## CHAPTER-FOUR

## Data Presentation X Analysis:

## 4. Introduction:

Date presentation and analysis is the forth chapter of this research study. It is an important phase of the research. Colleting data is the colleting link to the word of reality for the researcher. The data colleting activity consists of taking ordered information form reality and transforming it into some reading system so that it can late be examined and analyzed. Research as a media can be interpreted as having a collection of data and process of methodology can not be utilized to bring us to the conclusion.

After the completion the work of data collection, the data what researcher call "the raw form" will still a questionaires \& note cards. It is necessary to arrange the data in such a way so that it could make some sense to the researcher and the readers of the thesis. Different types of data require deferent methods of summarizing and presentation. There is a number of methods, which can be used to simplify the data. The easiest way to understand data is to show it in charts, graphs and tables. But even before on can arrange the data in tables, it is necessary to rearrange the raw data.

The main purpose of analysis of the data is to change it from an unprocessed in to an understable presentation. The analysis of data consists of organizing, tabulating and performing statistical analysis. The objective of this study has been already highlighted in the first chapter. In order to meet the above objectives, analytical or descriptive and explorative research methodology has been followed which has been described in chapter three. Now, in this chapter the effort has been made to analysis the financial position of Everest Sugar \& Chemical Industries Limited, Ramnagar, Mahottari. To achieve these objectives, it is essential to present, analysis and interpret the data. The analysis and presentation of data have been made to examine the liquidity \& profitability position of E.S.\& C.I. Ltd, the help of financial statement of last five year from 2058/059 to 2062/063.

The following financial tools and techniques have been used in the presentation, analysis and interpretation of data.

Ratio analysis
Common size statement analysis.
Statistical tools.

### 4.1 Introduction:

Ratio analysis is the process of determining and interpreting numerical relationship based on financial statements. A ratio is a numerical yardstick that provides a measure of the relationship between variables or figures. The presentation of an elaborate system of ratio analysis was made only in 1919 by Alexander Wall. Webster's and collegiate dictionary defines "A ratio in as the indicated quotient of two mathematical expression ${ }^{28}$ And as relationship between two or more numbers. This relationship can be expressed as percentage, as quotient or ration.

Ratio analysis is one of the most commonly used technique in the analysis of financial statement and evaluation of working performance. The analysis points out the problems and provides a basis to recommend corrective action. There are many parties who often refer to financial ratios in order to keep in track of their investment. The parties, who want to make sure that the business operation is being carried out properly and results are within the expected range, examine financial statement using various ratios. These parties are stockholders, managers, creditors, competitors and indirect interest keeper in the business. Some of these parties may be concerned about the liquidity position or financial leverage while others may be interested in the market value of the firm. The ratio analysis is a technique that helps to fulfill the purposes of all:

1. Liquidity ratio -2
2. Profitability ratio - 7
3. Activity ratio -6
4. Capital structure ratio - 3

### 4.1.1 Liquidity Ratio:

The liquidity ratio measures the liquidity position and short-term solvency potion indicating the company's ability to meet short-term obligation. The current ratio and quick ratio measure the liquidity position of the industry. Industry should at least maintain satisfactory liquidity position. E.S. \& C. I. Industry should insure that it does not suffer from lack of liquidity and also it is not too much highly liquid. Idle assets earn nothing. Low liquidity is also not desirable for sound financial health. Liquidity ratio can also be divided as current ratio and quick ratio.

## a. Current Ratio:

This ratio helps to analyze short-term solvency position of the firm. Current ratio also measures that how much the firm has to meet its current liabilities.

Current assets are those assets, which can be converted into cash within shortperiod of time, normally within a year. Current liabilities are those obligations which
are payable within a short - period. This ratio is calculated by dividing the total current assets by the total current liabilities.

$$
\text { Current Ratio }=\frac{\text { Current assets }}{\text { Current liabilities }}
$$

In the balance sheet of E.S. \& C.I. Ltd. items of current assets include cash and bank balance, inventory, debtors \& advances, prepaid express and short-term investment and borrowing where as current liabilities include current liabilities and provisions. The current ratio of E.S. \& C.I. Ltd. during the study period is given in the following table.

> Table No. -1
> Current ratio of E.S. \& C.I. Ltd.

| Fiscal Year | Current Ratio |
| :--- | :--- |
| $2058 / 59$ | $2.04: 1$ |
| $2059 / 60$ | $2.21: 1$ |
| $2060 / 61$ | $3.67: 1$ |
| $2061 / 62$ | $1.52: 1$ |
| $2062 / 063$ | $0.90: 1$ |
| Average (X) | $2.06: 1$ |
| Standard deviation (S.D.) | 0.92 |
| Coefficient of variation (C.V.) | 0.45 |
| Normal standard | $2: 1$ |

The above table shows that the current ratio of E.S. \& C.I. Ltd, in the F/Y 2060/61, 2059/60 is greater than average and in the rest $\mathrm{F} / \mathrm{Y}$, it is lower than the average.

We compare the current ratio of E.S. \& C.I. Ltd, with normal standard (2:1). It is found that current ratio of 2058/59, 2059/60, 2060/61 are greater than standard. Though, it indicates that the liquidity position of E.S. \& C.I. Ltd. is much satisfactory. Similarly standard deviation (S.D.) and co-efficient of variation (C.V.) of current ratios are 0.92 and $45 \%$ respectively. It indicates. It is widely varied. Therefore, we can say that E.S. \& C.I. Ltd. has enough current assets to meet its current liabilities during the period. Calculation of current ratio only, is not is not enough to measure liquidity position of the $\qquad$ . It will not assess short term solvency position of the firm. It is quick ratio which is fully measure short-term solvency position.

## b. Quick Ratio:

This ratio establishes a relationship quick/liquid assets and current liabilities. Liquid assets means the assets which can be converted into cash immediately or reasonably without a loss of value. Cash is the most liquid assets, Book debts and market securities are also considered as liquid assets. Stock and prepaid expenses are considered to be less liquid. The quick ratio is calculated as follows.

Quick ratio $=\quad$ Quick assets
Current liabilities

Table No. - 2
Quick Ratio of E.S. \& C.I. Ltd.

| Fiscal Year | Quick Ratio |
| :--- | :--- |
| $2058 / 59$ | $0.48: 1$ |
| $2059 / 60$ | $0.55: 1$ |
| $2060 / 61$ | $0.79: 1$ |
| $2061 / 62$ | $0.36: 1$ |
| $2062 / 063$ | $0.17: 1$ |
| Average (X) | 0.04 |
| Standard deviation (S.D.) | 0.21 |
| Coefficient of variation (C.V.) | $44 \%$ |
| Normal standard | $1: 1$ |

From the above table, average quick ratio of E.S. \& C.I. Ltd. is 0.59. It is observed that quick ration of E.S. \& C.I. Ltd. is less than average quick ratio in F/Y 2061/62, 2062/63. In the F/Y 2058/59, 2059/60, 2060/61, quick ratio are greater that average quick ratio. Comparing quick ratio of E.S. \& C.I. Ltd. with normal standard. We can conclude that E.S. \& C.I. Ltd. has sufficient quick assets to pay current obligation immediately.

### 4.1.2 Profitability Ratio:

Profit is the difference between revenue and expenses over period of time (usually one year) profit is the ultimate output of a company, and it will have no future if it fails to make sufficient profit. Therefore, the financial manager should continuously evaluate the efficiency of company in term of profit. The profitability ratios are calculated to measure the operating efficiency of the company. Besides management of the company, creditor and owers are also interested in the profitability of the firm. Creditors want to get interest and principal regularly. Owers
want to get a required rate of return on their investment. This is possible only when the company earns enough profits.

This study has been undertaken basically with the objectives of analyzing the financial position of Everest Sugar \& Chemical Industries Pvt. Ltd. in terms of profitability namely gross margin, net profit margin, return on fixed assets, return on total assets, return on shareholder equity, return on capital employed, operating expenses ratio and cost of goods sold ratios have been calculated to analyzed the financial position.

## a. Gross Profit Margin:

Gross profit margin ratio establishes the relationship between gross profit and sales to measure operational efficiency of the company. The gross profit margin reflects the efficiency with which management produces each unit. This ratio indicates the average spread between the cost of goods sold and the sales revenue. When we substrates the gross profit margin from 100 percentage, we obtain the ratio of cost of goods sold to sales. Both there ratios shows profit relatives to sales after the deducting of production cost, and selling price. A high gross profit margin ratio is a sign of good management. Gross profit margin is calculated by diving the gross profit by sales.
Gross Profit Margin $=\frac{\text { Gross Profit }}{\text { Sales }}$ X $100 \%$

Table - 3
Gross Profit Margin of Everest Sugar \& Chemical Industries Pvt. Ltd.

| Fiscal Year | G.P.M. Ratio (in\%) |
| :--- | :--- |
| $2058 / 59$ | $23 \%$ |
| $2059 / 60$ | $18 \%$ |
| $2060 / 61$ | $20 \%$ |
| $2061 / 62$ | $34 \%$ |
| $2062 / 063$ | $21 \%$ |
| Average (X) | $23.2 \%$ |
| Standard deviation (S.D.) | $5.64 \%$ |
| Coefficient of variation (C.V.) | $24.3 \%$ |
| Normal standard | $30 \%$ |
|  |  |

The above table shows that E.S. \& C.I. Pvt. Ltd. has highest gross profit margin $34 \%$ in F/Y 2061/62 and the lowest $18 \%$ in the F/Y 2059/60. Gross profit margin
of all the fiscal year except 2061/62 are lower than average of $23.2 \%$ which indicates that G.P.M. of E.S. \& C.I. Pvt. Ltd. seems not satisfactory during that period. It's standard deviation (S.D.) and co-efficient of variation (C.V.) are 5.64\% and $24.3 \%$ respectively which indicates that G.P.M. of E.S. \& C.I. Pvt. Ltd. has fluctuated so widely. Thus, G.P.M. of E.S. \& C.I. Pvt. Ltd. looks not satisfactory from sales point of view.

## b. Net Profit Margin:

Net profit margin ratio establishes a relationship between net profit and sales, indicates management's efficiency in manufacturing, administering and selling the products. This ratio is the overall measure of the firm's ability to turn each rupee sales into net profit. If the net profit margin is inadequate, the firm will fail to achieve satisfactory return on shareholder's fund. This ratio also indicates the firm's capacity with stand adverse economic conditions. A firm with a high net profit margin ratio would be in an advantageous position to survive in the face of falling selling prices, rising cost of production, declining demand for the product. It would really be difficult for a low net margin in firm to with stand these activities. Similarly, a firm with high net profit margin can make better use to favorable conditions, such as rising selling prices, falling costs of production or increasing demand for the product. Such a firm will be able to accelerate its profit at faster rate than a firm with a low net profit margin.

Net Profit Margin $=\frac{\text { Net Profit after tax }}{\text { Sales }} \quad$ X $100 \%$

Table No. - 4
Net Profit Margin of E.S. \& C.I. Pvt. Ltd.

| Fiscal Year | N.P.M. Ratio (in 5) |
| :--- | :--- |
| $2058 / 59$ | $(5.4 \%)$ |
| $2059 / 60$ | $0.27 \%$ |
| $2060 / 61$ | $2.5 \%$ |
| $2061 / 62$ | $6.35 \%$ |
| $2062 / 063$ | $5.19 \%$ |
| Average (X) | $1.78 \%$ |
| Standard deviation (S.D.) | $4.16 \%$ |
| Coefficient of variation (C.V.) | $233.9 \%$ |
| Normal standard | $(0.15 \%)$ |

The above table shows that E.S. \& C.I. Ltd. has highest net profit margin in the F/Y 2061/62 is $6.35 \%$ and lowest in the F/Y 2058/59 is (5.4\%). N.P.M of E.S. \&
C.I. Lower that average in the F/Y 2058/59 and greater than average in 2060/61, 2061/62, 2062/63 which indicates, E.S. \& C.I. Ltd. has satisfactory net profit margin. Standard deviation and co-efficient of variation are $4.16 \%$ \& 233.9\% which indicates widely fluctuate.

## c. Return on Total Assets (ROTA):

The profitability of all financial resources invested in total assets of the firm. A high return on total assets indicates the total assets of the firm are able to generate a reasonable return. So, higher the ratio is more favorable and vice-versa. It is calculated by dividing the net profit (loss) by total assets of the firm. The ratio of the E.S. \& C.I. I. Pvt. Ltd. over the study period are given in the following table.

Table No. - 5
Return on Total Assets (ROTA) of E.S. \& C.I. Pvt. Ltd.

| Fiscal Year | R.O.T.A. |
| :--- | :--- |
| $2058 / 59$ | $(3.58) \%$ |
| $2059 / 60$ | $0.21 \%$ |
| $2060 / 61$ | $2 \%$ |
| $2061 / 62$ | $7.18 \%$ |
| $2062 / 063$ | $6 \%$ |
| Average (X) | $2.36 \%$ |
| Standard deviation (S.D.) | $3.91 \%$ |
| Coefficient of variation (C.V.) | $165.62 \%$ |
| Normal standard | 2.98 |

The above table shows that highest ROTA is $7.18 \%$ in the fiscal year 2061/62 and lowest is $-0.358 \%$. Average ROTA of E.S. \& C.I. Ltd. is $2.36 \%$ which is lower than normal standard (10 to 12). The evidence shows that the ROTA of E.S. \& C.I. Ltd. has unsatisfactory over the study period. Thus, we can conclude that total assets of firm are not effectively utilzed and they are not able to generate a reasonable return. Standard deviation \& co-efficient of variation are $3.91 \%$ and $165.62 \%$ respectively which indicates that return on total assets ratio is widely varied.

## d. Return on shareholder's equity ratio (ROSER):

Return on shareholder's equity indicates how well the firm has used the resources of owners. It also measures the overall profitability of owner's investment. A high ROSE represents the sound profitability position of a firm and vice-versa. It is
calculated by dividing net profit (loss) to shareholder's equity. The ratios of E.S. \& C.I. Pvt. Ltd. for the study period are given in the table.

$$
\text { ROSE }=\frac{\text { Net profit after tax }}{\text { Shareholder's equity }} \text { X 100\% }
$$

$$
\begin{gathered}
\text { Table No. - } 6 \\
\text { Return on shareholder's equity of E.S. \& C.I. Pvt. Ltd. }
\end{gathered}
$$

| Fiscal Year | ROSE |
| :--- | :--- |
| $2058 / 59$ | $(9.56) \%$ |
| $2059 / 60$ | $0.57 \%$ |
| $2060 / 61$ | $4.78 \%$ |
| $2061 / 62$ | $13.37 \%$ |
| $2062 / 063$ | $9.64 \%$ |
| Average (X) | $3.67 \%$ |
| Standard deviation (S.D.) | $7.94 \%$ |
| Coefficient of variation (C.V.) | $211.29 \%$ |
| Normal standard | 13 to 15 |

From the above table, it is observed that highest ROSE is $13.37 \%$ and lowest is $(9.56 \%)$ are respectively. The average ratio is $3.67 \%$ which is greater than normal standard (13 to 15). ROSE of E.S. \& C.I. Ltd. are greater than average in the F/Y 2060/61, 2061/62, 2062/63 which indicates that profitability position of E.S. \& C.I. Ltd. in terms of equity capital is favorable. E.S. \& C.I. Ltd. seems to have utilized its resources properly. Thus, it is desirable to invest on equity shares. Standard deviation and co-efficient of variation are $7.94 \%$ and $211.29 \%$ respectively which indicates that return on shareholder's equity ration is more fluctuating.

## e. Return on total capital employed (ROTCE):

Return on total capital employed indicates how well management has used the funds supplied by creditors and owners. It shows the productivity of permanent capital in terms of return. A high ROTCE ratio represents that company is able to utilize its funds efficiently. it is calculated by dividing net profit (loss) after tax by total capital employed.

ROTCE $=\frac{\text { Net Profit after tax }}{\text { Total capital employed }}$

## Table No. - 7 <br> Return on total capital employed of E.S. \& C.I. Pvt. Ltd.

| Fiscal Year | ROTCE |
| :--- | :--- |
| $2058 / 59$ | $3 \%$ |
| $2059 / 60$ | $0.19 \%$ |
| $2060 / 61$ | $1.8 \%$ |
| $2061 / 62$ | $6.67 \%$ |
| $2062 / 063$ | $4.69 \%$ |
| Average (X) | $3.27 \%$ |
| Standard deviation (S.D.) | $2.25 \%$ |
| Coefficient of variation (C.V.) | $68.82 \%$ |
| Normal standard |  |

It is observed that ROTCE of E.S. \& C.I. Ltd. has highest is $6.67 \%$ in the F/Y 2061/62 and lowest is $0.19 \%$ in the F/Y 2059/60. ROTCE of E.S. \& C.I. Ltd. is lower than average ratio up to the $\mathrm{F} / \mathrm{Y}$ 2060/61 but it is greater than average ratio in the F/Y 2061/62 and 2062/63. The ratios shows not satisfactory return on overall capital employed comparing 5 years study period. E.S. \& C.I. Ltd. has not been able to utilize its funds efficiently. Standard deviation \& Co-efficient of variation are $2.25 \%$ \& $68.82 \%$ which is widely.

## f. Cost of goods sold ratio (COGSR)

Cost of goods sold ratio reflects how much amount of sales has been covered by the cost of goods sold. It measures the efficiency of production management. A low cost of goods sold ratio is favorable and high cost goods sold is unfavorable. It is calculated by dividing cost of good sold by net sales.

# Table - 8 <br> Cost of goods sold ratio of E.S. \& C.I. Pvt. Ltd. 

| Fiscal Year | COGS Ratio |
| :--- | :--- |
| $2058 / 59$ | 76.70 |
| $2059 / 60$ | 81.72 |
| $2060 / 61$ | 79.61 |
| $2061 / 62$ | 76.46 |
| $2062 / 063$ | 78.55 |
| Average (X) | 78.608 |
| Standard deviation (S.D.) | 1.94 |
| Coefficient of variation (C.V.) | 2.47 |
| Normal standard |  |

From above table, it is observed that the highest COGS ratio is $81.72 \%$ in the F/Y 2059/60 and lowest is $76.46 \%$ in the F/Y 2061/62. Average COGS ratio are greater than average i.e. 78.6 in the $\mathrm{F} / \mathrm{Y}$ 2059/60, 2060/61, and lower than average in the F/Y 2058/59, 2061/62, 2062/63. We can say that COGS ratio so high, so E.S. \& C.I. Ltd. has not satisfactory. If cost of goods sold ratio increased then profit margin will decrease. E.S. \& C.I. Ltd. has been earning only nominal profit during the study period.

## g. Operating Expenses Ratio:

Operating expenses ratio is the relationship between operating expenses and sales. The operating ratio is an important ration that explains the changes in the fprofit margin ratio. It indicates the average aggregative variation in expenses where some of the expenses may be increasing while other may be falling. This ratio, when compared from year to year for firm will throw light on managerial policies and programms. A high operating expenses ratios is unfavorable and low operating expenses ratios is favorable.

The operating expenses ratio is a yardstick of operating efficiency, but it should be used continuously. It is affected by a number of factors, such as external uncontrollable factors, internal factors, employee and managerial efficiency (or inefficiency) all of which are difficult to analysis.

The ratio is calculated by using following formula:
Operating expenses ratio $=$ Operating expenses $\quad \mathrm{X} \quad 100 \%$
Sales

Where, operating expenses $=$ Cost of goods sold + selling expenses at general and administrative expenses (excluding interest)

> Table No. - 9
> Operating Expenses ratio of E.S. \& C.I. Pvt. Ltd.

| Fiscal Year | O.E. Ratio |
| :--- | :--- |
| $2058 / 59$ | $5.96 \%$ |
| $2059 / 60$ | $1.37 \%$ |
| $2060 / 61$ | $1.23 \%$ |
| $2061 / 62$ | $3.48 \%$ |
| $2062 / 063$ | $3.36 \%$ |
| Average (X) | $3.08 \%$ |
| Standard deviation (S.D.) | $1.73 \%$ |
| Coefficient of variation (C.V.) | $56.17 \%$ |
| Normal standard | (Below 1) |

From the above table it is observed that E.S. \& C.I. has the highest operating $5.96 \%$ in F/y 2058/59 and lowest of $1.23 \%$ in F/y 2060/61. Average operating expenses ration of E.S. \& C.I. is $3.08 \%$. Standard deviation and coefficient of variation are $1.73 \%$ and $56.17 \%$ respectively. Operating expenses ratio must be below 1. But operating expenses rations of all the year are above 1 so that E.S. \& C.I. has unsatisfactory result. It is very poor position of firm.

### 4.1.3 Activity Ratio / Turnover Ratio:

Funds of creditors and owners are invested in various assets to generate sales and profit. Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted into sales. Activity ratios thus, involve relationship between sales and assets. A proper balance between sales and assets generally reflects that assets are managed well. Several activity ratios can be calculated to judge the effectiveness of assets utilization.
a. Inventory turnover ratio:

Inventory turnover ratio shows the relationship between sales and stock. This indicates the effectiveness of stock management of the firm. Inventory turnover ratio also shows how rapidly the inventory is being turned into sales.

A high inventory turnover ratio is the indicator of good inventory management and vice-versa. In other word, increase in the ratio shows the efficiency with which investment is utilized. Inventory turnover ratio is dividing sales by closing stock. The inventory ratio of E.S. \& C.I. is given in the table no. 10 .

Table No. 10
Inventory turnover ratio of E.S. \& C.I.

| Fiscal Year | ITR (in times) |
| :--- | :--- |
| $2058 / 59$ | 4.67 |
| $2059 / 60$ | 24.75 |
| $2060 / 61$ | 3.15 |
| $2061 / 62$ | 8.84 |
| $2062 / 063$ | 2.21 |
| Average (X) | 8.72 |
| Standard deviation (S.D.) | 8.32 |
| Coefficient of variation (C.V.) | 95.41 |
| Normal standard | 4 times |

According to the above table the inventory turnover ratio of E.S. \& C.I. Pvt. Ltd. varies from lowest of 2.21 times in F/y 2062/63 to highest of 24.75 times in F/y 2059/60. The average ITR of E.S. \& C.I. is 8.72 times. Inventory turnover ratio of $\mathrm{F} / \mathrm{y} 59 / 60$ is 24.75 times which is greater than average 2.21 times. Standard deviation and co-efficient of variation are 8.32 times and 95.41 times respectively.

## b. Debtors Turnover Ratio:

Now days a firm may expand its activities all over the world. It means there is no limitation in the business. Firm sells its goods for cash and credit both. When the firm sells goods on credits, debtor is created in the firm's account. DTR (debtor turnover ratio) indicates the speed with which debtors/account receivable are being collected. It measures the efficiency of credit management of a firm. It is also a test of the liquidity of the debtors of the firm. Theoretically, the ratio is calculated dividing credit sales by a average debtor but the computation of the figure of average debtors involves practical difficulties. Therefore we have used alternative formula of debtor turnover i.e. sales by debtor.

Table no. - 11
Debtors turnover ratio of E.S. \& C.I. Pvt. Ltd.

| Fiscal Year | DTR |
| :--- | :--- |
| $2058 / 59$ | 15.75 |
| $2059 / 60$ | 7.36 |
| $2060 / 61$ | 10.68 |
| $2061 / 62$ | 28.60 |
| $2062 / 063$ | 10.36 |
| Average (X) | 14.55 |
| Standard deviation (S.D.) | 7.52 |
| Coefficient of variation (C.V.) | $51.75 \%$ |
| Normal standard | 6 times |

The above table shows that E.S. \& C.I. Pvt. Ltd. has highest debtors turnover ration of 28.60 in F/y 2061/62 and lowest of 7.36 in F/y 2059/60. The average debtors. turnover ratio 14.55 times. The debtor turnover ratio of $\mathrm{F} / \mathrm{y}$ 2058/59 and 2061/62 are greater than average ration but it is below than average in the years.

When we compare average debtor turnover ratio with normal standard (6 times), we find that debtor turnover ration of E.S. \& C.I. Pvt. Ltd. is always lower. The low debtors turnover ratio shows that E.S. \& C.I. Pvt. Ltd. has not followed better management its debtors. The higher the value of debtor turnover, the more efficient is the management of credit. Since, debtor turnover ratio of E.S. \& C.I. Pvt. Ltd. is not satisfactory.

## c. Average Collection Period:

Average collection period measures the quality of debtors. The average collection period should be compared against the firm's credit terms and policy to judge its credit and collection efficiency. The shorter average collection period is the better the quality of debtors. It shows the nature of the firm's credit policy and the quality of the debtors more clearly. The ratio is calculated by debtors multiplied by days in a year and divided by sales. Sales may be the credit sales or total sales and debtors also may be average debtors or ending debtors depending upon the availability of information.

$$
\mathrm{ACP}=\frac{\text { Days in year } \mathrm{x} \text { Debtors }}{\text { Sales }}
$$

It indicates the rapidity or slowness of its collection the shorter the ACP, the better quality of debtors. Sales may be cash sales or credit sales and debtors also may be average debtors or ending debtors depending on the availability of information.

## Table No. 12 <br> Average collection period of E.S. \& C.I. Pvt. Ltd.

| Fiscal Year | ACP (in days) |
| :--- | :--- |
| $2058 / 59$ | 23 |
| $2059 / 60$ | 49 |
| $2060 / 61$ | 34 |
| $2061 / 62$ | 13 |
| $2062 / 063$ | 35 |
| Average (X) | 31 |
| Standard deviation (S.D.) | 13 |
| Coefficient of variation (C.V.) | 42 |
| Normal standard | 60 |

It is observed that the highest ACP being 49 days in F/y 2059/60 and the lowest being 13 days in $\mathrm{F} / \mathrm{y}$ 2061/62. The average collection period is 31 days. Average collection period is lower than normal standard. It is the indication that E.S. \& C.I. Pvt. Ltd. has qualitative debtors. Regarding ACP of E.S. \& C.I. Pvt. Ltd. that E.S. \& C.I. Pvt. Ltd. collects cash from its customer very fastly. Similarly, standard deviation and co-efficient of variation are 13 days and 42 days respectively. Which is widely fluctuating.

## d. Fixed Assets Turnover Ratio (FATR):

Fixed assets turnover ratio indicates the adequacy of sales in relation to investment in fixed assets. It measures the efficiency with which the firm has been using its fixed assets to generate sales. FATR is calculated dividng net sales by net fixed assets. A higher the ratio indicates more efficient utilization of fixed assets in generating sales and vice-versa. The ratios of JCF over study period are given in the table.

## Table No. 13 <br> Fixed Assets Turnover Ratio of E.S. \& C.I. Pvt. Ltd.

| Fiscal Year | FATR (in times) |
| :--- | :--- |
| $2058 / 59$ | 0.75 |
| $2059 / 60$ | 0.99 |
| $2060 / 61$ | 1.09 |
| $2061 / 62$ | 1.23 |
| 2062/063 | 1.07 |
| Average (X) | 1.03 |
| Standard deviation (S.D.) | 0.16 |
| Coefficient of variation (C.V.) | 15 |
| Normal standard | 10 |

The above table shows that E.S. \& C.I. Pvt. Ltd. has highest FATR of 1.23 times in F/y 2061/62 and lowest of 0.75 in F/y 2058/59. The average FATR is 1.03 . FART of E.S. \& C.I. Ltd. is below than average in F/y 2058/59 and 2059/60. Where as it is above than average in F/y 2060/61, 2061/62 and 2062/63.

While comparing the average with industry normal standard (10 times). FATR of all five years are below than normal standard so that E.S. \& C.I. Ltd. has not mobilized and utilized its fixed assets more efficiently. The higher FATR means better utilization of fixed assets in generating sales. Thus, fixed assets management policy taken by E.S. \& C.I. Pvt. Ltd. is not satisfactory. Similarly, standard deviation and co-efficient of variation are 0.16 and 15 respectively. Which indicate that fixed assets turnover ratio of E.S. \& C.I. Pvt. Ltd. is not widely fluctuating.

## e. Total Assets Turnover Ratio (TATR):

The total assets turnover ratio indicates the sales generation per rupee of investment in total assets. Total assets turnover ratio equals sales divided by total assets. It is calculated by comparing the net sales to total assets. Total assets contribute not only to the sales but also to the production. Total assets turnover ratio is a signification ratio. Since it shows the firm's ability of generating sales all the financial resources committed to the firm's assets turnover results a corporation to reduce financing cost and increase profit. These for high ratio are favorable to the industry. Increasing total assets turnover ratio indicates the increasing overall efficiency of total assets
utilization. Decreasing ratio shows that either sales should be increased of some assets should be disposed off. Genially a high ratio indicates over trading on fixed assets while a low ration shows excessive ratio of E.S. \& C.I. Pvt. Ltd. has been shown in the following table.

## Table No. - 14 <br> Total Assets Turnover Ratio of E.S. \& C.I. Pvt. Ltd.

| Fiscal Year | TATR |
| :--- | :--- |
| $2058 / 59$ | 0.67 |
| $2059 / 60$ | 0.76 |
| $2060 / 61$ | 0.81 |
| $2061 / 62$ | 1.13 |
| $2062 / 063$ | 1.16 |
| Average (X) | 0.91 |
| Standard deviation (S.D.) | 0.21 |
| Coefficient of variation (C.V.) | $23 \%$ |
| Normal standard | 2 times |

Above table shows that E.S. \& C.I. Pvt. Ltd. has highest TATR of 1.16 in F/y 2062/63 and lowest of 0.67 in F/y 2058/59. Average TATR is 0.91 . It is above average in F/y 2061/62, 2062/63 but it is below the average in 2058/59, 2059/60, 2060/61.

TATR of E.S. \& C.I. Pvt. Ltd. comparing with industry normal standard (2 times). It is observed that all the five years TATR are below than normal standard. Thus, firm is not successful to generate enough sales per rupee investment in total assets. Similarly standard deviation and co-efficient of variation are 0.21 and $23 \%$ respectively is not widely fluctuating.

## f. Current Assets Turnover Ratio (CATR):

Current assets turnover ratio indicates the adequacy of sales in relationship to investment in current assets. It measures the effectiveness of utilizing current assets turnover ratio is calculated dividing sales by current assets. A higher the ratio indicates more efficient in utilizing of current assets in sales and vice-versa.

Current assets turnover ratio of E.S. \& C.I. Ltd. is presented in the following table.

## Table No. - 15 <br> Current assets turnover ratio of E.S. \& C.I. Ltd.

| Fiscal Year | CATR (in times) |
| :--- | :--- |
| $2058 / 59$ | 2.88 |
| $2059 / 60$ | 1.75 |
| $2060 / 61$ | 2.21 |
| $2061 / 62$ | 4.88 |
| $2062 / 063$ | 1.65 |
| Average (X) | 2.32 |
| Standard deviation (S.D.) | 1.18 |
| Coefficient of variation (C.V.) | $50.86 \%$ |
| Normal standard |  |

It is observed that the highest and lowest current assets turnover ratio is 4.88 times in F/y 2060/61 and 1.65 times in F/y 2062/63. Average CATR, standard deviation, coefficient of variation are 2.32, 1.18 and $50.86 \%$ respectively. Current assets turnover ratio of E.S. \& C.I. Ltd. has fluctuated over the study period, so it is not favorable to the firm.

### 4.1.4 Capital Structure Ratio:

Capital structure properly known as leverage ratio. It is used examine the capital mix of a firm. It measures the long-term solvency position of the firm. Capital structure ratio measure the contribution of financially by owner compared with financially provide by creditors. It also indicates the firm's debt and fixed charge-paying ability. Debt-equity ratio, total debt to total capital ratio and debt to asset ratio are studied in this regard.

## a. Debt Equity Ratio:

Debt equity ratio is the relationship between borrowed found and owner's capital. It measures the long-term solvency position of firm. This ratio reflects the relative claims of creditors and shareholders against total assets of the firm. It calculated by dividing long-term debt by shareholder's equity.

Debt Equity Ratio =
$\frac{\text { Long Debt }}{\text { Shareholders Equity }}$

Past accumulated losses and deferred expenditure should be excluded from the shareholders equity and shareholders equity is equal to the net worth.

Therefore this ratio is called debt to net worth ratio. Another variation of the debt-equity ratio is divided the total debt by the shareholder equity.

Debt Equity Ratio =
$\frac{\text { Total Debt }}{\text { Shareholders Equity }}$

The debt to equity ratios indicates the contribution of debt capital and equity capital in total investment. A high ratio is unfavorable from company point of view. It introduces inflexibility in the firm's operation due to increasing interference and undue pressure from creditors during the period of low profits.

A highly debt financial company suffer great stains as it can not earn sufficient profit even to pay interest charge on borrowing. As a result their pressure and control increase and firm find difficulties to meet working capital needs. So it has to borrow on high unfavorable terms and conditions.

During the period of high profit a highly debt financial firm has to pay a large amount out of income as a cost of capital. Similarly, low debt equity ratio implies owner's upper hand over creditors, so it may be favorable to a firm during the period of low profit.

Table No. 16
Total Debt - Equity Ratio of E.S. \& C.I. Ltd.

| Fiscal Year | Debt-equity Ratio (\%) |
| :--- | :--- |
| $2058 / 59$ | 239 |
| $2059 / 60$ | 260 |
| $2060 / 61$ | 190 |
| $2061 / 62$ | 129 |
| 2062/063 | 230 |
| Average (X) | 210 |
| Standard deviation (S.D.) | 46.26 |
| Coefficient of variation (C.V.) | 22.19 |
| Normal standard | 100 |

It is observed that highest debt equity ratio in the F/y 2059/60 is $260 \%$ and lowest in the $\mathrm{F} / \mathrm{y} 2061 / 62$ is $129 \%$. Average debt equity ratio is $210 \%$ similarly, standard deviation and coefficient of variation are $46.26 \%$ and $22.19 \%$ respectively. Debt equity ratio has fluctuated between $210 \%$ to $260 \%$. If we compare with the normal standard ( $100 \%$ ), the debt-equity ratio is always higher.

A high debt equity ratio implies a greater claim of creditor than owner. The above table shows that the ratios are very high, it indicates, that owner invert less amount in the firm than creditor. So, it has not ability to pay interest and principle regularly. If the firm earns profit, this type of capital structure is not good. The ratio indicate that debt equity ratio not satisfactory.

## b. Total debt to total assets ratio (TD TTAR):

Total debt to total assets ratio establishes relationship between debt and total assets. This ratio explains what percentage of the value of assets of the firm its creditors have financed. A high debt to total assets ratio represent a great risk to creditors and also to shareholders and vice-versa. So, a reasonable debt to assets ratio is desirable. Debt to total assets ratio is calculated by dividing total debt by total assets.

Debt to total assets ratio $=\frac{\text { Total Debts }}{\text { Total assets }} \mathrm{X} 100$
Table No. 17
Debt to Total Assets Ratio of E.S. \& C.I. Ltd.

| Fiscal Year | TDTTAR (in \%) |
| :--- | :--- |
| $2058 / 59$ | 90 |
| $2059 / 60$ | 96 |
| $2060 / 61$ | 80 |
| $2061 / 62$ | 69 |
| $2062 / 063$ | 144 |
| Average (X) | 96 |
| Standard deviation (S.D.) | 25.8 |
| Coefficient of variation (C.V.) | $26.87 \%$ |
| Normal standard | $50 \%$ |

From the above table, it is observed that the highest debt to total assets ratio of E.S. \& C.I. Ltd. is $144 \%$ in the F/y $2062 / 63$ and lowest is $69 \%$ in the F/y $2061 / 62$. Average ratio is $96 \%$. Similarly standard deviation and coefficient of variation are $25.8 \%$ and $26.87 \%$ respectively.

In comparison to average ratio with normal standard (50\%), total debt to total assets ratio is always higher. This ratio indicate that debt to total assets ratio in E.S. \& C.I. Ltd. looks not satisfactory. It indicates risky position of E.S. \& C.I. Ltd, which is not desirable. It also indicates risky position for, JCF creditors because high proportion of debt finance.

## c. Debt to Total Capital Ratio (DTTC):

It is a relationship between long-term debt and total capital. Total capital includes owner's equity as well as borrowed capital. A high ratio shows the share of financing by the creditors as compare to that of owners. This means creditor would suffer more in times of distress than the owner. This is why creditors prefers low debt-equity ratio. Debt to total capital ratio is calculated as follows.

$$
\text { Debt to Total Capital Ratio }=\frac{\text { Long Term Debt }}{\text { Total Capital }}
$$

## Table No. - 18 <br> Debt to Total Capital Ratio of E.S. \& C.I. Ltd.

| Fiscal Year | DTTC (in \%) |
| :--- | :--- |
| $2058 / 59$ | 68 |
| $2059 / 60$ | 67 |
| $2060 / 61$ | 62 |
| $2061 / 62$ | 50 |
| $2062 / 063$ | 51 |
| Average (X) | 60 |
| Standard deviation (S.D.) | 7.7 |
| Coefficient of variation (C.V.) | 12.83 |

Above table shows that highest debt to total capital ratio of E.S. \& C.I. Ltd. is $68 \%$ in the F/y 2058/59 and lowest is $50 \%$ in the F/y 2061/62. DTTC of E.S. \& C.I. Ltd. is in decreasing trend, which indicates that it is favorable for creditors. A low ratio shows the small share of financing by the creditors as compare to that of owner and it means creditors prefer low debt equity ratio. Thus DTTCR of E.S. \& C.I. Ltd. looks at desirable level. Standard deviation \& Co-efficient of variation of DTTCR are $7.7 \%$ and $12.83 \%$ respectively. It indicates that it is moderately fluctuating.

### 4.2 Common size statement Analysis:

A simple method of tracing periodic charges in the financial performance of a company is to prepare comparative statements. Comparative financial statements will contain items at least of two periods. Increase and decrease in income statement and balance sheet over period can be shown in two ways: (1) Aggregate Changes (2) Proportional Changes. Drawing special columns for
aggregate amount or percentage or both of increase / decrease can indicate aggregate Changes. Relative or proportional calculation in relation to a common base is in special column. For example, in case of income statement sales figure is assumed to be common base (equal to 100) and all other items are expressed as percentage of total assets or total funds. The financial statements prepared in terms of common base percentages are called common size statements.

### 4.2.1 Common Size Balance Sheet:

The balance sheet items are divided by total assets and expressed as a percentage of total assets and each item of capital and liabilities are divided by total liabilities. Thus, the whole balance sheet is converted in to percentage form. Such converted balance sheet is known as a common size balance sheet. When balance sheets of the same concern for several years converted into percentage form, they are known as comparative common size balance sheet. For the purpose of analysis, the figure of total assets and total liabilities have been taken as equal to 100 percent. Comparative common size balance sheet of E.S. \& C.I. Ltd. is given in the following table.

## Everest Sugar \& Chemical Industry Ltd. Ramnagar, Mahottari

## Common Side Balance Sheet

| Particulars | 2058/059 | 2059/060 | 2060/061 | 2061/062 | 2062/063 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Current Assets: |  |  |  |  |  |
| Inventory | 11.20 | 2.30 | 21 | 10.40 | 25.38 |
| Business \& other account receivable | 3.32 | 7.75 | 6.22 | 3.22 | 5.42 |
| Cash \& other balance | 0.96 | 0.30 | 0.26 | 1.27 | 0.84 |
| Prepaid \& advance | 2.72 | 2.47 | 2.44 | 3.31 | 2.38 |
| Total Current Assets (A) | 18.2 | 12.82 | 29.92 | 18.2 | 34.02 |
| Fixed Assets (B) | 69.39 | 77.18 | 60.59 | 75.61 | 52.32 |
| Miscellaneous Expenditure: |  |  |  |  |  |
| Deferred Revenue Expenditure | 0.53 | Nil | Nil | Nil | Nil |
| Profit \& Loss Account (Dr.) | 11.88 | 10 | 9.49 | 6.19 | 13.66 |
| Total Miscellaneous Expenditure (C) | 12.41 | 10 | 9.49 | 6.19 | 13.66 |
| Total Assets (A+B+C) | 100 | 100 | 100 | 100 | 100 |
| Current Liabilities: |  |  |  |  |  |
| Business \& other account payable | 3.32 | 14.74 | 8.19 | 12.44 | 37.76 |
| Total Current Liabilities (D) | 3.32 | 14.74 | 8.19 | 12.44 | 37.76 |
| Mid \& long term loan: |  |  |  |  |  |
| Secured loan | 59.25 | 57.45 | 57.36 | 43.85 | 31.98 |
| Unsecured loan | 2.36 | 0.053 | Nil | Nil | Nil |
| Total mid \& long term loan (E) | 61.61 | 57.5 | 57.36 | 43.85 | 31.98 |
| Capital \& Reserve fund (F) | 35.17 | 27.76 | 34.45 | 43.71 | 30.26 |
| Total capital \& liabilities (D+E+F) | 100 | 100 | 100 | 100 | 100 |

It is observed that the comparative common size balance sheet of E.S. \& C.I. Ltd. shows percentage of all items of assets and liabilities during the study period (i.e. 2058/59 to 2062/63). Total assets of the E.S. \& C.I. Ltd. has been fluctuating. Cash \& other balance has been fluctuating trend. Inventory also has been fluctuating trend. Prepaid \& advance has decreasing trend except 2061/62. Fixed assets has also fluctuating trend. Total current liabilities of E.S. \& C.I. Ltd. is not very high but it has increasing trend except 2059/60. Secured loan has decreasing trend. There is no unsecured loan in the F/y 2062/63, 2061/62, 2060/61. But in 2058/59 and 2059/60 are 2.36 and 0.053 which indicates in decreasing trend. Studying from this items, we can say that E.S. \& C.I. Ltd. has not to bear risk in the period of low profit margin, because it has to pay greater amount for interest on borrowing secured loan.

## From the above analysis, it may be concluded that:

- Share capital of E.S. \& C.I. Ltd. is low E.S. \& C.I. Ltd. need not to increase its share capital.
- Inventory has been fluctuating. So, it effects the profit more or less. Therefore, E.S. \& C.I. Ltd. should make stable inventory policy.
- Cash and other balance of E.S. \& C.I. Ltd. is also low so E.S. \& C.I. Ltd. should maintain in desirable level.
- Loan of E.S. \& C.I. has decreasing trend, so, it is good position of industry.


### 4.2.2 Common Size Income Statement:

Common size income statement shows the percentage of net sales that has been absorbed by each item of expense. It shows the relationship of cost of goods sold, operating income (gross profit), operating expenses, net operating income, profit before tax, and net profit after tax. In this study, figure of sales have been taken, as 100 percent and percentage of other item to sales have been determined on that basics of common size income statement. It shows the position relating to profitability. It indicates items of expresses responsible for increase or decrease in percentage of profit / loss. The following table shows the comparative common size income statement of the E.S. \& C.I. Ltd. during the study period.

## Everest Sugar \& Chemical Industry Ltd. <br> Ramnagar, Mahottari <br> Common Side Balance Sheet

| Particulars | 2058/059 | 2059/060 | 2060/061 | 2061/062 | 2062/063 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sales | 100 | 100 | 100 | 100 | 100 |
| Less: Cost of Sales | 76.70 | 81.72 | 79.61 | 76.46 | 78.55 |
| Gross Profit | 23.3 | 18.28 | 20.39 | 23.54 | 21.45 |
| Less: Business Expenditure |  |  |  |  |  |
| Office \& Adm. exp. | 4.07 | 0.32 | 2.75 | 3.21 | 3.21 |
| Selling \& Dis. Exp. | 1.89 | 1.05 | 0.40 | 0.27 | 0.15 |
| Operating Profit | 17.34 | 16.91 | 17.24 | 20.06 | 18.09 |
| Less: Financial Expenses | 15.34 | 10.58 | 8.98 | 5.92 | 6.32 |
| Less: Dep. ${ }^{\text {n }}$ | 7.36 | 6.04 | 5.78 | 5.38 | 6.30 |
| Less: Pollution control Exp. | Nil | Nil | Nil | 0.033 | Nil |
| Less: Bad Debt written off | Nil | Nil | Nil | 0.12 | 1.10 |
| Less: A/C written off | 5.36 | 0.019 | 0.003 | 0.33 | 0.86 |
| NPBT |  | 0.271 | 2.477 | 7.28 | 3.51 |
| Less: Bonus Provision | Nil | Nil | Nil | 0.053 | 0.23 |
| Less: Income Tax \& special fee | Nil | Nil | Nil | 0.13 | 0.55 |
| NPAT | 5.36 | 0.271 | 2.48 | 7.094 | 273 |

According to the table, the comparative common size income statement of E.S. \& C.I. Ltd. shows that the percentage of cost of sales has fluctuating trend. Similarly, gross profit margin has fluctuating trend. When percentage of cost of sales has increased, percentage of gross profit margin has decreased and when percentage of cost of sales is decreased, percentage of gross profit margin in increased. So we can say that there is negative relationship between cost of sales and gross profit. Office and administrative expenses has decreasing trend except 2058/59. Selling and expenses has increasing trend except 2062/63. Operating expenses increased due to increased in office \& administrative expenses and selling \& distribution expenses. If operating expenses increased and operating profit decreased vice-versa.

Percentage of NPAT of E.S. \& C.I. Ltd. is $2.73,7.094,2.48,0.271,5.36$ in the F/y 2062/63, 2061/62, 2060/61, 2059/60, 2058/59 respectively. The high percentage of NPAT is 7.094 in the F/y 2061/62 and low ratio is 0.271 in the F/y 2059/60.

## From the above analysis:

We can conclude that cost of sales occupied large amount, so it should be reduce to increase net profit after tax and similarly, expenses should also maintain in desirable level.

### 4.3. Statistical Analysis:

Under this chapter, some statistical tools such as co-efficient of corelation and trend analysis have been used to achieve the objective of the study. They are given below.

### 4.3.1 Coefficient of Correlation Analysis:

It is a most widely used stoical tools in practice which measure the degree of relationship between two or more variables. In this study Karl Person coefficient of correction has been used to find out the relation between sales and stock, sales and NPAT, sales and current assets, total assets and NAPT.

## a. Co-efficient of correlation between sales and stocks.

Sales is playing vary important role in the performance of the any business and similarly stocks are very important to reduction of cost, utilization of fund and many other point of view. Co-efficient of correlation between these two variables in this analysis sales are independent variable ( X ) and stocks are dependent variable (Y). The main objective of computing 'r' between these two variable is to justify whether sales are significantly used as stock in proper way or not. The detailed calculations in this regard are done in appendix. The
following table shows the value of ' r ', $\mathrm{r}^{2}$, P.E (r) between these two variables of JCF during the study period.

## Table No. Correlation between sales and stocks of JCF.

| Evaluation Criterions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Result | 'r' | 'r' $^{\prime \prime}$ | PE(r) | 6PE(r) |
|  | -0.01379 | 0.00019 | 0.30 | 1.8 |

From the above table, it is found that the coefficient of correlation between sales (independent) and net profit after tax (dependent) is -0.01379 which indicates a low degree of positive correlation. On the other hand considering the value of coefficient of determination ( $\mathrm{r}^{2}$ ) i.e. 0.00019 that indicates 0.019 percent of the variation in the variation in the dependent variable (NPAT) has been explained by the independent variable (sales). Moreover by considering the value of ' $r$ ' is -0.01379 and comparing with six times P.E. i.e. 1.8, we can find that is less that the value of 6 P.E. which reveals that the value of is in significant.

From the above analysis, it can be concluded that there is not significant relationship between sales and stock because it is negative correlation. Similarly, coefficient of determination $\left(r^{2}\right)$ is also not high. It can be said that E.S. \& C.I. Ltd. has not particular stock policy to sales.

## b. Coefficient of correlation between sales \& net profit after tax:

The coefficient of correlation between sales \& net profit after tax is to measure the degree of relationship between two variable. The purpose of computing correlation of co-efficient is to justify whether the sales are significantly used in proper way or not and whether these relationship between the two variables to find out the correlation (r) various calculation have been given in appendix. The following table shows the correlation co-efficient between sales and NPAT of E.S. \& C.I. Ltd. during the study.

## Table No. - <br> Correlation Coefficient Between Sales \& NPAT

| Evaluation Criterions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Result | 'r' | 'r' $^{2 \prime}$ | PE(r) | 6PE(r) |
|  | 0.92 | 0.82 | 0.045 | 0.27 |

From the above listed table it has found that coefficient of correlation between sales (independent) and net profit after tax (dependent) is 0.92 which indicate that there is high degree of positive correlation. On the other hand considering the value of coefficient of determination $\left(r^{2}\right)$ i.e. 0.82 that indicates $82 \%$ of the variation in the dependent variable (NPAT) has been explained by the independent variable (sales). Moreover by considering the value of r i.e. 0.92 is greater that P.E. or 6 P.E. we can say that there is significant relationship between sales and NPAT.

From the above analysis, it can draw the conclusion that high relationship between sales \& NPAT because $r$ is 0.92 . The value of $r^{2}$ also shows 82 percent between two variables. Lastly, it can be concluded that the E.S. \& C.I. Ltd. is capable to get NPAT by sales.

## c. Coefficient of Correlation Between Sales \& Current Assets:

The coefficient of correlation between sales and current assets is to measure the degree of relationship between two variable in this analysis sales are independent variable ( X ) and current assets are dependent variables. The main objective of computing correlation of coefficient between these two variables is to justify whether sales are significantly used as current assets in proper way or not. For the purpose of finding variables related variable various calculation are done in appendix. The following table show the value of $r, r^{2}$, PE (r) between these two variables of E.S. \& C.I. Ltd. during the study period.

Table No. -
Correlation between sales and current assets

| Evaluation Criterions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Result | 'r' | 'r' $^{2 \prime}$ | PE(r) | 6PE(r) |
|  | 0.736 | 0.542 | 0.204 | 1.224 |

From the above table it has found that coefficient of correlation between total assets (independent variable) and NPAT (dependent variable) is 0.736 which indicate that there is high degree of positive correlation between these two variables one the other hand, considering the value of coefficient of determination ( $\mathrm{r}^{2}$ ) i.e. 542 that indicates 54.20 percent of the variation in the NPAT (Dependent variable) has been explained by the total assets (Independent variable). Moreover, by considering the probable error, we can further say that there is significant relationship between total assets and NPA because the value of 'r' i.e. 0.736 lesser than 6PE (r) 1.224.

In conclusion it can say that the value of coefficient of correlation (r) is significant and the coefficient of determination $\left(\mathrm{r}^{2}\right)$ is also high. Lastly, we can be said that the E.S. \& C.I. Ltd. is capable to earn NPAT by mobilizing its total assets.

## d. Coefficient of correlation between total assets and NPAT:

Total assets include all types of assets either fixed assets or current assets. To measure and evaluate the coefficient of correlation between these two variable i.e. total assets and NPAT. Karl Person's coefficient of correlation has been calculated under this topic. In this analysis total asset is independent variable ( $x$ ) and NPAT is dependent variables (y). the main purpose of computing coefficient of correlation is to justify whether the NPAT is significantly correlated with respective total assets or not. For these purpose various calculations are done in appendix. The following table shows the correlation between total assets and NPAT of during the study period.

## Table No. Correlation between total assets and NPAT

| Evaluation Criterions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Result | 'r' | 'r' $^{2 \prime}$ | PE(r) | 6PE(r) |  |
|  | -0.59 | 0.35 | 0.20 | 1.2 |  |

From the above table it has been found that the coefficient of correlation between total assets (independent variable) and NPAT (dependent variable) is (-0.59) which indicates low degree of positive correlation between these two variable. In the other hand, considering the value of coefficient of
determination ( $\mathrm{r}^{2}$ ) i.e. 0.35 that indicates $35 \%$ of the variation in the NPAT (dependent variable) has been explained the total assets (independent variable). Moreover by considering the probable error. We can further say there is not significant relationship between total assets and NPAT because the value of $r$ i.e. 0.59 is greater than six time, P.E. i.e. 0.20

In conclusion, it can say that the value of coefficient of correlation ' $r$ ' is significant and coefficient of determination ( $\mathrm{r}^{2}$ ) is low. Lastly, it can be said that the E.S. \& C.I. Ltd. is capable to earn NPAT by mobilizing its total assets.

### 4.3.2 Trend Analysis:

In financial statement analysis, the direction of change over a period of year is crucial important. Trend analysis of ratios indicates the direction of change. This kind of analysis is particularly applicable to the items of profit of loss account.

Trend analysis is significant tool of horizontal financial analysis. It is a dynamic method to indicate the change and deviations in items of financial statement.

Trend analysis helps to identify the controllable in items of given period and future forecast can be made for on going concern. It is one of the useful tools in making a comparative study of the financial statements of the numbers of year. It makes easy to identify the change in an item or in a group of items over a period of time and to draw the conclusions regarding the change there on.

Trend analysis is the ratio analysis and interpretation of the items of the comparative financial statement of deferent period. Trend analysis reveals the direct of change or is a guide to the movements of different period. This way the favorable or unfavorable situation of a business is being revealed.

In order to facilitate the analysis and interpretation of trends, there are various forms or way of preparation and presentation of financial statements. Such financial statement are shown, in terms of.

- Amount only
- Amount and percentage
- Amount and differences (i.e. increase / decrease)
- Percentage and differences (i.e. percentage of increase / decrease)

In order to express the figures in terms of percentage, the comparative figures of the financial statement are analyzed by calculating percentages. Furthermore, the percentage of one period is compared with the base year's
percentage. usually particular past year is chosen as a base year and all items of the financial statement for that year are reckoned as 100 . There is no doubt that expressing the figure in terms of percentage is a more practical approach for a analysis, interpretation and study of the fact and figures. Thus the changes in figures expressed in terms of percentage over a period of year, will disclose the trend or the chance that are occurring in financial and operational data to judge whether the trends are varorable or otherwise.

Trend analysis help to analyze the fact of a firm which is very important form the point of view of forecasting or budgeting in figure.

In trend analysis as in the case of ratio analysis the interlining or the interlocking aspects of the related fact and figure are to be considered. This is due to the fact that many of the profit and loss account and of the items balance sheet have logical and direct relationship between themselves.

### 4.3.3 Limitations of Trend Analysis: <br> Following are the limitations of trend analysis:

1. The trend analysis and interpretation cannot always highlight the state of affairs of the firm when compared with the base year. The base year can not be a true base year for comparison of financial statement.
2. It does not distinguish between significant and insignificant items as it based all the items of Balance Sheet and profit and profit loss account as per in relation to the base year.
3. If base year is a normal year then only it can reflect actual picture. But the characteristics of a normal year cannot be available always while selecting the normal year.

## Precaution in Tend Analysis.

While calculating trend percentages, the following precautions may be taken.

1. The accounting principal and practice must be followed constantly over the period for which the analysis is made. This is necessary to maintain consistency and comparatively.
2. The base year selected should be normal and representative year.
3. Trend percentage should be calculated only for those items, which have logical relationship with one another.
4. Trend percentage should also be carefully studied after considering the absolute figure on which those are base. Otherwise, they may give misleading conclusions.
5. To make the comparison meaningful trained percentage of the current year should be adjust in the light of the price level changes as compared to base year.

In this section, attempt has been made to analysis the trend of some significant items contained in the financial statement. In the tabulation of trend value, fraction of a percent has been ignored. Due to time limit few trends have been selected for the study purpose. The trend has been plotted in graph 1 to 5 the significant fact shown by these graph and tables are listed below.

1. Trend of current assets \& current liabilities (D1)
2. Trend of selling expenses administration expenses and net sales (D2)
3. Trend of total debt total assets and net worth (D3)
4. Trend of net sales, Debtors and inventory (D4)
5. Trend of total assets and fixed assets (D5)

Trend Percentage of Some Relevant Items

| Particulars | $\mathbf{2 0 5 8 / 0 5 9}$ | $\mathbf{2 0 5 9 / 0 6 0}$ | $\mathbf{2 0 6 0 / 0 6 1}$ | $\mathbf{2 0 6 2 / 0 6 2}$ | $\mathbf{2 0 6 2 / 0 6 3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Current assets | 100 | 208 | 173 | 86 | 223 |
| Current liabilities | 100 | 192 | 97 | 116 | 51 |
| Fixed assets | 100 | 96 | 92 | 89 | 90 |
| Total assets | 100 | 111 | 110 | 86 | 74 |
| Net sales | 100 | 126 | 133 | 146 | 128 |
| Gross profit | 100 | 10 | 117 | 148 | 118 |
| Selling \& distribution exp. ${ }^{\text {n }}$ | 100 | 71 | 28 | 21 | 10 |
| Administrative expenses | 100 | 10 | 90 | 118 | 101 |
| Inventory | 100 | 24 | 198 | 77 | 271 |
| Total debts | 100 | 119 | 98 | 66 | 118 |
| Shareholders equity | 100 | 109 | 123 | 123 | 123 |
| Debtors | 100 | 271 | 197 | 80 | 195 |
| Cost of goods sold | 100 | 135 | 138 | 145 | 131 |

## 1. Trend of current assets $\&$ current liabilities.



Above figure shows the trend of C.A. and CL. The CAS is assumed 100 percent in 2058/59. In 2059/60 the CA has been increased up to 208 percent, then the trend of CA has been gradually decreased to 173 percent in 2060/61 and 86 percent in 2061/62. In 2062/63 the CA has been increased from 86 percent to 223 percent. The CL is also assumed 100 percent in 2058/59. In 2059/60 the CL has been increased up to 192 percent, then the trend of CL has been decreased to 97 percent in 2060/61. In 2061/62 The CL has been increased to 116 percent and then again decreased to 51 percent in 2062/63.

This trend also helps to know the liquidity position of the company. In 2059/60, 2060/61 and 2062/63 the liquidity position was strong but the liquidity position of 2058/59 and 2061/62 is not satisfactory.
2. Trend of Net Sales \& Selling \& Distribution Expenses:


Above figure / trend shows the trend of net sales \& selling \& distribution expenses. The trend of net sales are in increasing way up to 2061/62 but in 2062/63 the net sales has been decreased where as the trend of selling \& distribution expenses are in decreasing way. Decreasing trend of selling \& distribution expenses and increasing trend of net sales is the favourable condition for the company. It also shows there is better control on selling \& distribution expenses.
3. Trend of total debt, total assets and net worth:


As per the above diagram total assets is more than total debt in 2059/60, 2060/61 and 2061/62 and total debt are more than total assets in 2062/63 which shows more risk. The decreasing trend line of total debt means less use of debt which may not lead to risk taking. While total assets and shareholder equity shows increasing trend but net worth lies upon the total assets. If net worth is more than total assets, it is the good symbol for outsider. In 2062/63 total debt is more than total assets which affects on profitability of the company. It is a beneficial for the creditors point of view but unfavourable for the real owner.
4. Trend of net sales, debtors and inventory:


This figure shows the trend of net sales, debtors and inventory. Trend of inventory and debtors are more fluctuated than the trend of net sales in 2059/60 the debtor percentage was 271 percent of 2058/59 after that the trend of debtors has gradually been decreased to 197 and 80 in 2060/61, 2061/62 respectively. It also shows the proper utilization of debtors. Decreasing trend of inventory shows less utilization of inventory in total assets in 2059/60. After that trend of inventory increased to 198 percent and then decreased to 77 in 2061/62. Again it increased to 271 in 2062/63. It shows the utilization of inventory.

## 5. Trend of total assets and fixed assets:



Above graph shows the trend of total assets and fixed assets. Total assets are more fluctuated than the fixed assets. In 2059/60, and 2060/61 total assets are more than fixed assets which shows fixed assets are excess in total assets. After 2060/61 trend of fixed assets are more than trend of total assets. This trend also shows the management of fixed assets and current assets.

### 4.4 An overview of Everest Sugar \& Chemical Industry Limited.

### 4.4.1 Establishment:

Mobilizing the available resource (raw material and manpower) of the country through producing qualitative product and to secure money within Nepal which was going outside the country, Everest Sugar Factory had come in the existence. Plant initation and construction of Everest Sugar Factory was started on B.S. 2051 Kartik 5, but it was established in the year B.S. 2053, Poush 29. In the beginning, it was able to produced 3 lakhs quintal sugar annual but demand of the country was not fulfilled by them. There were 11 sugar mill while establishing Everest Mill.

### 4.4.2 Capital \& Investment:

Authorized capital of E.S. \& C.I. Ltd. as at B.S. 2051 was Rs. $9,00,00,000$, issued capital was Rs. $3,92,25,000$ and similarly paid up capital was also Rs. 3,92,25,000. But total loan capital was Rs. 1,00,00,000. E.S. \& C.I. Ltd. has maintained same level up to now and debentures are not issued up to till date.

### 4.4.3 Raw Materials:

Raw material of sugar is sugarcane. Area of E.S. \& C.I. Ltd. covers four districts i.e. Siraha, Dhanusha, Mahottari, Sarlahi. So, farmers of thee districts supplies sugarcane to this mill. Sometime, sugarcane receives from farmer of Saptari, Morang, Sunsari and Rautahat.

### 4.4.4 Production \& Sale:

There was high production and sales the first beginning two years. But after that production had fallen down. Now, production has been increased since last two years, because of quick payment to farmers and repair \& maintenance of machinery and equipment. Everest Sugar \& Chemical Industry Limited has to face keen competition with Harion Sugar Mill, Sarlahi.

### 4.4.5 Contribution:

In the F/Y 2058/59 to 2062/63 E.S. \& C.I. Ltd. has paid tax 10,19,153 but in the F/y 2058/59 to 2062/63 total revenue was $2,48,06,34,481$. VAT, sales tax and health tax as taken tax paid. But customs and other taxes are not included.

### 4.4.6 Pollution Control:

When E.S. \& C.I. Ltd. was established it did not take care of environment about pollution. But after shown the increasing public interests and pressure towards pollution control, it has installed pollution free plant layout. In coming days, we hope effective pollution free program would be done by the mill.

### 4.4.7 Social Responsibilities:

E.S. \& C.I. Ltd. maintains 7 k.m. road from Mahendra high way to mill every crossing season. If any accident happens, mill provides jeep to people of Ramnagar Mill provides sport. Materials to youngest person. Villagers of mill have been getting water from tap of mill. Mill has make temple etc.

### 4.4.8 Continuity:

For the few last years, E.S. \& C.I. Ltd. has been operating special programme about farmers how to plant sugarcane and when fertilizer needed for sugarcane. It also has been operating programme about increased production, pollution control, and field of raw material and entertainment. Above maintained field is directly related with public interests. Therefore, in coming years also E.S. \& C.I. Ltd. committees to bring continuity on this. Due to continuity on repair and maintenance of plant and machinery in F/y 2063/63, E.S. \& C.I. Ltd. has successes to maintain and increased the production like last years.

