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A Study of Credit Analysis in Husky Injection Molding System India Private Limited with Special Focus on their Customers

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ABSTRACT

In finance and accounting department there are many terms, but the one which made me anxious is credit analysis for an organization. There are many risks related to credits, especially for the company's capital. The credit analysis process may vary based on different industries. Therefore, have chosen to do a study based on a manufacturing industry, by undergoing an internship to know more about it's real time scenario on credit analysis. The organization name is Husky injection molding systems located at Chennai. The objective of this paperwork to use different accounting tools for assessing the risk factors; from the company perspective on its customers majorly ratio analysis helps to identify the capability, capacity of the repayment power of a customer with the help of organization's financial statement. By default, risk analysis is an important assessment which needs to be fallowed as it's necessary for crucial business situations.

The company holds huge volumes of customer related data from which they are unable to arrive at a judgment if an applicant has the ability or not. 5c's of credit analysis is a promising area of credit analysis which aims to extract useful knowledge from the tremendous amount of complex data sets. Based on the review of 5c's the credit analysis has been implemented on selected customers, and the source data have been collected from their annual report. Analysis of response indicates the customer business strength is good or bad. In this basic it will recommend for decide the payment term of advance payment and net due days.

The account payable of the company is fully depends upon the account receivable so the credit analysis plays the important role in account receivable. This study uses Altman's Z-score model which helps to estimate whether there is any possibility of repayment when the customer failed to repay the contracted loan obligations. To understand the efficiency and various sources of credit analysis are what the project further going to be explained on.

CHAPTER 1
INTRODUCTION

It is a competitive world where financial risk percentage is high, always evasion and discounts and bad debts are the words an organization would like to stay away from. The analysis of credit capacity of a customer is very important to maintain a strong receivable book in an organization. Performing the credit analysis and figuring out the risk factors beforehand is a huge task, which might vary from industry to industry.

This project is on a manufacturing industry how it manages and brings it utmost potentiality in background verification of the customers repaying capacity, this is called credit analysis and how the art is performed by not losing its customer and goodwill amongst its customers.

In any industry it is little challenge to demand the customer directly for submitting the required documents due even after giving approval of credit, it is important to analyze the repayment capacity of the customer which is done by qualitative and quantitative analysis.

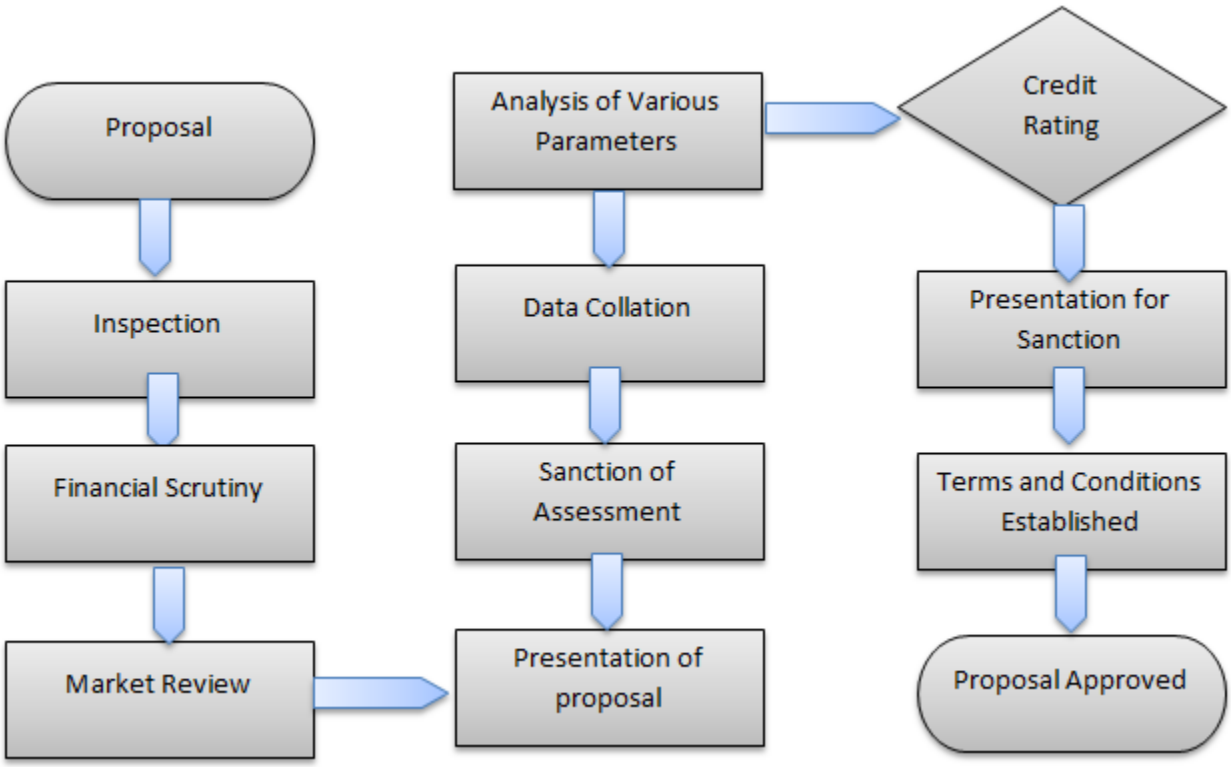
Credit risk is a solution to all issue faced by the manufacturing sectors, which helps them to evaluate if a customer is defaulter or not with existing data of the existing customers or collecting new data from the new customers if possible, for background verification. By the act of this the decision could be made whether the business relationship to continue or to back off. This helps the company to minimize possible losses and increase the goodwill between both the parties i.e. the customer and the organization. The result of credit and risk analysis will decide the future cash flow and prediction of capital loss. The analysis helps the company to come into a conclusion to give credit or not for their customers.

The 5c's of Credit analysis plays an important role in identifying the customer paying capacity or repayment capabilities especially in manufacturing industries.

The analysis in manufacturing industry is not done through the customer knowledge it seeks many methods to indicate the capacity and ability of the customer. Sometimes the financial term indicates positive result towards the customer and non-financial term indicate negative approach, then the decision might depend upon the non-financial term.

The aim of this study is to use different analysis accounting tools and model to predict the capability of the selected customer to decide the credit worthiness. The data which is used to analyze are taken from the primary source of the company's annual report and secondary source from internet. To classify the customer whether he is an efficient payer or not.

➢ *Process of Credit Analysis*



➢ *Credit Proposal*

When the sales team coverts the opportunity in to an order in order to increase the volume the credit proposal occurs. Thus, the proposal was given by the customer to the company. The credit Analyst has the responsible to verify the proposal and approve the payment term.

➢ *Inspection*

Inspection is unavoidable and it is important to identify whether the customer is really worthy for credit approval or not.

➢ *Financial Scrutiny*

It is a broad term that covers the examination, analysis and challenge of the whole process of how and why decisions are taken to spend money; how wisely and effectively that money is spent; and how effective the outcomes of that spending are.

➢ *Market Review*

A market overview is a brief synopsis of a commercial or industrial market. Its aim is to provide a current snapshot of a market in order to better understand its key features. These summary reports profile the important criteria of a market so as to inform further marketing activity.

➢ *Analysis of Various Parameters*

Analyzing the company in both the financial and non-financial parameters. It tells something about the character and capacity of the company.

➢ *Data Collection*

The Data Collection has been done through various sources like Credit portals and their Company website and published Annual report and summary of payment report.

➢ *Sanction of Assessment*

After collecting the data, it is important to identify available risk in this Credit approval by analyzing the available data.

➢ *Presentation of Proposal*

By the credit proposal the purchase quotation is generated by the company in order to get the purchase order. And sales report gets generated by the data available in purchase order.

➢ *Credit Rating*

Based upon the analyzed data from both the financial and non-financial statement the credit rating should be fixed by the credit analyst.

➢ *Credit Approval*

Based upon the Credit rating and agreement made for payment term between the customer and the company, the credit get approved.

➢ *Five C's of Credit*

The five C's 0f credit, are a framework used by many traditional lenders to evaluate potential small business borrowers. They are

1. Character
2. Capacity/Cash flow
3. Capital
4. Conditions
5. Collateral

➢ *Types of Ratios*

Management is interested in evaluating every aspect of firm's performance. In view of the requirement of the various users of ratios, we may classify them in to the fallowing five important categories.

- Liquidity Ratio
- Leverage Ratio
- Activity Ratio
- Profitability Ratio
- Solvency Ratio.

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CHAPTER 2

LITERATURE REVIEW

1. Credit risk is defined as the potential that a borrower or counterparty will fail to meet its obligations in accordance with agreed terms. According to Chijoriga (1997) credit risk is the most expensive risk in financial institutions and its effect is more significant as compared to other risks as it directly threatens the solvency of financial institutions.

2. While financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of banking problems continue to be directly related to lax credit standards for borrowers andcounterparties, poor portfolio risk management, or lack of attention to changes in economic or other circumstances that lead to deterioration in the credit standing of financial institution's counterparties (Basel, 1999).

3. Gisemba (2010) researched on the relationship between risk management practices and financial performance of Saccos found out that the Saccos adopted various approaches in screening and analyzing risk before awarding credit to client to minimize loan loss. This includes establishing capacity, conditions, use of collateral, borrower screening and use of risk analysis in attempt to reduce and manage credit risks. He concluded that for Saccos to manage credit risks effectively they must minimize loan defaulters, cash loss and ensure the organization performs better increasing the return on assets.

4. Content Validity was employed by this study as a measure of the degree to which data collected using a particular instrument represents a specific domain or content of a particular concept, Mugenda and Mugenda (1999) contend that the usual procedure in assessing the content validity of a measure is to use a professional expert in a particular field.

5. Silikhe (2008) on credit risk management in microfinance institutions in Kenya found out that despite the fact that microfinance institutions have put in place strict measures to credit risk management, loan recovery is still a challenge to majority of the institutions

6. The main objective of this article was to find out whether the two forensic accounting tools that is the Altman Z score model and the Beneish M score model would predict the corporate failure and financial manipulation of Enron Corporation. The researcher of the said article has accomplished the objective of and has stated that both Altman Z score model and Beneish M score model should be used simultaneously for the purpose of audit. (MacCarthy, 2017)

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CHAPTER 3
COMPANY PROFILE

HUSKY OVERVIEW

A History of Innovation

- Founded in 1953 by Robert Schad.
- Started as a small Machine shop in a Toronto garage.
- Focused on specialized molds which made thin wall coffee cups.
- Within a decade, Husky launches own line of machines.

Husky Today

- 5000 employees globally.
- Fastest cycle times and highest cavitation molds.
- Manufacturing Campuses in North America, Europe and Asia.
- Global Service and sales network consisting of more than 40 offices.

Vision of the Company

To be the outright global leader in delivering value to the customers.

How Husky uphold vision

- Husky Objective is to recognized as the industry leader in delivering value to the customers. The products typically command a premium at time of purchase, but the goal is to provide the best return on invested capital.

- To do this we need the best team, fully aligned and highly motivated.

How do Husky plan to achieve these goals?

- Continue to build a team of people dedicated to providing superior products and services.
- Invest in research and development to deliver technologies that reduce production costs, improve performance and increase sustainability.
- Are genuinely interested in understanding Customers need to ensure their long-term success.
- Continue to expand company through a track record of consistent growth and performance.

Complete Systems

- Injection Molding Machines
- Molds
- Hot Runners & Controllers
- Robots
- Integrated Systems.

Dehumidifiers

Resin Dryers

Chillers

Conveyors.

Focus on Dynamic Industries

- Growing middle class in emerging markets require safely packaged food and beverages.
- Environmental concerns driving new approach to packaging (bio materials, light weighting).
- Continued Conversion from glass to plastic beverage packaging.

Market Serve

- Beverage Packaging
- Beverage and Specialty Closures
- Food Packaging Containers
- Medical
- Automotive
- Thinwall Packaging
- Consumer Electronics.

Husky Mold / Hot Runner Business

- PET Beverage Molds
- Closure Molds
- Full line of Hot Runners
- Mold Refurbishing
- Spare parts.

LIVING VALUES

Husky has been dedicated to corporate Responsibility and this is reflected in all areas of the business.

Values

- Make a Contribution
- Proactive environmental Responsibility
- Passion for excellence
- Bold goals
- Uncompromising honesty
- Respect.

Social

- Supporting Communities where Husky build business.
- Upholding the highest standards of business conduct.
- Promoting care in the communities.

Environmental

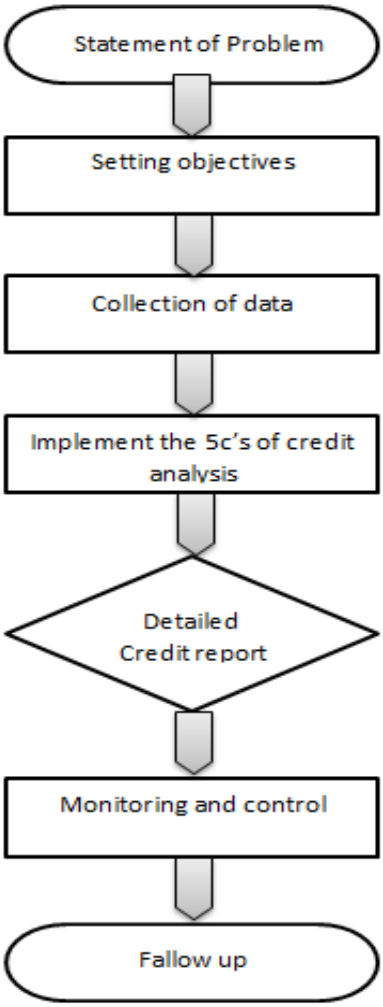
- Developing environmentally responsible technologies.
- Proactive environmental initiatives, education, health.
- Energy efficient buildings, comprehensive programs to minimize waste and energy consumption.

CHAPTER 4
RESEARCH METHODOLOGY

In order to increase the production, the credit becomes crucial nowadays for manufacturing industries. The most accurate and highly used credit Analysis for the commercial purpose is risk assessment. Hence determine the risk using past transaction is not a promising area even though the payment term is pending for more than 90 days.

Hence this paper presents a 5c's of credit analysis framework for estimating the due date. The data used for this is from annual report. The ratio performed for identifying the customer are liquidity ratio, profitability ratio, Activity ratio, solvent ratio and Z score model. The ratio calculations are done in Microsoft Excel.

The steps involved in building research methodology are shown below;



4.1 STATEMENT OF THE PROBLEM

The motive of the study is to find the credit worthiness of the customer. This study is concerned with problem involved in credit analysis like Competitors (which includes quality, cost and lead time), Change in Local Government Regulations, and efficient sources of data (Financials and Non-Financials).

Any negligence made in credit analysis will directly affect the company which leads to Lack of working capital due to customer delay payment and completely affecting the cash flow of the company.

4.2 OBJECTIVE OF THE STUDY

Primary objective

- To Find the Credit Worthiness of the customer in order to Determine the time required to recovery the initial cash outlay (payment term).

Secondary objective

- Helping sales and marketing department in managing financial order and control credit exposure receive payments on time and reduce the risk of customer disputes.
- Evaluating the solvency position of clients by producing financial ratios.
- To Access return on investment.
- To analyze financial and non-financial position of the customer.
- Determine the degree of risk involved in lending money to the customer.

4.3 DATA COLLECTION METHOD

Primary Data

The primary data was gathered through Annual report from the customer's website and Credit portal by personal interaction with credit analyst.

Secondary data

Secondary data will be collected internally which is from the previous payment record, articles and from the internet.

LIMITATIONS OF THE STUDY

- Depends upon secondary data
- Ratio calculated from past financial statement and these are not indicating the future
- Time consumption also a major constraint for the study.

4.4 IMPLEMENTING THE FIVE C'S OF CREDIT

Example Reference customer – Manjushree Technopack

For credit review I have taken Manjushree Technopack customer Financials as reference

The five C's 0f credit, are a framework used by many traditional lenders to evaluate potential small business borrowers. They are

1. Character
2. Capacity/Cash flow
3. Capital
4. Conditions
5. Collateral

4.4.1 CHARACTER

- Retained Customer with high volume of business.
- While analyzing the previous transition and due payment of the customer is has goodwill

4.4.2 CAPACITY

In order to identify whether the customer business generate enough cashflow to repay Ratio analysis has been performed.

WORKING CAPITAL

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Current Asset	51716.73	42959.09	37134.00
Current Liabilities	43543.39	31979.85	31062.91

Formula:

Working Capital = Current Asset – Current Liabilities

For 2019

Working Capital = Current Asset - Current Liabilities

= 51716.73 - 43543.39

= 8173.34

For 2018

Working Capital = Current Asset - Current Liabilities

= 42959.09 – 31979.85

= 10979.24

For 2017

Working Capital = Current Asset - Current Liabilities

= 37134.00 – 31062.91

= 6071.09

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WORKING CAPITAL			
YEAR	**2019**	**2018**	**2017**
AMOUNT	8173.34	10979.24	6071.09

Table Working Capital

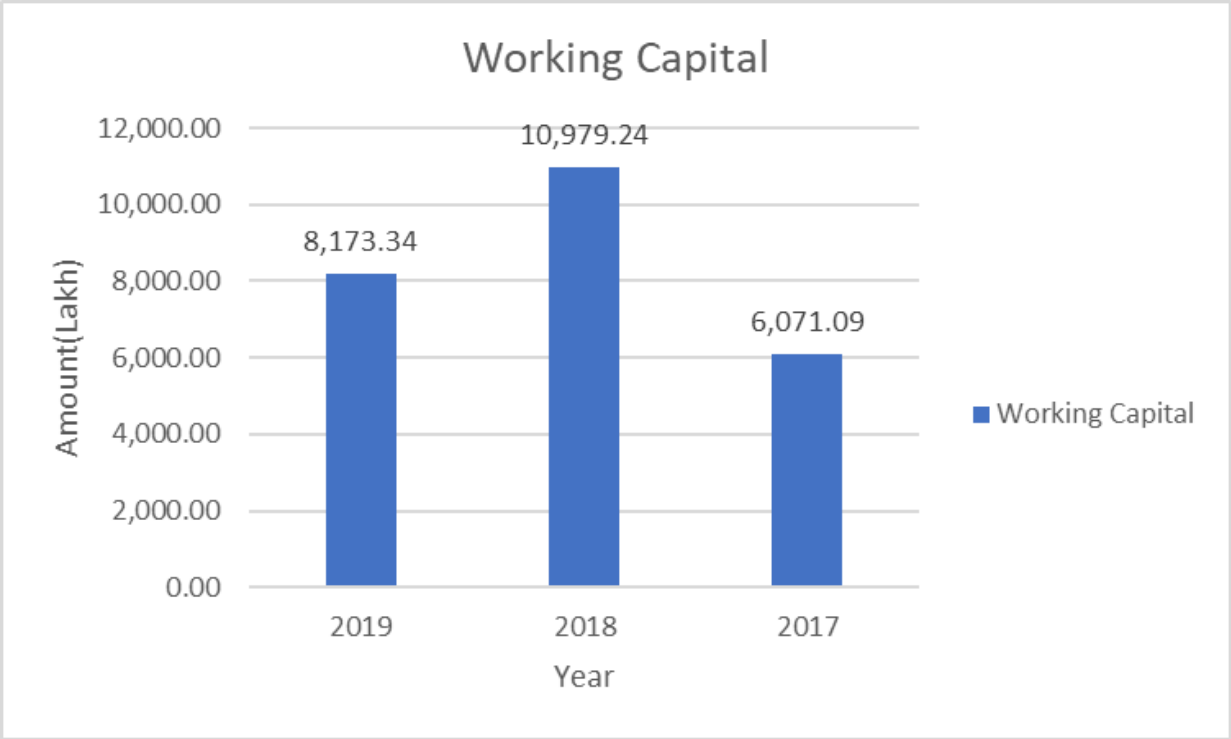

Figure Working Capital

Interpretation

In the above analysis of working capital, the capital decreases when compared from 2018 to 2019. but has a efficient Working Capital to meet its Short Term as well as Long Term Financial needs. It is also positive which is a good sign, in terms of efficiency, liquidity, and the overall financial health.

NET WORTH

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Total Asset	99233.94	90932.54	89130.14
Total Liabilities	62514.85	57811.45	59494.05

Formula:

Net Worth = Total Asset – Total Liabilities

For 2019

Net Worth = Total Asset - Total Liabilities

= 99233.94 – 62514.85

= 36719.09

For 2018

Net Worth = Total Asset - Total Liabilities

= 90932.54 – 57811.45

= 33121.09

For 2017

Net Worth = Total Asset - Total Liabilities

= 89130.14 – 59494.05

= 29636.09

NET WORTH			
YEAR	**2019**	**2018**	**2017**
AMOUNT	36719	133121.09	29636.09

Table Net Worth

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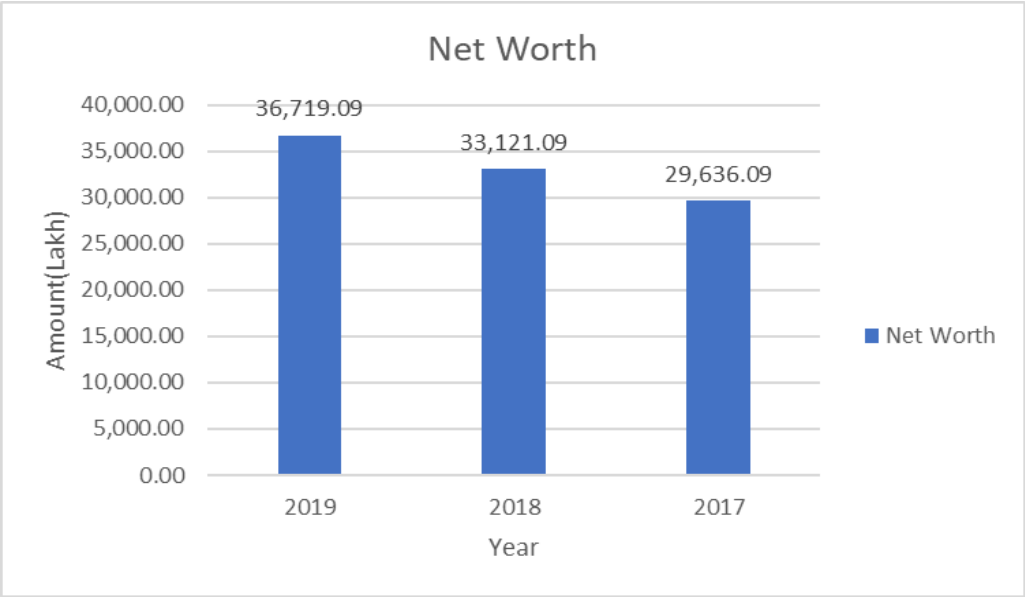

Interpretation

The net worth calculation can be done using the above formula If we see that the net worth of a business has been growing, we can easily say that the increase in the assets and the earnings of the business.

LIQUIDITY RATIO

- Current ratio
- Quick ratio

CURRENT RATIO

A company's current ratio can be compared with past current ratio, this will help to determine if the current ratio is high or low at this period in time.

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Current Asset	51716.73	42959.09	37134.00
Current Liabilities	43543.39	31979.85	31062.91

Formula:

Current ratio = Current Asset ÷ Current Liabilities

For 2019

Current ratio = Current Asset ÷ Current Liabilities
= 51716.73 ÷ 43543.39
= 1.188

For 2018

Current ratio = Current Asset ÷ Current Liabilities
= 42959.09 ÷ 31979.85
= 1.34

For 2017

Current ratio = Current Asset ÷ Current Liabilities
= 37134.00 ÷ 31062.91
= 1.195

CURRENT RATIO			
YEAR	**2019**	**2018**	**2017**
CURRENT RATIO	1.18	1.34	1.19

Table Current Ratio Analysis

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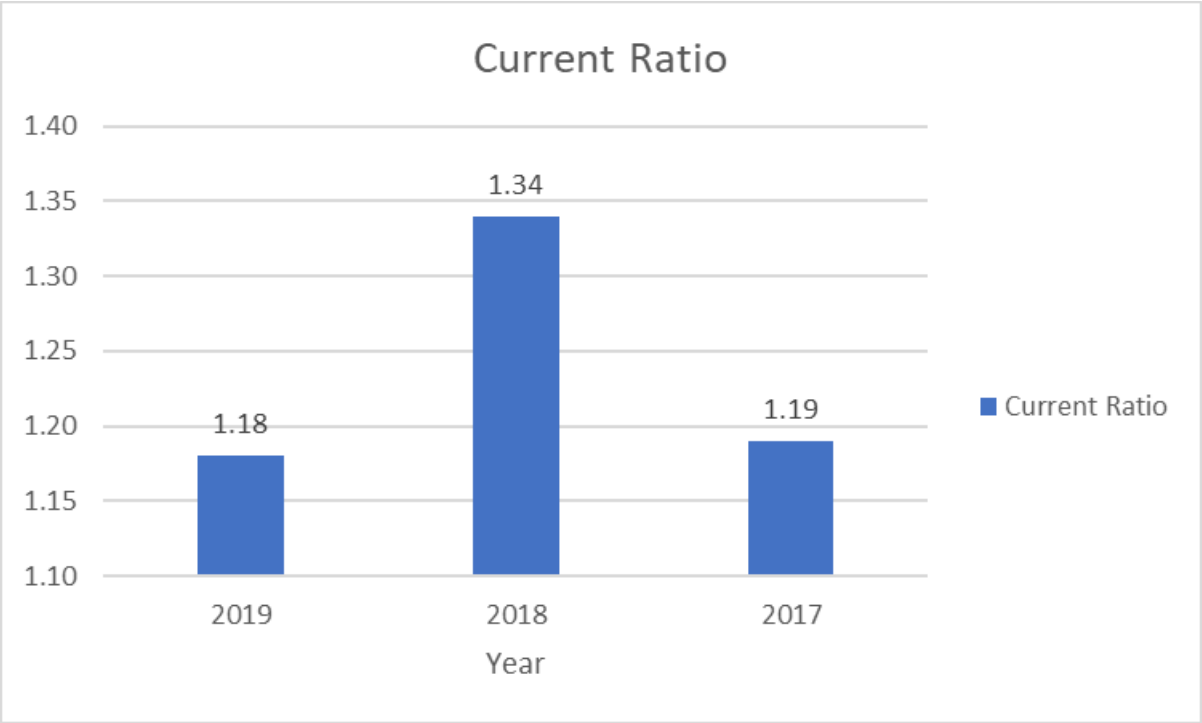

Figure Current Ratio Analysis

Interpretation

Current ratio is always 2:1 it means the current assets two time of current liability.

After observing the figure, the current ratio is fluctuating.

Company is more liquid and is apparently in a better position to pay off its liabilities.

QUICK RATIO

It has been an important indicator of the firm's liquidity position and is used as a complementary ratio to the current ratio. It establishes the relationship between quick assets and current liabilities. It is calculated by dividing quick assets by the current liabilities

Formula:

Quick ratio = (Current Asset – Inventories) ÷ (Current Liabilities)

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Current Asset	51716.73	42959.09	37134.00
Current Liabilities	43543.39	31979.85	31062.91
Inventories	21316.33	18475.36	17171.22

For 2019

Quick ratio = (Current Asset – Inventories) ÷ (Current Liabilities)

= (51716.73 - 21316.33) ÷ (43543.39)

= 0.698

For 2018

Quick ratio = (Current Asset – Inventories) ÷ Current Liabilities

= (42959.09 – 18475.36) ÷ 31979.85

= 0.76

For 2017

Quick ratio = (Current Asset – Inventories) ÷ Current Liabilities

= (37134.00 – 17171.22) ÷ 31062.91

= 0.64

QUICK RATIO			
YEAR	**2019**	**2018**	**2017**
QUICK RATIO	0.70	0.76	0.64

Table Quick Ratio Analysis

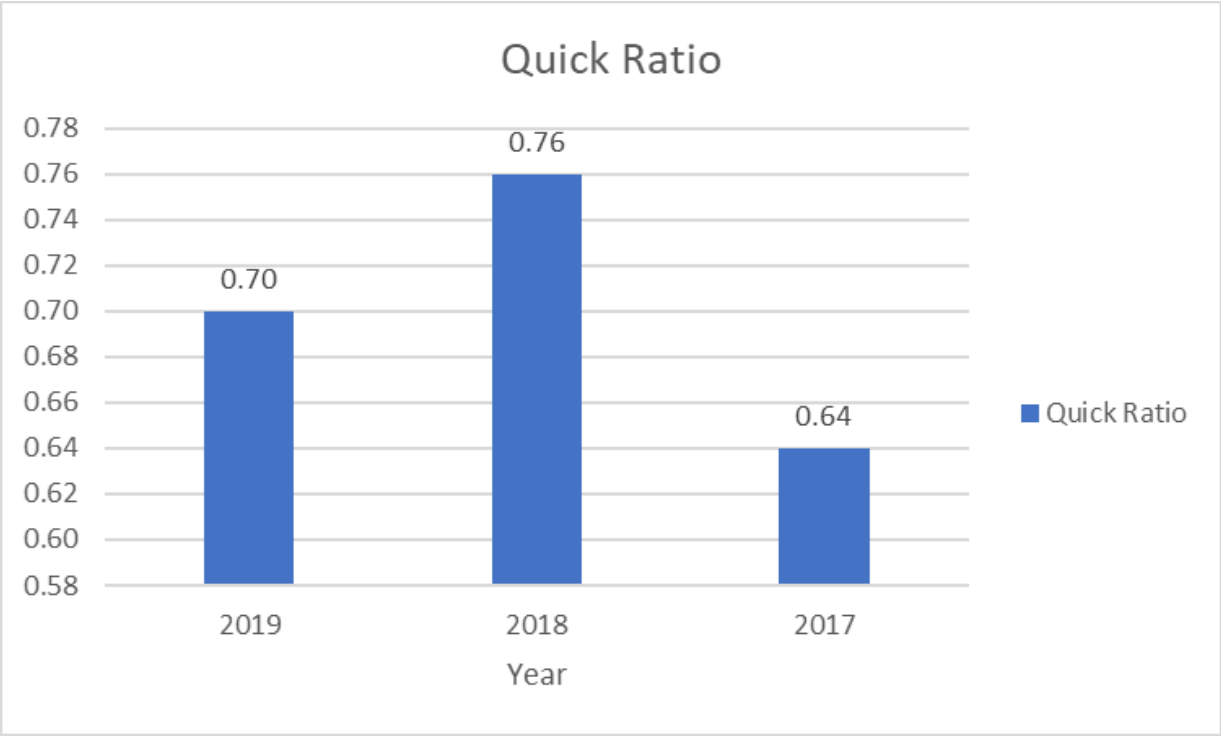

Figure Quick Ratio Analysis

Interpretation

- Standard Ratio is 1:1
- Company's Quick Assets is more than quick liabilities for all these 3 years

We analyzed that the quick ratio has been not stable and fallen from 0.76 in 2018 to 0.70 in 2019. This must mean that most of the current assets are locked up in stocks over a period of time. The ideal standard quick ratio is 1: 1. It means that the company is not in a position to meet its immediate current liabilities.

LEVERAGE RATIO

The fallowing ratio is calculated for the company

- **Debt / Equity ratio**

Debt / Equity ratio

The debt-to-equity ratio is a financial ratio indicating the relative proportion of shareholders' equity and debt used to finance a company's assets. Closely related to leveraging, the ratio is also known as risk, gearing or leverage.

Formula:

Debt / Equity ratio = Total liabilities ÷ Shareholders equity

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Total Liabilities	62514.85	57811.45	59494.05
Shareholders' equity	1371.87	1371.86	1371.85

For 2019

Debt / Equity ratio = Total liabilities ÷ Shareholders equity
= 62514.85 ÷ 1371.87
= 45.57

For 2018

Debt / Equity ratio = Total liabilities ÷ Shareholders equity
= 57811.45 ÷ 1371.86
= 42.14

For 2017

Debt / Equity ratio = Total liabilities ÷ Shareholders equity
= 59494.05 ÷ 1371.85
= 43.36

DEBT / EQUITY RATIO			
YEAR	**2019**	**2018**	**2017**
DEBT / EQUITY RATIO	45.57	42.14	43.36

Table Debt/ Equity Ratio

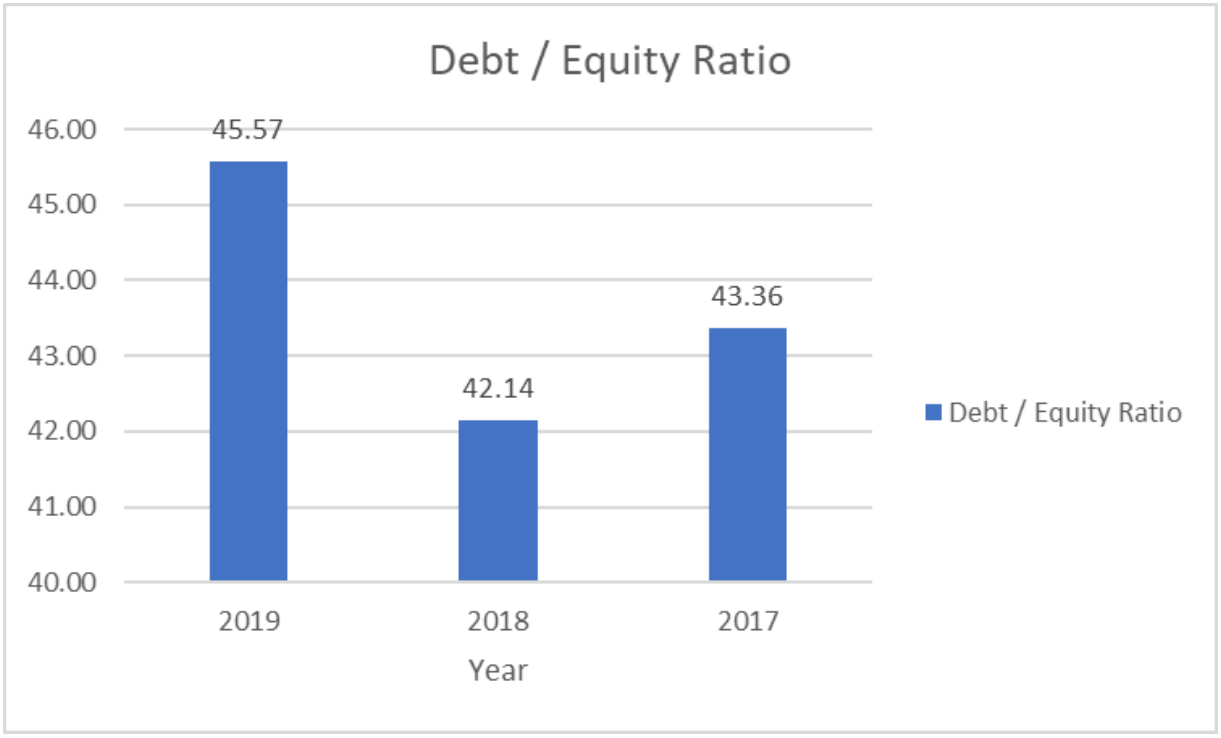

Figure Debt/ Equity Ratio

Interpretation

The company has a ratio of less than 50% reveals that have less debt than equity.

SOLVENCY RATIO

The term "solvency ratio" refers to the measure of the ability of a company to pay off its financial debt obligations. Conversely, the solvency ratio determines whether the cash flow generated by the company is adequate to meet its short term and long-term liabilities. The formula for solvency ratio is derived by initially adding back non-cash expenses to the net income and then dividing the result by the summation of short term liabilities and long term liabilities.

Formula:

SOLVENCY RATIO = (Net income + Non-Cash flow expenses) ÷ (Short term liabilities + Long term liabilities)

Showing values in (lakhs)

PARTICULARS	**2019**	**2018**	**2017**
Net Income	4933.71	3628.93	6090.96
Non-Cash flow expenses	107695.00	88718.23	56625.17
Short term liabilities	43543.39	31979.85	28431.14
Long term liabilities	62514.85	57811.45	31062.91

For 2019

SOLVENCY RATIO = (Net income + Non-Cash flow expenses) ÷ (Short term liabilities + Long term liabilities)

= (4933.71 + 107695.00) ÷ (43543.39 + 62514.85)

= 1.06

For 2018

SOLVENCY RATIO = (3628.93 + 88718.23) ÷ (31979.85 + 57811.45)

= 1.03

For 2017

SOLVENCY RATIO = (6090.96 +56625.17) ÷ (28431.14 + 31062.91)

= 1.05

SOLVENCY RATIO			
YEAR	**2019**	**2018**	**2017**
RATIO	1.06	1.03	1.05

Table Solvency Ratio Analysis

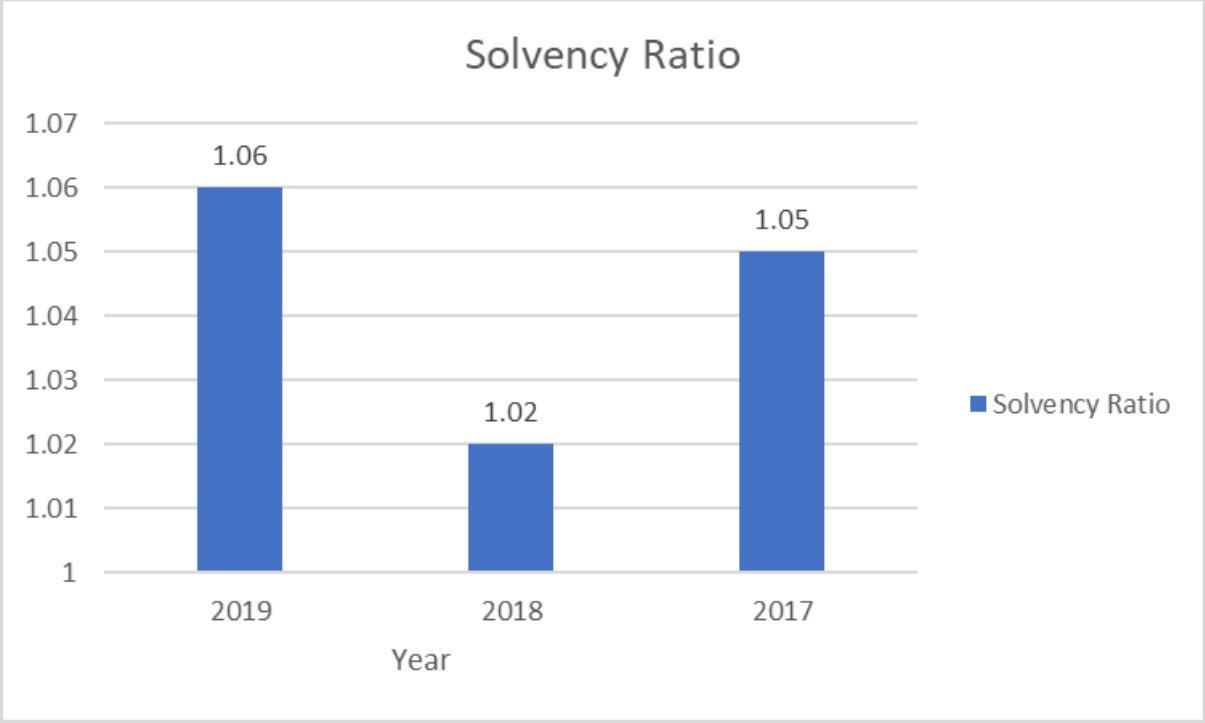

Figure Solvency Ratio Analysis

Interpretation

The Graph indicates the company has good solvency ratio.

PROFITABILITY RATIO

The fallowing Profitability Ratios are calculated for the Company

- **Gross Profit ratio**
- **Operating ratio**
- **Return on investment**
- **Net Profit Margin ratio**

GROSS PROFIT RATIO

It measures the relationship between gross profit and Sales. It is calculated by dividing gross profit by sales. It is a useful indication of the profitability of business. The ratio is usually expressed as percentage. The ratio shows whether the mark-up obtained on the cost of production is sufficient however it must cover its operating expenses.

Formula:

Gross Profit ratio = (Gross profit ÷ Net sales) × 100

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Gross profit	27888.8	24599.37	20568.98
Net sales	114890.22	92437.11	74064.22

For 2019

Gross Profit ratio = (Gross profit ÷ Net sales) x 100

= (27888.8 ÷ 114890.22) x 100

= 24.274%

For 2018

Gross Profit ratio = (Gross profit ÷ Net sales) x 100

= (24599.37 ÷ 92437.11) x 100

= 26.6%

For 2017

Gross Profit ratio = (Gross profit ÷ Net sales) x 100

= (20568.98 ÷ 74064.22) x 100

= 27.77%

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GROSS PROFIT RATIO			
YEAR	**2019**	**2018**	**2017**
PERCENTAGE	24.27%	26.6%	27.77%

Table Gross Profit Ratio Analysis

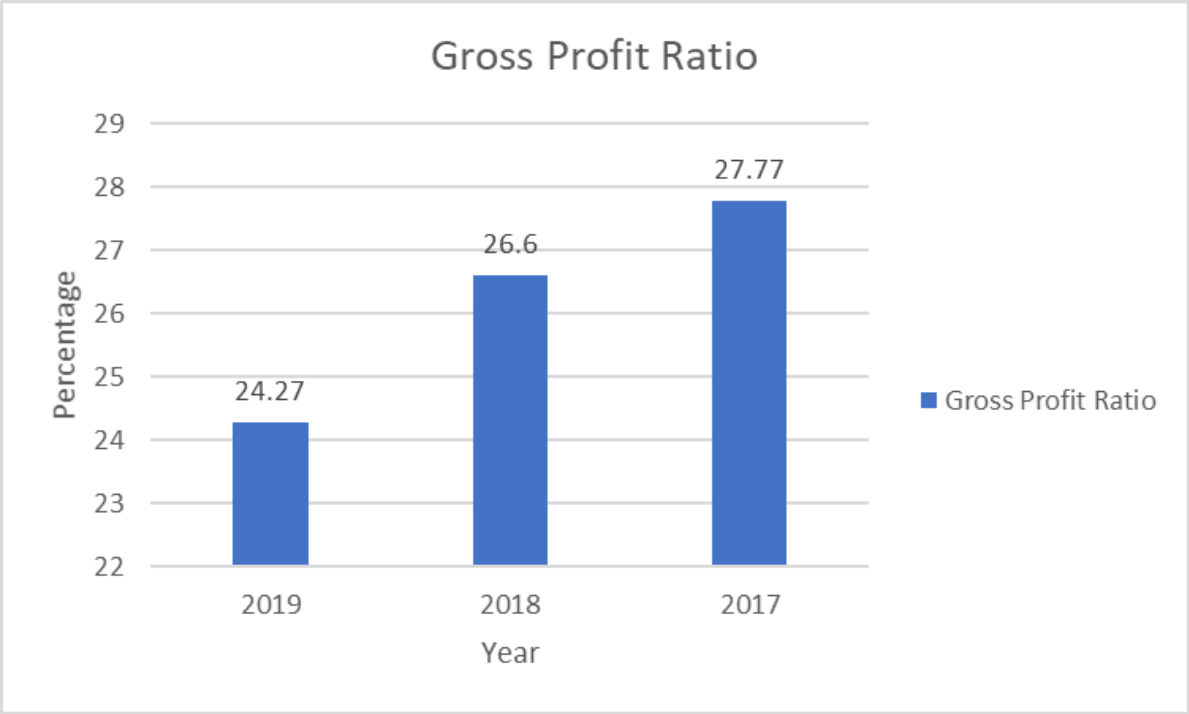

Figure Gross Profit Ratio Analysis

Interpretation

- Gross Profit Ratio shows how much efficient company is in production

20% is considered high.

- Gross Profit is decreasing in 2019 due to higher production cost.

OPERATING RATIO

Operating Ratio refers to a metric used by a company to determine how efficient a company's management is at keeping operating costs low while at the same time generating revenues or sales, by comparing the total operating expenses of a company to that of its net sales.

The total operating expenses of a company consist of two components, mainly the cost of goods sold and operating expenses.

- Operating expenses generally include accounting and legal fees, bank charges, sales and marketing costs, office supply costs, salary and wages, repair and maintenance costs, non-capitalized R&D expenses.
- The cost of goods sold includes direct material costs, rent of plant, direct labor, repair costs, etc.

Formula:

Operating ratio = (Operating expenses ÷ Net sales) × 100

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Operating expenses	107695.00	88718.23	56625.17
Net sales	114890.22	92437.11	74064.22

For 2019

Operating ratio = (Operating expenses ÷ Net sales) x 100

= (107695.00 ÷ 114890.22) x 100

= 93.7%

For 2018

Operating ratio = (Operating expenses ÷ Net sales) x 100

= (88718.23 ÷ 92437.11) x 100

= 96%

For 2017

Operating ratio = (Operating expenses ÷ Net sales) x 100

= (56625.17 ÷ 74064.22) x 100

= 76.45%

OPERATING RATIO			
YEAR	**2019**	**2018**	**2017**
PERCENTAGE	93.7%	96%	76.45%

Table Operating Ratio Analysis

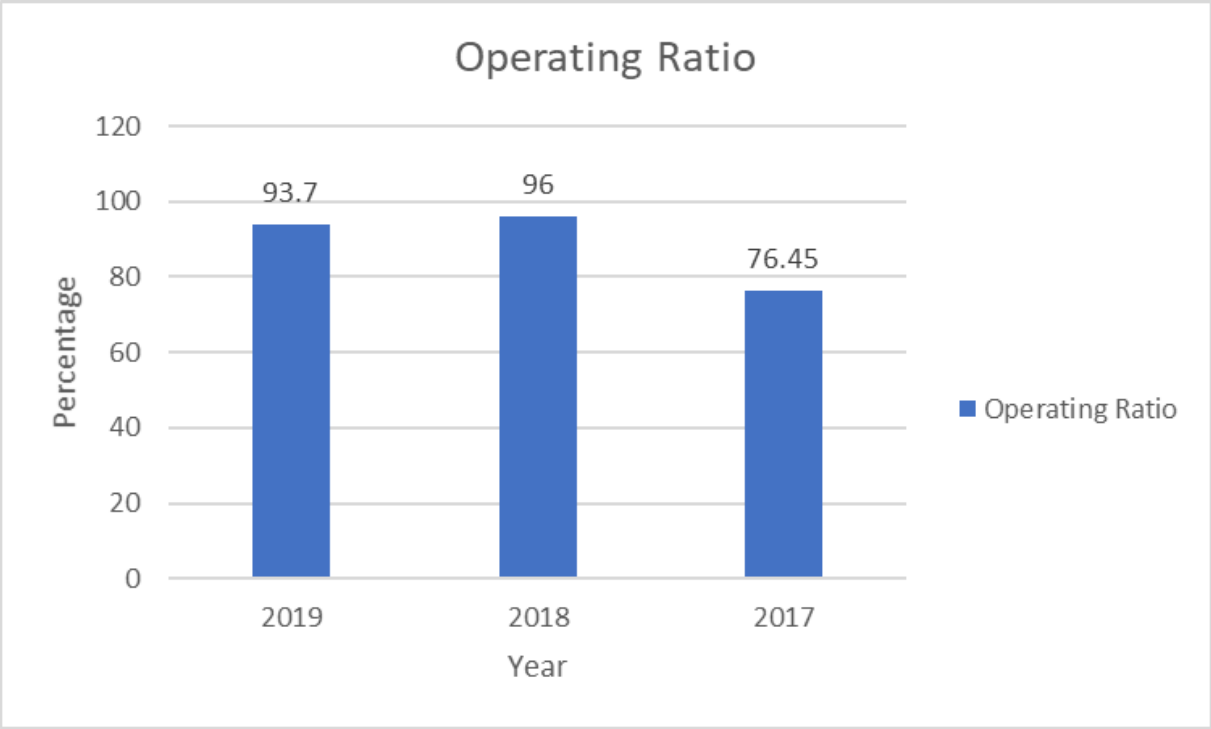

Figure Operating Profit Ratio Analysis

Interpretation

A higher ratio would indicate that expenses are more than the company's ability to generate sufficient revenue and may be considered inefficient. Similarly, a relatively low ratio would be considered a good sign as the company's expenses are less than that of its revenue.

RETURN ON INVESTMENT

Return on investment indicated the profitability of business and is very much in use among financial analysis.

Formula:

Return on investment = (Net profit ÷ Total investment) × 100

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Net profit	4933.71	3628.93	56625.17
Total investment	7947.59	6546.88	74064.22

For 2019

Return on investment = (Net profit ÷ Total investment) x 100

= (4933.71 ÷ 7947.59) x 100

= 62.73%

For 2018

Return on investment = (Net profit ÷ Total investment) x 100

= (3628.93 ÷ 6546.88) x 100

= 55%

For 2017

Return on investment = (Net profit ÷ Total investment) x 100

= (56625.17 ÷ 74064.22) x 100

= 18.69%

RETURN ON INVESTMENT			
YEAR	**2019**	**2018**	**2017**
PERCENTAGE	62.73%	55%	18.69%

Table Return on investment Analysis

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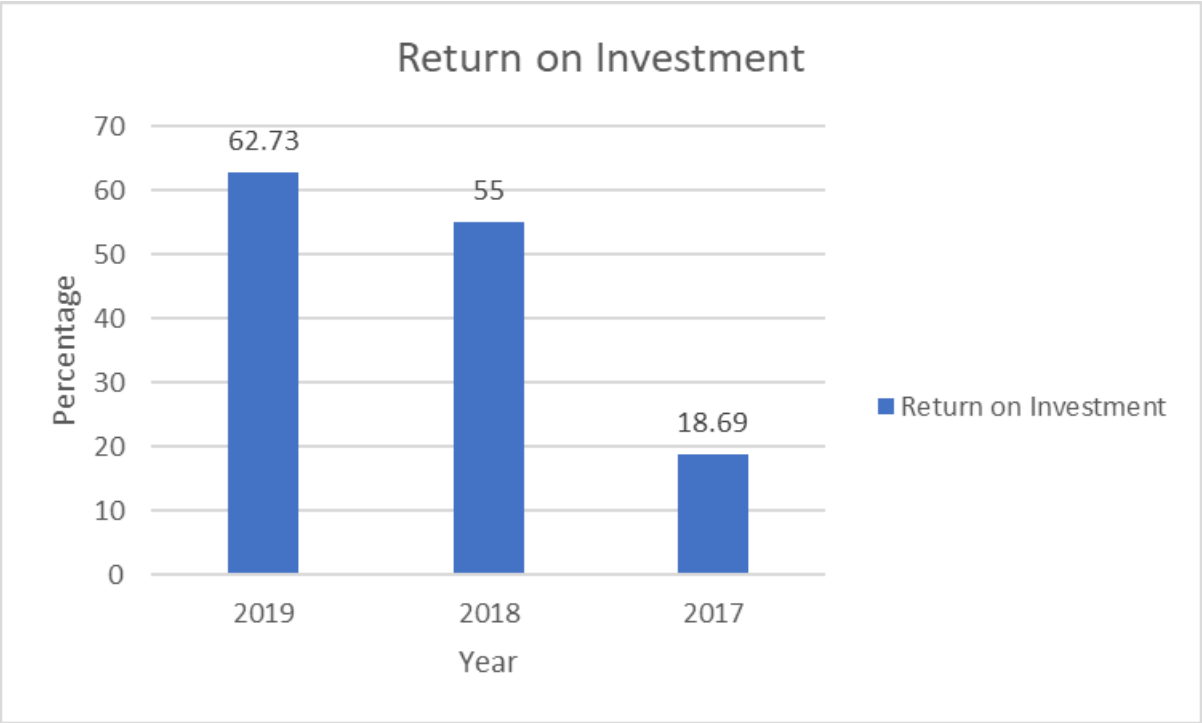

Figure Return on Investment Analysis

Interpretation

- From the above observation it can been seen that the ratio is increasing.
- So, the Company is utilizing its assets and investment efficiency.

NET PROFIT MARGIN RATIO

The net profit margin is equal to how much net income or profit is generated as a percentage of revenue. Net profit margin is the ratio of net profits to revenues for a company or business segment. Net profit margin is typically expressed as a percentage.

Formula:

Net Profit ratio = (Net Profit ÷ Net sales) × 100

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Net Profit	4933.71	3628.93	6090.96
Net sales	114890.22	92437.11	74064.22

For 2019

Net Profit Margin Ratio = (Operating expenses ÷ Net sales) x 100

= (4933.71 ÷ 114890.22) x 100

= 4.294%

For 2018

Net Profit Margin Ratio = (Operating expenses ÷ Net sales) x 100

= (3628.93 ÷ 92437.11) x 100

= 3.92%

For 2017

Net Profit Margin Ratio = (Operating expenses ÷ Net sales) x 100

= (6090.96÷ 74064.22) x 100

= 8.22%

NET PROFIT MARGIN RATIO			
YEAR	**2019**	**2018**	**2017**
PERCENTAGE	4.28%	3.92%	8.22%

Table Net Profit Ratio Analysis

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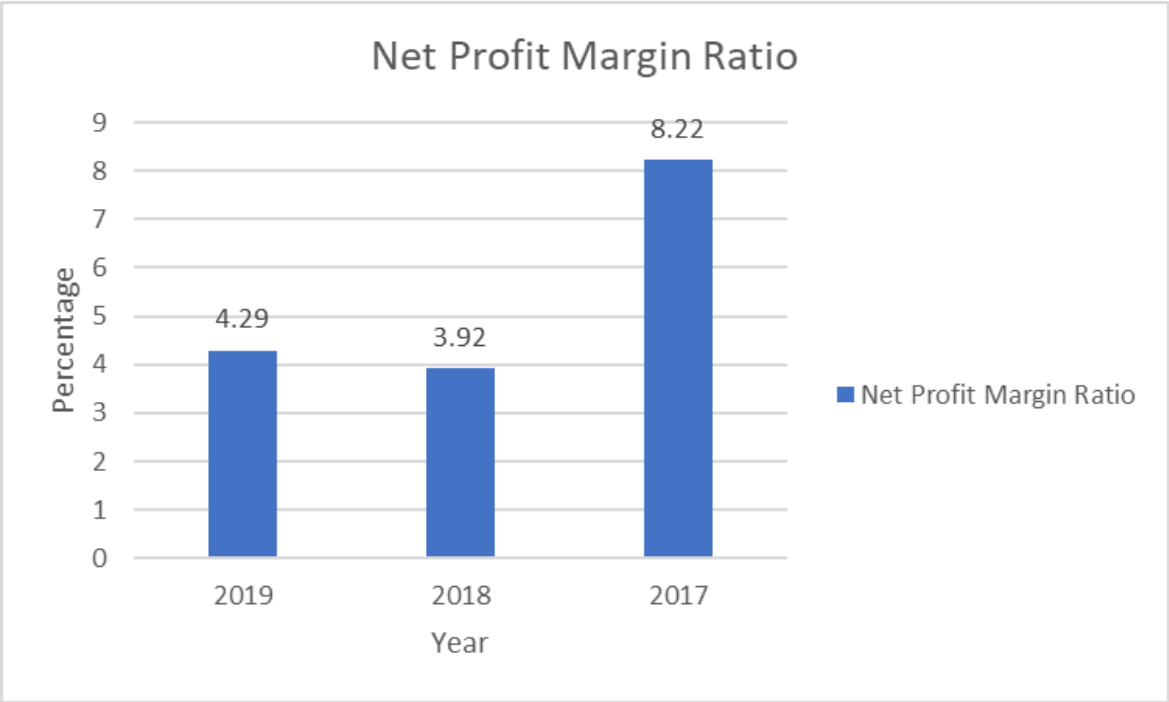

Figure Net Profit Ratio Analysis

Interpretation

- After observing the figure, the ratio is fluctuating.
- The Company's sale is continuously rising but the net profit is not so much increased so management should take some steps to decrease its expenses.
- Overall ratio is showing good position of the company.

ACTIVITY RATIO

- **Assets Turnover ratio**
- **Inventory Turnover ratio**

ASSETS TURNOVER RATIO

Formula:

Assets Turnover ratio = (Net sales ÷ Average total assets)

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Net sales	114890.22	92437.11	74064.22
Average Total assets	8269.495	7577.71	7427.51

For 2019

Assets Turnover ratio = (Net sales ÷ Average Total assets)

= (114890.22 ÷ 8269.495)

= 13.89

For 2018

Assets Turnover ratio = (Net sales ÷ Average Total assets)

= (92437.11 ÷ 7577.71)

= 12.1986

For 2017

Assets Turnover ratio = (Net sales ÷ Average Total assets)

= (74064.22 ÷ 7427.51)

= 9.97

ASSETS TURNOVER RATIO			
YEAR	**2019**	**2018**	**2017**
RATIO	13.89	12.19	9.97

Table Assets Turnover Ratio Analysis

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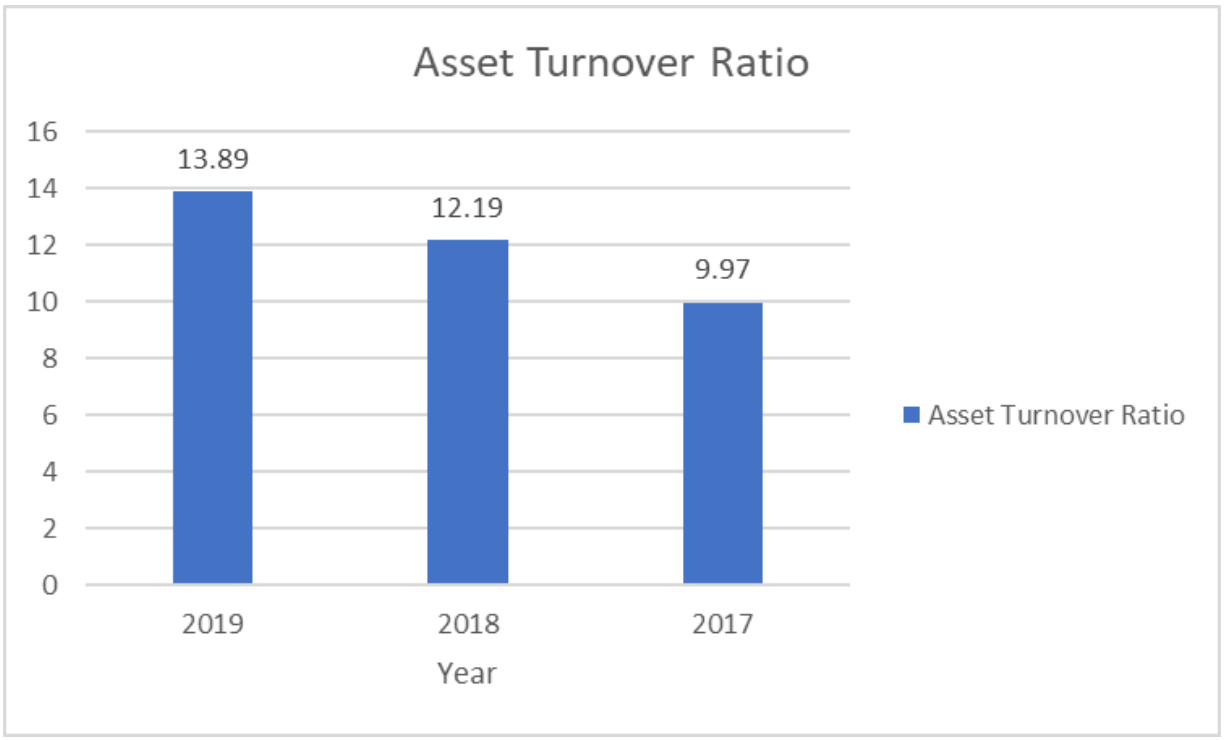

Figure Asset Turnover Ratio

Interpretation

✓ The Asset Turnover ratio is almost increasing in all years.

INVENTORY TURNOVER RATIO

Formula:

Inventory Turnover ratio = (Cost of Goods sold ÷ Average Inventory)

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Cost of Goods sold	87001.42	67837.73	53495.27
Average Inventory	1776.36	1539.61	1430.935

For 2019

Inventory Turnover ratio = (Cos of goods sold ÷ Average Inventory)

= (87001.42 ÷ 1776.36)

= 48.98

For 2018

Inventory Turnover ratio = (Cos of goods sold ÷ Average Inventory) x 100

= (67837.73 ÷ 1539.61)

= 44.06

For 2017

Inventory Turnover ratio = (Net profit ÷ Total investment) x 100

= (53495.27 ÷ 1430.935) x 100

= 37.38

INVENTORY TURNOVER RATIO			
YEAR	**2019**	**2018**	**2017**
RATIO	48.98	44.06	37.38

Table Inventory Turnover Ratio

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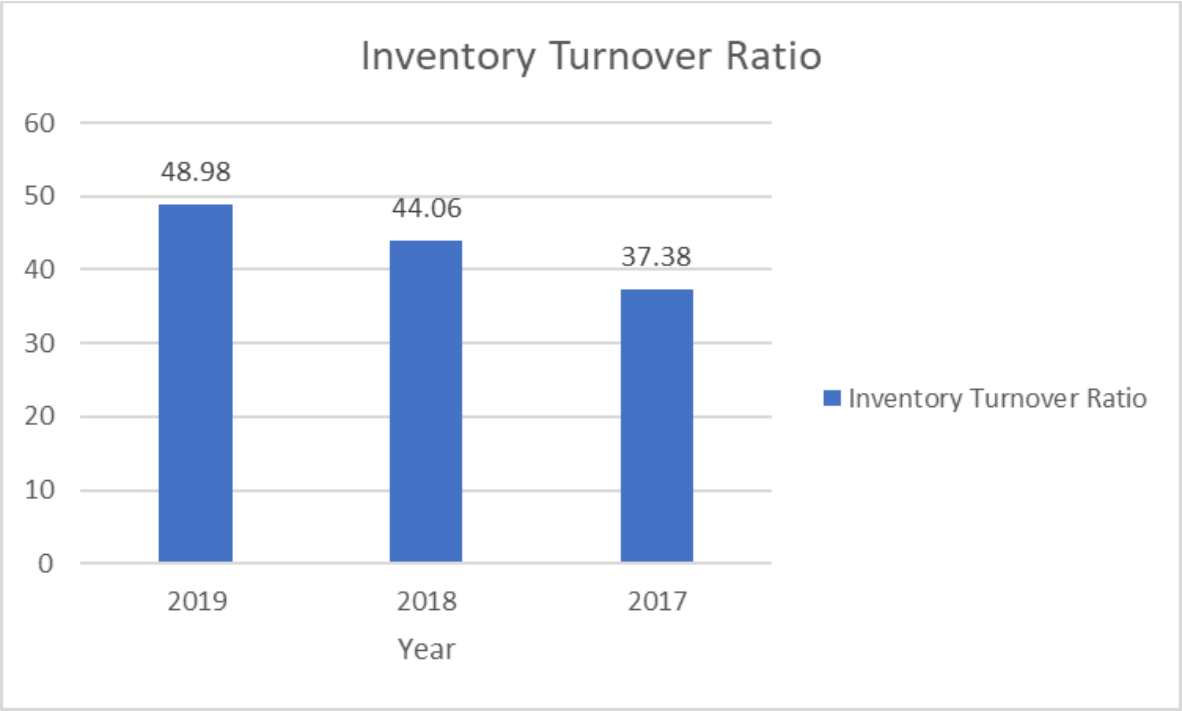

Figure Inventory Turnover Ratio

Interpretation

From the above calculation we can say the ratio is increasing every year. It means the inventory is speedy converted in to sales.

NET INCOME

Formula:

Net Income = (Operating Profit – Total expenses)

Showing values in (lakhs)

Particulars	**2019**	**2018**	**2017**
Total Revenue	114890.22	92437.11	74064.22
Cost of goods sold	87001.42	67837.73	53495.27
Gross Profit (Total Revenue - Cost of goods sold)	27888.8	24599.38	20568.95
Administrative Expenses	6912,69	5002.16	2347.91
Operating Profit (Gross profit – Administrative expenses)	20976.11	19597.22	18221.04
Total expenses	16042.4	15968.29	12130.08

For 2019

Net Income = (Operating Profit – Total expenses)

= (18221.04 - 12130.08)

= 4933.71

For 2018

Net Income = (Operating Profit – Total expenses)

= (19597.22 - 15968.29)

= 15968.29

For 2017

Net Income = (Operating Profit – Total expenses)

= (18221.04 - 12130.08)

= 12130.08

NET INCOME			
YEAR	**2019**	**2018**	**2017**
AMOUNT	4933.71	15968.29	12130.08

Table Net Income analysis

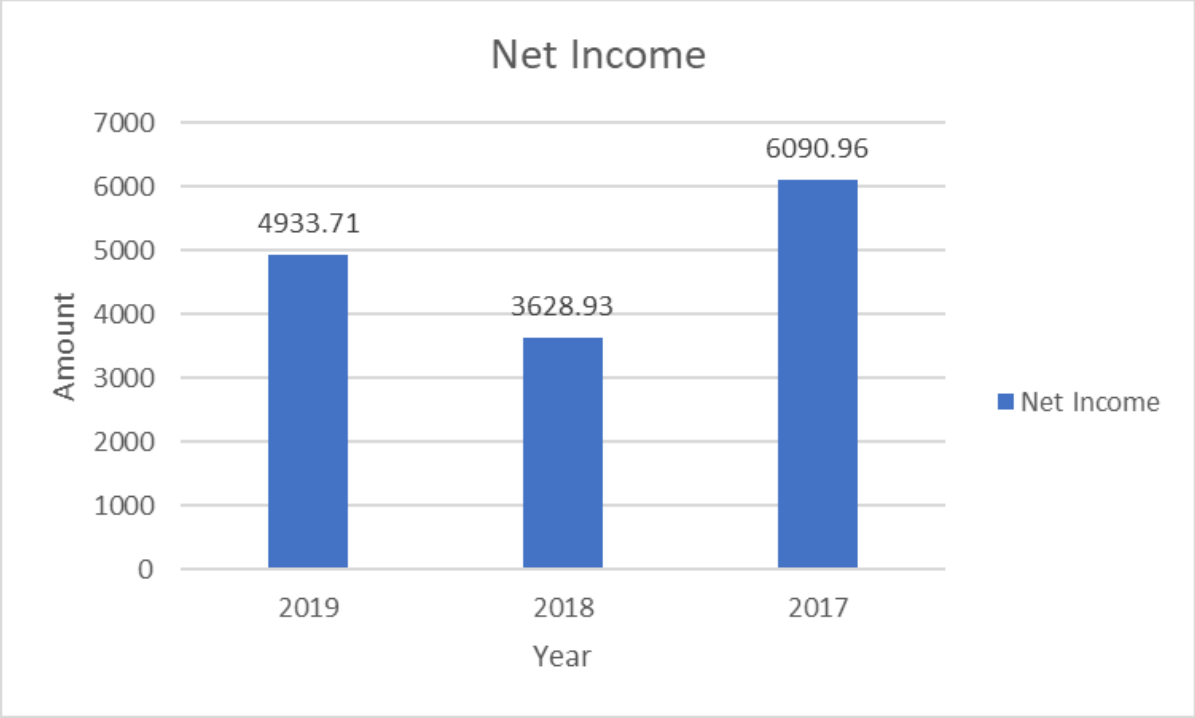

Figure Net income Analysis

ALTMAN Z SCORE MODEL

Formula:

ALTMAN Z SCORE MODEL = (1.2 x (Working Capital ÷ Total Assets) + 1.4 x (Retained Earnings ÷ Total Assets) + 3.3 x (Earnings before interest and tax payment ÷ Total Assets) + 0.6 (The equity market value ÷ Total Assets) + 0.999 x (Total Sales ÷ Total Assets))

Showing values in (lakhs)

PARTICULARS	2019	2018	2017
Working Capital	8173.34	10979.24	6071.09
Total Assets	99233.94	90932.54	89130.14
Retained Earnings	31412.13	27762.18	24008.60
Earnings before interest and tax payment	7685.44	5274.33	8091.54
The equity market value	1371.86	1371.86	1371.86
Total Sales	114890.22	92437.11	74064.22

For 2019

ALTMAN Z SCORE MODEL = (1.2 x (Working Capital ÷ Total Assets) + 1.4 x (Retained Earnings ÷ Total Assets) + 3.3 x (Earnings before interest and tax payment ÷ Total Assets) + 0.6 (The equity market value ÷ Total Assets) + 0.999 x (Total Sales ÷ Total Assets))

= (1.2 x (8173.34 ÷ 99233.94) + 1.4 x (31412.13 ÷ 99233.94) + 3.3 x (7685.44 ÷ 99233.94) + 0.6 (1371.86 ÷ 99233.94) + 0.999 x (114890.22 ÷ 99233.94))

= 1.96

For 2018

ALTMAN Z SCORE MODEL = (1.2 x (10979.24 ÷ 99233.94) + 1.4 x (27762.18 ÷ 99233.94) + 3.3 x (5274.33 ÷ 99233.94) + 0.6 (1371.86 ÷ 99233.94) + 0.999 x (92437.11 ÷ 99233.94))

= 1.71

For 2017

ALTMAN Z SCORE MODEL = (1.2 x (6071.09 ÷ 99233.94) + 1.4 x (24008.60 ÷ 99233.94) + 3.3 x (8091.54 ÷ 99233.94) + 0.6 (1371.86 ÷ 99233.94) + 0.999 x (74064.22 ÷ 99233.94))

= 1.59

ALTMAN Z SCORE MODEL			
YEAR	**2019**	**2018**	**2017**
VALUE	1.96	1.71	1.59

Table Altman's Z score model analysis

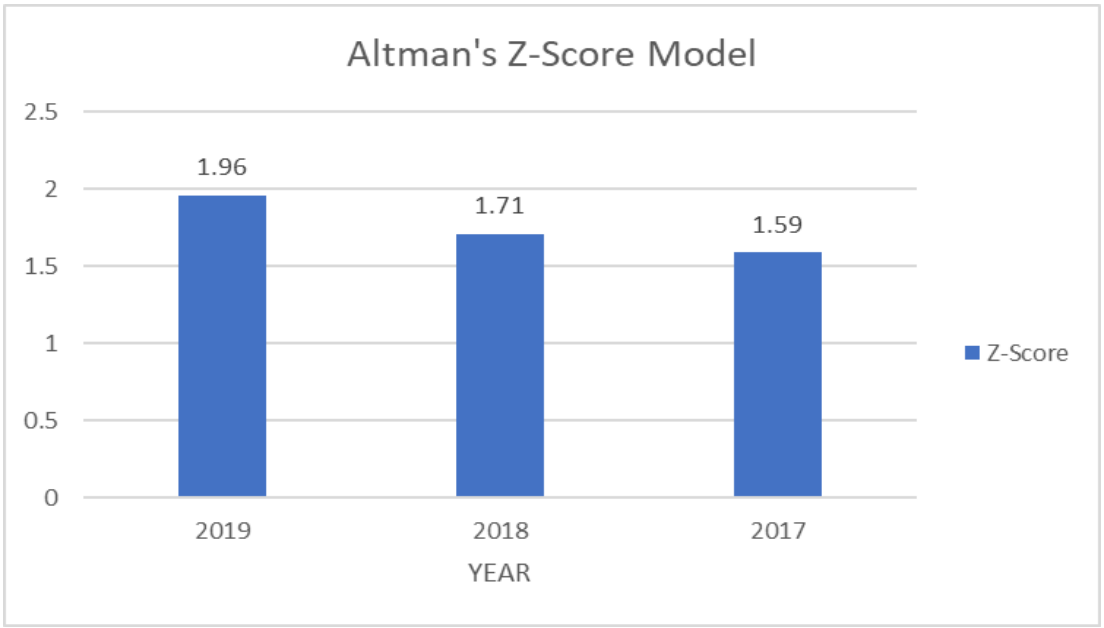

Figure Altman's Z score model

Interpretation

- In this model, if the Z value is greater than 2.99, then the firm is said to be in the "safe zone" and has a negligible probability of filing bankruptcy.
- If the Z value is between 2.99 and 1.81, then the firm is said to be in the "grey zone" and has a moderate probability for bankruptcy.
- And finally, if the Z value is below 1.81, then it is said to be in the "distress zone" and has a very high probability of reaching the stage of bankruptcy.

OPERATING CYCLE

Formula:

OPERATING CYCLE = (Inventory Period + Accounts Receivable Period)

= ((365 ÷ Purchases) x (Average inventories) + (365 ÷ Receivables) x (Average Accounts Receivable)

Showing values in (lakhs)

PARTICULARS	**2019**	**2018**	**2017**
Purchases	66977.39	49860.98	35151.50
Average Inventories	1776.36	1539.61	1430.935
Receivables	24082.58	20443.23	17171.22
Average Accounts Receivables	2006.88	1703.60	1430.935

For 2019

OPERATING CYCLE = ((365 ÷ Purchases) x (Average inventories) + (365 ÷ Receivables) x (Average Accounts Receivable))

= ((365 ÷ 66977.39) x (1776.36) + (365 ÷ 24082.58) x (2006.88))

= 40 days

For 2018

OPERATING CYCLE = ((365 ÷ 49860.98) x (1539.61) + (365 ÷ 20443.23) x (1703.60))

= 42 days

For 2017

OPERATING CYCLE = ((365 ÷ 35151.50) x (1430.935) + (365 ÷ 17171.22) x (1430.935))

= 45 days

OPERATING CYCLE			
YEAR	**2019**	**2018**	**2017**
DAYS	40	42	45

Table Operating Cycle Analysis

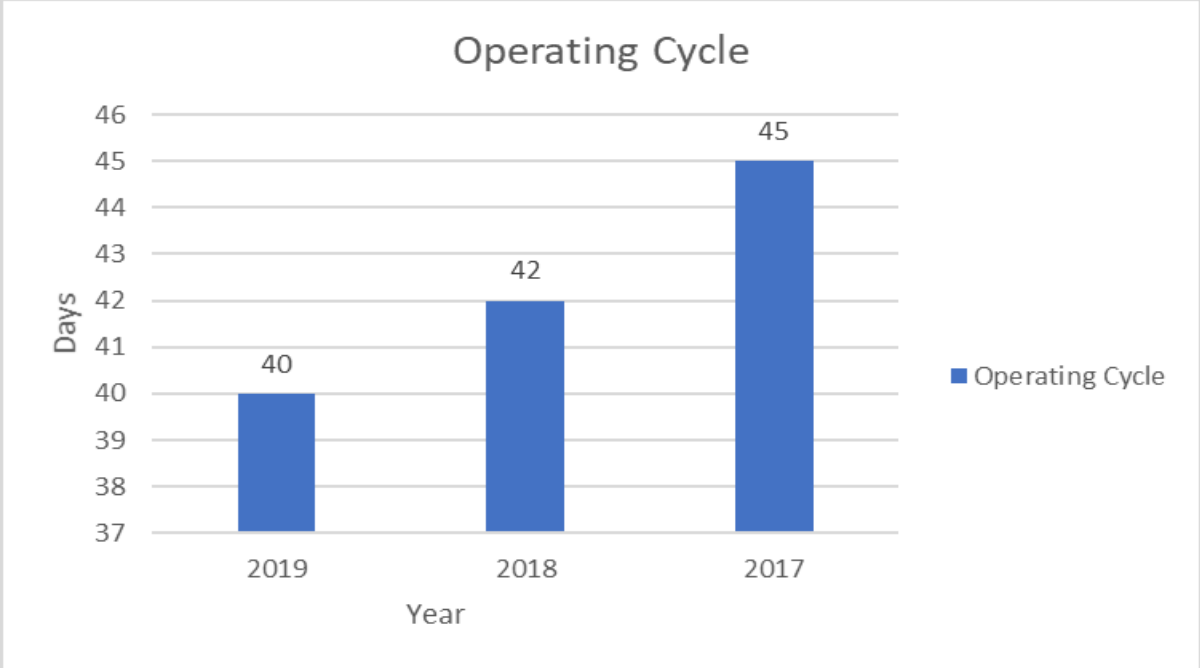

Figure Operating Cycle Analysis

Interpretation

After analysis the company's operating cycle get decreased from 2017 to 2019

4.4.3 CAPITAL

Manjushree Technopack NSE -0.13 % Ltd., India's largest rigid plastic packaging solution provider. As part of the transaction, Advent purchased all the shares owned by existing investor Kedaara Capital and a portion of the promoters Kedia family's stake in Manjushree Technopack.

Domestic PE firm Kedaara Capital, holds about 40% in Manjushree.

4.4.4 CONDITION

SWOT ANALYSIS OF MANJUSHREE

Strength

- Lower Transportation cost.
- Good supply base for plastics.
- They have decades of experience with plastics.
- The Company have excellent relations with us for past few years.

Weakness

- High startup costs.
- Construction time.

Opportunities

- Major facility expansion.
- Research and development.

Threats

- Environmental protection Standards.
- Material scarcity.
- Competition.

4.4.5 COLLATERAL

If the Customer face any unavoidable loss and unable to pay amount with in the fixed payment term the company have rights to get back its products and will proceed legal actions as per Law. In commercial there is lot of limitations in collateral. It is very risky to retain the amount if customer got in unpredictable loss.

4.5 DETAILED CREDIT REPORT

CUSTOMER

Manjushree Technopack Limited	
Type	Private Limited
Industry	Packaging
Founded	1983
Headquarters	Bangalore , India
Key people	Vimal Kedia Surendra Kedia
Number of employees	5,000
Website	manjushreeindia.com

COMPANY PROFILE

Manjushree Technopack Limited is a thought leader in the rigid plastic packaging space today. With world class facilities and technologies, we serve every FMCG industry vertical from dairy to liquor, food products, agro chemicals, pharma, home care and personal care. The group stands tall with pan India presence and a large converting capacity of over 140,000 MT of plastics in bottles, containers and PET preforms. Today, the company boasts of an enviable portfolio of over 1000 – custom & stock products, selling to large FMCG multinationals across India and 15 other countries.

With revenues of ~7800 million rupees and a strong lineage of growth and sustenance, the company is all set to realize its visions and dreams.

What They Do

From Concept to Commercialization

1. DESIGN

Manjushree has evolved into a design think tank by virtue of its vast MNC exposure and experience starting with packaging research to ideation to bringing various moldable forms and shapes on the table. Our in-house technical prowess and competence promises practical and moldable packages.

2. VALIDATE

The company has access to 3D printing, Rapid Prototyping and Pilot tool making. With its in-house Tool and Mold Shop, turnaround from Paper to physical sample is fast and accurate and aids in easy decision making to undertake commercialization.

3. DELIVER

Our fully compliant facilities & highly evolved supply chain help us deliver precise and consistent Jars, Bottles and Containers using advanced machines and automated finishing and packing. Large scale capacities and fail-safe production ethos helps us deliver quality products at unmatched prices.

FINANCIAL REVIEW

liquidity ratio

- working capital has been reduced from past year this may be due to problems with account receivable – R&D
- The current ratio is not stable for FY 2017 it is 1.19 and FY 2018 1.34 and for FY 2019 1.18. it shows the ability of the business to generate cash is not constant. But the ratio indicates that the current assets are utilized properly.
- Quick ratio is also not stable FY 2017 it is 0.64 and FY 2018 0.76 and for FY 2019 0.70. it shows a company capacity to pay its current liabilities are changing. but the ratio indicates the company does not have struggle with paying debts.

- The net worth get increases in past three years this indicates the company decreases its debt this leads to huge net worth.

leverage ratio

- Debt/Equity Ratio has constant improvements, for FY 2017 it is 43.36 and FY 2018 42.14 and increased for FY 2019 of 45.57. and it is less than 50% this reveals the company has high equity than debt.
- Solvency ratio get increased in the FY 2019 1.06. This indicates the company's debt repayment ability get increased this is due to its increase in overall sales.

profitability ratio

- Gross Profit ratio decreased from the past 3 FY from 27.77% to 24.27% this may be due to increase in the production cost get increased.
- Operating profit ratio is not stable in FY 2017 76.45% and FY 2018 96% and FY 2019 94% it indicates the company has some suffer in handling its expenditure with same or increased revenues.
- Return on investment of thee company get increased rapidly in past 3 FY from 18.69% to 62.73% this indicates the company is utilizing the inventories effectively.
- Net Profit Margin Ratio is fluctuating in past three FY from 8.22% to 4.29% this due to increase in expenses.

activity ratio

- Asset turnover Ratio is almost increasing continuously in past 3 FY from 9.97 to 13.89 it shows that asset of the company gets utilized properly.
- Inventory ratio of the company is very high in past 3 FY and it increases from 37.38 to 48.98. Thus, the inventory is quickly converting in to sales

Altman's Z score model

- From Altman's Z score model the value increases in past 3 FY from 1.59 to 1.96 this indicates the company has moderate possibility for the bankruptcy.

Operating cycle

- Operating cycle period of the company get decreased in past 3 FY from 45 days to 40 days. This indicates there is lack in account receivable.

CREDIT RECOMMENDATION

As reviewed the financials of the customer, Based on financials of this group depicts a large seized entity with strong financial strength. However, considering the solvency and other factors. The credit would recommend proceeding with the payment term of 50 % advance payment and 50 % NET40 days or irrevocable Letter of Credit(L/C).

4.6 MONITORING AND CONTROL

- The credit analyst has the responsible to access the bank server and monitor whether any payment made by the customer against the service. If the payment has been done by the customer it is important to verify whether the payment is done for previous service or current service in order to balance the payment. In Accounting book.
- If the payment term is to end remain the customer by email.
- Make sure the customer service is in standard.

4.7 FALLOW UP

Continue the good communication with the customer and maintain the stable partnership in order to increase the future business.

Reasons to Follow Up with Your Customers

- Customers Feel Important.
- Improve Customer Experience.
- Building Strong Customer Relationships.
- Retain Customers.
- Provides More Sales Opportunities.
- Enhances Communication.
- Competitive Advantage

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CHAPTER 5
FINDINGS

The main finding of this study is that how to fix the payment term for the customer based upon their financial and non-financial performance, the company consists of various methods of analyzing the customer through credit portals and summary of payment. We know from the study conducted the customer is not stable performance throughout last 3 years. The majority of study proves that ratio analysis is effective in identify the worthiness of the company. From this study Financial Information shows company performance.

liquidity ratio

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- The current ratio is not stable for FY 2017 it is 1.19 and FY 2018 1.34 and for FY 2019 1.18. it shows the ability of the business to generate cash is not constant. But the ratio indicates that the current assets are utilized properly.
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- Inventory ratio of the company is very high in past 3 FY and it increases from 37.38 to 48.98. Thus, the inventory is quickly converting in to sales.

Altman's Z score model

- From Altman's Z score model the value increases in past 3 FY from 1.59 to 1.96 this indicates the company has moderate possibility for the bankruptcy.

Operating cycle

- Operating cycle period of the company get decreased in past 3 FY from 45 days to 40 days. This indicates there is lack in account receivable.

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CHAPTER 7
CONCLUSION

This Project of credit analysis in the husky injection molding systems with special focus on their customer is not merely a work of the project but a brief knowledge and experience of that how to analyze the financial performance of the firm. The findings also brought some suggestions for the credit approval. If the company failed to analyze the credit worthiness of the customer it will be leads to serious risk, it may have serious effect in future.

The study undertaken has brought in to the light of the fallowing conclusions. According to the project from the analysis of financial statements it is clear that Manjushree Technopack getting continuous improvement during the FY 2017 to 2019. As reviewed the financials of the customer, The Report finds the prospects of the company in its current position are positive. Based on financials of this group depicts a large seized entity with strong financial strength. However, considering the solvency and other factors. The credit would recommend proceeding with the payment term of 50 % advance payment and 50 % NET40 days or irrevocable Letter of Credit(L/C).

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