IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A STUDY ON LIQUIDITY ANALYSIS IN ZIELHOCH PRIVATE LIMITED

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Abstract: The ability of a company to meet its financial obligations as they come due. The liquidity ratio, then, is a computation that is used to measure a company's ability to pay its short-term debts. There are three common calculations that fall under the category of liquidity ratios. The current ratio is the most liberal of the three. It is followed by the acid ratio, and the cash ratio. These three ratios are often grouped together by financial analysts when attempting to accurately measure the liquidity of a company. The objective of the study is to analyze liquidity analysis in Zeilhoch Private Ltd. The sample period of the study is 2018-19 and 2022-23. Descriptive research design and convenience sampling method has been used. Financial statement of the company has been used as secondary data. Ratio analysis, comparative balance sheet and common size balance sheet have been applied as statistical tool to reach the findings of the study. It is found that Current ratio was 3.20 in the year of 2021-22. It has decreased to 2.40 in the year of 2022-23 and Quick ratio has increased to 1.24 and 1.62 in the year of 2020-21 and 2021-22 respectively. It has decreased to 1.19 in the year of 2022-23. It is suggested that the liquid position of the concern is not much satisfactory. So, the firm should improve the current and cash position ratio is not up to the mark. Steps to be taken to increase the current assets of the company to achieve of standard norms. It is concluded that the objectives of the study that liquidity management drivers had a significant influence on financial performance of the company. The results established that liquidity management drivers were found to significantly and positively influence financial performance.

***Index Terms* -** Financial Obligation, Ratio analysis, Liquidity ratio, Current ratio, Comparative balance sheet, Common size balance sheet.

INTRODUCTION

Liquidity can be defined as the ability of a firm to make good its short-term obligations. Most businesses function on credit. Hence to run a business firms have to both extend credit as well as ensure that they receive credit as well. Liquidity ratios measure the relationship between the amounts of short-term capital that the firm has locked in its receivables versus the short-term interest free debt it has acquired in the form of accounts payables.

In accounting, the term liquidity is defined as the ability of a company to meet its financial obligations as they come due. The liquidity ratio, then, is a computation that is used to measure a company's ability to pay its short-term debts. There are three common calculations that fall under the category of liquidity ratios. The current ratio is the most liberal of the three. It is followed by the acid ratio, and the cash ratio. These three ratios are often grouped together by financial analysts when attempting to accurately measure the liquidity of a company.

Good liquidity management helps ensures the availability of funds to meet all cash outflow commitments for day-to-day operations and deploys cash in an optimal manner. It implies managing cash on a global level for the purpose of minimizing idle cash, reducing external debt and optimizing returns on excess cash by grasping better investment opportunities. This article focuses on the benefits of having a sound liquidity management system in place for financial institutions with worldwide operations and managing liquidity for their corporate clients.

Having worldwide operations throws open myriad challenges in the form of timing the flow of funds, handling multiple currencies, regulations, and the difference in liquidity management strategies being followed, etc. The core premise of liquidity management is to have a centralized global view of the cash for a conglomerate. This centralized view of the cash is achieved by creating a global liquidity management structure. A global liquidity management structure consists of accounts of different entities operating at various locations (within a country or across different countries) linked together and pooling the funds into a single location for either re-allocation or investment. Liquidity management has always been a core function of corporate treasuries and banks have catered to this need by providing liquidity management solutions as part of their cash management services suite.

Population and Sample

This refers to the number of items to be selected from the universe to constitute a sample. This is a major problem before a researcher. The size of sample should neither be excessively large, nor too small. It should be optimum. An optimum sample is one, that fulfils the requirements of efficiency, reliability and flexibility. While deciding the size of sample researcher must determine the desired precision as also an acceptable confidence level for the estimate. In finance, here last five years financial statements during from 2018-19 to 2022-23 balance sheet and profit and loss accounts are used.

Data and Sources of Data

Secondary data refers to information gathered from sources already existing. Some sources of secondary data are data available from previous research, information available from any published or unpublished sources available either within or outside the organization, library records, online data, websites and the internet. The secondary data of information of this study were obtained through web sites, books, annual report, and internet

Secondary data marks the beginning of the research process. Information gathered from both internal and external sources. Secondary data is required to analyse the primary data. Secondary data gathered through journals, books and websites. Here, the company's 5 years (i.e.) 2018-19 to 2022-23 balance sheets is used in this study.

RESEARCH METHODOLOGY

A research methodology is an outline of how a given piece of research is carried out. It defines the techniques or procedures that are used to identify and analyse information regarding a specific research topic.

Analytical Tools

Ratio Analysis

A ratio analysis is a quantitative analysis of information contained in a company's financial statements. Ratio analysis is used to evaluate various aspects of a company's operating and financial performance such as its efficiency, liquidity, profitability and solvency.

- Current Ratio
- Quick Ratio
- Working Capital Ratio
- Cash To Current Liabilities Ratio
- Debtors Turnover Ratio
- Average Collection Period
- Debtors To Sales
- Current Assets to Total Assets Ratio
- Operating Profit Ratio
- Proprietary Ratio
- Cash Ratio
- Inventory Turnover Ratio
- Receivables To Current Assets
- Cash To Current Assets Ratio

CURRENT RATIO

Current assets include cash and those assets, which can be converted into cash within a year. All obligations maturing within a year are included in current liabilities. As a conventional rule, a current ratio of 2 to 1 or more is considered satisfactory. The higher the current ratio, the greater the margin of safety.

The Current ratio is calculated as per the formula

$$\textbf{Current Ratio} = \frac{\textbf{Current Assets}}{\textbf{Current Liabilities}}$$

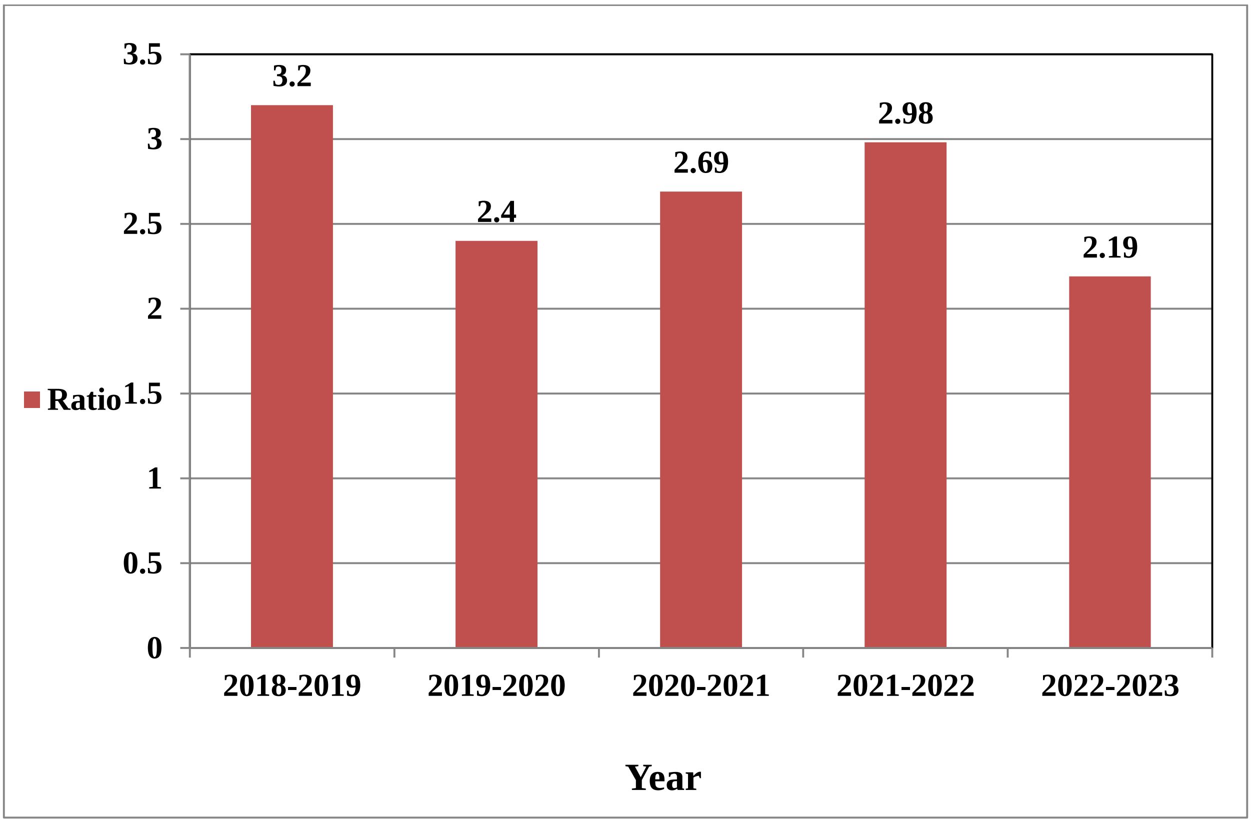
TABLE NO: 4.1.1

CURRENT RATIO

Year	Current Assets	Current Liabilities	Ratio
2018-2019	458.44	143.46	3.20
2019-2020	357.92	148.89	2.40
2020-2021	463.09	172.06	2.69
2021-2022	509.44	171.20	2.98
2022-2023	430.54	196.79	2.19

CHART NO: 4.1.1

CURRENT RATIO



Interpretation

From the above table conveys that current ratio was 3.20 in the year of 2018-19. It has decreased to 2.40 in the year of 2019-20. It has increased to 2.69 and 2.98 in the year of 2020-21 and 2021-22 respectively. It has decreased to 2.19 in the year of 2022-23

QUICK RATIO

An asset is quick or liquid if it can be converted into cash immediately without a loss of value. Cash is the most liquid asset. Other assets which are considered to be relatively liquid and included in quick assets are debtors and bills receivables and marketable securities.

The ratio can be calculated as

$$\textbf{Quick ratio} = \frac{\textbf{Current assets - inventories}}{\textbf{Current liabilities}}$$

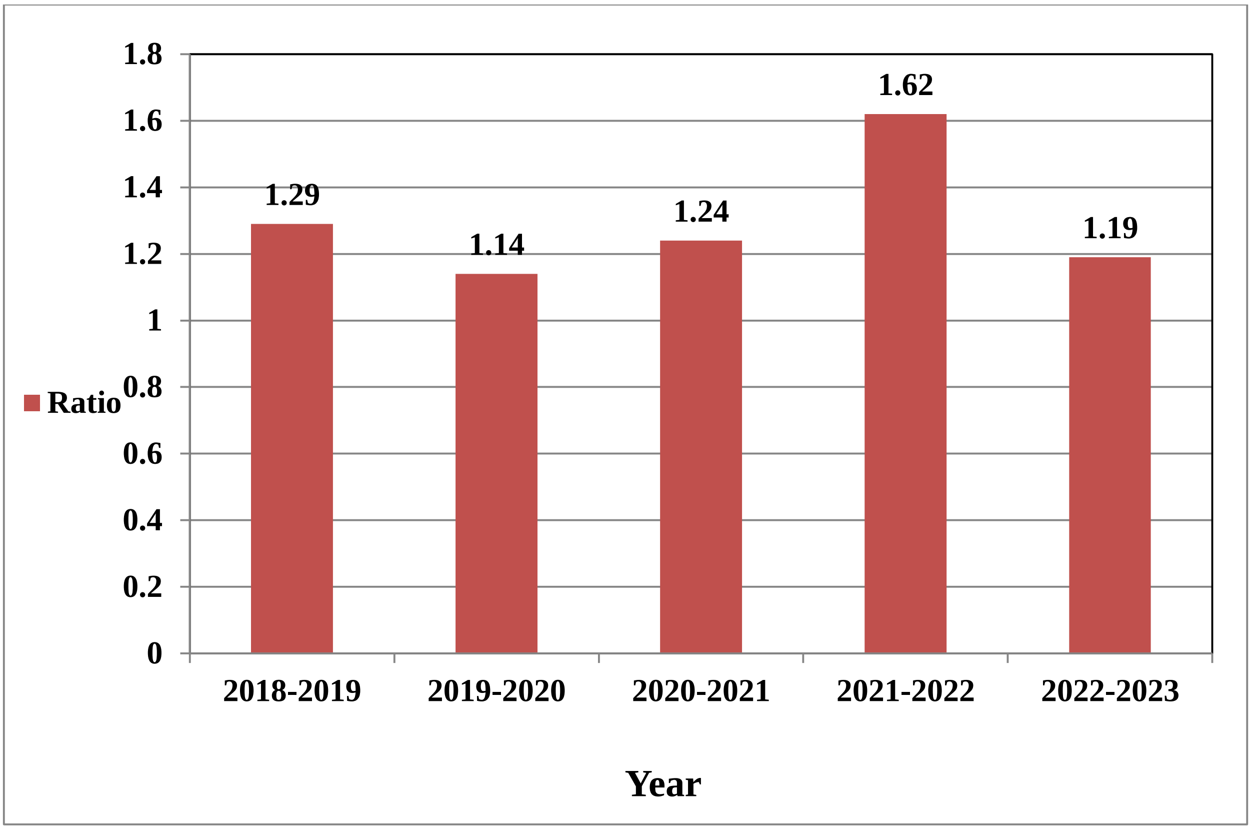
TABLE NO: 4.1.2			
QUICK RATIO			
Year	**Quick assets**	**Current Liabilities**	**Ratio**
2018-2019	185.33	143.46	1.29
2019-2020	170.38	148.89	1.14
2020-2021	212.96	172.06	1.24
2021-2022	277.40	171.20	1.62
2022-2023	234.52	196.79	1.19

Interpretation

From the above table conveys that Quick ratio was 1.29 in the year of 2018-19. It has decreased to 1.14 in the year of 2019-20. It has increased to 1.24 and 1.62 in the year of 2020-21 and 2021-22 respectively. It has decreased to 1.19 in the year of 2022-23.

CHART NO: 4.1.2

QUICK RATIO



Interpretation

From the above table conveys that Quick ratio was 1.29 in the year of 2018-19. It has decreased to 1.14 in the year of 2019-20. It has increased to 1.24 and 1.62 in the year of 2020-21 and 2021-22 respectively. It has decreased to 1.19 in the year of 2022-23.

WORKING CAPITAL RATIO

The difference between current assets and current liabilities excluding short term borrowings is called net working capital or net current assets. It is sometimes used as a measure of a firm's liquidity. The ratio is calculated as

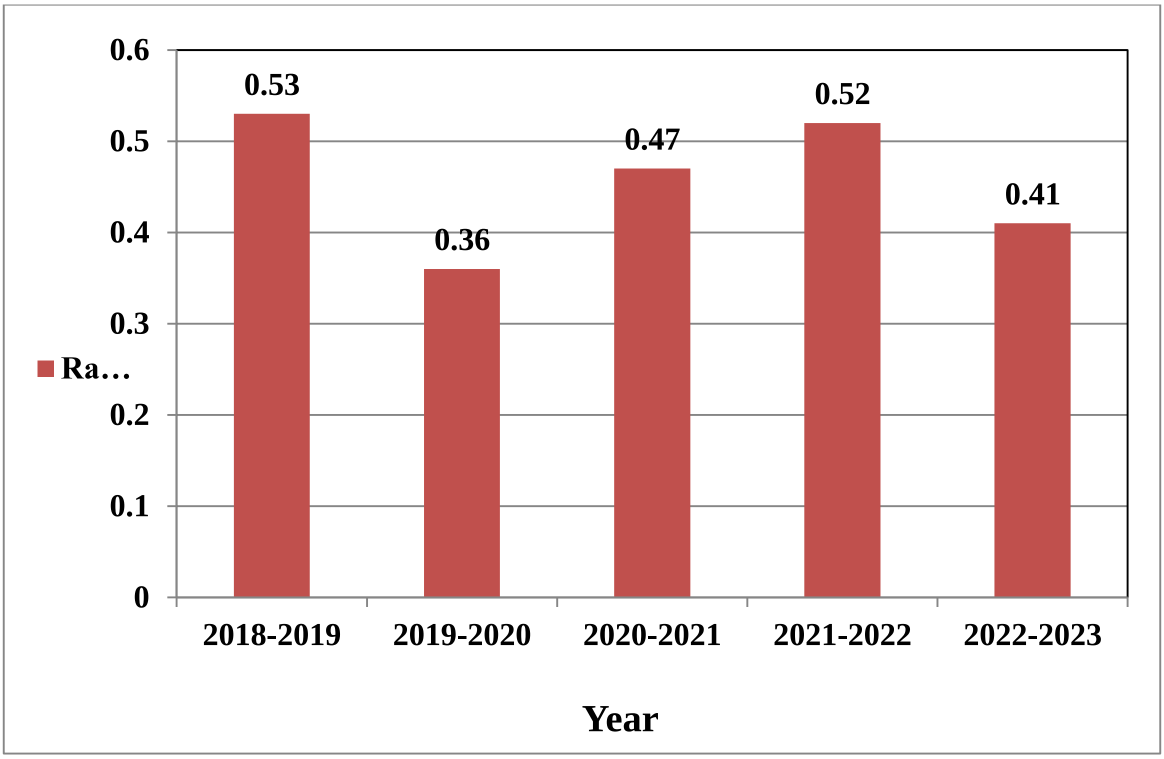
$$\textbf{Net working capital ratio} = \frac{\textbf{Net working capital}}{\textbf{Net asset}}$$

TABLE NO: 4.1.3			
WORKING CAPITAL RATIO			
Year	**Net working capital**	**Net assets**	**Ratio**
2018-2019	314.98	596.37	0.53
2019-2020	209.03	579.53	0.36
2020-2021	291.03	618.17	0.47
2021-2022	338.24	646.51	0.52

2022-2023	233.75	572.30	0.41

CHART NO: 4.1.3

WORKING CAPITAL RATIO



Interpretation

From the above table conveys that Working capital ratio was 0.53 in the year of 2018-19. It has decreased to 0.36 in the year of 2019-20. It has increased to 0.47 and 0.52 in the year of 2020-21 and 2021-22 respectively. It has decreased to 0.41 in the year of 2022-23.

CASH TO CURRENT LIABILITIES RATIO

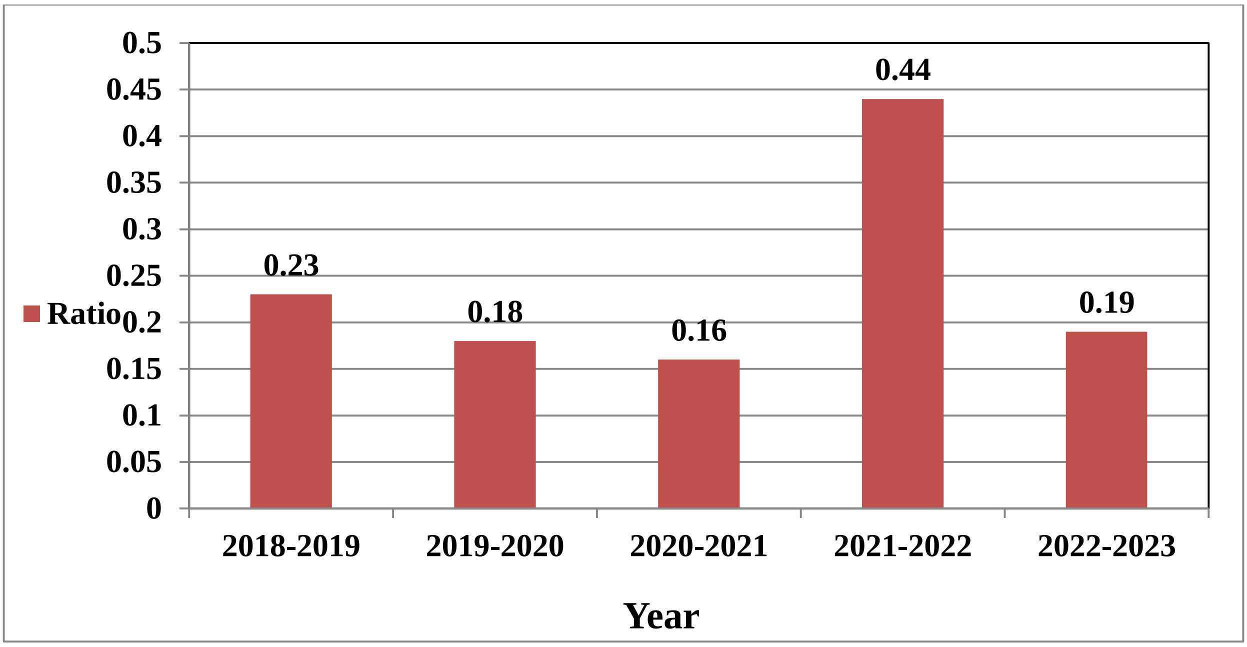
The **cash to current liabilities ratio** (also known as the cash ratio) tells us about the ability of a company to settle its current liabilities using only its cash and highly liquid investments.

= (Cash & Cash Equivalents + Marketable Securities) / Total Current Liabilities

TABLE NO: 4.1.4			
CASH TO CURRENT LIABILITIES RATIO			
Year	**Cash**	**Current liabilities**	**Ratio**
2018-2019	33.59	143.46	0.23
2019-2020	26.11	148.89	0.18
2020-2021	28.08	172.06	0.16
2021-2022	75.02	171.20	0.44
2022-2023	38.30	196.79	0.19

CHART NO: 4.1.4

CASH TO CURRENT LIABILITIES RATIO



Interpretation

From the above table conveys that Cash to current liabilities ratio was 0.23 in the year of 2018-19. It has decreased to 0.18 and 0.16 in the year of 2019-20 and 2020-21. It has increased to 0.44 in the year of 2021-22 respectively. It has decrease to 0.19 in the year of 2022-23.

DEBTORS TURNOVER RATIO

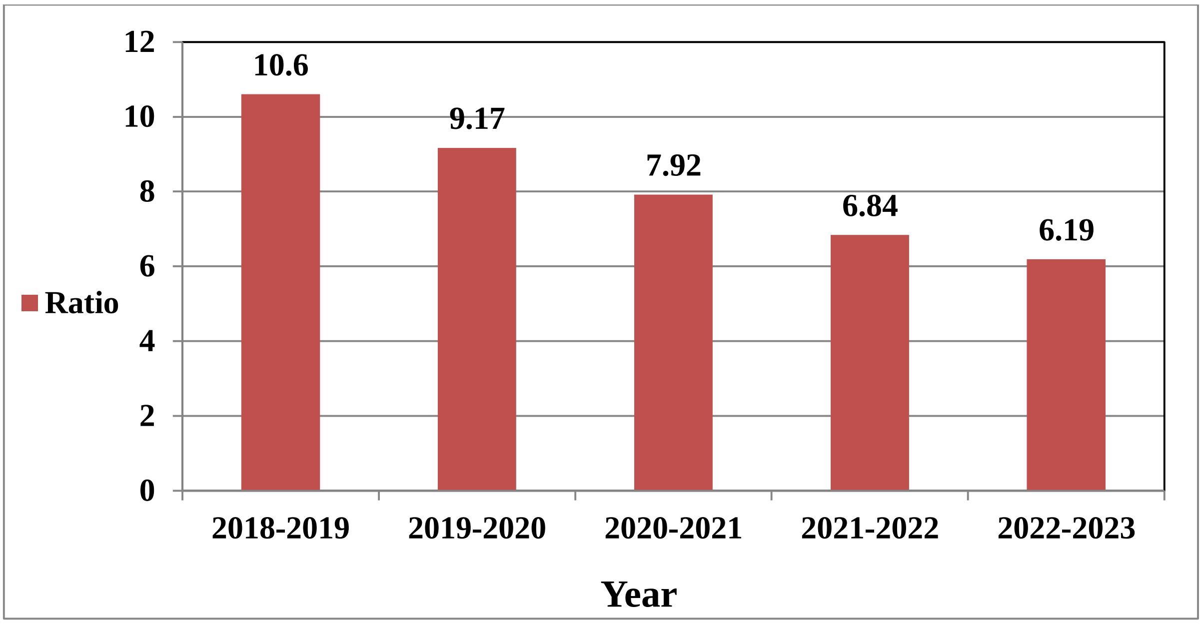
Debtors are expected to be converted into cash over a short period and therefore are included in current assets. The liquidity position of the firm depends on the quality of debtors to a great extent.

$$\text{Debtors' turnover ratio} = \frac{\text{Credit Sales}}{\text{Debtors}}$$

TABLE NO: 4.1.5			
DEBTORS TURNOVER RATIO			
Year	**Sales**	**Debtors**	**Ratio**
2018-2019	914.80	86.27	10.60
2019-2020	892.11	97.25	9.17
2020-2021	1021.13	128.90	7.92
2021-2022	1004.85	146.99	6.84
2022-2023	966.73	156.22	6.19

CHART NO: 4.1.5

DEBTORS TURNOVER RATIO



Interpretation

From the above table conveys that Debtors turnover ratio was 10.60 in the year of 2018-19. It has decreased to 9.17 in the year of 2019-20. It has decreased to 7.92 and 6.84 in the year of 2020-21 and 2021-2022 respectively. It has further decreased to 0.05 in the year 2022-23.

AVERAGE COLLECTION PERIOD

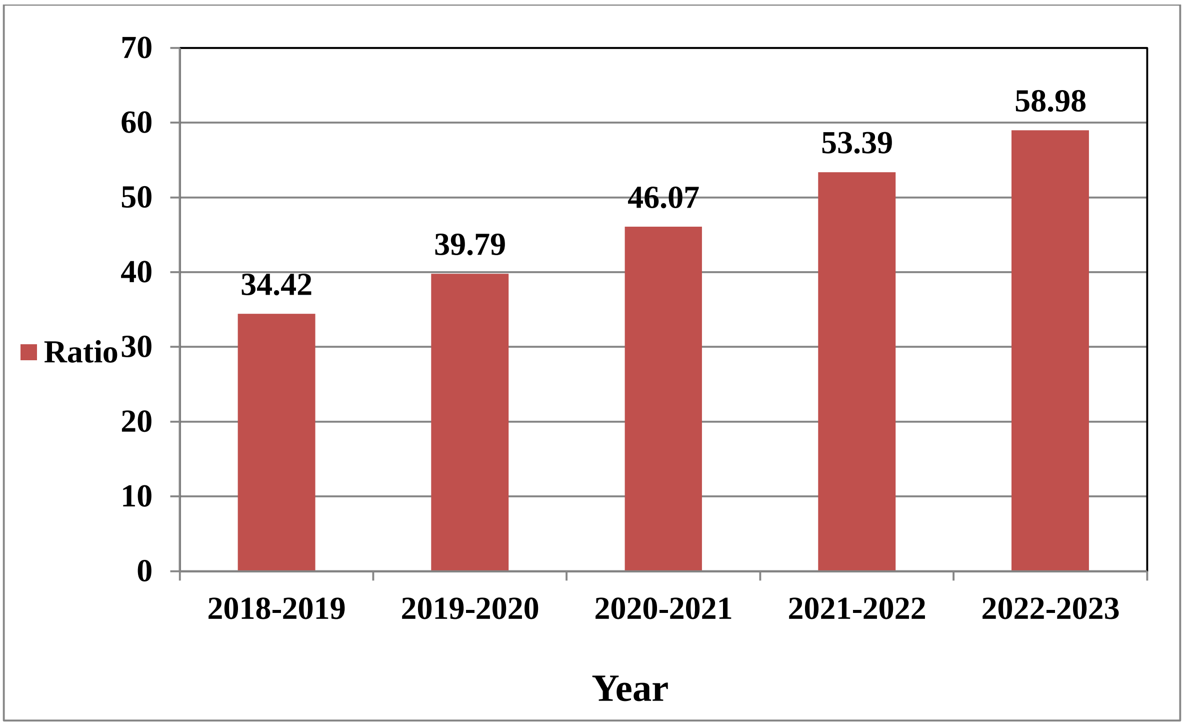
The average collection period is the amount of time it takes for a business to receive payments owed in terms of accounts receivable. The average collection period is calculated by dividing the average balance of accounts receivable by total net credit sales for the period and multiplying the quotient by the number of days in the period.

$$\textbf{Collection Period} = \frac{\textbf{360}}{\textbf{Debtors' turnover ratio}}$$

TABLE NO: 4.1.6			
AVERAGE COLLECTION PERIOD			
Year	**Days in a year**	**Debtors' turnover ratio**	**Debt collection period (days)**
2018-2019	365	10.60	34.42
2019-2020	365	9.17	39.79
2020-2021	365	7.92	46.07
2021-2022	365	6.84	53.39
2022-2023	365	6.19	58.98

CHART NO: 4.1.6

AVERAGE COLLECTION PERIOD



Interpretation

From the above table conveys that Average collection period was 34.42 in the year of 2018-19. It has increased to 39.79 and 46.07 in the year of 2019-20 and 2020-2021. It has further increased to 46.07 and 53.39 in the year of 2020-2021and 2021-2022respectively. It has increased to 58.98 in the year of 2022-2023.

CURRENT ASSETS TO TOTAL ASSETS RATIO

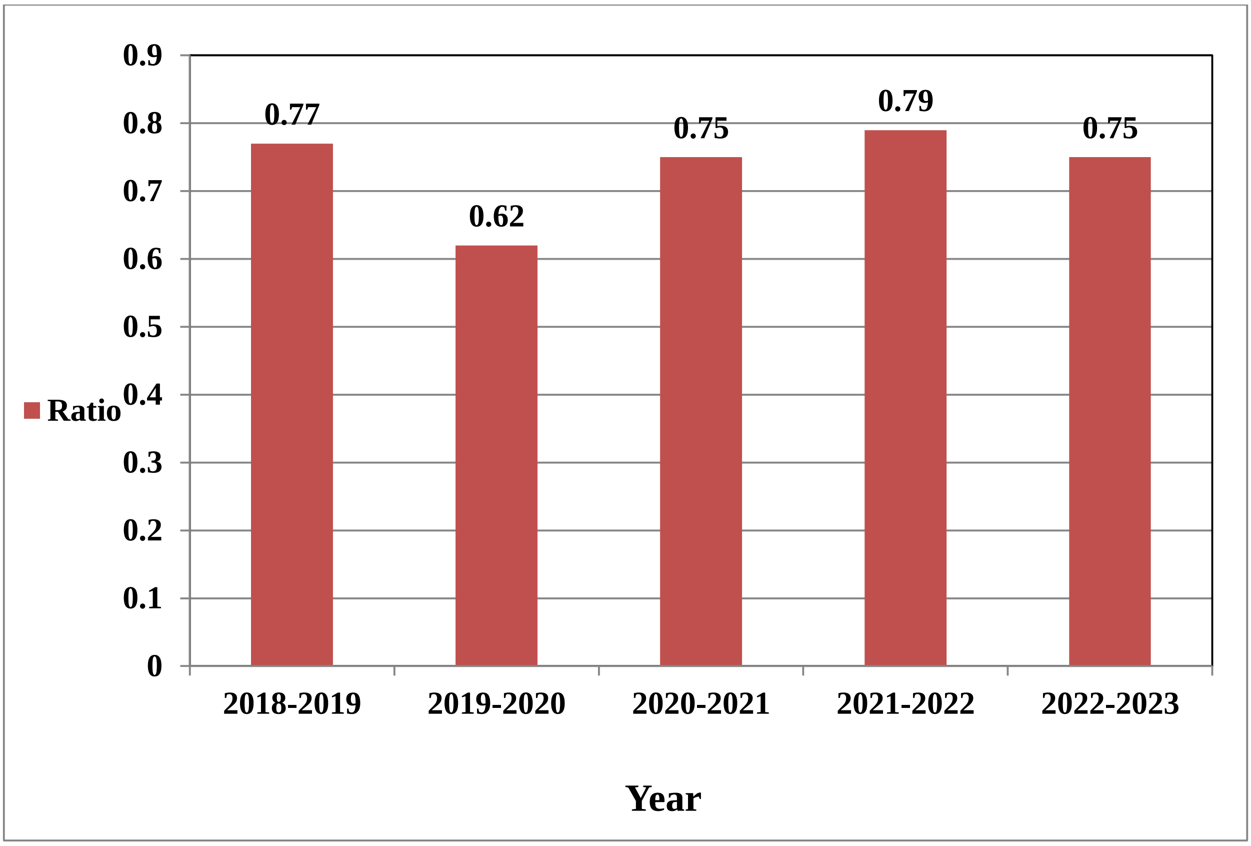
The ratio helps to measure the liquidity of the company. A company with high ratio indicates high liquidity and vice versa. Current assets to total assets ratio will calculate using following formula:

$$= \frac{\textbf{Current assets}}{\textbf{Total assets}}$$

TABLE NO: 4.1.7			
CURRENT ASSETS TO TOTAL ASSETS RATIO			
Year	**Current assets**	**Total assets**	**Ratio**
2018-2019	458.44	596.37	0.77
2019-2020	357.92	579.53	0.62
2020-2021	463.09	618.17	0.75
2021-2022	509.44	646.51	0.79
2022-2023	430.54	572.30	0.75

CHART NO: 4.1.7

CURRENT ASSETS TO TOTAL ASSETS RATIO



Interpretation

From the above table conveys that Current asset to total assets ratio was 0.77 in the year of 2018-2019. It has decreased to 0.62 in the year of 2019-2020. It has increased to 0.75 and 0.79 in the year of 2020-2021 and 2021-2022 respectively. It has decreased to 0.75 in the year of 2022-2023.

DEBTORS TO SALES

Debtors to Sales ratio, is defined as the debtors divided by the turnover of the company. This ratio demonstrates what percentage of credit the company gives on its sales. The formula is the following:

= (Debtors / Sales) * 100

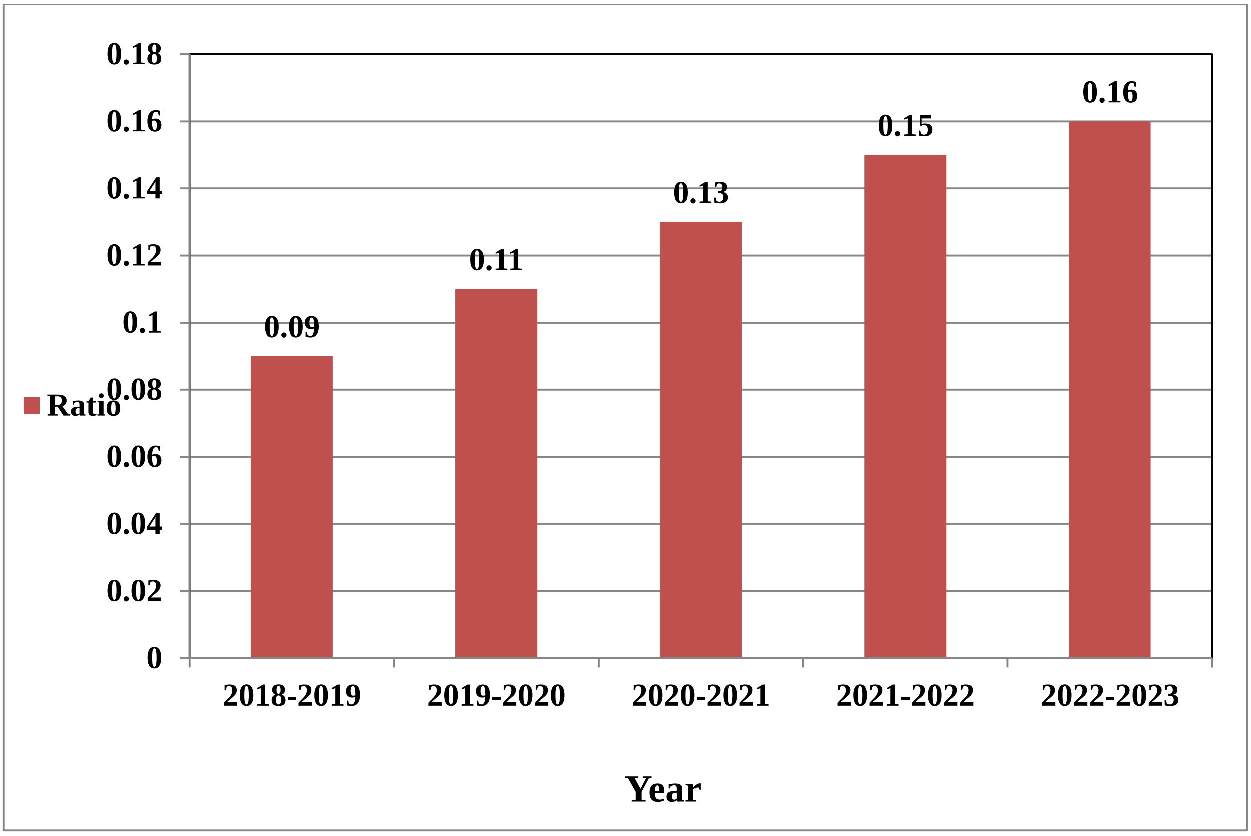
TABLE NO: 4.1.8

DEBTORS TO SALES

Year	Debtors	Sales	Ratio
2018-2019	86.27	914.80	0.09
2019-2020	97.25	892.11	0.11
2020-2021	128.90	1021.13	0.13
2021-2022	146.99	1004.85	0.15
2022-2023	156.22	966.73	0.16

CHART NO: 4.1.8

DEBTORS TO SALES



Interpretation

From the above table conveys that Debtors to sales ratio was 0.09 in the year of 2018-2019. It has increased to 0.11 and 0.13 in the year of 2019-2020 and 2020-2021. It has increased to 0.15 and 0.16 in the year of 2021-2022 and 2022-2023.

OPERATING PROFIT RATIO

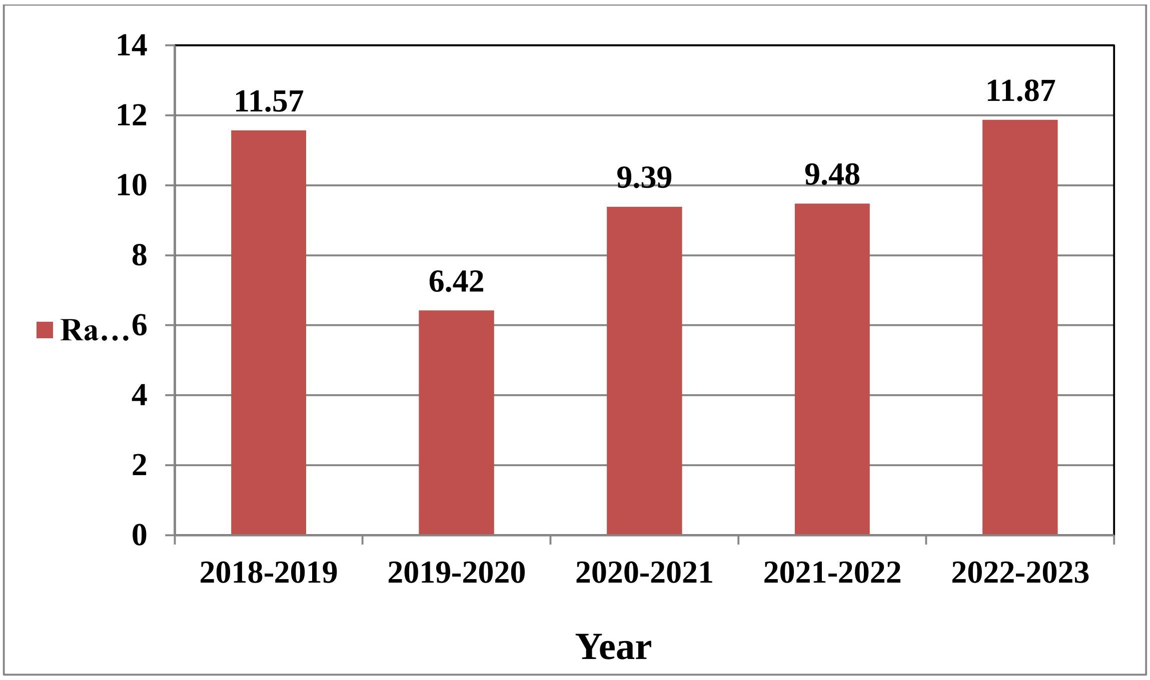
Operating net profit ratio is calculated by dividing the operating net profit by sales. This ratio helps in determining the ability of the management in running the business.

Operating profit ratio = (Operating profit / Net sales) × 100

TABLE NO: 4.1.9			
OPERATING PROFIT RATIO			
Year	**Operating profit**	**Net sales**	**Ratio**
2018-2019	105.87	914.80	11.57
2019-2020	57.31	892.11	6.42
2020-2021	95.90	1021.13	9.39
2021-2022	95.23	1004.85	9.48
2022-2023	114.75	966.73	11.87

CHART NO: 4.1.9

OPERATING PROFIT RATIO



Interpretation

From the above table conveys that operating profit ratio was 11.57 in the year of 2018-2019. It has decreased to 6.42 in the year of 2019-2020. It has increased to 9.39 and 9.48 in the year of 2020-2021 and 2021-2022 respectively. It has increased to 11.87in the year of 2022-2023.

PROPRIETORY RATIO

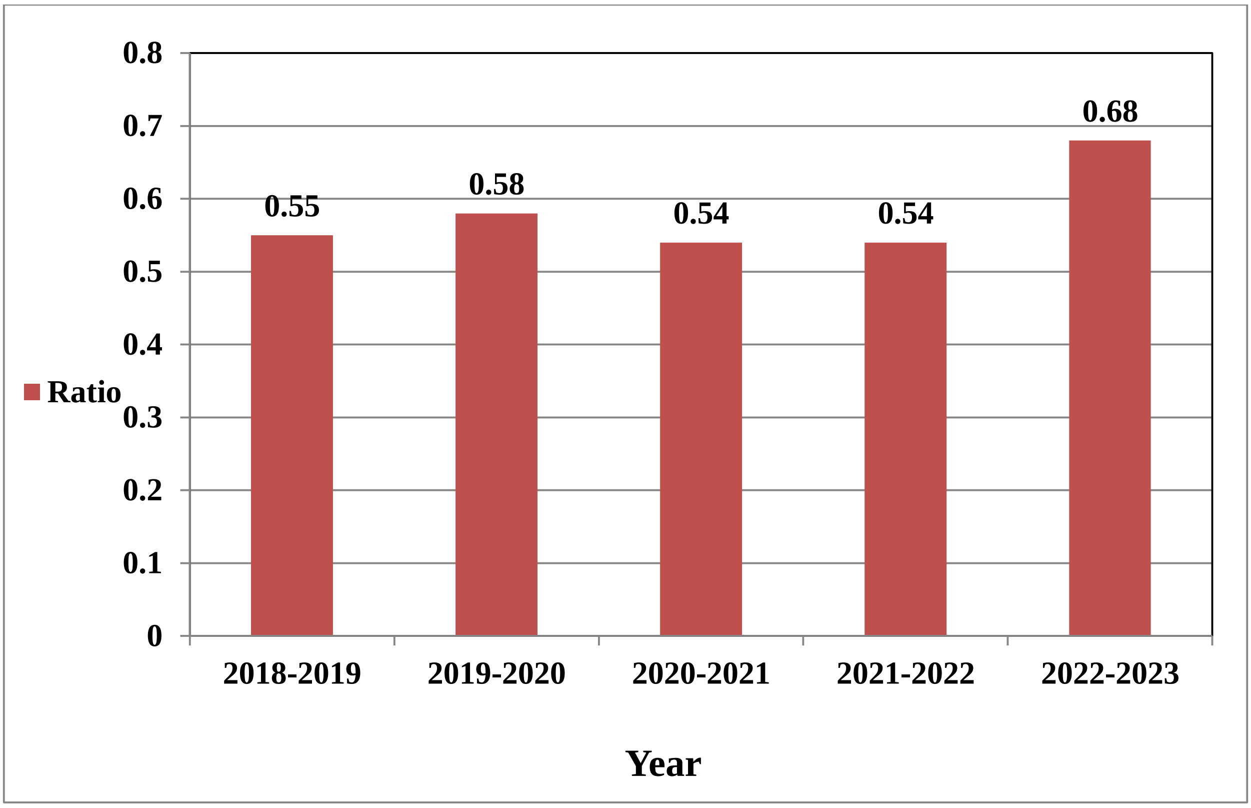
The proprietary ratio (also known as net worth ratio or equity ratio) is used to evaluate the soundness of the capital structure of company. It is computed by dividing the stockholders' equity by total assets.

Proprietary ratio = Proprietor's funds / Total assets

TABLE NO: 4.1.10			
PROPRIETORY RATIO			
Year	**Proprietary fund**	**Total tangible assets**	**Ratio**
2018-2019	326.05	596.37	0.55
2019-2020	333.37	579.53	0.58
2020-2021	332.18	618.17	0.54
2021-2022	347.06	646.51	0.54
2022-2023	387.86	572.30	0.68

CHART NO: 4.1.10

PROPRIETORY RATIO



Interpretation

From the above table conveys that Proprietary ratio was 0.55 in the year of 2018-2019. It has increased to 0.58 in the year of 2019-2020. It has decreased to 0.54 in the year of 2020-2021 and 2021-2022 respectively. It has increased to 0.68in the year of 2022-2023.

CASH RATIO

The cash ratio, sometimes referred to as the cash asset ratio, is a liquidity metric that indicates a company's capacity to pay off short-term debt obligations with its cash and cash equivalents. Compared to other liquidity ratios such as the current ratio and quick ratio, the cash ratio is a stricter, more conservative measure because only cash and cash equivalents – a company's most liquid assets – are used in the calculation.

$$\text{Cash ratio} = \frac{\text{Cash + Marketable Securities}}{\text{Current liabilities}}$$

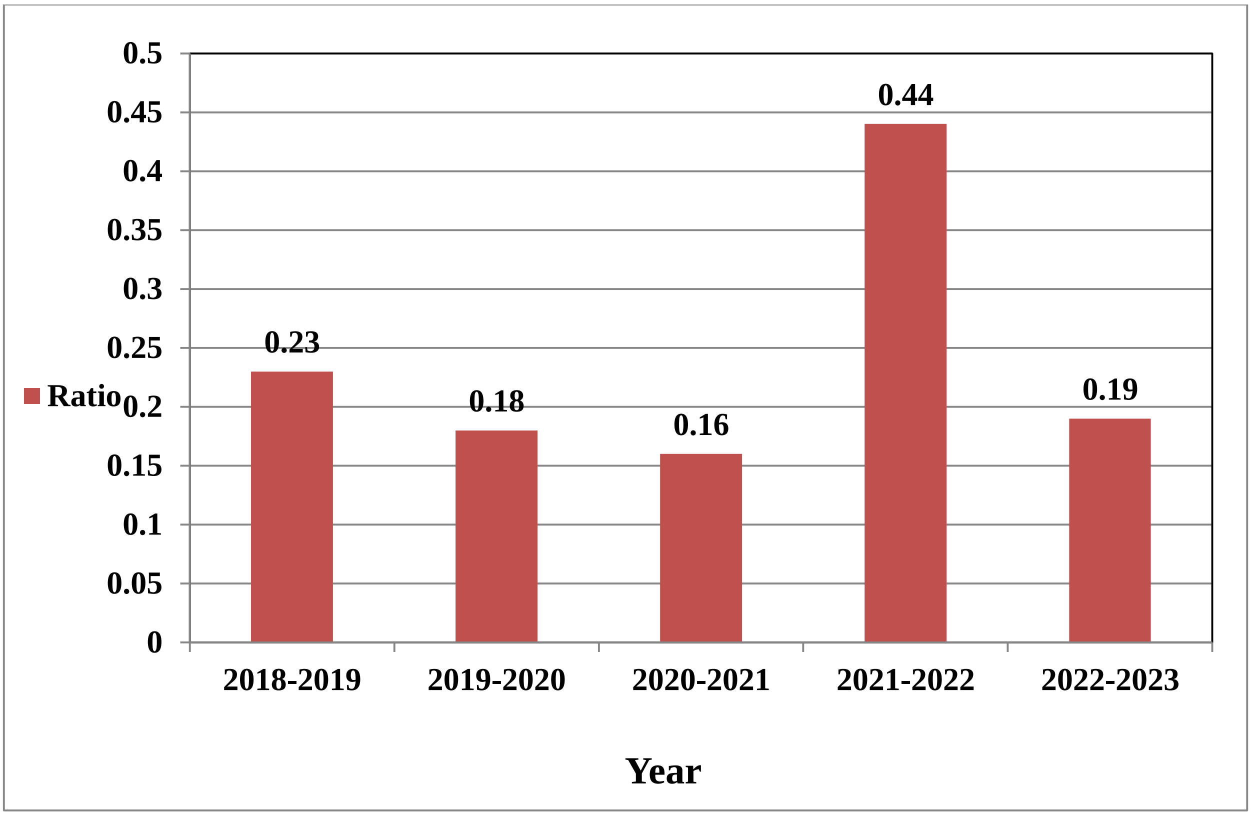
TABLE NO: 4.1.11

CASH RATIO

Year	Cash	Current Liabilities	Ratio
2018-2019	33.59	143.46	0.23
2019-2020	26.11	148.89	0.18
2020-2021	28.08	172.06	0.16
2021-2022	75.02	171.20	0.44
2022-2023	38.30	196.79	0.19

CHART NO: 4.1.11

CASH RATIO



Interpretation

From the above table conveys that Cash ratio was 0.23 in the year of 2018-2019. It has decreased to 0.18 and 0.16 in the year of 2019-2020 and 2020-2021. It has increased to 0.44 in the year of 2021-2022 respectively. It has decreased to 0.19 in the year of 2022-2023

INVENTORY TURNOVER RATIO

This ratio indicates the efficiency of the firm in producing and selling its product. This ratio indicates the number of times inventory is replaced during the year. It measures how quickly inventory is sold. The inventory turnover reflects the efficiency of the firm in producing and selling its products. This ratio indicates the velocity or the movement of goods during the year. It is calculated as follows.

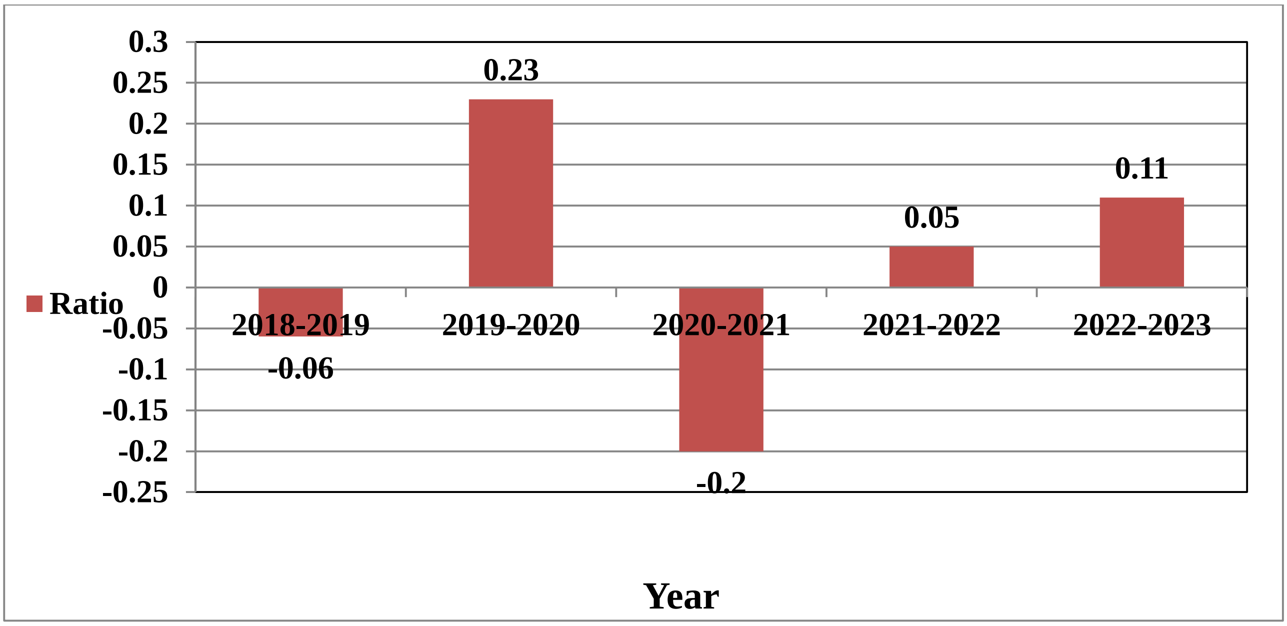
$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

TABLE NO: 4.1.12			
INVENTORY TURNOVER RATIO			
Year	Cost of goods sold	Average inventory	Ratio
2018-2019	-20.88	358.71	-0.06
2019-2020	85.57	366.88	0.23

2020-2021	-62.59	312.61	-0.20
2021-2022	18.09	366.15	0.05
2022-2023	36.02	330.05	0.11

CHART NO: 4.1.12

INVENTORY TURNOVER RATIO



Interpretation

From the above table conveys that Inventory turnover ratio was -0.06 in the year of 2018-2019. It has increased to 0.23 in the year of 2019-2020. It has decreased to -0.20 in the year of 2020-2021 respectively. It has increased to 0.05 and 0.11in the year of 2021-2022 and 2022-2023.

RECEIVABLES TO CURRENT ASSETS

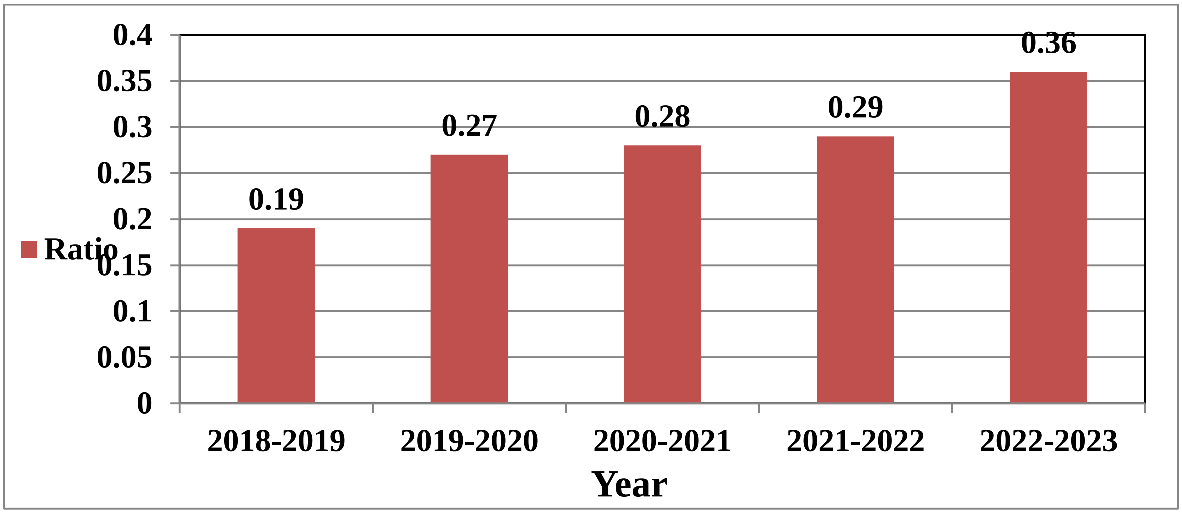
Receivables as a percentage of current assets would reveal the size of receivables in current assets and the opportunity cost associated with it, higher the percentage and higher is the cost of carrying the receivables. It is therefore desired that a firm needs to carry the least percentage of receivables as possible without affecting the sales volume.

$$= \frac{\textbf{Receivables}}{\textbf{Current assets}}$$

TABLE NO: 4.1.13			
RECEIVABLES TO CURRENT ASSETS			
Year	**Receivables**	**Current assets**	**Ratio**
2018-2019	86.27	458.44	0.19
2019-2020	97.25	357.92	0.27
2020-2021	128.90	463.09	0.28
2021-2022	146.99	509.44	0.29
2022-2023	156.22	430.54	0.36

CHART NO: 4.1.13

RECEIVABLES TO CURRENT ASSETS



Interpretation

From the above table conveys that Receivable to current assets was 0.19 in the year of 2018-2019. It has increased to 0.27 and 0.28 in the year of 2019-2020 and 2020-2021 respectively. It has further increased to 0.29 and 0.36 in the year of 2021-2022 and 2022-2023.

CASH TO CURRENT ASSETS RATIO

The cash to current assets ratio tells us what portion of total current assets is constituted by the most liquid assets of the company – cash and cash equivalents and marketable securities.

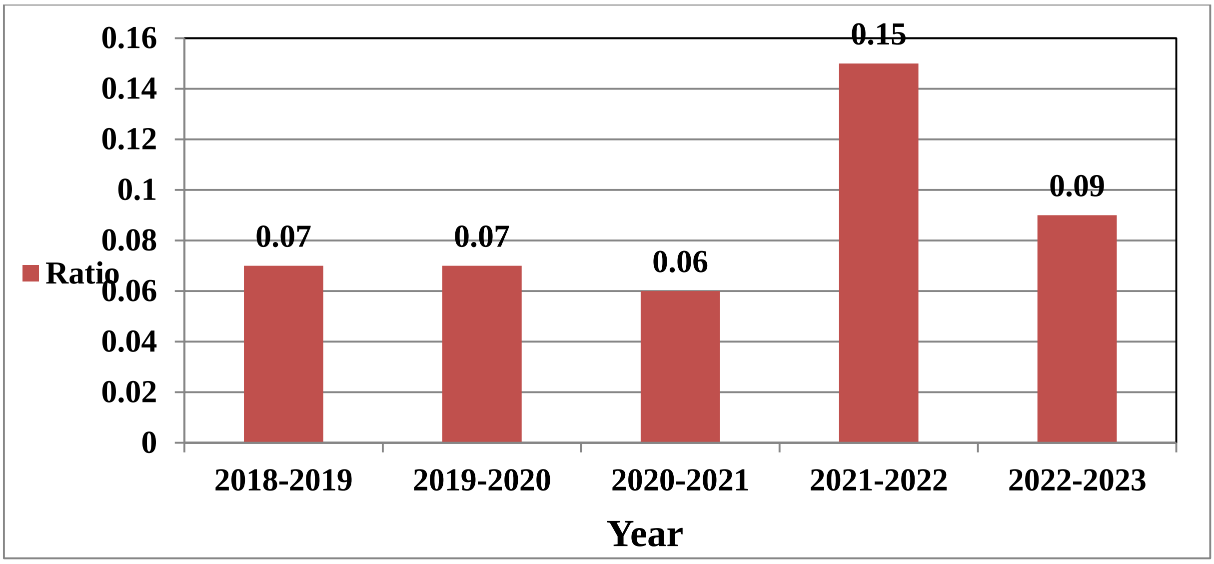
$$= \frac{\textbf{Cash}}{\textbf{Current assets}}$$

TABLE NO: 4.1.14			
CASH TO CURRENT ASSETS RATIO			
Year	**Cash**	**Current assets**	**Ratio**
2018-2019	33.59	458.44	0.07

2019-2020	26.11	357.92	0.07
2020-2021	28.08	463.09	0.06
2021-2022	75.02	509.44	0.15
2022-2023	38.30	430.54	0.09

CHART NO: 4.1.14

CASH TO CURRENT ASSETS RATIO



Interpretation

From the above table conveys that Cash to current assets ratio was 0.07 in the year of 2018-2019. It has decreased to 0.06 in the year of 2020-2021. It has increase to 0.15 in the year of 2021-2022 respectively. It has decreased to 0.09 in the year of 2022-2023.

RESULTS AND DISCUSSION

- Current ratio was 3.20 in the year of 2021-22. It has decreased to 2.40 in the year of 2022-23.
- Quick ratio has increased to 1.24 and 1.62 in the year of 2020-21 and 2021-22 respectively. It has decreased to 1.19 in the year of 2022-23.
- Working capital ratio was 0.53 in the year of 2021-22. It has decreased to 0.36 in the year of 2022-23.
- Cash to current liabilities ratio has decreased to 0.18 and 0.16 in the year of 2022-23 and 2020-2021. It has increased to 0.44 in the year of 2021-22 respectively.
- that Debtors turnover ratio has further decreased to 0.05 and 0.11in the year of 2018-2019 and 2022-23.
- Average collection period was 34.42 in the year of 2021-22. It has increased to 39.79 and 46.07 in the year of 2022-23 and 2018-2019.
- Current assets to total assets ratio increased to 0.75 and 0.79 in the year of 2020-21 and 2018-2019 respectively.
- Debtors to sales ratio increased to 0.15 and 0.16 in the year of 2018-2019 and 2022-23.

- Operating profit ratio was 11.57 in the year of 2021-22. It has decreased to 6.42 in the year of 2022-23.

- Proprietary ratio has decreased to 0.54 in the year of 2018-19 respectively. It has increased to 0.68 in the year of 2022-23.

- Cash ratio was 0.23 in the year of 2021-22. It has decreased to 0.18 and 0.16 in the year of 2022-23 and 2020-2021.

- Inventory turnover ratio increased to 0.05 and 0.11in the year of 2018-2019 and 2022-23.

- From the above table conveys that Receivable to current assets was 0.19 in the year of 2018-19. It has increased to 0.27 and 0.28 in the year of 2019-20 and 2020-2021 respectively.

- Cash to current assets ratio has decreased to 0.09 in the year of 2022-23.

- The liquid position of the concern is not much satisfactory. So, the firm should improve the current and cash position ratio is not up to the mark. Steps to be taken to increase the current assets of the company to achieve of standard norms.

- It is necessary that a firm should have sufficient cash for paying its bills on the due dates to take advantage of trade discounts offered by the suppliers and to maintain its credit standing.

- The firm should increase the investment in various investing activity because its shows fluctuate trend mostly attaining in decreasing levels. Steps to take the investing activities.

- The company can make necessary steps to accelerate the cash collection. It can be done by reducing the float involved in conversion of payments into cash.

- The company should make efficient utilization of current assets which will enable the firm to increase the sales level.

- The company should take effort to reduce the finished goods storage period by ensuring quick movements of finished goods in to market.

- The company should make use of credit period to the fullest extent and should pay only on due date.

- Knowing when, where, and how company cash needs will occur, knowing what the best sources are for meeting additional cash needs and being prepared to meet these needs when they occur, by keeping good relationships with bankers and other creditors.

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