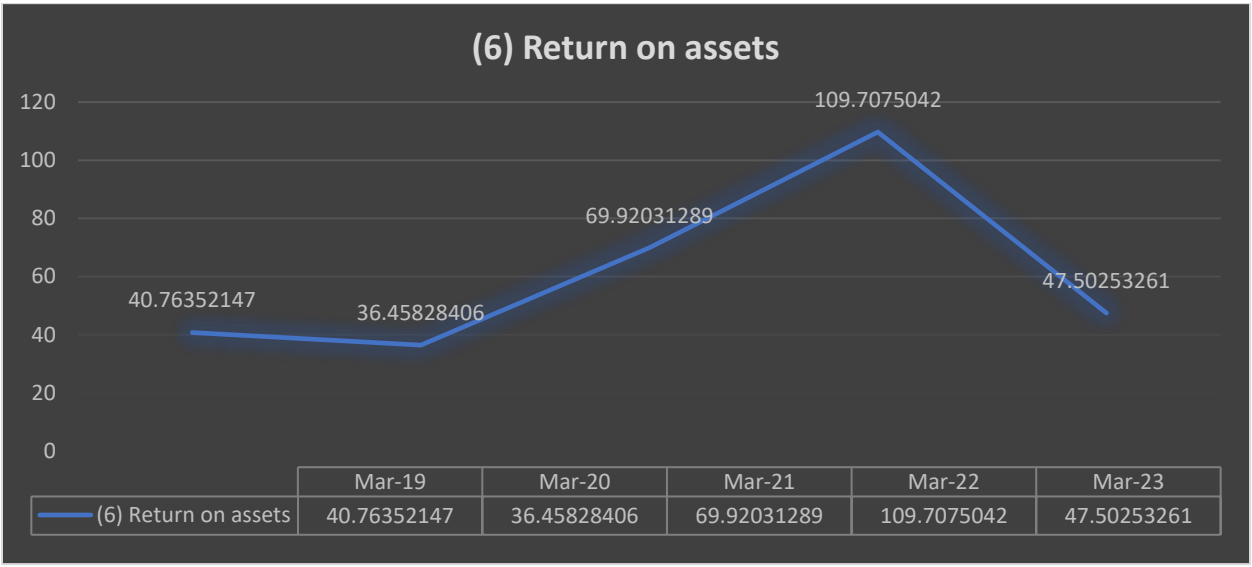


Interpretation:

The highest Net profit margin is in March-2022 which is 25.59% it indicates that for every sale of rupee 100 there is Net profit margin of 25.59%, whereas the lowest net profit margin is in March-2020 which is 11.16%.

The net profit margin has shown significant fluctuations over the past five years. It increased from 2019 to 2020, further increased in 2021, decreased significantly in 2022, and decreased further in 2023. These fluctuations indicate changes in the company's ability to generate bottom-line profits relative to its revenue. The decline in the net profit margin from 2022 to 2023 is particularly noteworthy. It suggests that the company's profitability has decreased significantly during this period. It's crucial to investigate the reasons behind this decline. Factors such as rising expenses, changes in revenue, and tax implications could contribute to this trend.

9. Return on Assets:

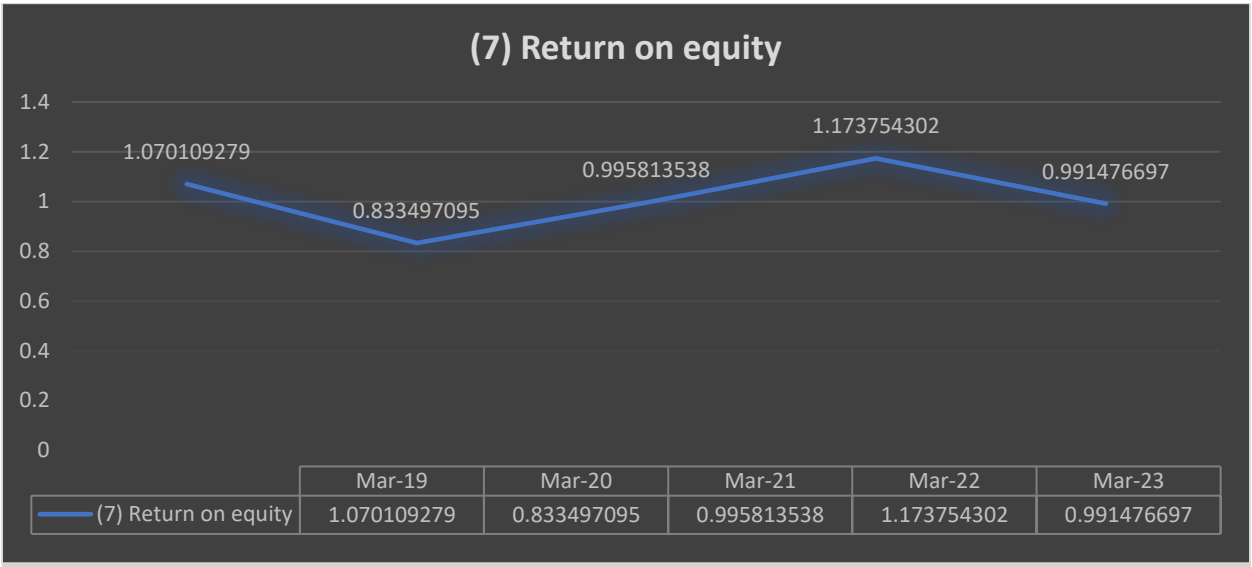


Interpretation:

The highest ratio is in Mrch-2022 which is 109.71% it indicates that for every rupee 100 of invested by company in assets the company earns net profit of 109.71%, whereas the lowest ratio is in March-2020 which is 36.46% which indicates that for every rupee 100 invested by company in assets the company earns the net profit of 36.46%.

The ROA has exhibited substantial fluctuations over the past five years. It increased from 2019 to 2020, further increased in 2021, reached a peak in 2022, and then decreased significantly in 2023. These fluctuations indicate changes in the company's ability to generate profits relative to its assets. The decrease in ROA from 2022 to 2023 is particularly notable. It suggests that the company's profitability has decreased significantly during this period. Investigating the reasons behind this decline is crucial. Factors such as increased expenses, changes in revenue, and asset management practices could contribute to this trend.

10. Return on Equity:

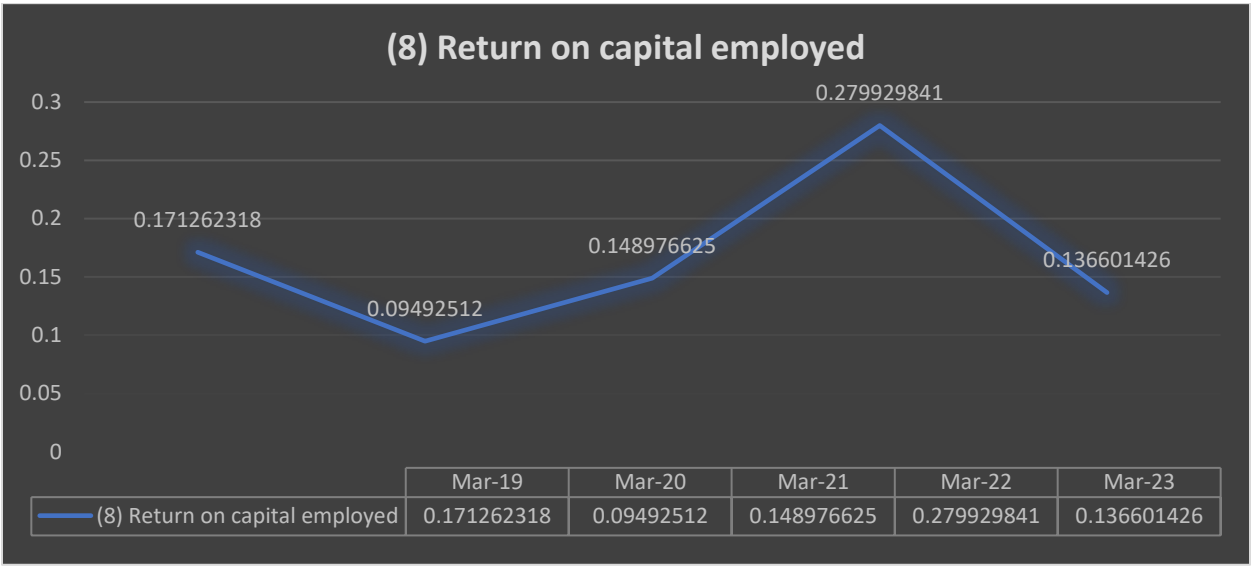


Interpretation:

The highest ratio is in March-2022 where the ratio is 1.17% it indicates that for every rupee 100 invested by equity shareholders the company can generate 1.17% of net profits and the lowest ratio is 0.83% in March-2020 which indicates that for every rupee 100 invested by equity shareholder the company is able to generate net profit of 0.83%.

The ROE has exhibited fluctuations over the past five years. It increased from 2019 to 2020, remained relatively stable in 2021, reached a peak in 2022, and then decreased in 2023. These fluctuations indicate changes in the company's ability to generate returns for its shareholders from their equity investment. The decrease in ROE from 2022 to 2023 is noteworthy. It suggests that the company's profitability in relation to shareholders' equity has decreased during this period. Investigating the reasons behind this decline is crucial. Factors such as changes in net income, equity levels, or financial leverage could contribute to this trend.

11. Return on Capital Employed:

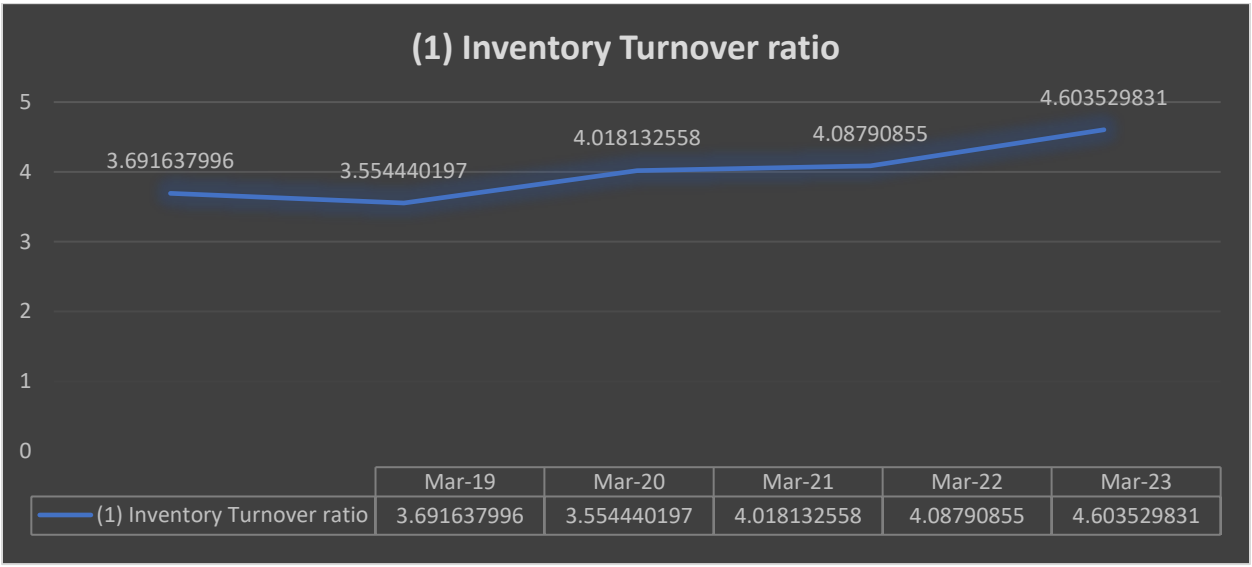


Interpretation:

The highest (ROCE) ratio is in March-2022 which is 0.28% it indicates that for every rupee 100 of capital employed the return is 0.28%, the lowest is in March 2020 which is 0.09%.

The ROC has shown fluctuations over the past five years. It increased from 2019 to 2020, decreased in 2021, increased significantly in 2022, and decreased again in 2023. These fluctuations indicate changes in the company's ability to generate returns from its invested capital. The significant decrease in ROC from 2022 to 2023 is noteworthy. It suggests that the company's ability to generate returns from its invested capital decreased during this period. Investigating the reasons behind this decline is crucial. Factors such as changes in net income, capital structure, or investment decisions could contribute to this trend.

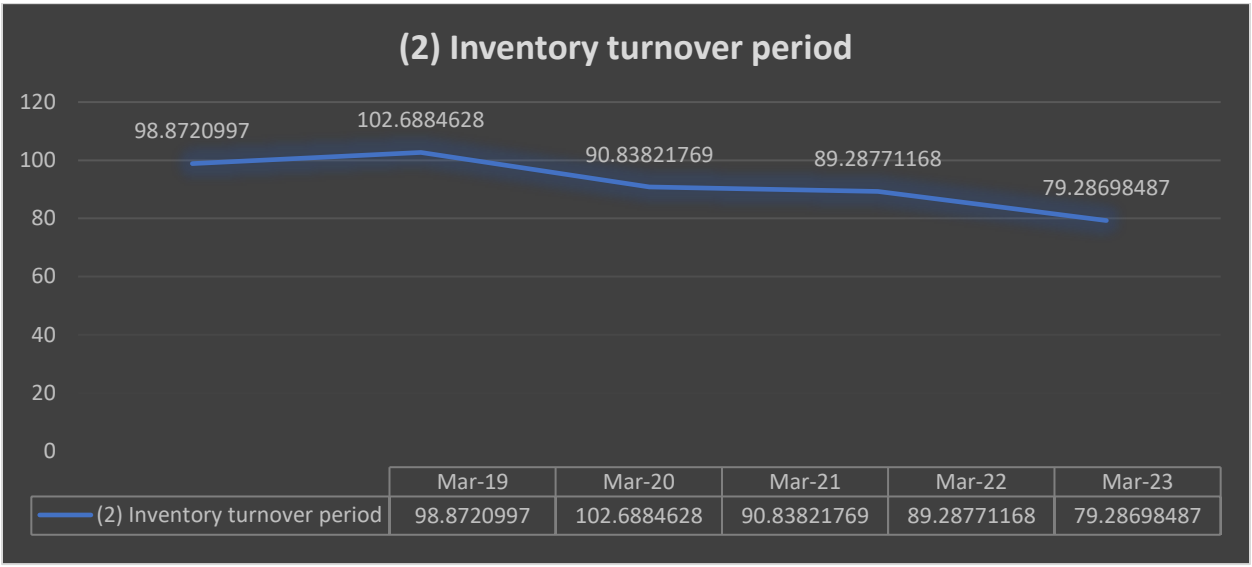
12. Inventory Turnover Ratio:



Interpretation:

The inventory turnover ratio has been increasing over the past five years. This suggests that the company is managing its inventory more efficiently and is selling its products at a faster rate compared to previous years. A higher inventory turnover ratio generally signifies that a company is reducing its holding costs, generating sales more efficiently, and potentially improving its cash flow.

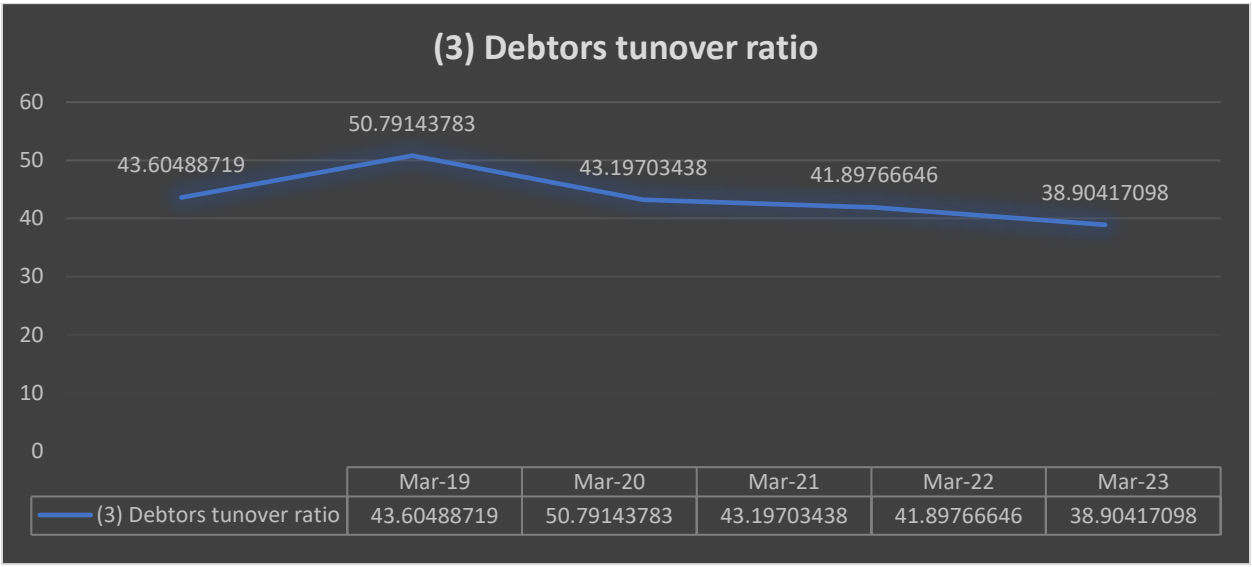
13. Inventory Turnover Period:



Interpretation:

The inventory turnover period has improved from 2020 to 2023. This means that in the most recent year (Mar-23), the company is selling its inventory more quickly than it did in previous years. A decreasing inventory turnover period indicates more efficient inventory management. The company is either selling products more quickly, reducing excess inventory, or both.

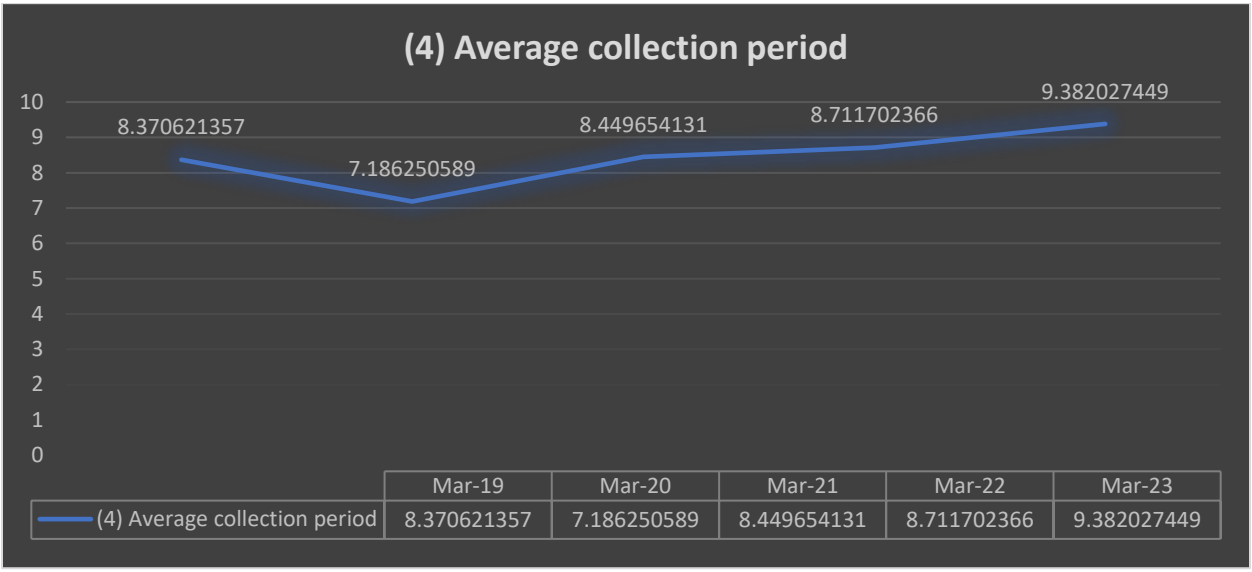
14. Debtors Turnover Ratio:



Interpretation:

The debtor's turnover ratio has been fluctuating over the past five years. It has generally been decreasing from 2020 to 2023. This suggests that the company might be taking more time to collect payments from customers in recent years. A lower debtor's turnover ratio may lead to delayed cash inflows, which can impact the company's cash flow and working capital.

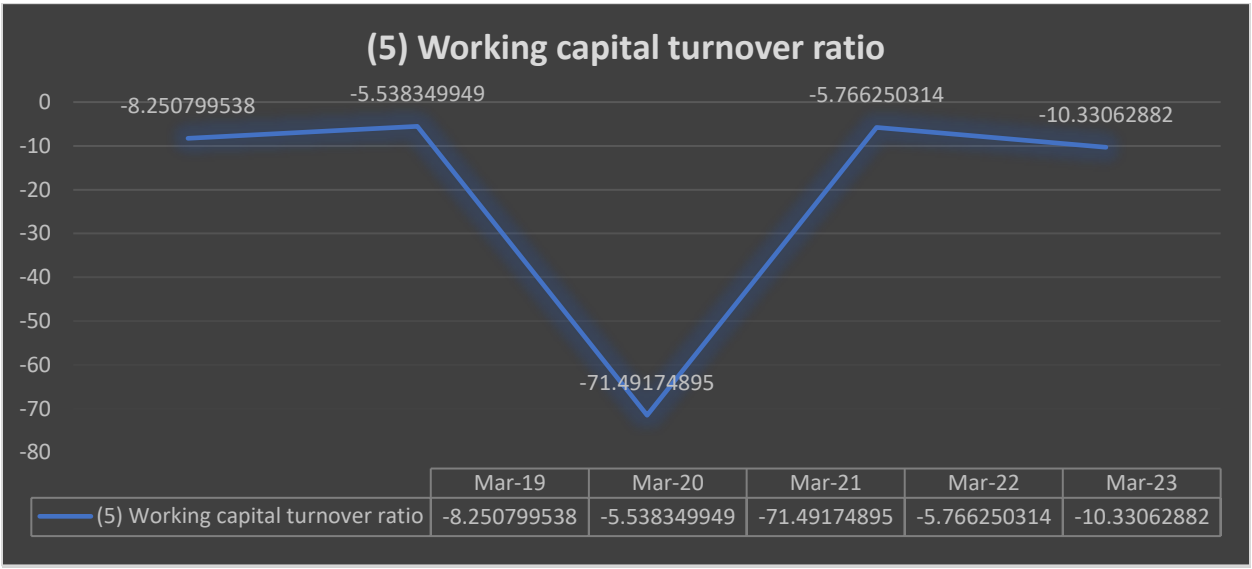
15. Average Collection Period:



Interpretation:

Compared to the average collection period in Mar-20, which was 7.19 days, the average collection period in Mar-23 has increased slightly to 9.38 days. This indicates that, on average, it is taking the company a bit longer to collect payments from customers in recent years. An increasing average collection period can have implications for the company's cash flow. A longer average collection period means that cash from sales is being received more slowly, which may impact on the company's working capital and liquidity.

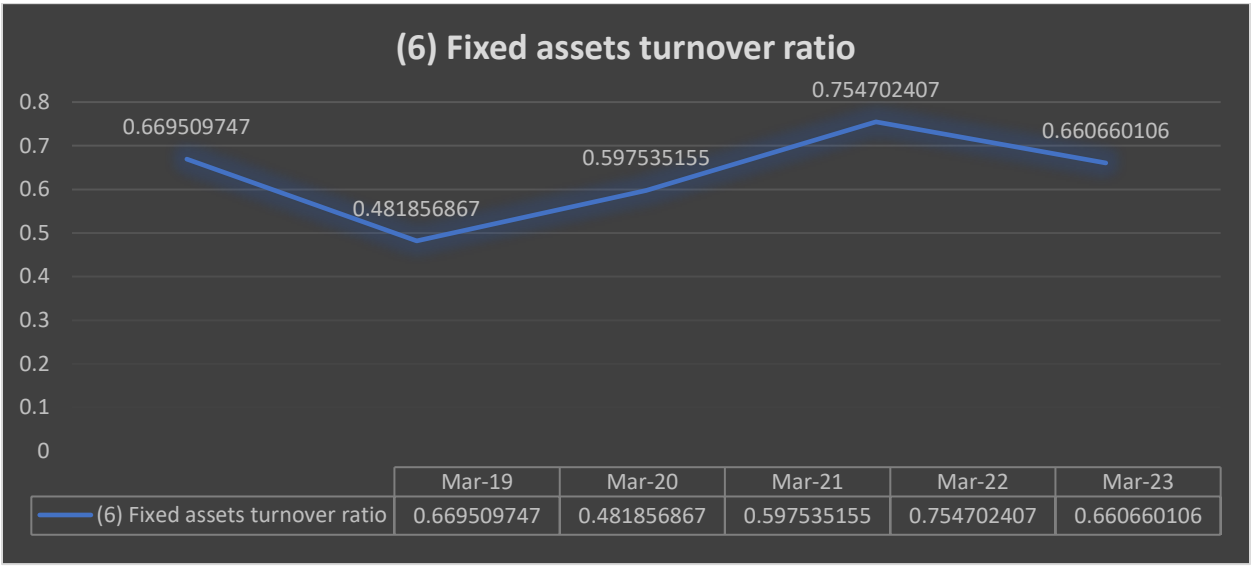
16. Working Capital Turnover Ratio:



Interpretation:

The working capital turnover ratios for all the years in your data are negative. A negative working capital turnover ratio is unusual and suggests that the company's working capital is not effectively supporting its sales operations. Negative working capital turnover ratios may raise concerns about the company's financial health and liquidity. It suggests that the company might not have sufficient current assets to cover its short-term liabilities, which can lead to financial instability.

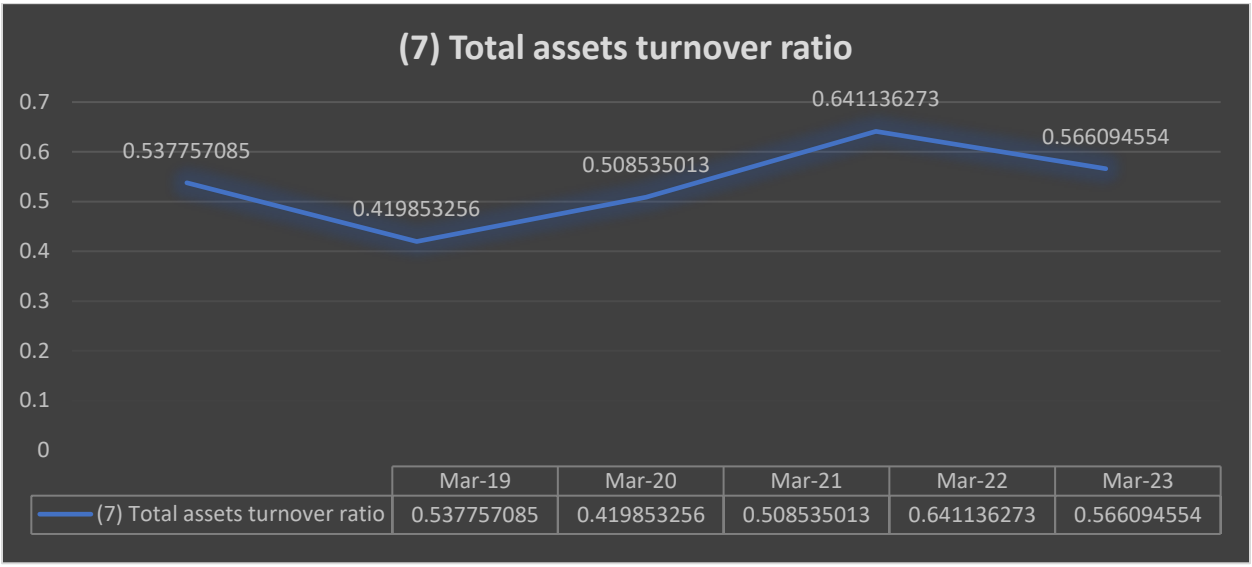
17. Fixed Assets Turnover Ratio:



Interpretation:

The ratio in Mar-22 (0.7547) is the highest among the years, indicating that the company was able to generate the most sales revenue relative to its fixed assets in that year. Conversely, on Mar-20 (0.4819), the ratio was the lowest, indicating less efficient utilization of fixed assets. There appears to be an improvement in the fixed asset turnover ratio from 2020 (0.4819) to 2023 (0.6607). This suggests that the company is using its fixed assets more efficiently to generate sales revenue in the most recent year.

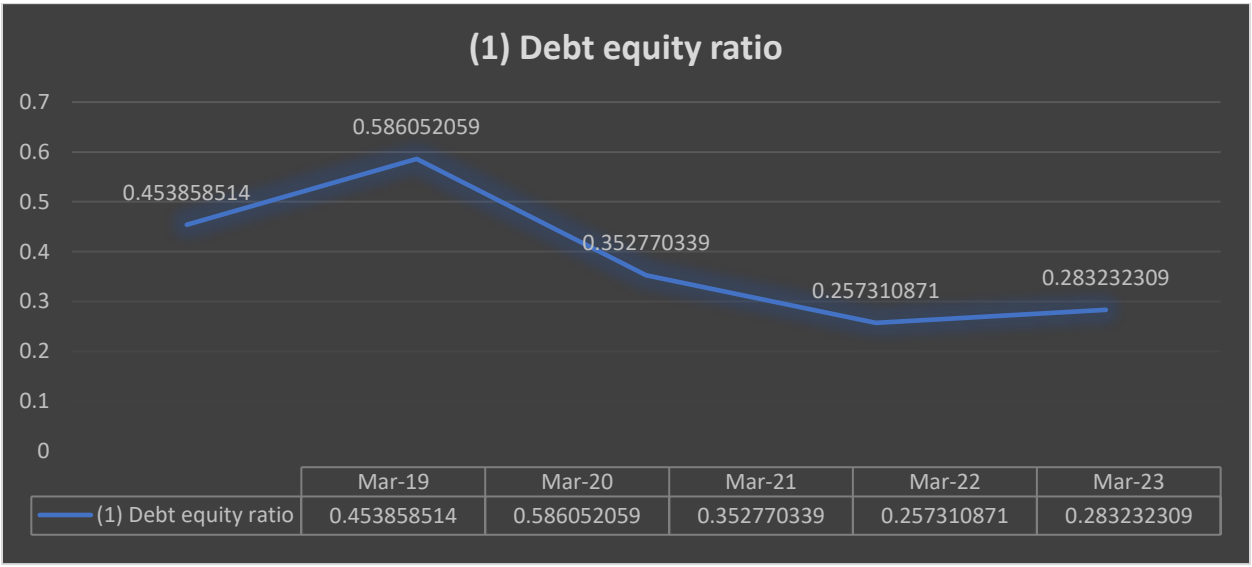
18. Total Assets Turnover Ratio:



Interpretation:

The ratio in Mar-22 (0.6411) is the highest among the years, indicating that the company was able to generate the most sales revenue relative to its total assets in that year. Conversely, in Mar-20 (0.4199), the ratio was the lowest, indicating less efficient utilization of total assets. There appears to be an improvement in the total asset turnover ratio from 2020 (0.4199) to 2023 (0.5661). This suggests that the company is using its total assets more efficiently to generate sales revenue in the most recent year.

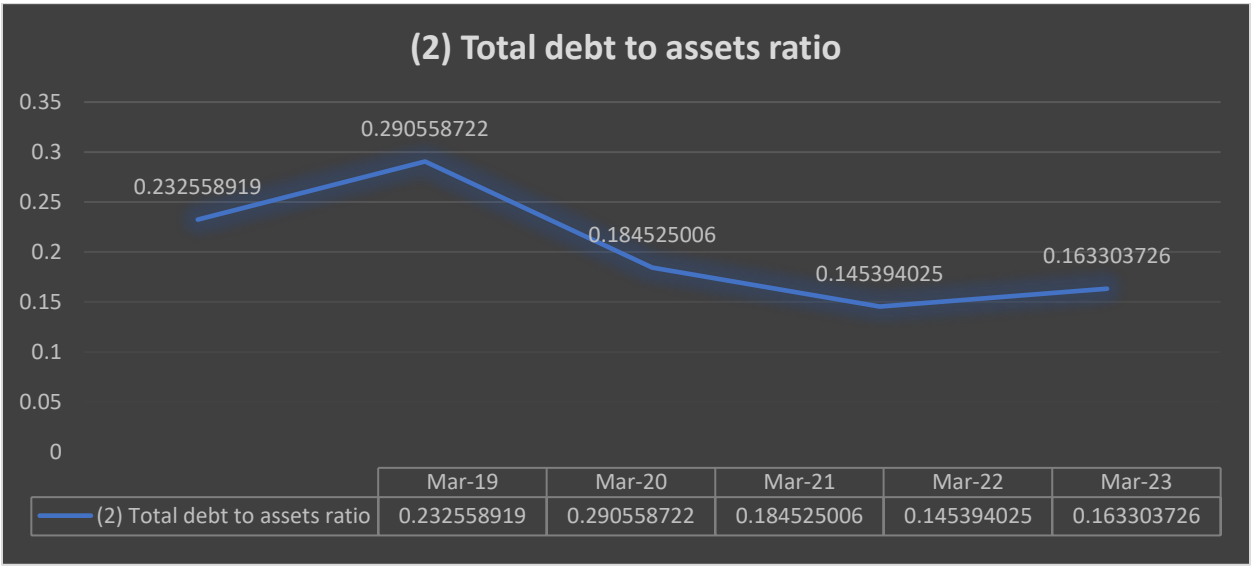
19. Debt Equity Ratio:



Interpretation:

A lower D/E ratio generally indicates lower financial leverage and less reliance on debt financing. Conversely, a higher D/E ratio suggests higher financial leverage and greater reliance on debt. The D/E ratio in Mar-22 (0.2573) is the lowest among the years, indicating that the company had a relatively lower proportion of debt in its capital structure in that year. On the other hand, in Mar-20 (0.5861), the D/E ratio was the highest, indicating a higher level of debt relative to equity. The D/E ratio reflects the company's capital structure and how it chooses to finance its operations. A company with a low D/E ratio may have more conservative financial policies, while a company with a high D/E ratio may be willing to take on more financial risk to fund growth.

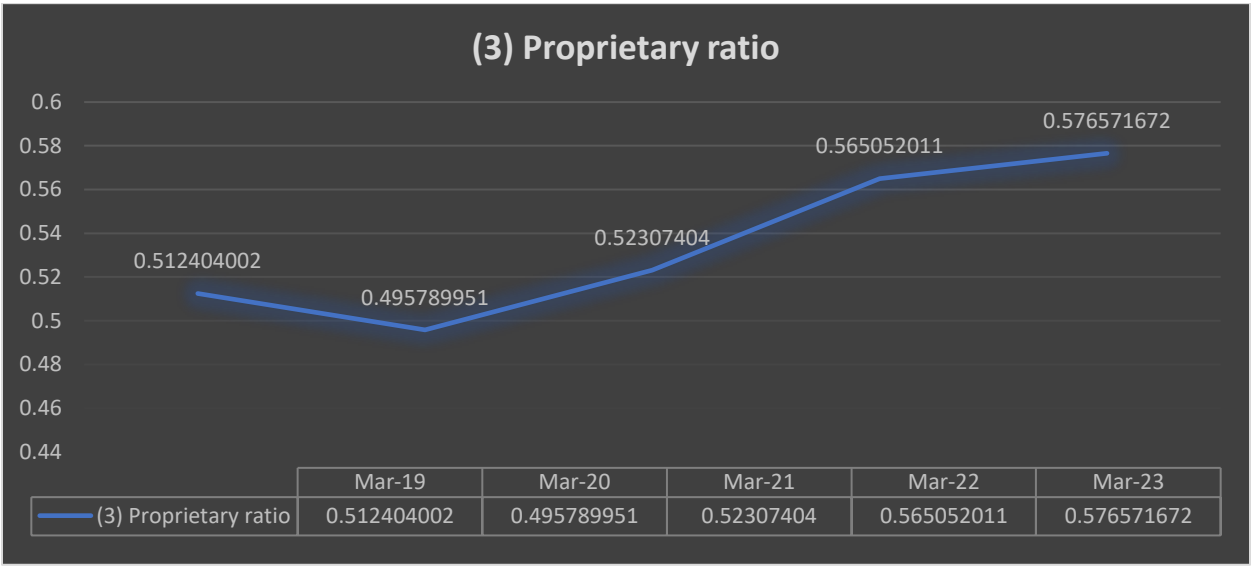
20. Total Debt to Assets Ratio:



Interpretation:

A lower debt ratio indicates a lower level of financial leverage and less reliance on debt financing to support the company's assets. Conversely, a higher debt ratio suggests greater financial leverage and a higher proportion of assets financed by debt.The debt ratio in Mar-22 (0.1454) is the lowest among the years, indicating that the company had a relatively lower proportion of debt in its capital structure in that year. In contrast, in Mar-20 (0.2906), the debt ratio was the highest, indicating a higher level of debt relative to total assets.

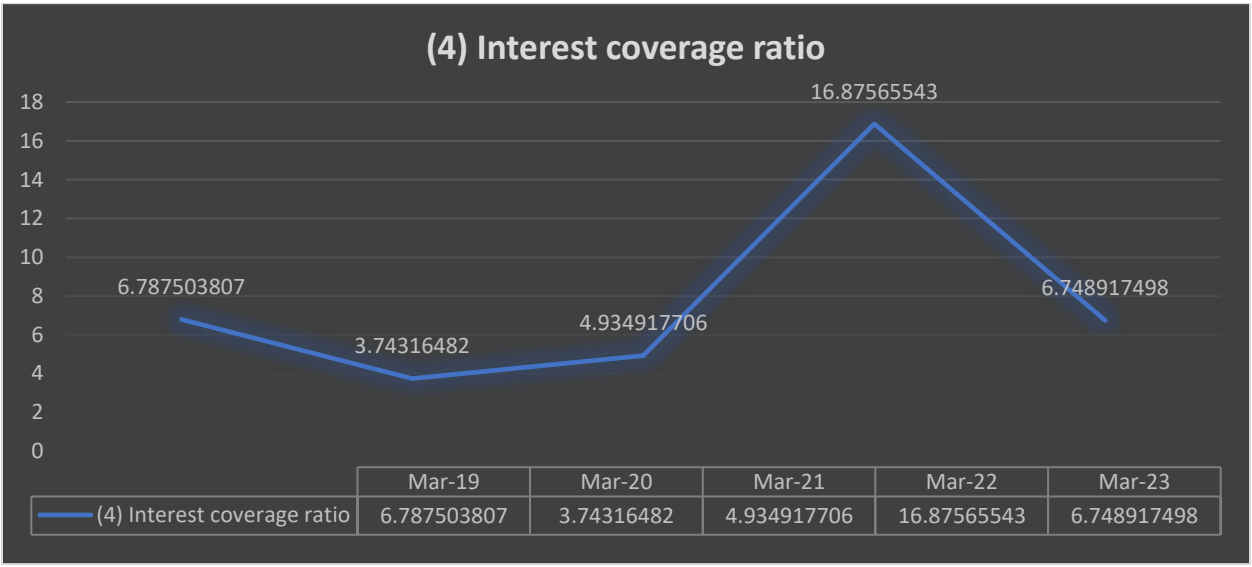
21. Proprietary Ratio:



Interpretation:

A higher proprietary ratio indicates a higher proportion of assets financed by shareholders' equity, which suggests a lower reliance on debt financing. This can be seen as a positive sign as it reflects financial stability and a strong equity base. A high proprietary ratio can indicate a financially healthy company with a strong equity base. It may also imply that the company has a lower financial risk and is better positioned to weather economic downturns.

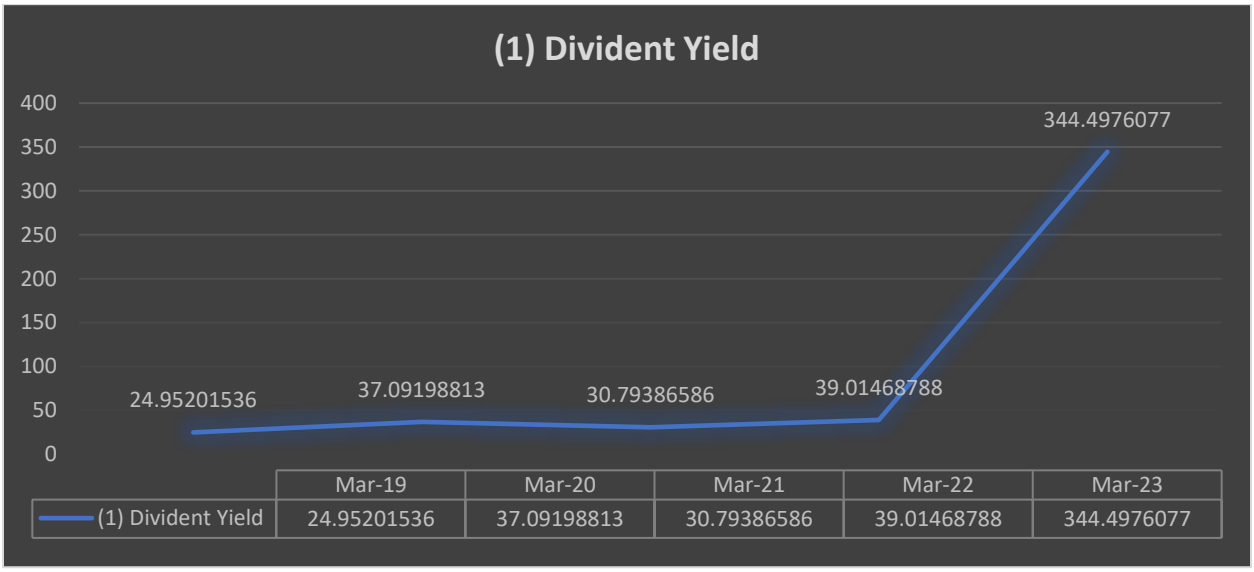
22. Interest Coverage Ratio:



Interpretation:

A higher interest coverage ratio indicates that the company has a greater ability to cover its interest expenses from its operating income. It suggests that the company is in a better position to meet its debt obligations. The substantial increase in the ratio from Mar-20 to Mar-22 is noteworthy, indicating a significant improvement in the company's ability to cover its interest expenses during that period. However, the ratio has since decreased in Mar-23.A high and stable interest coverage ratio can instill confidence in investors and lenders, as it suggests that the company has the capacity to manage its debt obligations without significant financial strain.

23. Dividend Yield:



Interpretation:

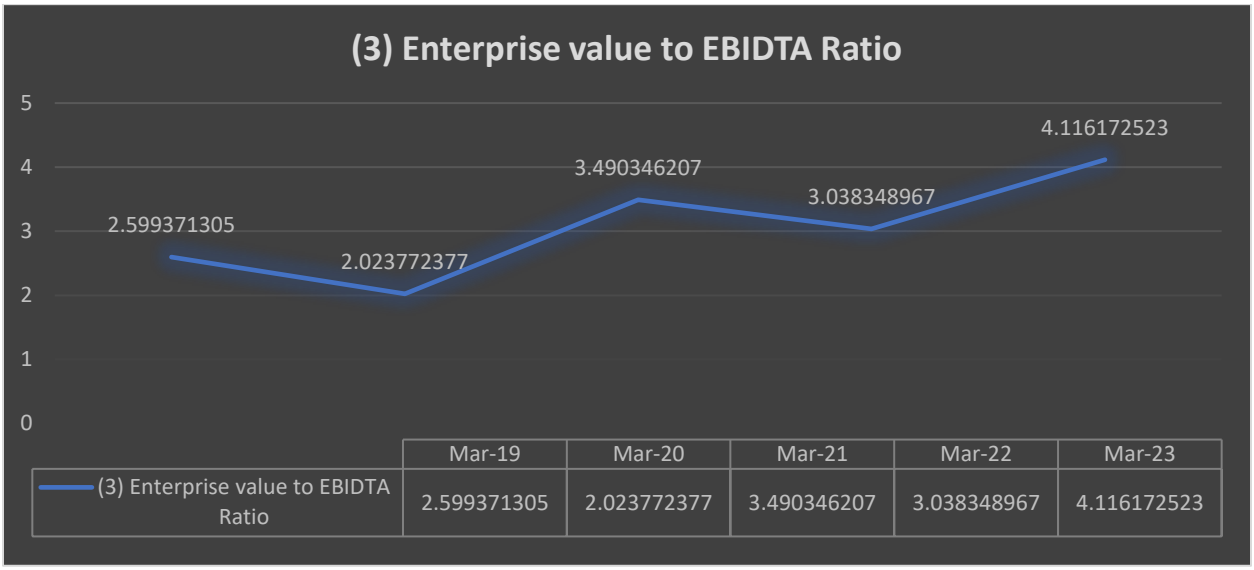
The dividend yield ratio has shown significant variation over the past five years, ranging from a low of 24.95% in Mar-19 to a high of 344.50% in Mar-23 of face value. The substantial increase in the dividend yield ratio from Mar-22 to Mar-23 is noteworthy. It suggests a significant increase in dividend payouts or a significant decrease in the stock price during that period. A high dividend yield can be attractive to income-oriented investors seeking regular dividend income from their investments. However, it's important to consider the sustainability of the dividend payments.

24. Price Earnings Ratio:

Interpretation:

The P/E ratio has shown fluctuations over the past five years, ranging from a low of 4.5811 in Mar-20 to a high of 8.2422 in Mar-23.A higher P/E ratio suggests that investors are willing to pay a higher price for each dollar of earnings, indicating optimism about the company's future growth and profitability. Conversely, a lower P/E ratio suggests a lower valuation relative to earnings. The P/E ratio in Mar-23 (8.2422) is higher than in previous years, suggesting that investors may be willing to pay a premium for the company's shares compared to recent history.

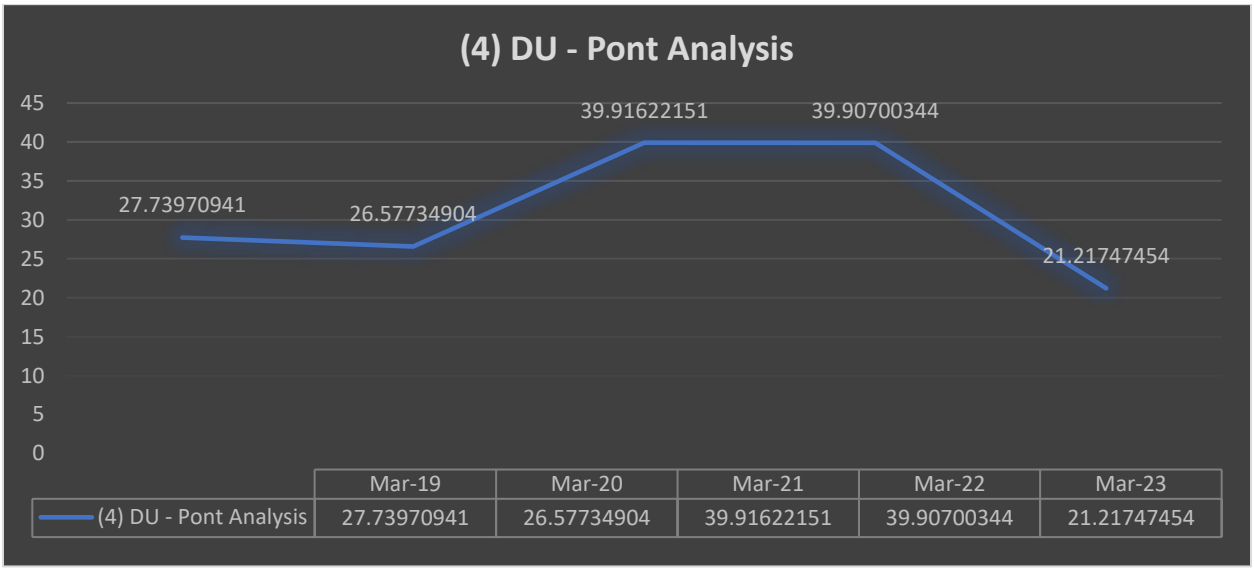
25. Enterprise value to EBIDTA Ratio:



Interpretation:

The EV/EBITDA ratio has shown fluctuations over the past five years, ranging from a low of 2.0238 in Mar-20 to a high of 4.1162 in Mar-23.A higher EV/EBITDA ratio generally indicates that investors are willing to pay a higher valuation for the company's earnings before interest, taxes, depreciation, and amortization. Conversely, a lower ratio suggests a lower valuation relative to EBITDA. The most recent year, Mar-23, has a relatively higher EV/EBITDA ratio compared to previous years, indicating that the company may be valued more highly relative to its earnings before interest, taxes, depreciation, and amortization.

26. DU-Pont Analysis:



Interpretation:

A declining DuPont analysis should prompt company management to evaluate its business strategy, operational efficiency, cost structure, and capital allocation. Adjustments may be needed to reverse the declining trend and improve financial performance. It's important to note that while a declining trend in ROE and its components is a cause for concern, it doesn't provide specific solutions or pinpoint the root causes. Further analysis and investigation are necessary to identify the underlying reasons for the decline and develop a strategic plan to address the issues. Companies often work on improving profitability, asset management, and capital structure to enhance their ROE and overall financial health.