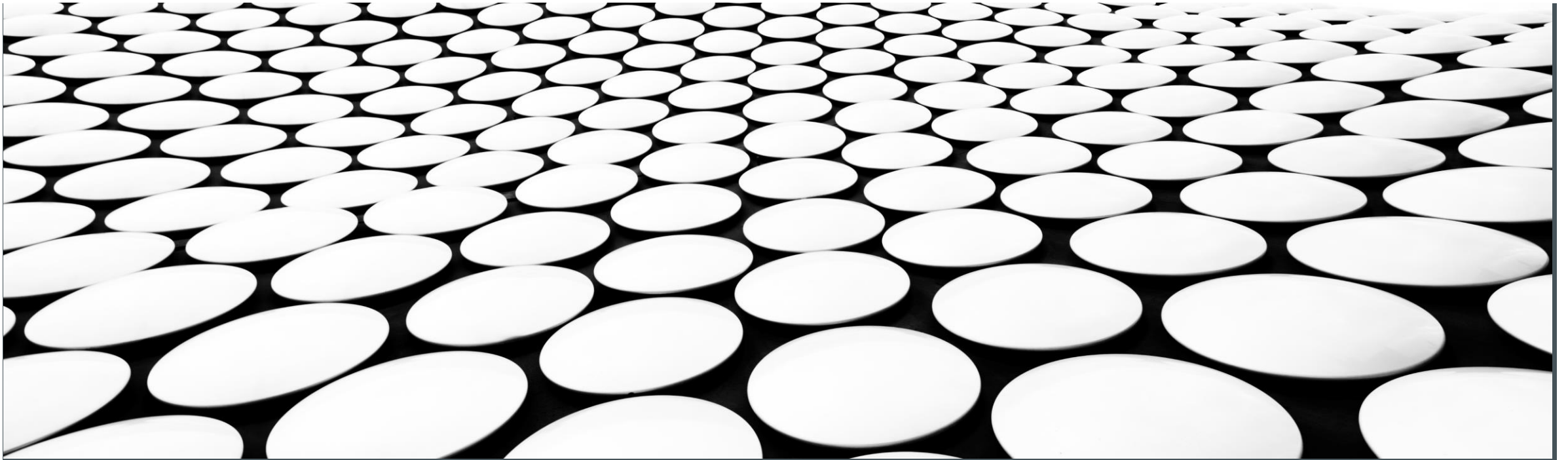

FUNDAMENTALS OF FINANCIAL REPORTING – MODULE VII – ANALYSIS OF FINANCIAL STATEMENTS

BY B D CHATTERJEE *FCA, ACMA, ACS, DIP (IFR) ACCA – UNITED KINGDOM*



FUNDAMENTALS OF FINANCIAL REPORTING – ANALYSIS OF FINANCIAL STATEMENTS

- **ANALYSIS OF FINANCIAL STATEMENTS**
 - **PROFITABILITY ANALYSIS**
 - **LIQUIDITY ANALYSIS**
 - **SOLVENCY ANALYSIS**
 - **ACTIVITY ANALYSIS**
 - **RETURN ON INVESTMENTS**

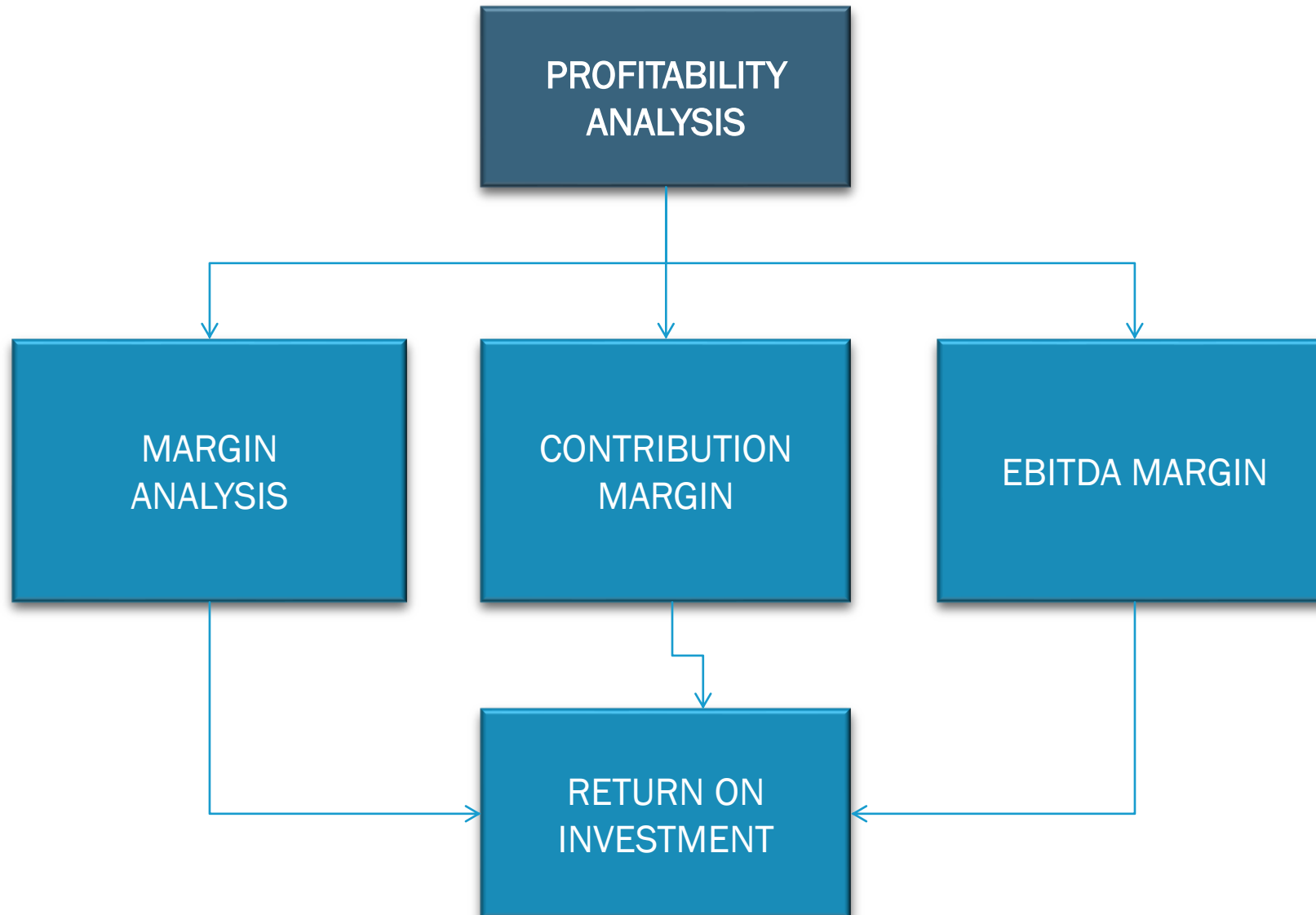


ANALYSIS OF FINANCIAL STATEMENTS



PROFITABILITY ANALYSIS

DRILL DOWN OF PROFITABILITY ANALYSIS

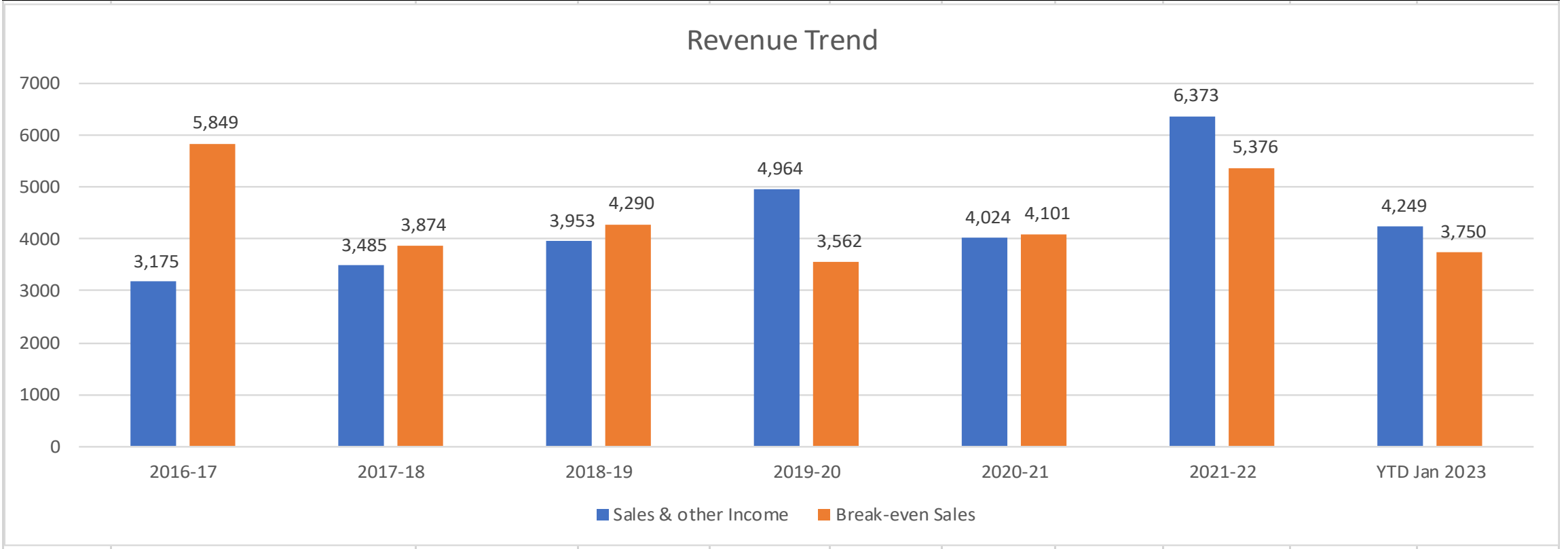


PROFITABILITY ANALYSIS

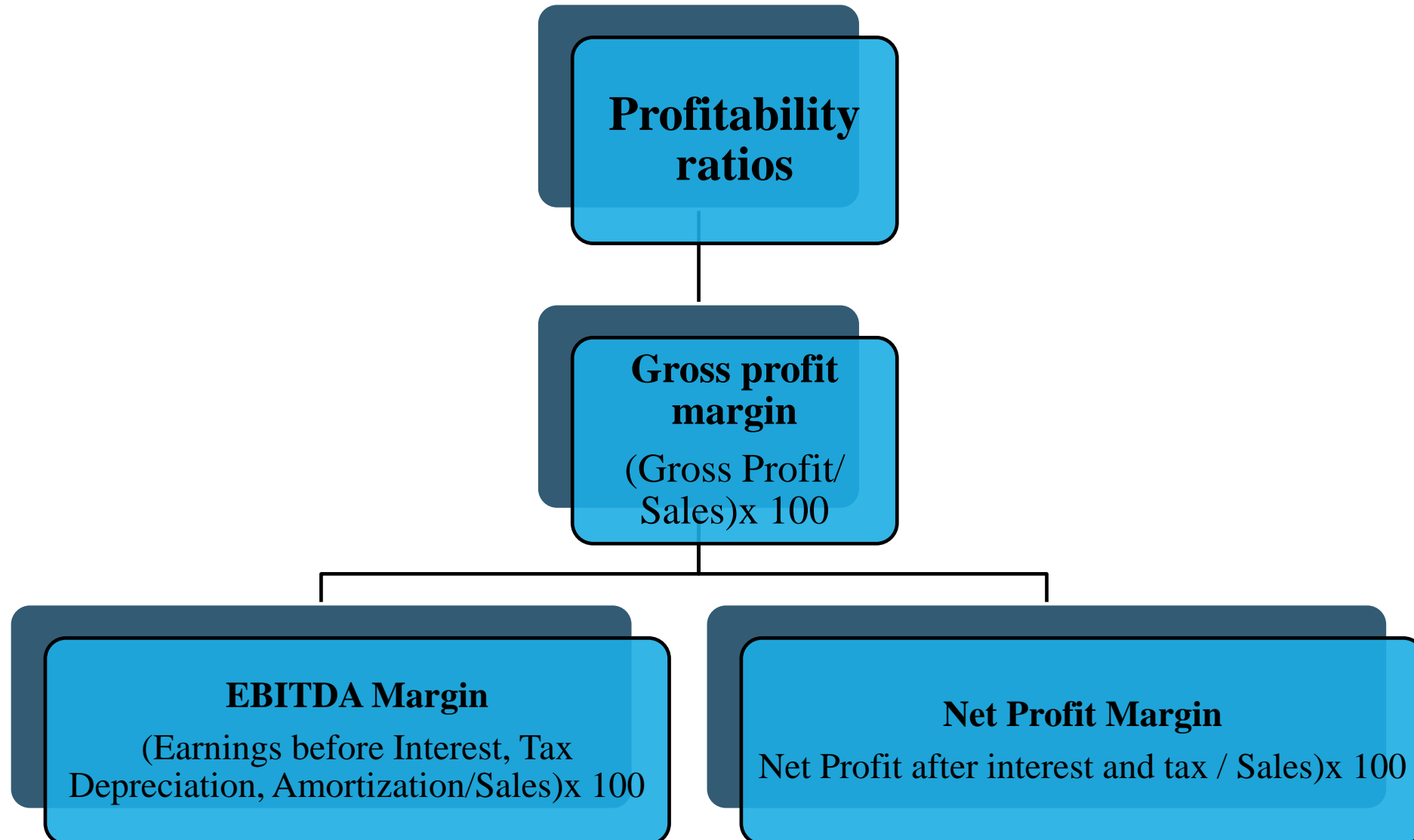
Year	2019-20	% on Sales	2020-21	% on Sales	2021-22	% on Sales	YTD Jan 2023	% on Sales
Sales & other income	4,964		4,024		6,373		4,249	
Medical Consumables	809	16%	761	19%	1,332	21%	707	17%
Changes in inventory	(1)	0%	83	2%	3	0%	19	0%
Personnel expenses	807	16%	794	20%	1,033	16%	824	19%
Operating expenses	1,658	33%	1,624	40%	2,691	42%	1,808	43%
Other expenses	654	13%	505	13%	623	10%	449	11%
Expenses	3,926	79%	3,767	94%	5,683	89%	3,806	90%
EBITDA	1,038	21%	257	6%	691	11%	443	10%
EBITDA/Sales %	21%		8%		11%		10%	0%
Depreciation	193	4%	166	4%	179	3%	158	4%
EBIT	844	17%	175	4%	511	8%	285	7%
Finance Cost	140	3%	121	3%	147	2%	176	4%
PBT	704	14%	53	1%	365	6%	109	3%
Extra-ordinary items	-		-		-		-	0%
Tax	-		-		-		-	0%
PAT	704	14%	53	1%	365	6%	109	3%

REVENUE TREND

Revenue Trend							Rs Lakhs
Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD Jan 2023
Sales & other Income	3,175	3,485	3,953	4,964	4,024	6,373	4,249
Break-even Sales	5,849	3,874	4,290	3,562	4,101	5,376	3,750



PROFITABILITY RATIOS



PROFITABILITY RATIOS

Ratio	Rationale
$\text{Gross profit margin} = \frac{\text{Gross Profit} \times 100}{\text{Sales}}$	<p>This ratio measures the profit in relation to sales. This ratio is measured with the benchmark ratio prevalent in the industry for inter-firm comparison purposes.</p>
<p>EBITDA margin Earnings before Interest depreciation, amortisation and tax × 100 = $\frac{\text{Sales}}$</p>	<p>This is a very critical ratio which is looked at by the outside world including bankers to measure the profitability of the enterprise in the short term and also used as a benchmark for valuation for the medium to long term.</p>
$\text{Net Profit margin} = \frac{\text{Net Profit after interest and tax} \times 100}{\text{Sales}}$	<p>This ratio measures the net profit of the enterprise with respect to sale.</p>
<p style="text-align: center;">Or,</p> $= \frac{\text{Net Profit after tax before interest} \times 100}{\text{Sales}}$	<p>This ratio measures the net profit of the enterprise with respect to sale.</p>
	<p>Both these ratios are used to compare with benchmark industry average to evaluate the profitability of the enterprise.</p>

PROFITABILITY ANALYSIS

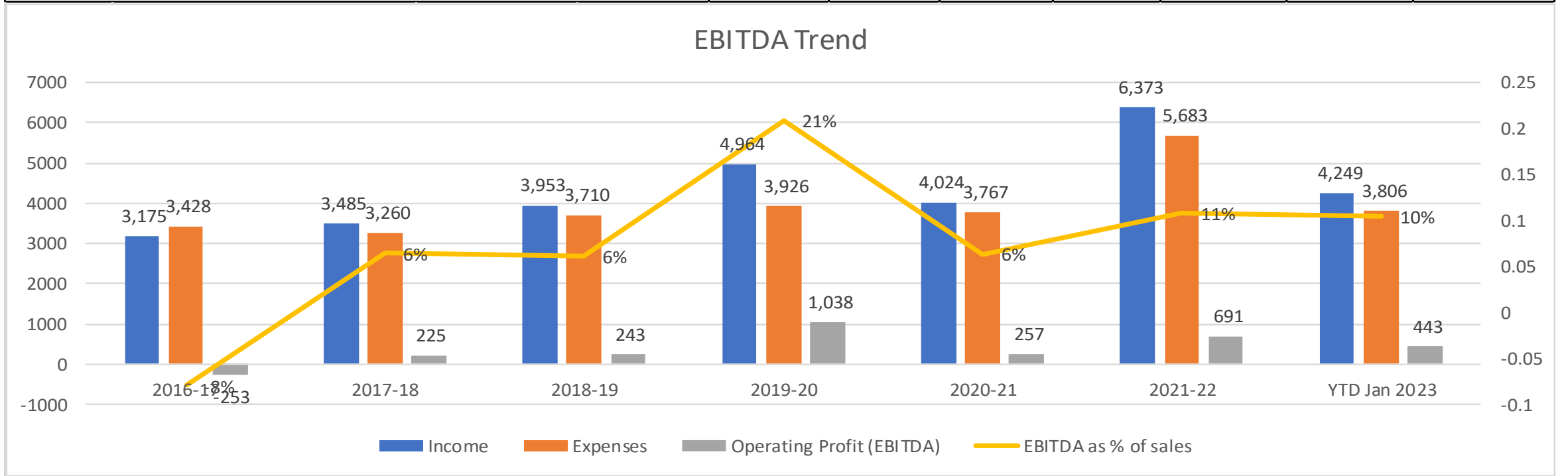
Year	2014-15	%	2015-16	%	YTD July 2016	%
Sales	13,637.2		15,264.0		3,576.7	
Other income	96.3		65.8		18.6	
Sales and other income	13,733.5		15329.83		3595.34	
Raw material consumed / Traded goods	3,980.7	29.0%	4,590.4	29.9%	1,172.6	32.6%
Purchase of carpets	2,226.6	16.2%	1,800.2	11.7%	354.0	9.8%
Materials purchased for resale	159.1	1.2%	34.6	0.2%	11.9	0.3%
Changes in inventories	(648.3)	-4.7%	(536.7)	-3.5%	(381.3)	-10.6%
Manufacturing and other direct expenses	4,078.3	29.7%	4,870.5	31.8%	1,341.9	37.3%
Contribution	3937.1	28.7%	4570.9	29.8%	1096.2	30.5%
Employee benefit expenses	582.6	4.2%	723.1	4.7%	321.8	9.0%
Other Expenses (Admin and selling)	1,409.7	10.3%	1,581.1	10.3%	494.7	13.8%
CSR Expenses	11.5	0.1%	16.5	0.1%	5.5	0.2%
Other Expenses	2003.9	14.6%	2320.7	15.1%	822.0	22.9%
Operating Profit (EBIDTA)	1933.2	14.1%	2250.2	14.7%	274.3	7.6%
EBITDA / Sales %	14.1%		14.7%		7.6%	
Depreciation	171.1	1.2%	226.4	1.5%	80.0	2.2%
EBIT	1762.2	12.8%	2023.82	13.2%	194.25	5.4%
EBIT / Sales %	12.8%		13.2%		5.4%	
Finance cost	550.7	4.0%	518.1	3.4%	221.1	6.2%
Prior period charges	-		-		-	
PBT	1211.4	8.8%	1505.8	9.8%	-26.9	-0.7%
Tax	326.7	2.4%	435.1	2.8%	-	0.0%
Net Profit (PAT)	884.8	6.4%	1070.7	7.0%	-26.9	-0.7%
Net Profit /Sales %	6.4%		7.0%		-0.7%	
Cash Accrual (NP+ DEP)	1055.8		1297.1		53.1	

EBITDA MARGIN BASED ON TREND

EBITDA Trend

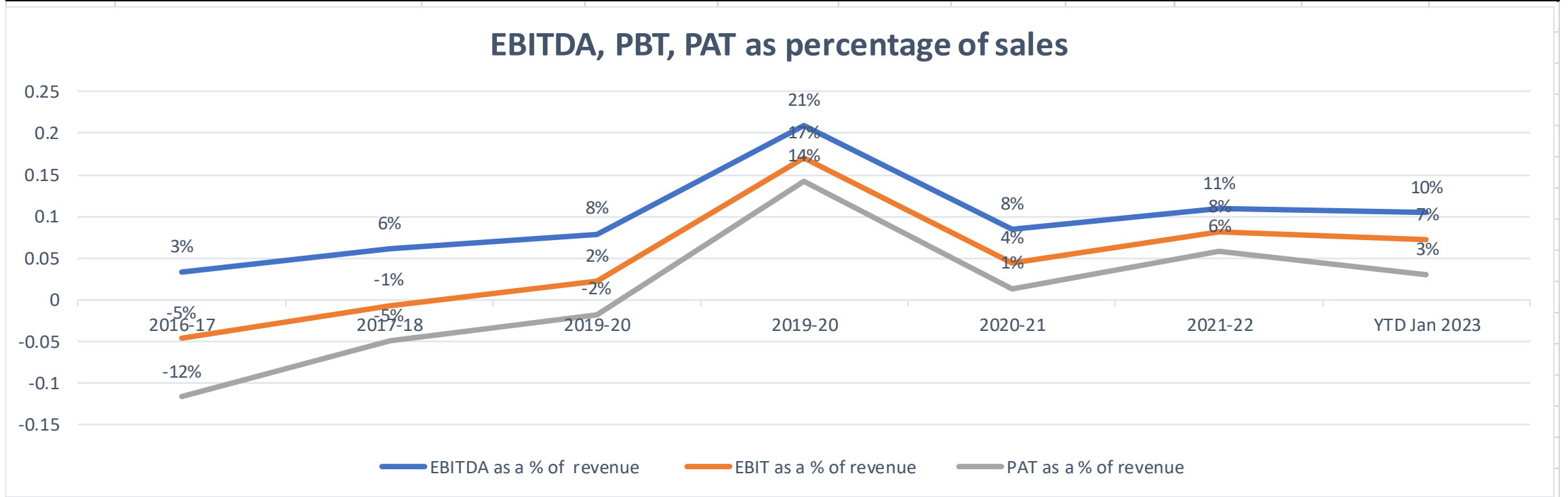
Rs Lakhs

Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD Jan 2023
Income	3,175	3,485	3,953	4,964	4,024	6,373	4,249
Expenses	3,428	3,260	3,710	3,926	3,767	5,683	3,806
Operating Profit (EBITDA)	-253	225	243	1,038	257	691	443
EBITDA as % of sales	-8%	6%	6%	21%	6%	11%	10%

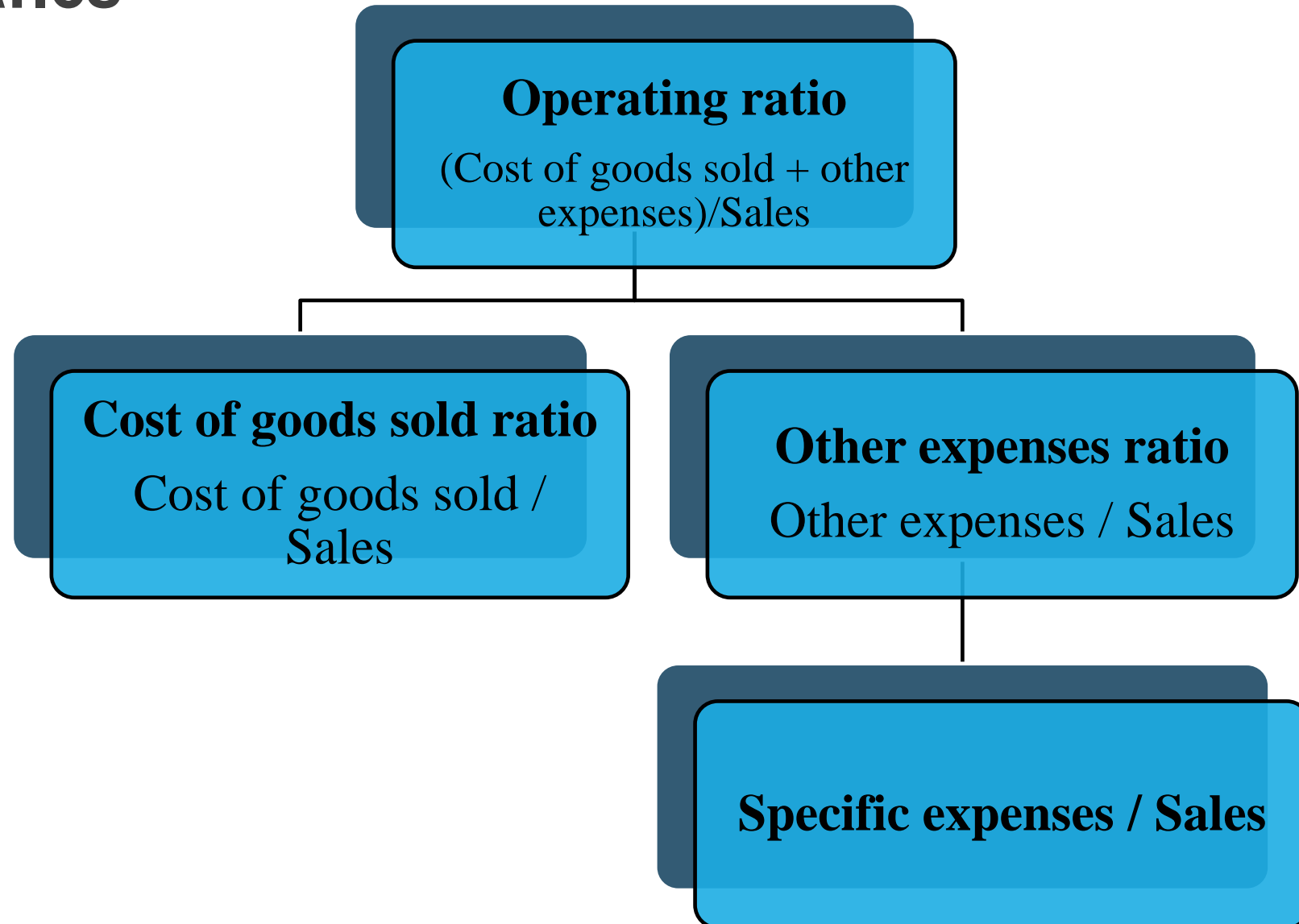


EBITDA, PBT AND PAT ANALYSIS

Year	2016-17	2017-18	2019-20	2019-20	2020-21	2021-22	YTD Jan 2023
EBITDA as a % of revenue	3%	6%	8%	21%	8%	11%	10%
EBIT as a % of revenue	-5%	-1%	2%	17%	4%	8%	7%
PAT as a % of revenue	-12%	-5%	-2%	14%	1%	6%	3%



EXPENSES RATIOS



EXPENSE RATIOS

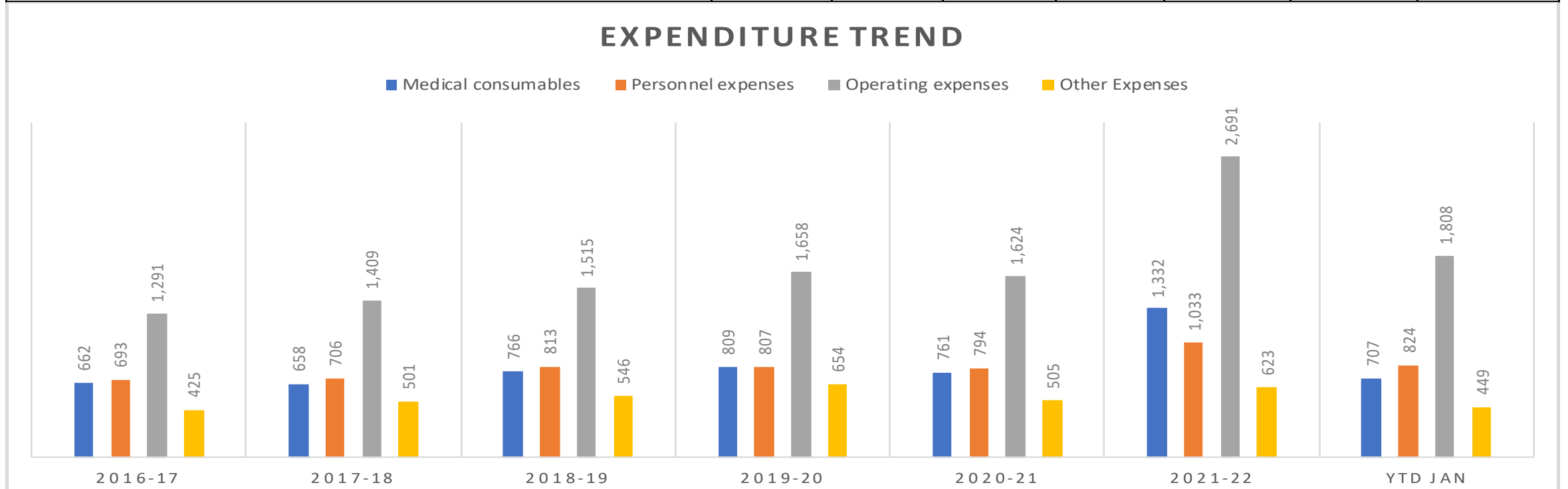
Ratio	Rationale
$\text{Operating ratio} = \frac{\text{Cost of goods sold} + \text{other expenses}}{\text{Sales}}$	This ratio is an effective measure to depict the operational efficiency of the business.
$\text{Cost of goods sold ratio} = \frac{\text{Cost of goods sold}}{\text{Sales}}$	Lower operating ratio would depict higher profitability and higher operating ratio would signify lower profitability. It measures the cost of goods sold per sale.
$\text{Specific expenses ratio} = \frac{\text{Specific expenses}}{\text{Sales}}$	It measures specific expenses per sale.

EXPENDITURE TREND

Expenditure Trend

Rs Lakhs

Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD JAN
Medical consumables	662	658	766	809	761	1,332	707
Personnel expenses	693	706	813	807	794	1,033	824
Operating expenses	1,291	1,409	1,515	1,658	1,624	2,691	1,808
Other Expenses	425	501	546	654	505	623	449
Total	3,071	3,274	3,641	3,927	3,683	5,680	3,787



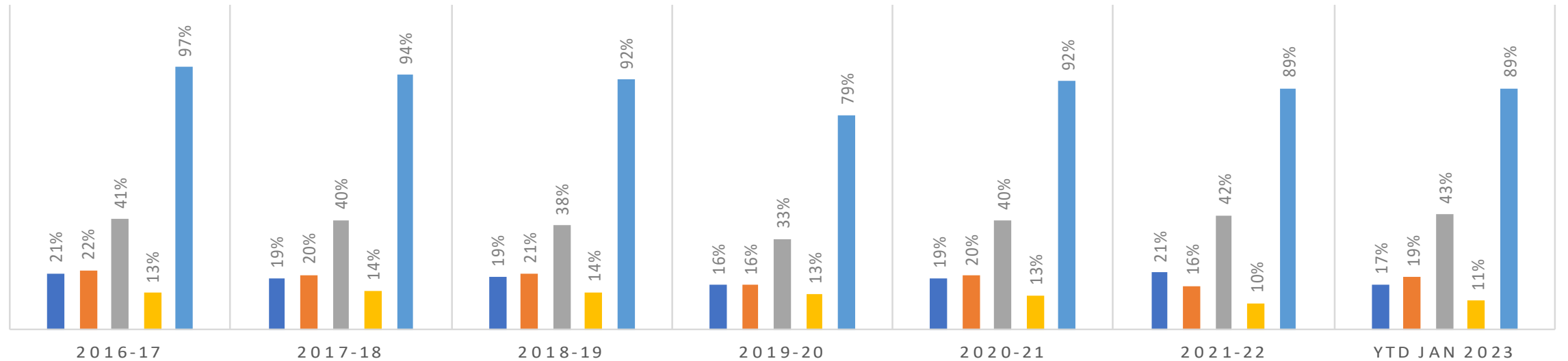
EXPENDITURE AS A PERCENTAGE OF SALES

Expenditure as % of sales

Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD Jan 2023
Raw material as % of revenue	21%	19%	19%	16%	19%	21%	17%
Personnel expenses as % of revenue	22%	20%	21%	16%	20%	16%	19%
Operating expenses as % of sales	41%	40%	38%	33%	40%	42%	43%
Other expenses as % of revenue	13%	14%	14%	13%	13%	10%	11%
Expenses as % of sales	97%	94%	92%	79%	92%	89%	89%

EXPENDITURE AS % OF SALES

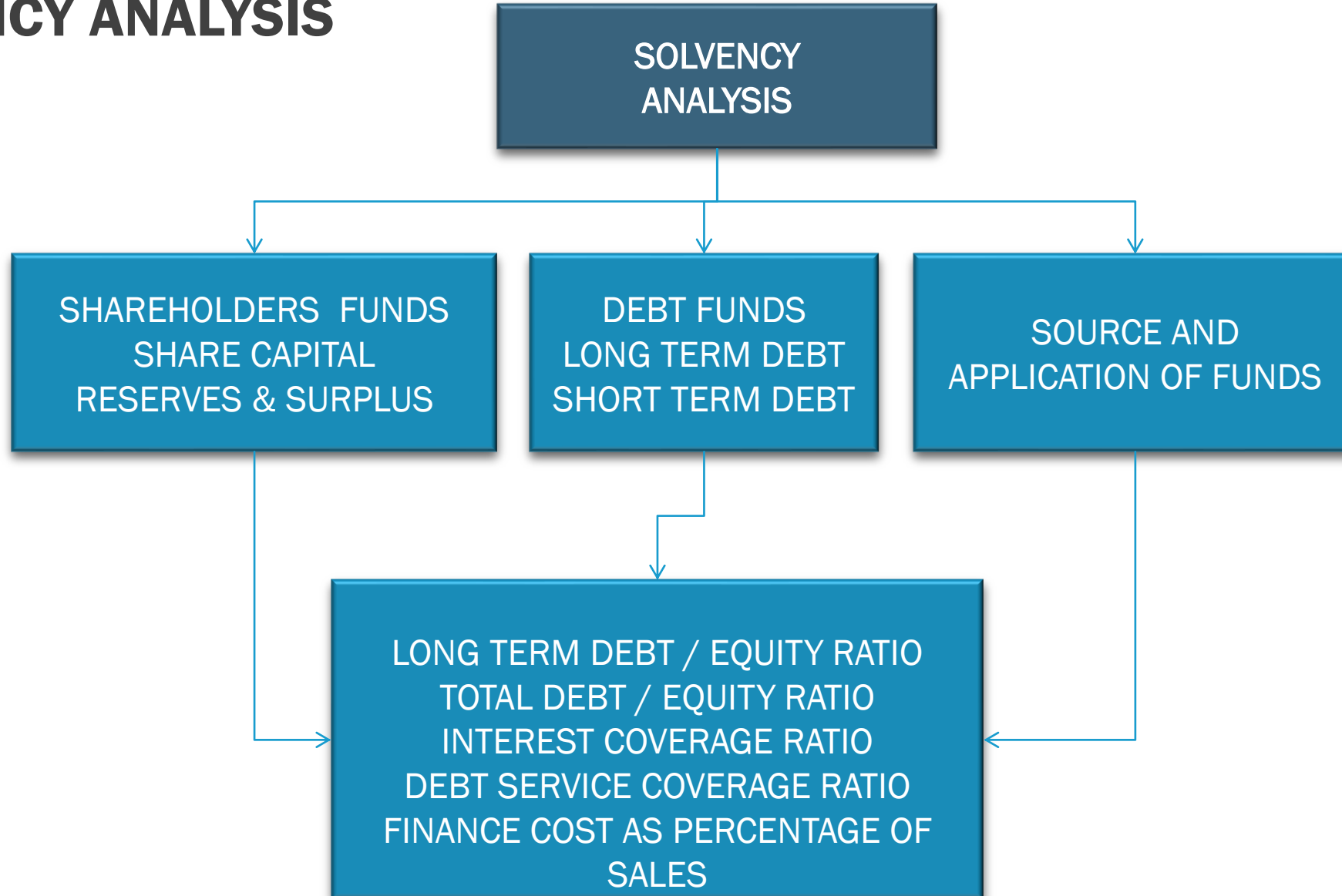
■ Raw material as % of revenue
 ■ Personnel expenses as % of revenue
 ■ Operating expenses as % of sales
 ■ Other expenses as % of revenue
 ■ Expenses as % of sales



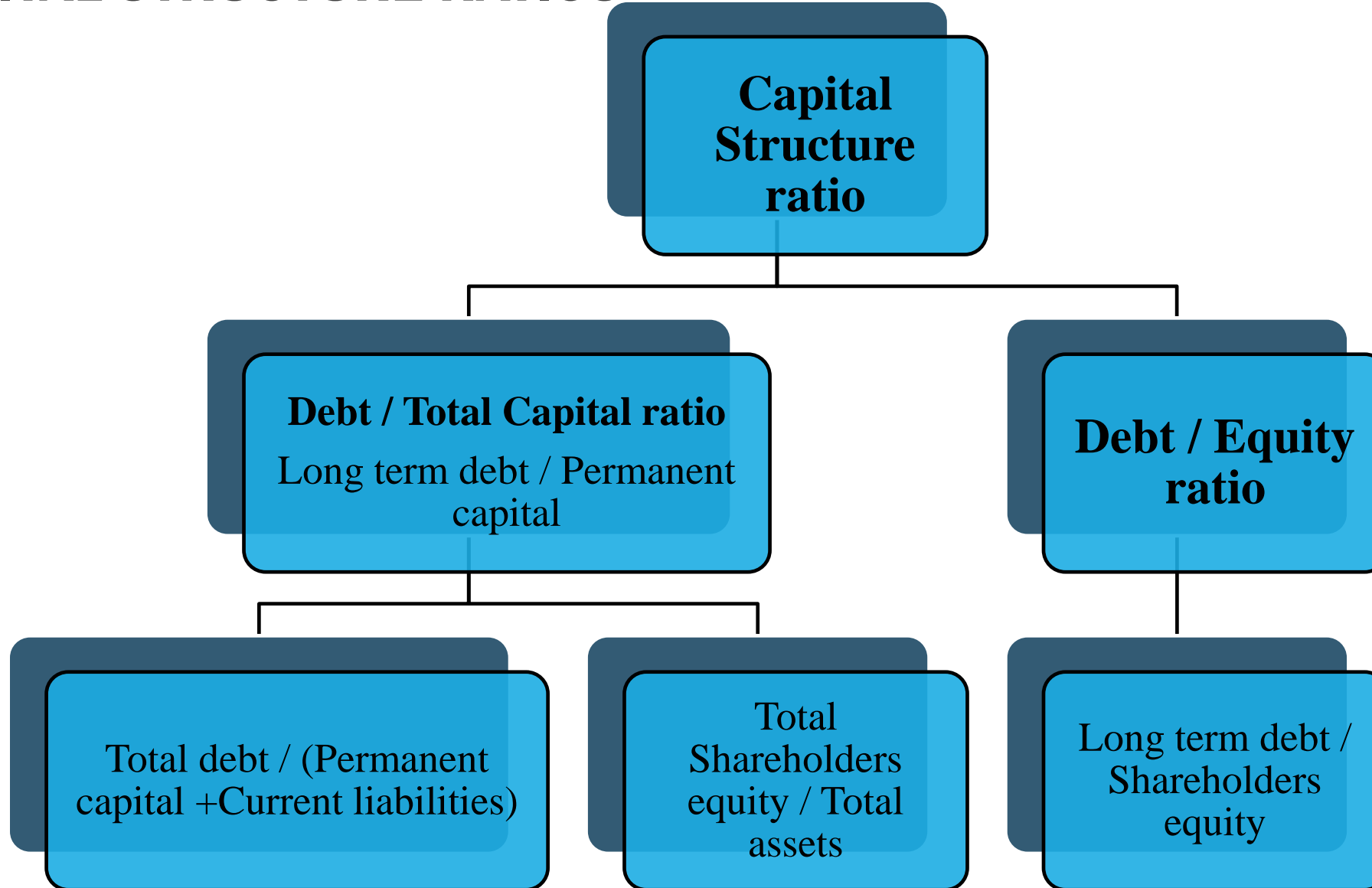


SOLVENCY ANALYSIS

SOLVENCY ANALYSIS



CAPITAL STRUCTURE RATIOS



CAPITAL STRUCTURE RATIOS

Ratio	Rationale
$\text{Debt equity ratio} = \frac{\text{Long term debt}}{\text{Shareholders' equity}}$	<p>This is a very important ratio which depicts the relative proportion of debt and equity in financing the assets of an enterprise. A ratio of 1:1 is considered adequate.</p> <p>If the debt content is higher the enterprise is considered highly geared and if the equity content is higher, then the enterprise is considered low geared.</p> <p>This ratio is also a determinant based on which weighted average cost of capital is calculated. (WACC)</p>
$\text{Debt to total capital ratio} = \frac{\text{Long term debt}}{\text{Permanent capital}}$ <p>Or</p> $= \frac{\text{Total debt}}{\text{Permanent capital} + \text{Current liabilities}}$ <p>Or</p> $= \frac{\text{Total Shareholders' equity}}{\text{Total assets}}$	<p>This ratio indicates what proportion of the permanent capital of the enterprise is funded out of long-term debt.</p> <p>A ratio of 1:2 is considered adequate.</p> <p>It measures the proportion of total assets financed by outside funds. A low ratio is low risk specially for outsiders like creditors</p> <p>It depicts the proportion of total assets funded by owners' equity.</p>

CAPITAL EMPLOYED

Capital employed source

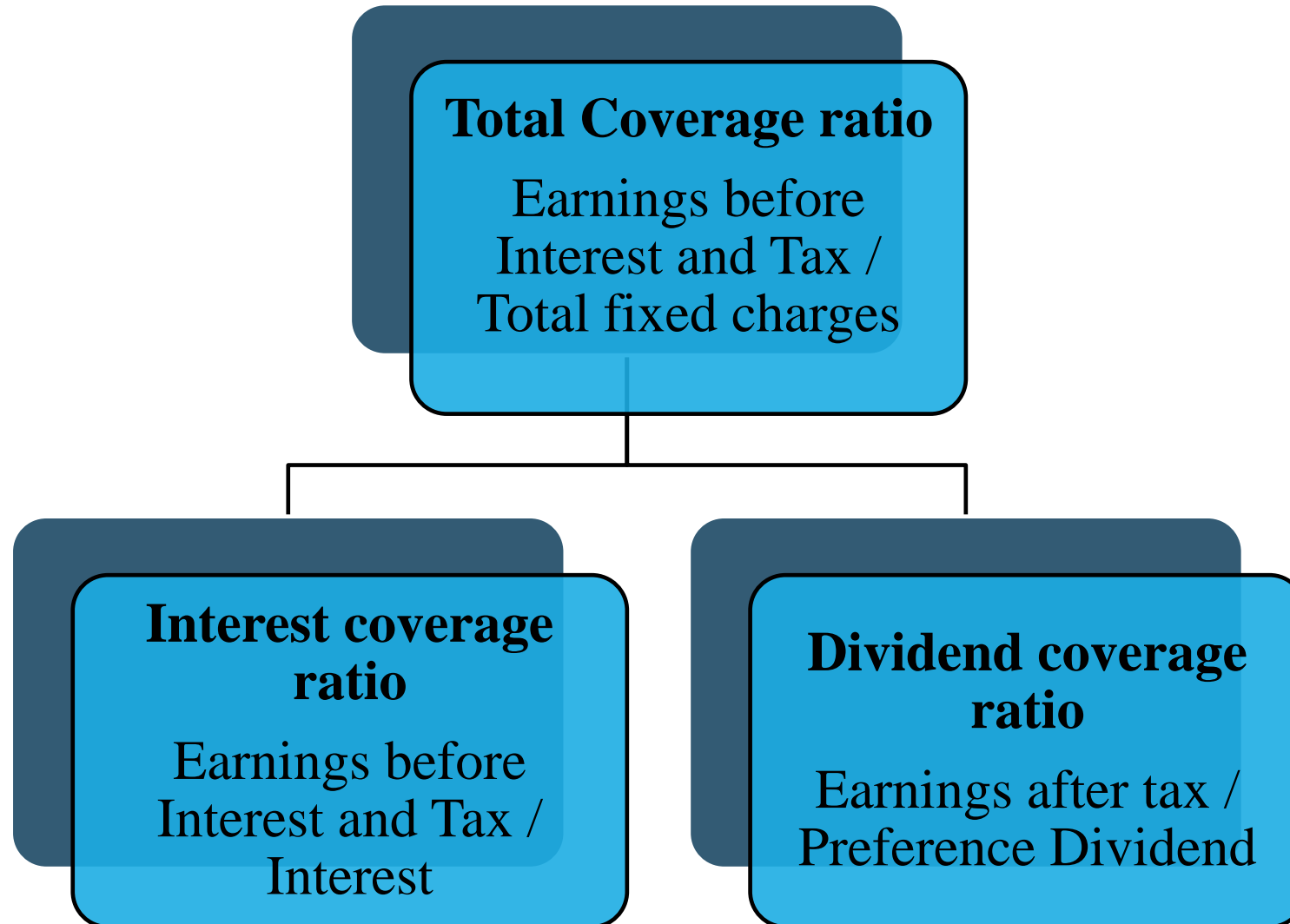
Rs Lakhs

Year	2016-17	2017-18	2017-18	2019-20	2020-21	2021-22	YTD Jan 2023
Share capital	340	340	340	340	340	340	340
Profit & Loss account	(70)	(244)	(313)	395	435	781	882
Share premium	744	744	744	744	744	744	744
Reserve & surplus	674	500	431	1,139	1,179	1,525	1,626
Net Worth	1,015	841	771	1,479	1,520	1,866	1,967
Secured borrowings	3,192	3,121	2,924	963	929	1,611	1,661
Unsecured borrowings	8	9	40	1,223	1,377	-	680
Total borrowings	3,200	3,130	2,964	2,186	2,306	1,611	2,341
Capital Employed	4,215	3,971	3,736	3,665	3,825	3,476	4,308

Capital Employed Application

Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD jan 2023
Net block (Including capital WIP)	2,902	2,754	2,780	2,783	2,809	3,142	3,080
Non-current investment	-	-	-	-	-	-	-
Deffered tax assets	380	380	380	385	373	351	322
Long term loans & advances	151	152	155	150	150	143	144
Net current assets	781	685	421	347	493	(160)	762
Capital Employed	4,215	3,971	3,736	3,665	3,825	3,476	4,308

COVERAGE RATIOS



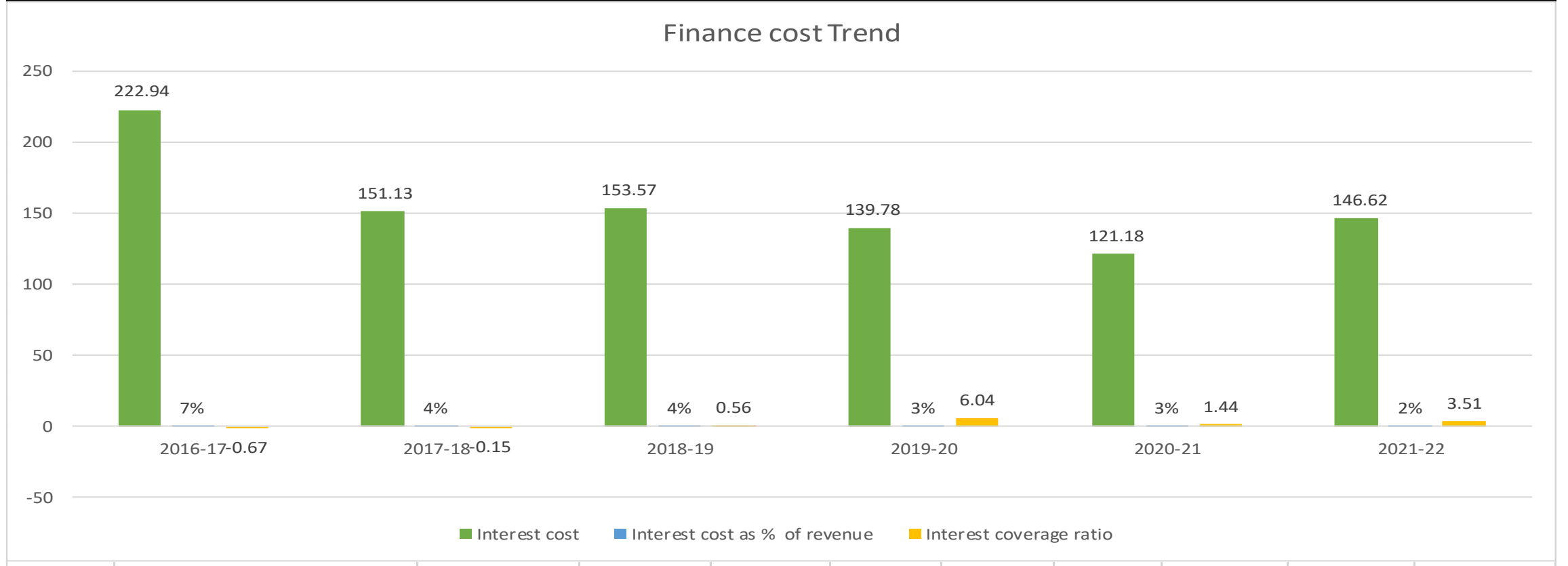
COVERAGE RATIOS

Ratio	Rationale
Interest coverage = $\frac{\text{Earnings before interest and tax}}{\text{Interest}}$	This is a ratio used to ascertain how easily an enterprise can pay its outstanding dues. A ratio of 1:5 is considered satisfactory.
Dividend coverage = $\frac{\text{Earnings after tax}}{\text{Preference dividend}}$	This ratio measures the ability of the enterprise to pay dividend on preference shares. A high ratio indicates better ability.
Total coverage = $\frac{\text{Earnings before interest and tax}}{\text{Total fixed charges}}$	It shows the overall ability of the enterprise to fulfil the liabilities. A high ratio is better for creditors.

INTEREST COVERAGE RATIO

Finance cost trend

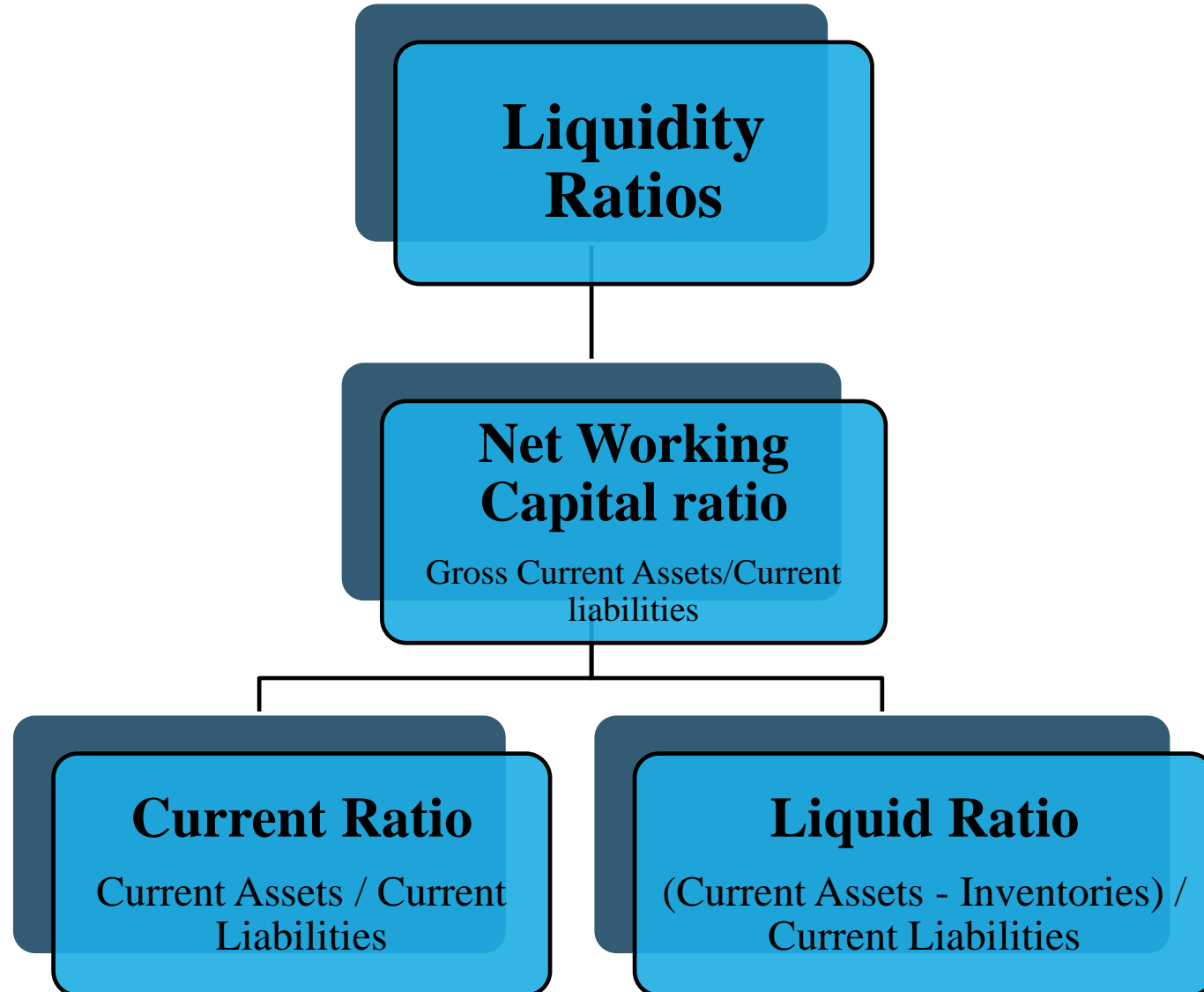
Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD JAN
Interest cost	222.94	151.13	153.57	139.78	121.18	146.62	176.45
Interest cost as % of revenue	7%	4%	4%	3%	3%	2%	4%
Interest coverage ratio	-0.67	-0.15	0.56	6.04	1.44	3.51	1.72





LIQUIDITY ANALYSIS

LIQUIDITY RATIOS



LIQUIDITY RATIOS

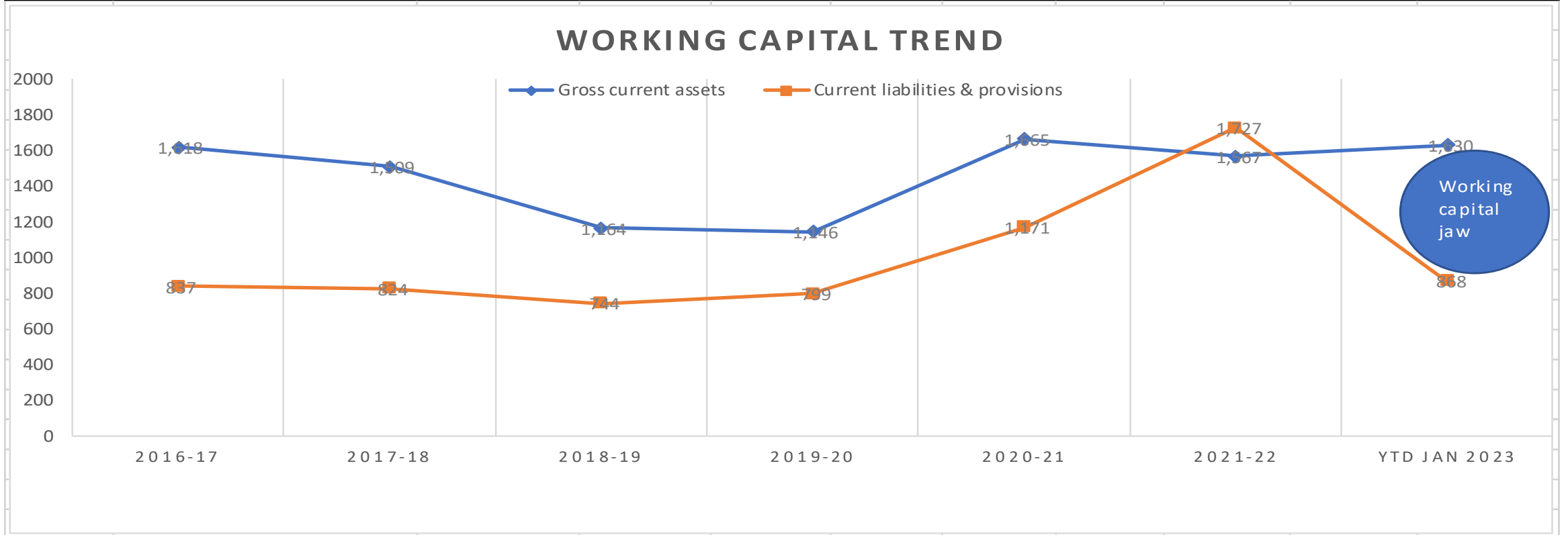
Ratio	Rationale
Net working capital = $\frac{\text{Gross Current assets}}{\text{Current liabilities}}$	It measures the liquidity of an enterprise
Current ratio = $\frac{\text{Current assets}}{\text{Current liabilities}}$	It reflects the short-term liquidity position of the enterprise. In general ratio of 2:1 is considered adequate. If it is lower, then it depicts tightness in liquidity. If it is higher, then there is adequate liquidity, but it may also be possible that funds are tied up in obsolete/slow moving inventories and overdue debts
Liquid ratio/Acid test ratio = $\frac{\text{Quick assets}}{\text{Current liabilities}}$	Quick assets are current assets less inventories, and this ratio is a measure of the liquidity position of the enterprise. In general, a ratio of 1: 1 would be considered adequate, as it would signify that the enterprise has enough cash to pay off all its current liabilities

NET CURRENT ASSET TREND

Working capital trend

Rs Lakhs

Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD Jan 2023
Gross current assets	1,618	1,509	1,164	1,146	1,665	1,567	1,630
Current liabilities & provisions	837	824	744	799	1,171	1,727	868
Working capital	781	685	421	347	493	(160)	762

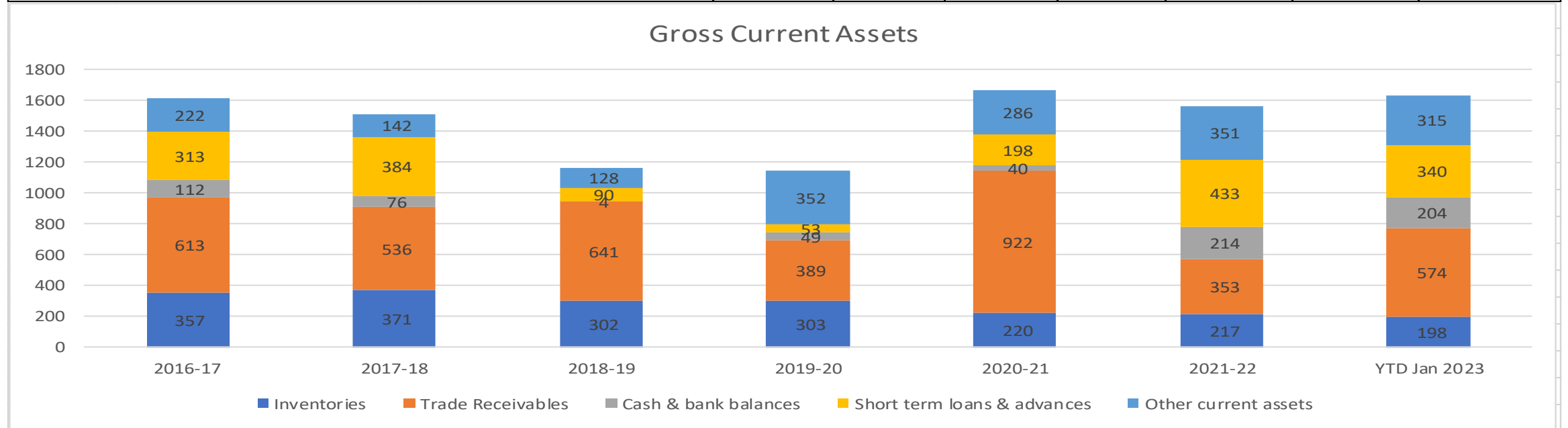


GROSS CURRENT ASSET TREND

Gross current assets

Rs Lakhs

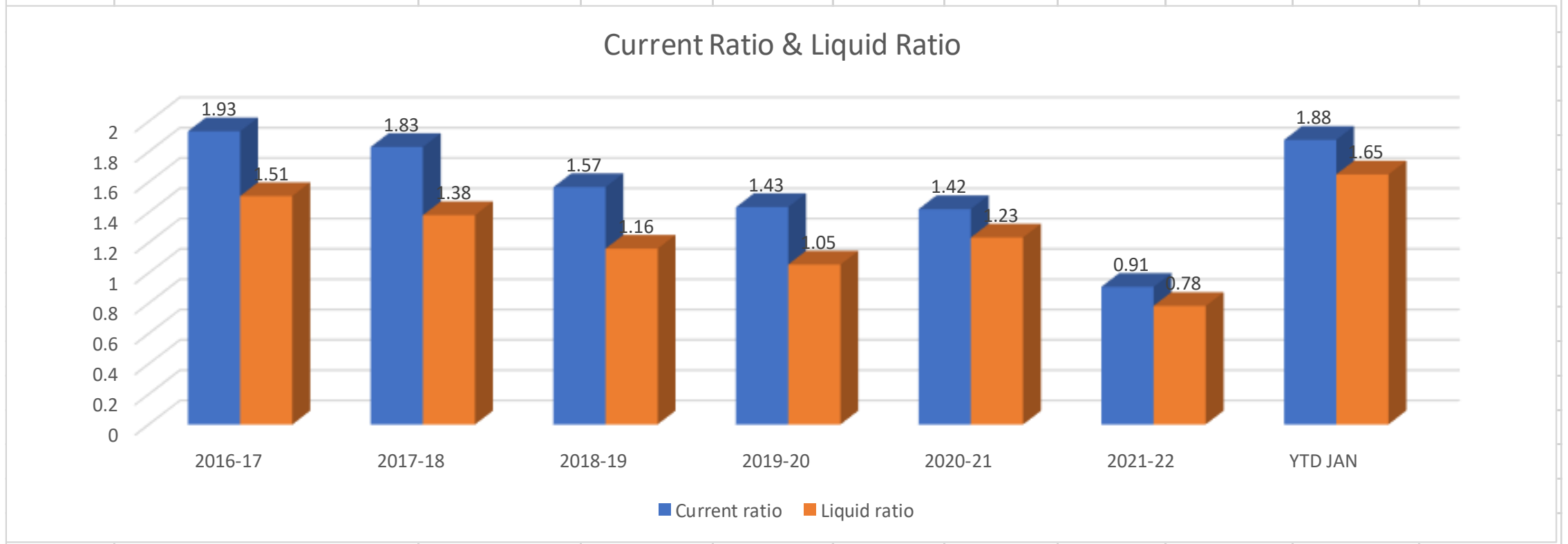
Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD Jan 2023
Inventories	357	371	302	303	220	217	198
Trade Receivables	613	536	641	389	922	353	574
Cash & bank balances	112	76	4	49	40	214	204
Short term loans & advances	313	384	90	53	198	433	340
Other current assets	222	142	128	352	286	351	315
Gross current assets	1,618	1,509	1,164	1,146	1,665	1,567	1,630



CURRENT RATIO AND LIQUID RATIO

Current Ratio & Liquid Ratio

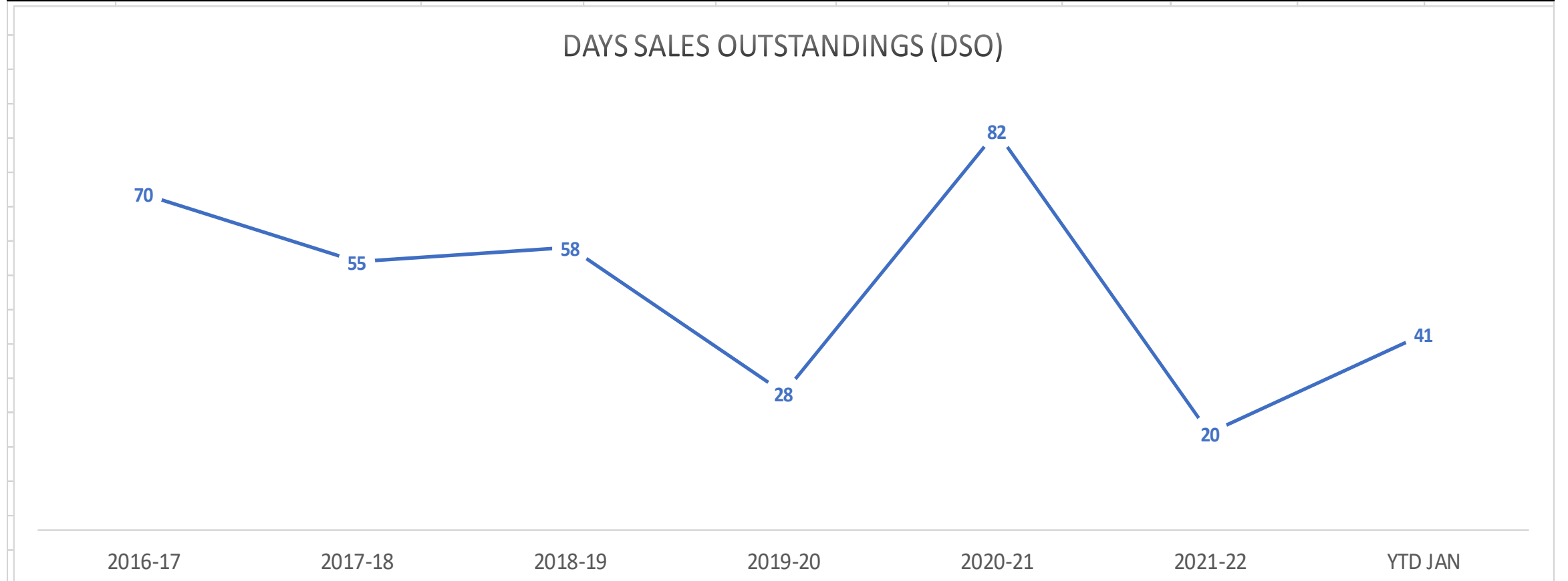
Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD JAN
Current ratio	1.93	1.83	1.57	1.43	1.42	0.91	1.88
Liquid ratio	1.51	1.38	1.16	1.05	1.23	0.78	1.65



DAYS SALES OUTSTANDING

Days sales Outstandings

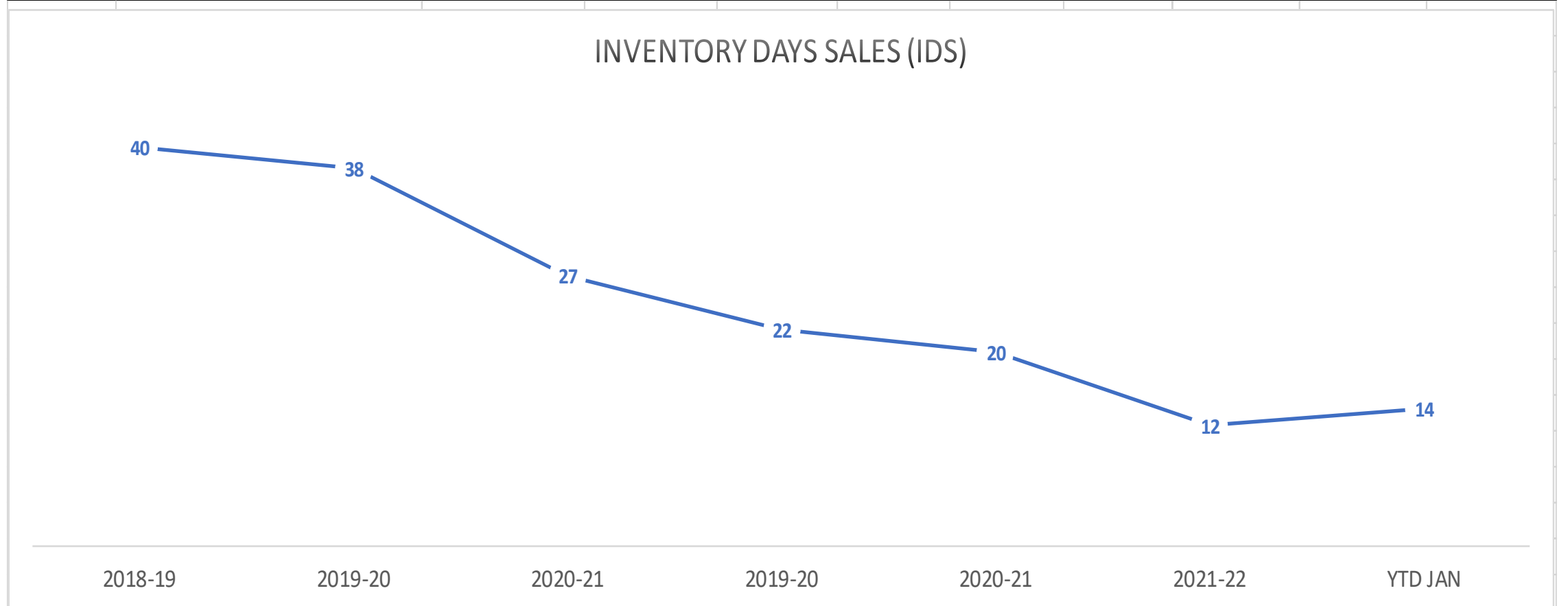
Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD JAN
Days sales Outstandings (DSO)	70	55	58	28	82	20	41



INVENTORIES DAYS SALES

Inventory Days Sales

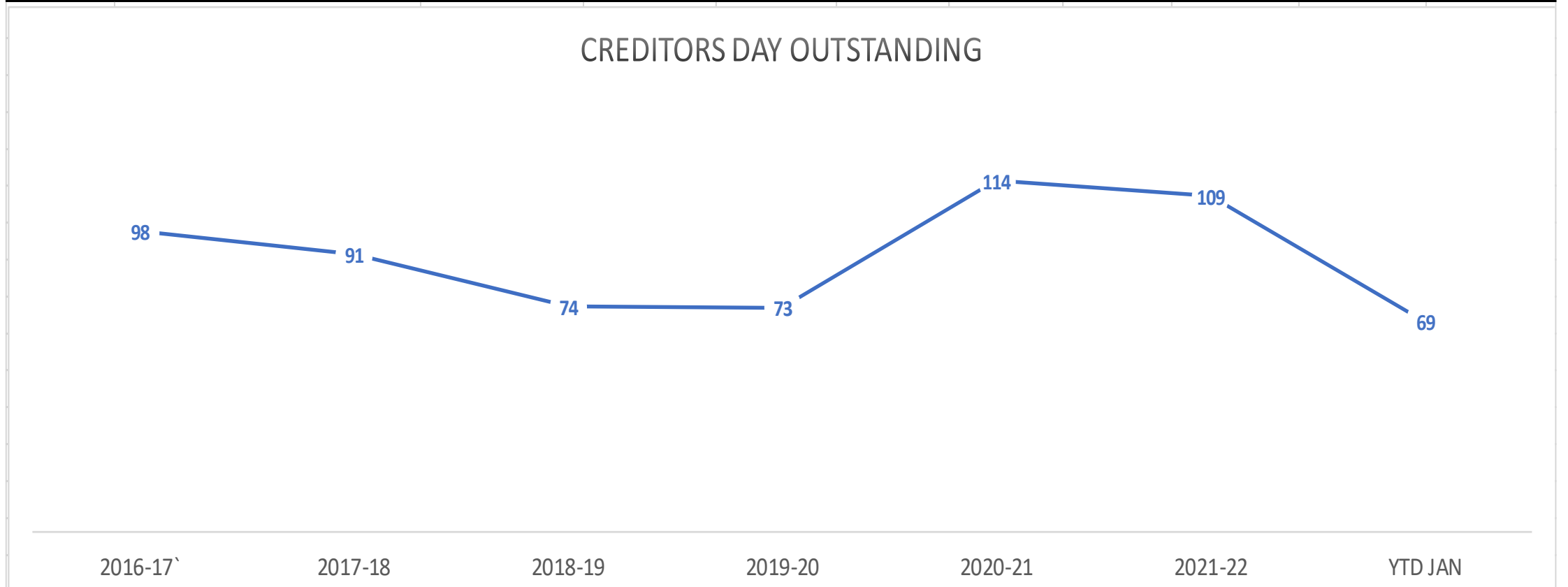
Year	2018-19	2019-20	2020-21	2019-20	2020-21	2021-22	YTD JAN
Inventory Days Sales (IDS)	40	38	27	22	20	12	14



CREDITORS DAYS OUTSTANDING

Creditors Day Analysis

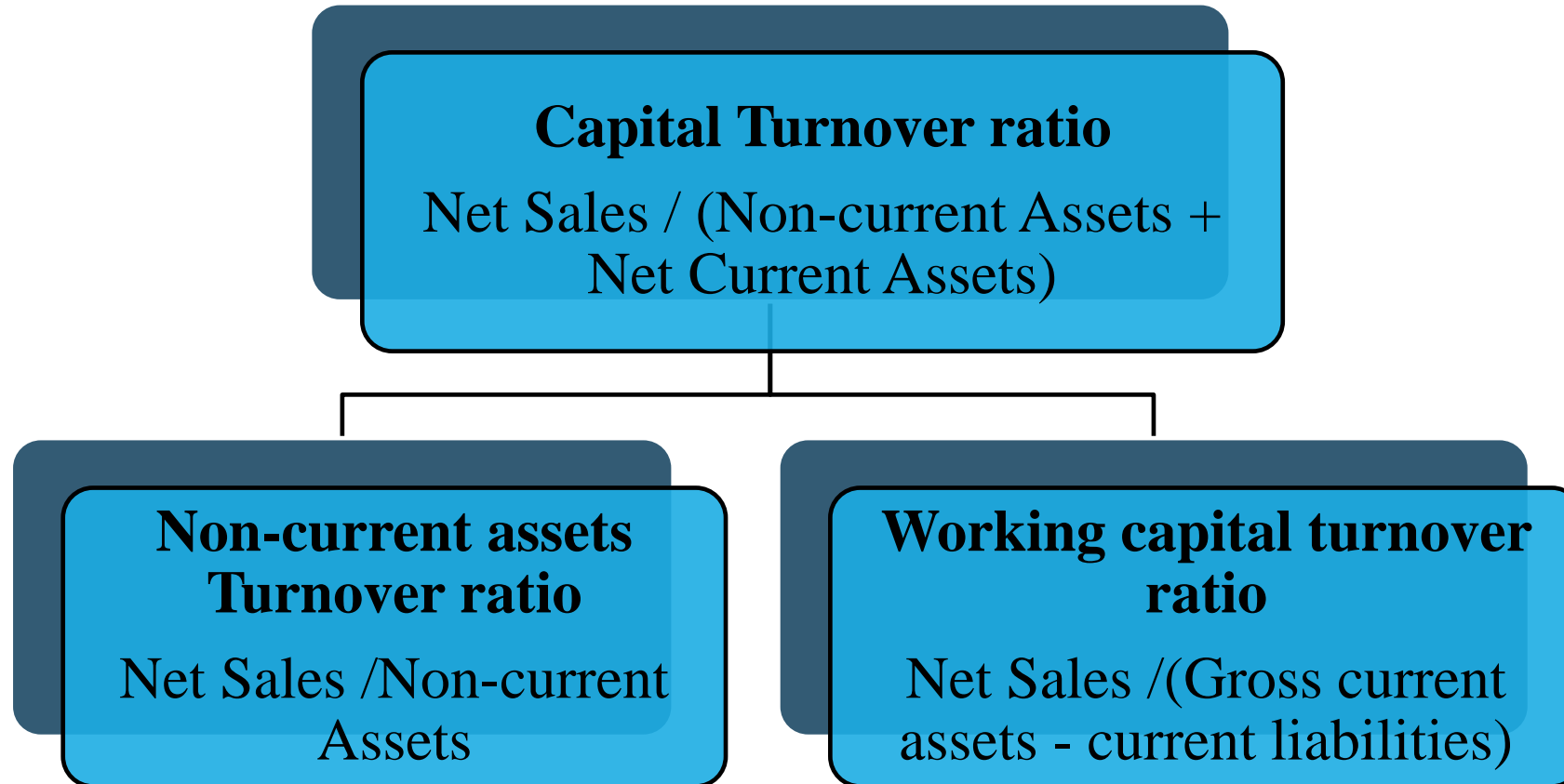
Year	2016-17`	2017-18	2018-19	2019-20	2020-21	2021-22	YTD JAN
Creditors day outstanding	98	91	74	73	114	109	69



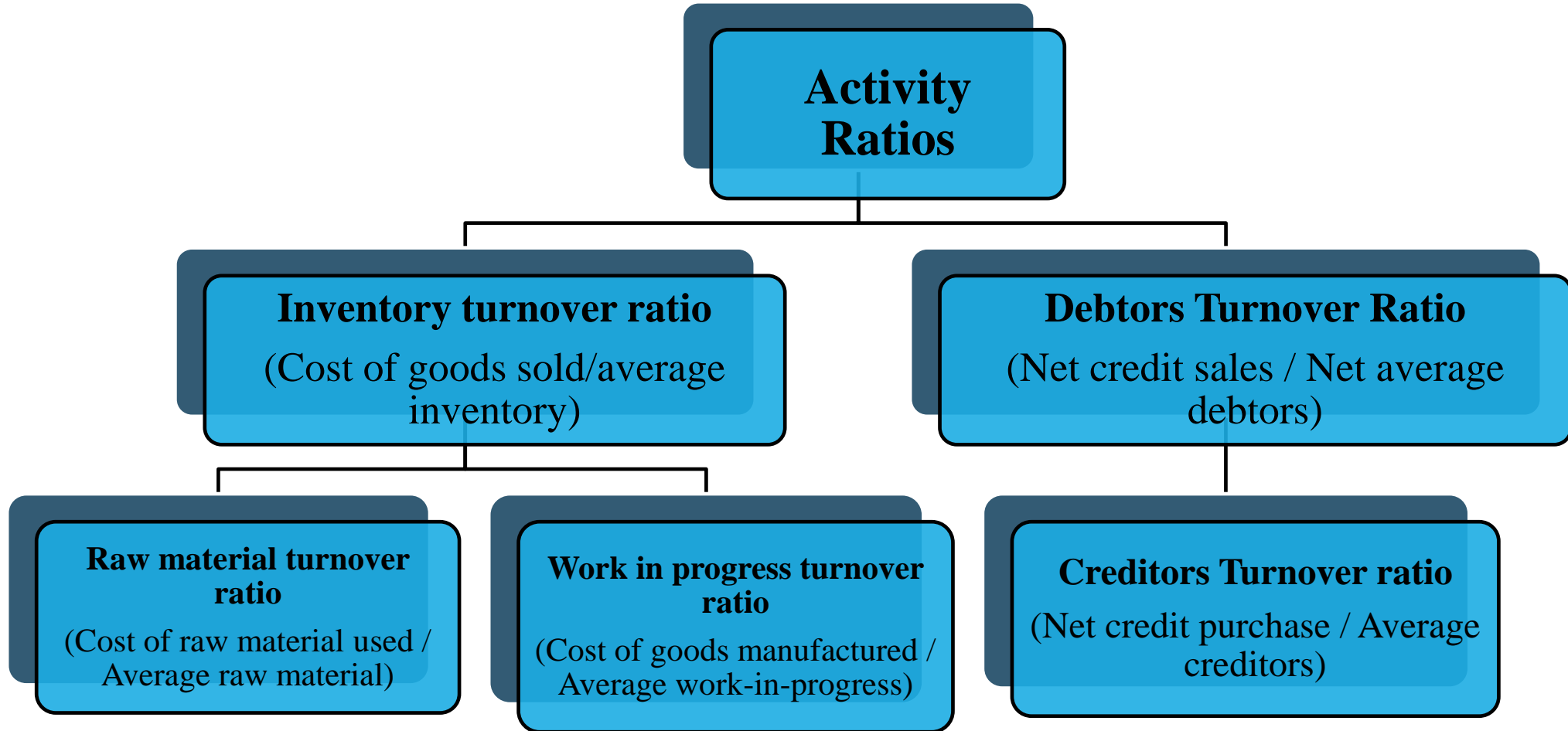


ACTIVITY ANALYSIS

CAPITAL TURNOVER RATIOS



ACTIVITY RATIOS



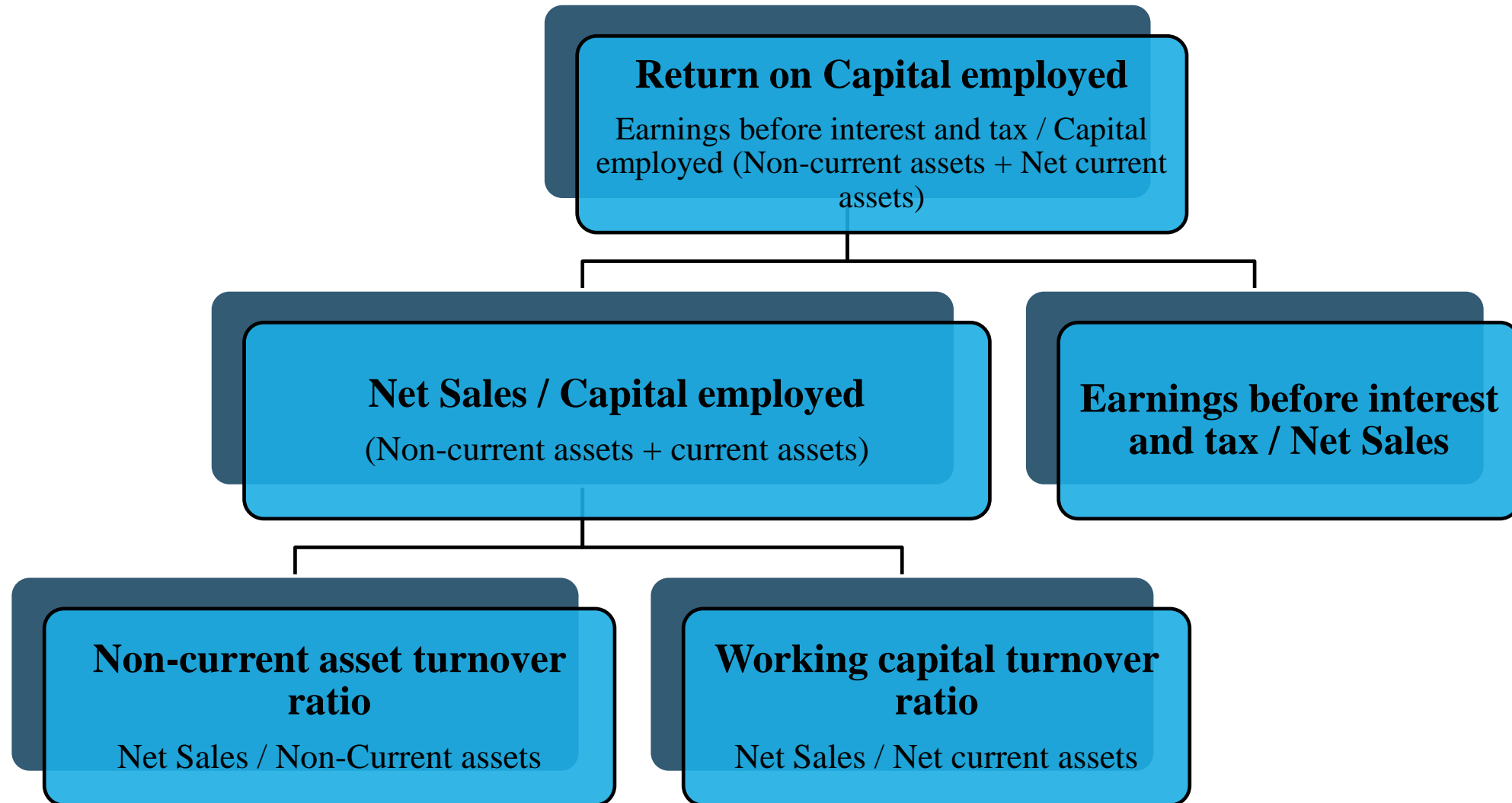
ACTIVITY RATIOS

Ratio	Rationale
$\text{Debtors turnover ratio} = \frac{\text{Net credit Sales}}{\text{Average net debtors}}$	This reflects how quickly receivables are converted into cash.
$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Average inventories}}$	<p>This reflects how quickly inventories are sold and converted into cash. This would depend on the nature of industry and can be benchmarked accordingly.</p> <p>This reflects how quickly raw material inventories are converted into finished goods. If the ratio is high, it would mean that the enterprise is converting raw material into finished goods very efficiently. If it is the other way round, it would mean there are inefficiencies in the production process which needs to be weeded out. The yard stick is the benchmark ratio of the industry in which the enterprise belongs.</p>
$\text{Raw material turnover ratio} = \frac{\text{Cost of raw material used}}{\text{Average raw material inventory}}$	Same as above
$\text{Work in progress turnover ratio} = \frac{\text{Cost of goods manufactured}}{\text{Average work in progress inventory}}$	Same as above
$\text{Creditors turnover ratio} = \frac{\text{Net credit purchase}}{\text{Average creditors}}$	This reflects how quickly the enterprise settles its trade payables. Higher the ratio, it would be an indication that the enterprise has enough liquidity to pay off its trade payables.



RETURN ON INVESTMENT

RETURN ON INVESTMENT



RETURN ON INVESTMENT

Ratio

$$\text{Return on Assets (ROA)} = \frac{(\text{Net Profit after tax}) \times 100}{\text{Total assets}}$$

Or,

$$= \frac{(\text{Net Profit after tax} + \text{Interest}) \times 100}{\text{Tangible assets}}$$

$$= \frac{(\text{Net Profit after tax} + \text{Interest}) \times 100}{\text{Tangible assets}}$$

Or,

$$= \frac{(\text{Net Profit after tax} + \text{Interest}) \times 100}{\text{Fixed assets}}$$

$$\text{Return on capital employed (ROCE)} = \frac{(\text{Net Profit after tax}) \times 100}{\text{Total capital employed}}$$

Or,

$$= \frac{(\text{Net Profit after tax} + \text{Interest}) \times 100}{\text{Total capital employed}}$$

Or,

$$= \frac{(\text{Net Profit after tax} + \text{Interest}) \times 100}{\text{Total capital employed} - \text{Intangible assets}}$$

Rationale

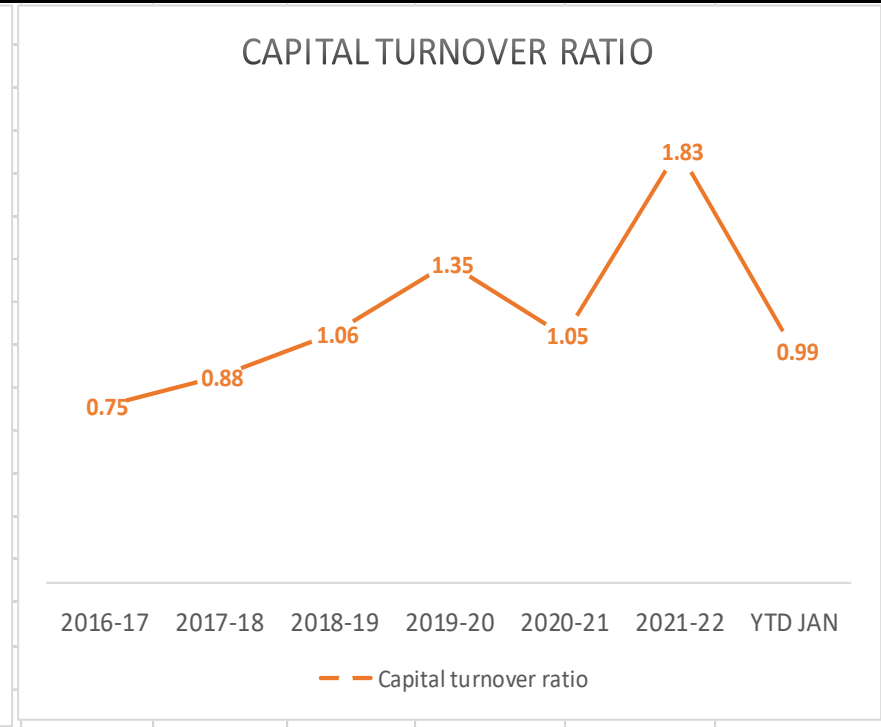
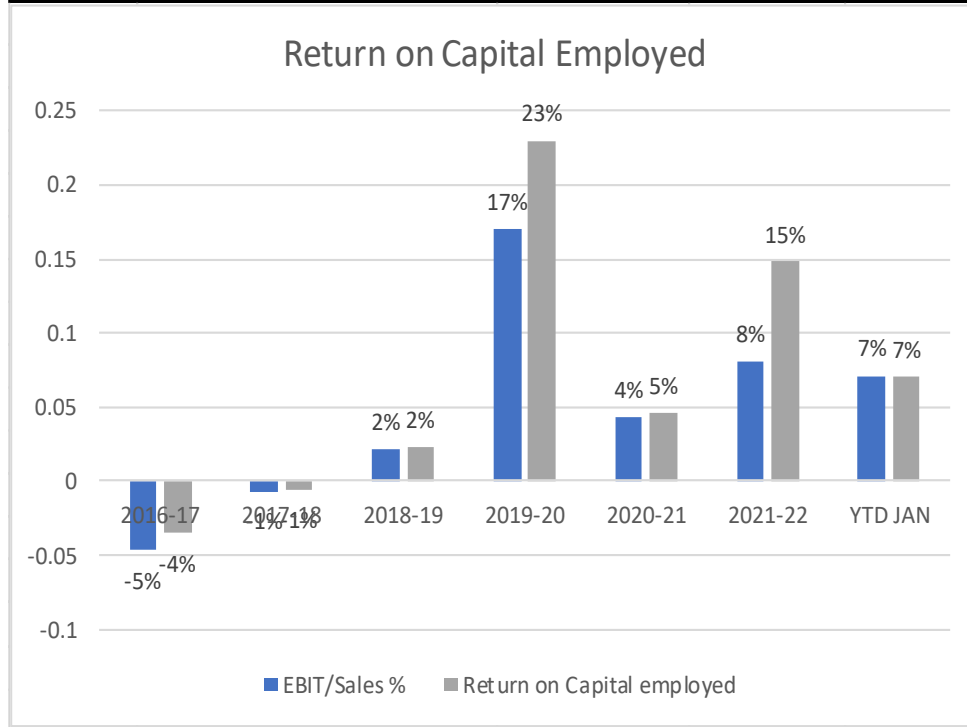
This ratio is a measure of return on the funds invested in the total assets of the enterprise. The higher the ratio, it signifies more efficient use of the total assets.

This ratio is a measure of return on the funds invested in the capital employed of the enterprise. The higher the ratio, it signifies more efficient use of the total capital employed.

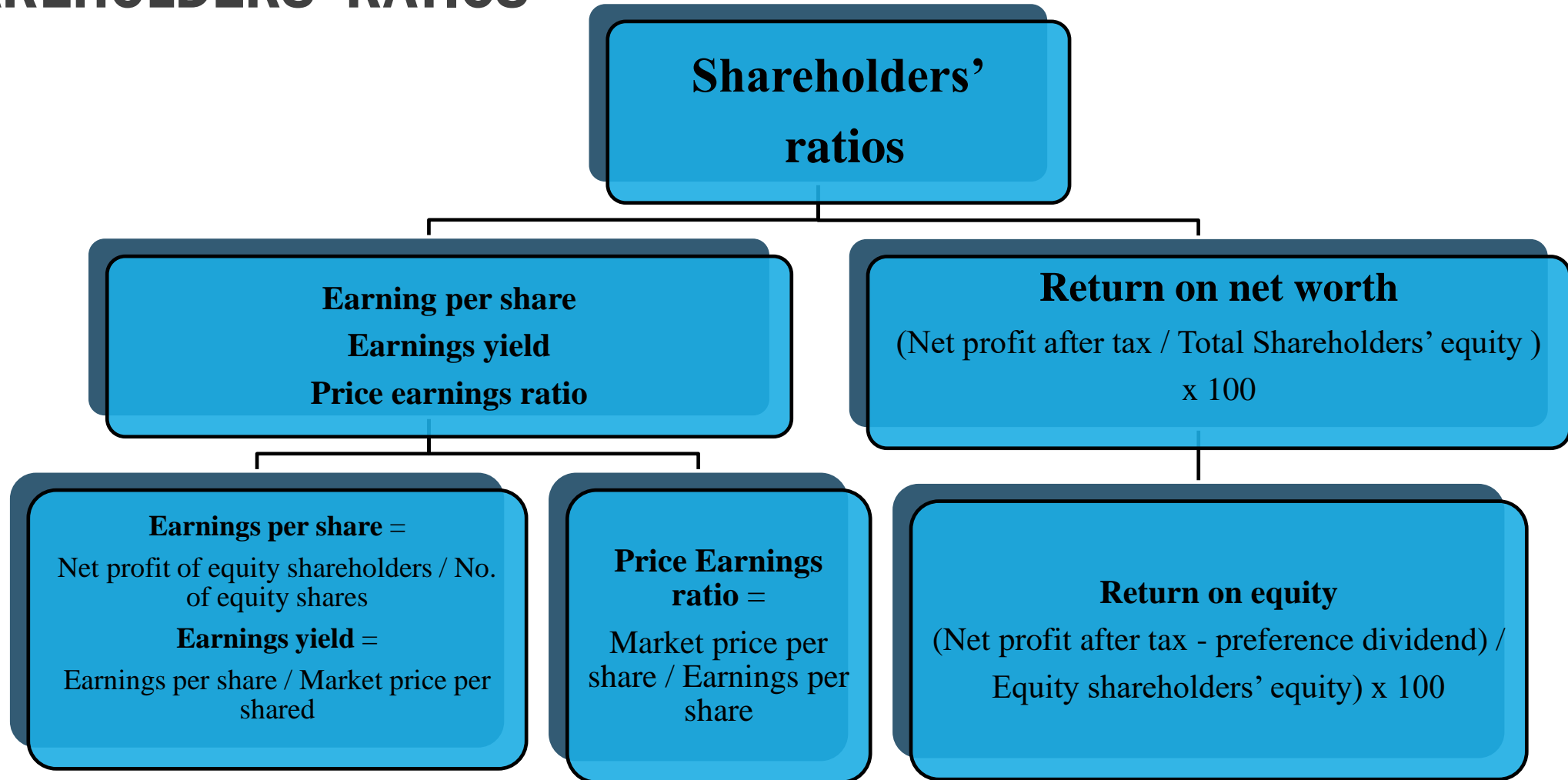
RETURN ON INVESTMENT

Return on Capital employed

Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	YTD JAN
EBIT/Sales %	-5%	-1%	2%	17%	4%	8%	7%
Capital turnover ratio	0.75	0.88	1.06	1.35	1.05	1.83	0.99
Return on Capital employed	-4%	-1%	2%	23%	5%	15%	7%



SHAREHOLDERS' RATIOS



SHAREHOLDERS' RATIOS

Ratio	Rationale
$\text{Return on total shareholders' Equity} = \frac{(\text{Net Profit after tax}) \times 100}{\text{Total shareholders' equity}}$	<p>This ratio depicts the return on total shareholders' fund deployed in the enterprise. Higher the return, it would signify better return on total shareholders' fund.</p>
$\text{Return on total ordinary shareholders' Equity} = \frac{(\text{Net Profit after tax}) \times 100}{\text{Total shareholders' equity}}$ $= \frac{(\text{Net Profit after tax and preference dividend}) \times 100}{\text{Ordinary shareholders' equity}}$	<p>This ratio depicts the return on ordinary shareholders' fund deployed in the enterprise. Higher the return, it would signify better return on equity from ordinary shareholders.</p>
$\text{Earnings per share (EPS)} = \frac{\text{Net Profit of equity holders}}{\text{Number of Ordinary shares}}$	<p>The ratio measures the profit available to the equity holders on a per share basis.</p>
$\text{Dividend per share (DPS)} = \frac{\text{Net Profit after interest and preference dividend paid to ordinary shareholders}}{\text{Number of Ordinary Share outstanding}}$	<p>The ratio measures the profit distributed as dividend to the equity holders on a per share basis.</p>

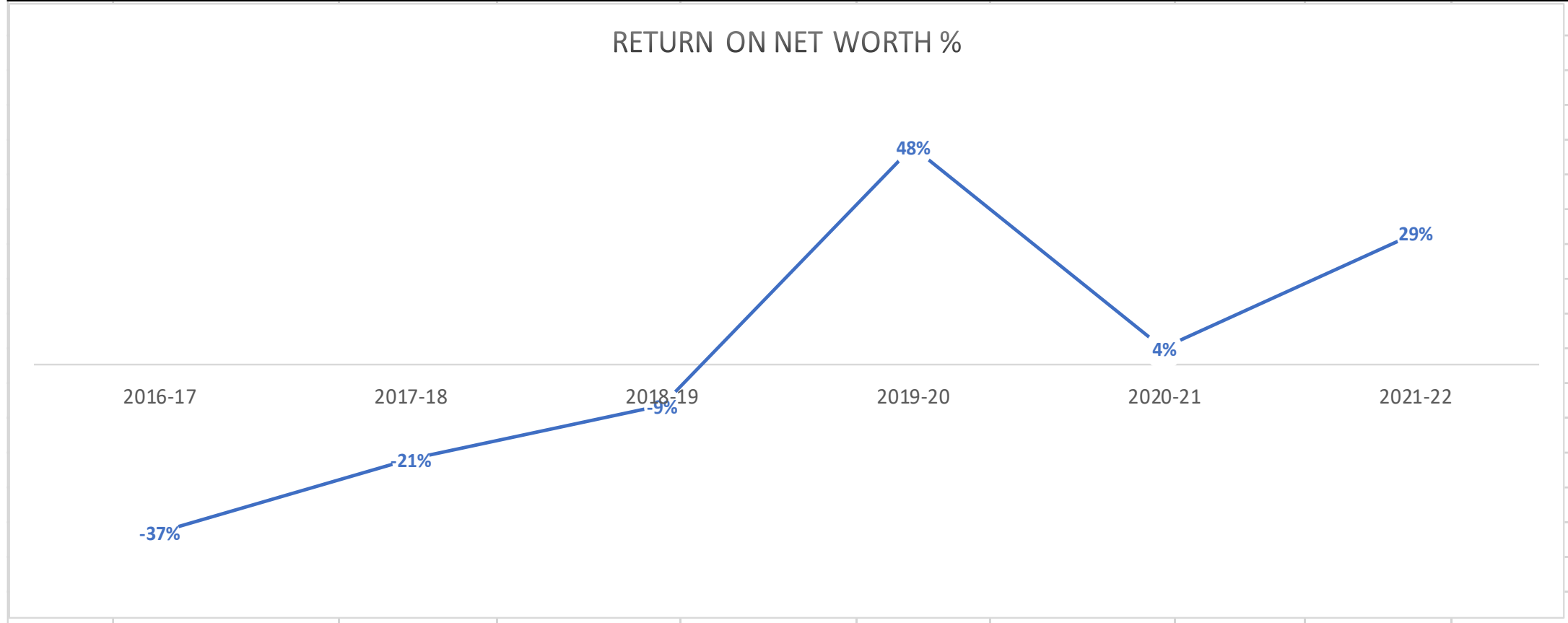
SHAREHOLDERS' RATIOS

Ratio	Rationale
<p>Dividend pay – out ratio (D/P) = $\frac{\text{Total dividend to equity holders}}{\text{Total net profit of equity Holders}}$</p> <p>Or,</p> <p>= $\frac{\text{Dividend per ordinary share}}{\text{Earnings per share}}$</p> <p>Earnings yield = $\frac{\text{Earnings per share}}{\text{Market value per share}}$</p> <p>Dividend yield = $\frac{\text{Dividend per share}}{\text{Market value per share}}$</p> <p>Price earnings ratio (P/E) = $\frac{\text{Market value per share}}{\text{Earnings per share}}$</p> <p>Earning power = $\frac{\text{Net profit after tax}}{\text{Total assets}}$</p>	<p>This ratio is a measure of percentage share of net profit paid out as dividend to equity shareholders. The higher the D/P ratio, more attractive it is for the investor.</p> <p>This ratio is a measure of percentage of each rupee invested in the stock that has been earned by the enterprise</p> <p>This ratio is a measure of percentage dividend paid out by the enterprise each year in relation to its share price</p> <p>This ratio is a measure which signifies the price currently paid by the investor for each rupee of EPS. Higher the ratio more expensive is the stock price and more market capitalization for the owners.</p> <p>The ratio is a measure of the earning power of the enterprise as it depicts overall profitability and operational efficiency of an enterprise.</p>

RETURN ON NET WORTH

Shareholder Returns

Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Return on Net worth %	-37%	-21%	-9%	48%	4%	29%





THANK YOU!