CHAPTER V

FINANCIAL PERFORMANCE OF SAMPLE SMALL-SCALE INDUSTRIAL UNITS IN KANYAKUMARI DISTRICT

5.1 Introduction

5.2 Financial performance

5.3 Framework of Analysis

5.4 Overall operational efficiency and ROI

5.4.1 Pyramid Ratios

5.4.2 Financial Statements sample Small-Scale Industries Units

5.4.2.1 Analysis of Financing Pattern

5.4.2.2 Analysis of Funds Utilization

5.4.2.3 Analysis of Pyramid Ratios

5.4.3 Impact of profit margin and capital turnover on ROI

5.4.4 Impact of Sales and Capital employed on Capital turnover Ratio

5.5 Non-financial factors affecting overall operational efficiency

5.5.1 Type of Industry

5.5.2 Capacity utilized

5.5.3 Age of the owner of Small-Scale Industrial Unit

5.5.4 Educational level of owners of Small-Scale Industrial Unit

5.5.5 Entrepreneurs Experience prior to the starting of Small-Scale Industrial Unit

5.6 Financial Position of Small-Scale Industrial Units in Kanyakumari District

5.6.1 Fixed Asset Ratio

5.6.2 Current Ratio

5.6.3 Liquidity Ratio

5.6.4 Debt – Equity Ratio

5.6.5 Proprietary Ratio
5.1 Introduction

The net worth of any business concern including small-scale industrial units depends upon its level of financial performance that includes the overall operational efficiency and financial position. An excellent performance will have its positive effect on its share value and takes up the goodwill of the company to sky high. This chapter highlights the financial performance of sample small-scale industrial units in Kanyakuamri District and points out the sources of efficiencies and inefficiencies and financial position of small-scale industrial units.

The net worth of any business concern including small-scale industrial units depends upon its level of financial performance that includes the overall operational efficiency and financial position. An excellent performance will have its positive effect on its share value and takes up the goodwill of the company to sky high. This chapter highlights the financial performance of sample small-scale industrial units in Kanyakuamri District and points out the sources of efficiencies and inefficiencies and financial position of small-scale industrial units.

5.2 Financial performance

Financial performance of any concern involves two aspects - the profitability position and financial position. The profitability indicates its performance towards overall operational efficiency. The financial position its performance towards funds utilization and solvency position. In other words, if the available funds are utilized in accordance with the accepted principles of financial management, it indicates good performance towards funds utilization. Likewise, a prudent combination of different types of assets and liabilities will result in a better solvency position, both short term and long term. In short, the profitability position reveals how efficiently trading/manufacturing operations are
performed, and the financial position reveals how prudently assets employed/managed. A poor performance in overall operational efficiency indicates there are some sources of inefficiencies somewhere else. If funds are not employed properly it weakens the financial position and ultimately the goodwill.

5.3 Framework of Analysis

As the financial performance involves two aspects, it is analyzed from two angles. They are

- Overall operational efficiency
- Financial position

The overall operational efficiency, which indicates the profitability position, is assessed through Return on Investment (ROI) which is further analyzed with the help of Pyramid Ratios to locate the sources of inefficiencies, if any.

Profit margin and capital turnover are two vital financial variables that influence ROI. The impact of these variables on ROI is assessed through Multiple Regression Analysis.

In addition to the above financial variables (profit margin, sales, capital), there are a few non-financial variables that affect the overall operational efficiency (as revealed by ROI). Five non-financial variables that affect ROI are identified. They are

- Type of industry
- Level of capacity utilized
- Age of owner of small-scale industrial unit
- Educational level of the owner of small-scale industrial unit
- State of previous experience of the owner of small-scale industrial unit
In order to find whether these non-financial factors significantly influence the overall operational efficiency of small-scale industrial units (measured by ROI), $\chi^2$ test is applied.

The financial position is analyzed through financial ratios like fixed asset ratio, current ratio, liquid ratio, debt equity ratio and proprietary ratio.

For the purpose of the above analysis, operating statement (i.e. income statement) and position statement of sample small-scale industrial units is prepared for the year ending 31/3/'06, the latest year for which data is available.

5.4 Overall operational efficiency and ROI

The overall operational efficiency of any business concern including small-scale industrial unit is measured through the ratio Return on Investment (ROI). The ROI can be calculated as below:

$$ROI = \frac{Operating \ Profit}{Capital\ employed} \times 100$$

Operating profit = Normal trading profit before interest and tax

Capital employed = operating fixed assets + current assets

The ROI is affected by many financial variables which can be analyzed by the pyramid ratios.

5.4.1 Pyramid Ratios

ROI represents the earning powers of the company which reveals the overall efficiency. There are many factors which affect ROI and the factors can be analysed through pyramid of ratios. The primary objective of making investment in the business is to obtain satisfactory return on capital invested. It indicates the return on capital employed in the business and be used to show the efficiency of the business as a whole.
The analytical model, pyramid of ratios or pyramid structure of ratios, is acclaimed worldwide and is used for inter-firm comparison, inter-divisional performance comparison and for analyzing various factors affecting the overall efficiency performance (i.e. for analyzing the ROI which reveals the overall performance). The model was devised by and is used by centre for Interfirm comparison Ltd (U.K), a body set up in 1959 by British Institute of management (BIM) in association with British Productivity Council.

The Pyramid ratios which analyses various factors affecting ROI are structured in the form of a pyramid having different layers from top to bottom, as given in the following pyramid diagram.
Pyramid Diagram depicting pyramid of Ratios
At first, the overall operational efficiency of small-scale industrial unit is measured through ROI, primary ratio, which is at the top of the pyramid structure.

ROI depends on two ratios – Net operating profit ratio (profit margin) and capital turnover ratio. A change in any of these ratios will change the firm’s earning power i.e., ROI. In other words, the overall operational efficiency is analyzed from two angles-profit margin and capital turnover. The profit margin measures the operational efficiency and capital turnover ratio measures the level of utilization of assets. This analysis is based on the fact that overall operational efficiency can be improved by increasing profit margin and/or effective utilization of assets. This analysis is based on the fact that overall operational efficiency can be improved by increasing profit margin and effective utilization of assets. This two tier analysis is made with the help of supporting ratio (i.e., operating profit ratio and capital turnover ratio) which are in the second layer of pyramid of ratios. Supporting ratios fall when there is an increase or decline in the overall efficiency due to high or low profit margin or.

Each of the above two factors (i.e., profit margin and capital turnover) is again probed with the help of general explanatory ratios which are at the third layer of the pyramid. These ratios tell whether the high/poor asset turnover is due to effective or ineffective utilization of fixed or current assets. These ratios also reveal whether the high/poor profit margin is due to low/high factory (works) cost, administration cost or selling and distribution cost. Thus, the overall operating efficiency of a firm can be assessed on the basis of a combination of these two ratios.

Again, the specific explanatory ratios which are at the lowest layer of pyramid still go further and reveal the effective or ineffective utilization of each current asset and the level of incidence of each element of works cost. In other words, these ratios reveal
whether the increase or decrease in work cost is due to increase or decrease in raw material cost or labour cost or works overheads.

Thus, the analysis goes from top to bottom. Ultimately the exact sources and causes for inefficiencies (weak spots) are revealed by pyramid ratios. Besides, a comparative analysis of the results of each year will give more ideas about present achievements and weakness and future plans to improve the performance.

5.4.2 Financial Statements sample Small-Scale Industries Units

For the analysis of overall operational efficiency on the basis of pyramid ratios, operating and position statement of sample small-scale industrial units for the year 2005-06 (the latest year for which data is available) is prepared and presented below in an analytical format.
Table 5.1
Operating statement of sample Small-Scale Industrial Units in Kanyakumari District during 2005-06

<table>
<thead>
<tr>
<th>Items</th>
<th>Total Rs.</th>
<th>Average per small-scale industrial unit Rs.</th>
<th>Per cent on sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials/consumed by purchases</td>
<td>2043.76</td>
<td>10.2188</td>
<td>51.18</td>
</tr>
<tr>
<td>Direct Labour</td>
<td>786.04</td>
<td>3.9302</td>
<td>19.68</td>
</tr>
<tr>
<td>Direct Expenses</td>
<td>24.84</td>
<td>0.1242</td>
<td>0.62</td>
</tr>
<tr>
<td>Prime cost</td>
<td>2854.64</td>
<td>14.2732</td>
<td>71.48</td>
</tr>
<tr>
<td>Add: Factory Overheads</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Works or Factory cost</td>
<td>3347.94</td>
<td>16.7397</td>
<td>83.83</td>
</tr>
<tr>
<td>Add: Administration Expenses</td>
<td>168.1</td>
<td>0.8405</td>
<td>4.21</td>
</tr>
<tr>
<td>Cost of production</td>
<td>3516.04</td>
<td>17.5802</td>
<td>88.04</td>
</tr>
<tr>
<td>Add: Opening Stock</td>
<td>804.3</td>
<td>4.0215</td>
<td>20.14</td>
</tr>
<tr>
<td></td>
<td>4320.34</td>
<td>21.6017</td>
<td>108.18</td>
</tr>
<tr>
<td>Less: closing stock</td>
<td>851.22</td>
<td>4.2561</td>
<td>21.37</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>3469.12</td>
<td>17.3456</td>
<td>86.87</td>
</tr>
<tr>
<td>Add: Selling and Distribution expenses</td>
<td>53.18</td>
<td>0.2659</td>
<td>1.33</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>3522.3</td>
<td>17.6115</td>
<td>88.20</td>
</tr>
<tr>
<td>Sales</td>
<td>3993.24</td>
<td>19.9662</td>
<td>100.00</td>
</tr>
<tr>
<td>Operating profit</td>
<td>470.94</td>
<td>2.3547</td>
<td>11.79</td>
</tr>
<tr>
<td>Less: 1. Interest on borrowed funds</td>
<td>105.62</td>
<td>0.5281</td>
<td>2.64</td>
</tr>
<tr>
<td>2. Non operating items &amp; income tax</td>
<td>17.28</td>
<td>0.0864</td>
<td>0.43</td>
</tr>
<tr>
<td>Net profit</td>
<td>348.04</td>
<td>1.7402</td>
<td>8.72</td>
</tr>
</tbody>
</table>

Source: Computed data
The above table reveals that the material cost/purchase forms the highest percentage on sales (51.18). The operating profit is just 11.79 per cent on sales and the net profit barely 8.72 per cent on sales. These rates of percentage of sales are less than the ones earned by similar concerns. Another notable feature is that small-scale industrial units in Kanyakumari District spend lesser amount on selling and distribution which is just 1.33 per cent on sales. They should spend more on selling and distribution expenses so that the sales can increase.

It is pertinent to note that the interest on borrowed funds is 2.64 per cent on sales. But an in-depth analysis reveals that nearly 22.43 per cent of operating profit goes to interest payment. But before 10 years (prior to 2005-06) the operating profit was 28 per cent on sales and the net profit per cent was 25 per cent\(^2\).

It is found that the average sales per small-scale industrial unit during 2005-06 is 19.97 lakhs, whereas the average sales per unit during the 10 year period from 1991-92 to 2000-01 was 19.36 lakhs\(^3\). It indicates that the average sales per unit, more or less remains stagnant since 1991-92. But in real terms, after taking into account the inflationary effect during this period, the average sales per small-scale industrial unit has considerably decreased.
Position statement of sample Small-Scale Industrial Unit in Kanyakumari District as on 31st March 2006

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>Total Rs.</th>
<th>Average per small-scale industrial unit</th>
<th>Per cent</th>
<th>Assets</th>
<th>Total Rs.</th>
<th>Average per small-scale industrial unit</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned Funds:</td>
<td></td>
<td></td>
<td></td>
<td>Fixed assets</td>
<td>1924.70</td>
<td>9.6235</td>
<td>52.85</td>
</tr>
<tr>
<td>Capital</td>
<td>1721.80</td>
<td>8.6090</td>
<td>47.28</td>
<td>Current assets</td>
<td>851.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserves</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Stock</td>
<td>565.08</td>
<td>4.2561</td>
<td>23.37</td>
</tr>
<tr>
<td>Long term borrowed funds</td>
<td>4.7954</td>
<td>26.33</td>
<td></td>
<td>Debtors and Bills Receivable</td>
<td>50.24</td>
<td>2.8254</td>
<td>15.51</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td></td>
<td></td>
<td></td>
<td>Cash and bank</td>
<td>250.90</td>
<td>0.2512</td>
<td>1.38</td>
</tr>
<tr>
<td>Creditors &amp; Bills Payable</td>
<td>275.08</td>
<td>1.3754</td>
<td>7.55</td>
<td>Unwritten loss</td>
<td>1.2545</td>
<td>6.89</td>
<td></td>
</tr>
<tr>
<td>Outstanding expenses</td>
<td>165.44</td>
<td>.8272</td>
<td>1.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provisions</td>
<td>30.74</td>
<td>.1537</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short term loan</td>
<td>490.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Overdraft</td>
<td>2.4500</td>
<td>13.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18.2107</td>
<td>100</td>
<td></td>
<td></td>
<td>18.2107</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source: Computed data

5.4.2.1 Analysis of Financing Pattern

The analysis of financing pattern of sample small-scale industrial units in Kanyakumari District from the above statement reveals that the internal sources of funds (owned funds 47.28 per cent + provisions 0.85 per cent) constitute 48.13 per cent of total sources (liabilities) whereas the remaining 51.87 per cent consist of external sources which include long term borrowed funds (26.33 per cent).
5.4.2.2 Analysis of Funds Utilization

The analysis from the position statement of funds utilization of sample small-scale industrial units reveal that 52.85 per cent of total funds raised is utilized (invested) in fixed assets, 40.26 per cent in current assets and the remaining (6.89 per cent) lost during the course of operation. Out of the total current assets (40.26 per cent) more than half (23.37 per cent) consists of unsold stock which is not a good symptom.

5.4.2.3 Analysis of Pyramid Ratios

From the above operating and position statement of sample small-scale industrial units in Kanyakumari District during 2005-06, following pyramid ratios were calculated in order to locate the sources of inefficiencies, if any.

**Primary Ratio**

\[ ROI = \frac{Operating\ Profit}{Capital\ Employed(FA + CA)} \times 100 = \frac{2.3547}{16.9562} \times 100 = 13.89\% \]

**Supporting Ratios**

1. Profit margin or Operating profit Ratio

\[ \frac{Operating\ Profit}{Sales} \times 100 = \frac{2.3547}{19.9662} \times 100 = 11.79\% \]

2. Capital /Investment turnover ratio

\[ \frac{Sales}{Capital\ Employed} = \frac{19.9662}{16.9562} = 1.18\ times \]

**General Explanatory Ratios**

1. Factory Cost to Sales = \[ \frac{16.7397}{19.9662} \times 100 = 83.83\% \]

2. Administration Cost to Sales = \[ \frac{0.8405}{19.9662} \times 100 = 4.21\% \]
3. Selling cost to Sales = \( \frac{0.2659}{19.9662} \times 100 = 1.33\% \)

4. Sales to fixed Assets = \( \frac{19.9662}{52.85} \) = 0.38 times

5. Sales to Current Assets = \( \frac{19.9662}{7332.7} \) = 2.72 times

**Specific Explanatory Ratios**

1. Indirect material Cost to Sales = \( \frac{10.2188}{19.9662} \times 100 = 51.18\% \)

2. Indirect Labour cost to sales = \( \frac{3.9302}{19.9662} \times 100 = 19.68\% \)

3. Production Overhead to sales = \( \frac{2.4665 + 0.1242}{19.9662} \times 100 = 12.97\% \)

4. Cost of Sales to Stock = \( \frac{17.6115}{4.2561} \) = 4.14 times

5. Sales to Debtors and Bills Receivables = \( \frac{19.9662}{2.8254} \) = 7.07

6. Cost of Sales to Cash and Bank balance = \( \frac{17.6115}{0.2512} \) = 70.11

All the above ratios are presented in the following pyramid diagram for further analysis.
Pyramid Ratios

- **Primary Ratio (1)**
- **Supporting Ratio (2)**

**General Explanatory Ratios (3)**

- Factory Cost\(\times 100\)\(\text{Sales}\)
- Admin. Cost\(\times 100\)\(\text{Sales}\)
- Selling Cost\(\times 100\)\(\text{Sales}\)

**Specific Explanatory Ratios (4)**

- Direct Material Cost/\(\times 100\)\(\text{Sales}\)
- D. Lab. Cost\(\times 100\)\(\text{Sales}\)
- Production Overhead\(\times 100\)\(\text{Sales}\)

**ROI**

\[
\text{ROI} = \left(\frac{\text{Operating Profit}}{\text{Capital Employed}}\right) \times 100
\]

13.89%

Operating Profit\(\times 100\)\(\text{Sales}\)

11.79%

Sales\(\times 100\)\(\text{Capital Employed}\)

1.18 times

Factory Cost\(\times 100\)\(\text{Sales}\)

8.383%

Admin. Cost\(\times 100\)\(\text{Sales}\)

4.21%

Selling Cost\(\times 100\)\(\text{Sales}\)

1.33%

Sales\(\times 100\)\(\text{Fixed Cost}\)

0.38 times

Sales\(\times 100\)\(\text{Current Cost}\)

2.72 times

Direct Material Cost/\(\times 100\)\(\text{Sales}\)

51.18%

D. Lab. Cost\(\times 100\)\(\text{Sales}\)

19.68%

Production Overhead\(\times 100\)\(\text{Sales}\)

12.97%

Cost of sales\(\times 100\)\(\text{Stock}\)

4.14 times

Cost of Sales\(\times 100\)\(\text{Cash and Bank Bal.}\)

70.11 times

Sales\(\times 100\)\(\text{Drs.}\)

7.07 times

Source: Ratios Computed from Primary data
From the above diagram, it is clear that on an average, a small-scale industrial unit’s ROI is 16.89 in 2005-06 (as calculated from the financial statement). This ROI is very low when compared to the same during the Seventh Plan Period (1985-90) when it was 17.92 per cent (which is the only available secondary data of ROI of small-scale industrial units). This indicates that the overall operational efficiency is very poor. This poor ROI is due to very poor profit margin and low capital turnover ratio. The profit margin of small-scale industrial units in Kanyakumari District is very low when compared to the same in 2000-01 when it was only 15.58 per cent. It was as high as 27 per cent in 1991-92, 1992-93, 1993-94, 23 per cent in 1994-95. In short the profit margin of small-scale industrial units in Kanyakumari District was in the range of 27 per cent to 20 per cent during the period from 1991-92 to 1997-98. In 1998-99, it was 17.85 and in 1999-2000 it dipped to 16.56 per cent. So the profit margin is on a declining trend. The sales were just 1.18 times of the capital employed. This poor capital turnover indicates assets and facilities (in which capital is invested) were not effectively utilized. It may be due to inefficiency in utilization or low volume of business.

So, the ROI should be increased by improving both profit margin and capital turnover ratio. The reason for the poor low margin is further analyzed through general explanatory ratios. These ratios reveal that low profit margin is due to very high material/purchase cost which is 83.83 per cent of sales. No initiative is taken to increase the volume of sales, as is evident from very low per cent of selling and distribution expense on sales which is just 1.33 per cent. The reason for high factory cost is due to high material cost where is 51.18 per cent is spend on sales. The high cost of material is due to purchase made in small lots. This low cost is in spite of subsidiary in purchase.

One source of efficiency is low administrative cost which is 4.21 per cent.
The reasons for very poor capital turnover are further probed into. Capital employed consists of Fixed and Current Asset. Both Fixed and Current Asset were fully utilized and it is evident from its very poor fixed asset turnover, 0.38 times which means every one rupee of fixed asset generated only Re.0.38 of sales. Likewise, every one rupee current asset generated Re.2.72 worth of sales. So the fixed assets were not effectively utilized. It may be due to traditional technology followed or low volume of business.

Specific explanatory ratios reveal the fact that very high factory cost is due to high cost of materials/purchase which is 51.18 per cent of sales. The direct labour cost and production over head seem to be favourable. The stock turnover just 4 times – which means, the stock replenishment takes a period of 3 months every time. This low stock turnover is evident from large quantity of unsold stock which is 23 per cent of total assets. Out of the current assets of 7.33 lakhs, closing stock alone amounts to 4.25 lakhs which is 58 per cent of total current assets. A very high ratio of cost of sales to cash (70.11 times) indicate very low amount of cash balance kept. The debtors' turnover is 7 times a year meaning debt collection period granted is nearly 1.5 months, which is a fair period. In 2003, the average credit period granted by small-scale industrial units is 1.5 months7. So, average debt collection period is not bad.

Inferences about pyramid ratios

• Low ROI due to low profit margin and inefficient utilization of assets, especially fixed assets.

• Low profit margin is due to high material cost/purchase

• Ineffective utilization of assets due to low volume of sales which among other factors, is due to low selling and distribution cost
5.4.3 Impact of profit margin and capital turnover on ROI

From pyramid ratio analysis, it is clear that ROI depends upon two ratios i.e., profit margin and capital turnover. The ROI, which measures the overall operational efficiency (i.e., the earning power of small-scale industries) changes when any of the above two ratios change. When profit margin increases ROI also increases and vice versa. Likewise, when capital turnover ratio (which measures the effective utilization of assets) increases, ROI also increases and vice versa. So, it is relevant to measure the level of impact of profit margin and capital turnover ratios (i.e., the two supporting ratios) on ROI (the primary ratio, measuring the overall operational efficiency). The level of impact is analyzed through the following Linear Regression Model.

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e \quad (4.1) \]

Where

- \( Y \) = Return on investment i.e ROI (in per cent)
- \( X_1 \) = profit margin (in per cent)
- \( X_2 \) = Capital turnover ratio (in number of times)
- \( e \) = error term
- \( \beta_0, \beta_1, \beta_2 \) are the parameters to be estimated, \( \beta_0 \) being the constant (i.e intercept term)

The above model, (4.1) which is estimated on the method of least squares, \( y \) (i.e ROI) is the dependent variable, and \( X_1 \) (i.e. profit margin) and \( X_2 \) (Capital turnover) are independent variables. The results of the regression model (4.1) are given in the following table.
Table 5.3

Results of Regression model (4.1) measuring the impact of profit margin and capital turnover ratio on Investment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parameter</th>
<th>Regression coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>$\beta_0$</td>
<td>-24.122* (-24.122)</td>
</tr>
<tr>
<td>Profit margin (in per cent)</td>
<td>$\beta_1$</td>
<td>1.233* (20.073)</td>
</tr>
<tr>
<td>Capital turnover ratio (in number of times)</td>
<td>$\beta_2$</td>
<td>16.736* (22.856)</td>
</tr>
</tbody>
</table>

| R²                                    | 0.775     |
| Adjusted R²                           | 0.772     |
| F value                               | 338.392   |
| No. of observations                   | 200       |

Figures in parentheses indicate ‘t’ values

*Indicate that the regression coefficients are significant at 5 per cent level of significance.

The regression co-efficient of $\beta_1$ indicates that holding capital turnover ratio constant, 1 per cent change in the profit margin causes 1.233 per cent change in ROI in the same direction. In other words, if the capital turnover ratio remains constant, the profit margin will cause a 1.233 per cent increase in ROI and vice versa. As the ‘t’ value of profit margin is significant at 5 per cent level of significance, the profit margin is a significant variable affecting the ROI. In other words, profit margin significantly influences the level of ROI.

The regression co-efficient $\beta_2$ reveals that when profit margin does not change one unit change in capital turnover ratio will cause 16.74 per cent change in ROI in the same direction. In other words, keeping the profit margin constant, if the capital turnover ratio increases by one unit (i.e., one time), the ROI will increase by 16.74 per cent and vice versa. As the ‘t’ value is significant at 5 per cent level of significance, it can be concluded that capital turnover ratio is a significant variable affecting ROI.
R² value (i.e, coefficient of multiple determinations) points out that 77.5 per cent of variations in ROI are explained by both profit margin and capital turnover ratio. This indicate a high degree of positive multiple correlation between dependent variable (ROI) and independent variables (profit margin and capital turnover ratio) as the $\sqrt{R^2}$ (which is the multiple correlation coefficient) is 0.88 ($\sqrt{.775}$)

As the F value is found to be significant at 5 per cent level of significance, the regression model as a whole is significant.

The above regression model reveals a startling fact that out of the two significant variables (profit margin and capital turnover ratio), the capital turnover ratio seem to be the most critical variable because if capital turnover ratio increases by one unit (one time), the ROI increases substantially by 16.74 per cent. So, the small-scale industrial units must effectively utilize the assets to improve substantially the ROI. Effective utilization of assets warrants for increase in volume of sales and at present, assets are not fully utilized due to low volume of sales.

5.4.4 Impact of Sales and Capital employed on Capital turnover Ratio

As capital turnover ratio increases by one time, the ROI increases by 16.74 per cent. So capital turnover ratio plays a vital role in improving ROI. So a further probe of capital employed turnover ratio is warranted for.

Capital turnover ratio depends on sales and capital employed. The level of impact of sales and capital employed on capital turnover ratio is measured through the following regression model (4.2)

$$Y = \alpha_0 + \alpha_1X_1 + \alpha_2X_2 + e$$

Where

$Y = $ Capital turnover ratio (in no. of times)
\( X_1 = \text{Sales (Rs.in lakhs)} \)

\( X_2 = \text{Capital employed (Rs.in lakhs)} \)

\( e = \text{error term} \)

\( \alpha_0, \alpha_1, \text{and} \ \alpha_2 \) are the parameters to be estimated, \( \alpha_0 \) being the constant.

In the above model sales (\( X_1 \)) and capital employed (\( X_2 \)) are the independent variables and Capital turnover ratio (\( Y \)) is the dependent variable. The results of the regression model (4.2) are given in the following table.

**Table 5.4**

Results of the Regression model (4.2) measuring the impact of sales and Capital employed on Capital turnover ratio

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parameter</th>
<th>Regression coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>( \alpha_0 )</td>
<td>( 1.722^* (21.245) )</td>
</tr>
<tr>
<td>Sales (Rs.in lakhs)</td>
<td>( \alpha_1 )</td>
<td>( 1.202^* (5.482) )</td>
</tr>
<tr>
<td>Capital employed (Rs.in lakhs)</td>
<td>( \alpha_2 )</td>
<td>( -3.693^* (-4.318) )</td>
</tr>
<tr>
<td>( R^2 )</td>
<td></td>
<td>( .742 )</td>
</tr>
<tr>
<td>Adjusted ( R^2 )</td>
<td></td>
<td>( .739 )</td>
</tr>
<tr>
<td>F value</td>
<td></td>
<td>( 283.431 )</td>
</tr>
<tr>
<td>No. of observations</td>
<td></td>
<td>( 200 )</td>
</tr>
</tbody>
</table>

Figures in parentheses indicate 't' values

*Indicate that the regression co-efficients are significant at 5 per cent level of significance

The above result reveals that, holding capital employed constant, a change of sales by one unit (ie. Rs. 1 lakh) causes a change of 1.202 times in capital turn over ratio in the same direction. In other words, keeping capital employed constant, every increase in sales of Rs. 1 lakh causes an increase of 1.202 in capital turn over ratio and every decrease of Rs.1 lakh in sales causes a decrease by 1.202 in capital turn over ratio. It may be concluded that every increase of 1 lakh in sales, increases capital turn over ratio by 1.202
times. In turn, every one unit increase in capital turn over ratio increases ROI by 16.74 per cent. So, sales should be increased for effective utilization of Assets and thereby increasing ROI of small-scale industrial units ultimately.

It is also inferred from the result that holding the sales constant, every one unit (i.e one lakh) change in capital employed will result in a change in capital turn over ratio by 3.69 times in the opposite direction. In other words, keeping sales constant if capital employed increases by Rs. One lakh, then the capital turn over ratio will decrease by 3.69 times and vice versa. So it can be concluded that, a further investment in Assets of small-scale industrial unit will not result in return. It is the sales volume that should be increased, but not the investments in assets. Because, the already existing facilities (assets) are not fully utilized due to low volume of sales. Hence is the result of the low ROI.

As the ‘t’ values of the sales and capital employed are significant at 5 per cent level, the two variables significantly influence capital turnover ratio. The \( R^2 \) value (0.742) indicates that 74 per cent of variations in capital turn over ratio is explained by the variable sales and capital employed. As the ‘F’ value is significant at 5 per cent level, the regression model as a whole is significant.

5.5 Non-financial factors affecting overall operational efficiency

In addition to the financial factors like capital, profit, turnover, cost, expenses etc., non financial factors also play a vital role in affecting the overall operational efficiency of small-scale industrial units. The ratio that measures the overall operational efficiency is ROI. The ROI depends on the financial factors and non-financial factors. Following this, five non financial factors have been identified.

- Type of industry
- Capacity utilized
- Age of the owner of small-scale industrial unit
• Educational level of owner

• Entrepreneurs experience prior to starting small-scale industries

X² test is applied to test whether these factors significantly influence ROI. For this analysis, five null hypotheses were framed and tested. Again, for this analysis the sample small-scale industrial units (200) were classified into three groups on the basis of overall performance i.e. on the basis of ROI earned.

1. small-scale industrial units with low level of ROI
2. small-scale industrial units with high level of ROI
3. small-scale industrial units with medium level of ROI

The three levels of ROI earned are fixed on the basis of following criteria.

Low level of ROI : Mean ROI of sample small-scale industrial units – Standard Deviation of ROI = 13.89 per cent - 8.72 per cent = 5.17 per cent

High level of ROI : Mean ROI of sample small-scale industrial units + Standard Deviation of ROI

= 13.89 per cent + 8.72 per cent = 5.17 per cent

Medium level of ROI = ranging from 5.17 per cent to 22.61 per cent

ROI below 5.17 per cent is grouped under ‘low level of ROI’; ROI above 22.61 per cent is termed as ‘high level of ROI’ and ROI coming under the range from 5.17 per cent to 22.61 per cent is classified under ‘medium level of ROI’. For the above classification mean ROI means the average ROI as calculated from the financial statements of small-scale industrial units in Kanyakuamri District during the year 2005-06. The standard deviation of ROI is calculated from 200 observations (i.e., individual ROI of 200 sample small-scale industrial units). The number of small-scale industries units falling under these 3 categories is given in the following table.
Table 5.5

No. of sample small-scale industrial units classified as to 3 levels of ROI

<table>
<thead>
<tr>
<th>Level of ROI</th>
<th>No. of small-scale industrial units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level of ROI (below 5.17 per cent)</td>
<td>60</td>
</tr>
<tr>
<td>Medium level of ROI (from 5.17 per cent to 22.61 per cent)</td>
<td>102</td>
</tr>
<tr>
<td>High level of ROI (above 22.61 per cent)</td>
<td>38</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>

Source: Primary data

Each of the five variables is tested for its significant influence on the level of ROI through $\chi^2$ test as stated below.

**5.5.1 Type of Industry**

Generally, the ROI varies from industry to industry, depending upon the demand for the product/service, cost of product/service, and capital invested. Usually, the ROI will be higher for units selling necessary items for which there is constant demand. Following table reveals the number of small-scale industrial units in Kanyakuumri District classified as to the type of industry and 3 levels of ROI.
Table 5.6
Sample Small-Scale Industrial Units classified as to type of industry and levels of ROI

<table>
<thead>
<tr>
<th>Type of industry</th>
<th>Manufacturing &amp; Processing</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level of ROI</td>
<td>45 (47)</td>
<td>15 (13)</td>
<td>60</td>
</tr>
<tr>
<td>Medium level of ROI</td>
<td>85 (80)</td>
<td>17 (21)</td>
<td>102</td>
</tr>
<tr>
<td>High level of ROI</td>
<td>27 (30)</td>
<td>11 (8)</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>157</td>
<td>43</td>
<td>200</td>
</tr>
</tbody>
</table>

Source: Primary data
Figures in parentheses denote expected frequencies

Out of the 21 types of small-scale industries in Kanyakumari District, majority of small-scale industrial units (nearly 78.37 per cent) belong to manufacturing and processing industries and the rest hail from repairing, services health services business services industries. Therefore, for the purpose of $\chi^2$ test the small-scale industries in Kanyakumari are classified into 2 major categories is manufacturing, that is, processing and other industries. Out of 200 sample small-scale industrial units (which were selected through proportional stratified random technique), 157 small-scale industrial units (78.37 per cent) belong to manufacturers processing industry and the rest is classified under other category. Of the 200 small-scale industrial units, 60 units earn lower level of ROI, 102 units earn mean level of ROI and 38 units higher level of ROI.

The figure in the 2x2 continger table is observed frequencies ($f_o$) and the figures in parentheses denote expected frequencies ($f_e$). The expected frequencies for any cell can be calculated by the following formula
\[ f_e = \frac{RT \times CT}{n} \]

Where,

RT = Row Total

CT = Column Total

n = Total number of observations (is 200)

The observed value of \( \chi^2 \) is calculated by the following formula

\[
\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}
\]

**Null Hypothesis (H_0):** There is no significant association between type of industry and level of ROI.

**Table 5.7 Applying \( \chi^2 \) test**

<table>
<thead>
<tr>
<th>Row</th>
<th>Column</th>
<th>( f_o )</th>
<th>( f_o = \frac{RT \times CT}{n} )</th>
<th>( (f_o - f_e)^2 )</th>
<th>( \frac{(f_o - f_e)^2}{f_e} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>45</td>
<td>47 ( \frac{60 \times 157}{200} )</td>
<td>4</td>
<td>0.0851</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>15</td>
<td>13 ( \frac{60 \times 43}{200} )</td>
<td>4</td>
<td>0.3077</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>85</td>
<td>80 ( \frac{102 \times 157}{200} )</td>
<td>25</td>
<td>0.3125</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>17</td>
<td>21 ( \frac{102 \times 43}{200} )</td>
<td>16</td>
<td>0.7619</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>27</td>
<td>30 ( \frac{38 \times 157}{200} )</td>
<td>9</td>
<td>0.3000</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>11</td>
<td>8 ( \frac{38 \times 43}{200} )</td>
<td>9</td>
<td>1.1250</td>
</tr>
</tbody>
</table>

\[
\sum \frac{(f_o - f_e)^2}{f_e}
\]

So, the observed value of \( \chi^2 = 2.8922 \)
The numbers of degrees of freedom (v) = (No. of rows − 1) (No. of columns − 1)

\[ \text{ie } (r − 1) (c − 1) \]

\[ = (3 − 1) (2 − 1 ) = 2 \]

The critical value is of \( \chi^2 \) for 2 degrees of freedom at 5 per cent level of significance is 5.99.

\( \chi^2 \) critical (0.05, 2) = 5.99

\( \chi^2 \) observed = 2.8922

As the observed value of \( \chi^2 \) is less than the critical value, null hypothesis is accepted. Therefore, it can be concluded that there is no significant association between type of industry and the level of ROI. In other words, the level of ROI (i.e., level of overall operational efficiency) of small-scale industrial units in Kanyakuamri District does not depend upon the type of industry. In a nutshell, the type of industry does not significantly influence the level of ROI (level of overall operational efficiency) of small-scale industrial units in Kanyakuamri District.

5.5.2 Capacity utilized

Usually, when full capacity level is utilized, profit will go up and consequently the ROI will also increase. When there is more demand for the product more capacity is utilized and vice-versa. Following table, prepared for \( \chi^2 \) test, reveals the number of sample small-scale industrial units in Kanyakuamri District classified as to level of ROI and level of capacity utilized.
Table 5.8
Sample Small-Scale Industries units in Kanyakuamri District as to the level of capacity utilization and level of ROI

<table>
<thead>
<tr>
<th>Levels of ROI</th>
<th>Below 50 per cent</th>
<th>50 per cent – 75 per cent</th>
<th>Above 75 per cent</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level of ROI</td>
<td>35 (27)</td>
<td>18 (21)</td>
<td>7 (12)</td>
<td>60</td>
</tr>
<tr>
<td>Medium level of ROI</td>
<td>48 (46)</td>
<td>40 (36)</td>
<td>14 (20)</td>
<td>102</td>
</tr>
<tr>
<td>High level of ROI</td>
<td>7 (17)</td>
<td>12 (13)</td>
<td>9 (8)</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>70</td>
<td>40</td>
<td>200</td>
</tr>
</tbody>
</table>

Source: Primary data

Figures in parentheses denote expected frequencies

**Null Hypothesis** ($H_0$): The level of capacity utilized does not significantly influence the level of ROI.

**Degrees of Freedom** ($v$): $(r - 1)(c - 1) = (3-1)(3-1) = 2 \times 2 = 4$

$\chi^2$ observed : 13.2980

$\chi^2$ critical (0.05, 4) : 9.49

As the observed value is greater than the critical value, null hypothesis is rejected.

It may be concluded that the level of capacity utilized significantly influence the level of ROI. In other words, the overall operational efficiency of small-scale industrial units in Kanyakuamri District depends upon the level of utilization of capacity. So the level of capacity utilization is a significant factor affecting small-scale industrial units in Kanyakuamri District.
5.5.3 Age of the owner of Small-Scale Industrial Unit

At times, the age of the owner may be a factor that affects the ROI. The age group of entrepreneurs may affect the strategic decisions on purchase, materials management, labour relations, production technology, asset management – which in turn affects ROI. Following table, prepared for $\chi^2$ test reveals the number of small-scale industrial units classified as to the age group of owner of sample small-scale industrial units and the level of ROI.

Table 5.9
Sample Small-Scale Industrial Units in Kanyakuamri District classified as to age group of the owner and level of ROI

<table>
<thead>
<tr>
<th>Age group (yrs)</th>
<th>20-30</th>
<th>30-40</th>
<th>Above 40</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level of ROI</td>
<td>11 (8)</td>
<td>18 (14)</td>
<td>31 (38)</td>
<td>60</td>
</tr>
<tr>
<td>Medium level of ROI</td>
<td>10 (14)</td>
<td>21 (25)</td>
<td>71 (63)</td>
<td>102</td>
</tr>
<tr>
<td>High level of ROI</td>
<td>7 (6)</td>
<td>9 (9)</td>
<td>22 (23)</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>48</td>
<td>124</td>
<td>200</td>
</tr>
</tbody>
</table>

Source: Primary data

Figures in parentheses denote expected frequencies

**Null Hypothesis (H₀):** The level of ROI is independent of the age group of owner of small-scale industrial unit

**Degrees of Freedom (v):** $(r - 1)(c - 1) = 4$

$\chi^2$ observed : 6.5664

$\chi^2$ critical (0.05, 4) : 9.49
As the observed value is less than the critical value, null hypothesis is accepted. So, it may be concluded that the age of the owner does not significantly influence the level of ROI of the small-scale industrial units in Kanyakuamri District.

### 5.5.4 Educational level of owners of Small-Scale Industrial Unit

Business decisions are affected to a greater extent at the educational level of the owner of business unit. Because, the application of mind and nature of attitude while taking decisions depend upon the level of education. In order to test whether educational level of owner of small-scale industrial unit is a significant factor affecting ROI, the following table is prepared.

#### Table 5.10

Sample Small-Scale Industrial Units in Kanyakuamri District classified as to educational level of the owners of Small-Scale Industrial Units and the level of ROI

<table>
<thead>
<tr>
<th>Level of education</th>
<th>School level</th>
<th>Graduation level</th>
<th>Above Graduation level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level of ROI</td>
<td>20 (25)</td>
<td>29 (25)</td>
<td>11 (10)</td>
<td>60</td>
</tr>
<tr>
<td>Medium level of ROI</td>
<td>53 (42)</td>
<td>35 (43)</td>
<td>14 (17)</td>
<td>102</td>
</tr>
<tr>
<td>High level of ROI</td>
<td>10 (16)</td>
<td>20 (16)</td>
<td>8 (6)</td>
<td>38</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>83</strong></td>
<td><strong>84</strong></td>
<td><strong>33</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>

Source: Primary data

Figures in parentheses denote expected frequencies

**Null Hypothesis (H₀):** There is no significant association between level of education of owner of small-scale industrial unit and the level of ROI.

**Degrees of Freedom (v):** \((r - 1) (c - 1) = (3-1)(3-1) = 2 \times 2 = 4\)

\[ \chi^2 \text{ observed} : 10.2221 \]

\[ \chi^2 \text{ critical (0.05, 4)} : 9.49 \]
As the observed value is greater than the critical value, null hypothesis is rejected. So, it is concluded that the level of ROI of the small-scale industrial units in Kanyakuamri District depends upon the level of education. In other words, the level of education of the owners of small-scale industrial unit is a significant factor affecting the overall operational efficiency of small-scale industrial units in Kanyakuamri District.

5.5.5 Entrepreneurs Experience prior to the starting of Small-Scale Industrial Unit

Generally, previous experience has a positive effect on ROI. In order to test whether previous experience in the similar small-scale industrial unit is a significant factor affecting ROI of the sample small-scale industrial units in Kanyakuamri District, the following table is prepared.

| Source: Primary data |

Table 5.11

Sample Small-Scale Industrial Units in Kanyakuamri District classified as to state of previous experience of entrepreneurs of Small-Scale Industrial Units and the level of ROI

<table>
<thead>
<tr>
<th>Levels of ROI</th>
<th>State of Previous experience</th>
<th>Previous experience in similar small-scale industrial units</th>
<th>No Previous experience</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level of ROI</td>
<td>41 (47)</td>
<td>19 (13)</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Medium level of ROI</td>
<td>89 (841)</td>
<td>13 (21)</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>High level of ROI</td>
<td>28 (30)</td>
<td>10 (8)</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>158</td>
<td>42</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>

Figures in parentheses denote expected frequencies

**Null Hypothesis (H₀):** the level of ROI of small-scale industrial unit is independent of previous experience of entrepreneurs of small-scale industrial unit
Degrees of Freedom (v): \((r - 1) \cdot (c - 1) = (3-1)(2-1)=2\times1=2\)

\[\chi^2\] observed : 8.0062
\[\chi^2\] critical \((0.05, 2)\) : 5.99

As the observed value of \(\chi^2\) is greater than the critical value the null hypothesis is rejected. So, it is concluded that the level of ROI of the small-scale industrial units in Kanyakuamri District depends upon the previous experience of entrepreneurs of small-scale industrial units. Therefore, it may be inferred that previous experience is a significant factor that affects the level of ROI of the small-scale industrial units in Kanyakuamri District.

5.6 Financial Position of Small-Scale Industrial Units in Kanyakuamri District

It is analyzed through four financial ratios – Fixed asset ratio, Current ratio, liquidity ratio, debt equity ratio, proprietary ratio.

5.6.1 Fixed Asset Ratio

This ratio reveals how prudently the long term funds are employed. The ratio can be calculated as below.

\[
\text{Fixed Asset Ratio} = \frac{\text{Fixed Assets}}{\text{Capital Employed}}
\]

Capital employed for the purpose of this ratio means total long term funds

Long term funds = Owned funds + long term Borrowed funds

\[
= 8.6090 + 4.7954 = 13.4044
\]

Fixed Asset Ratio \[
\frac{9.6235}{13.4044} = 0.7179
\]

It means that, out of every one rupee of long term funds Re.0.7179 is invested in fixed assets, the remaining amount is kept as permanent working capital. To carry on the business, a certain minimum level of working capital is necessary on a continuous and
uninterrupted basis. For all practical purposes, this requirement has to be met permanent as
with other fixed assets. So, the prudent financial practice is that the investment in fixed
assets should be made only out of long term funds (not out of short term funds), and a
smaller portion of long term funds should be kept as permanent working capital. This
financial principle of financial management is very well followed by small-scale industrial
units in Kanayakumri District on an average.

5.6.2 Current Ratio

Current Ratio reveals the urgency to meet the short term obligations. As a measure
of short term/current financial liquidity, it indicates the rupee of current assets available
per rupee of current liability/obligation. The higher the current ratio, the larger is the
amount of rupees available per rupee of current liability, the more is the firm’s ability to
meet current obligations, the greater is the safety of funds of short term creditors. Thus,
current ratio, in a way is a measure of margin of safety to the creditors.

It is important to note that a very high ratio of current assets to current liabilities
may be indicative of stock management practices, as it might signal excessive inventories
for the current requirements and poor credit management in terms of over extended
accounts receivable. At the same time, the firm may not be making full use of its current
borrowing capacity. Therefore, a firm should have a reasonable current ratio which is
conventionally fixed as 2:1 (current assets twice the current liabilities).

\[
\text{Current Ratio} = \frac{\text{CurrentAssets}}{\text{CurrentLiabilities}} = \frac{\text{ClosingStock} + \text{Debtors} + \text{Bills Receivable} + \text{Cash and Bank Balance}}{\text{Creditors} + \text{Bills Payable} + \text{Outstanding Expenses} + \text{Shortterm Bank Loans}}
\]

\[
= \frac{7.3327}{4.8063} = 1.5256(1.5app)
\]
The current assets are 1.5 times of current liabilities. As the current ratio is less than the standard ratio (2), the short term solvency position of small-scale industrial units in Kanyakumari District is not satisfactory as the safety margin available to creditors is just Re.52 of current assets for every one rupee of current liability.

5.6.3 Liquidity Ratio

This ratio reveals the ability to meet quickly the short term obligations. This ratio reveals the liquidity position. It indicates the firm’s ability to convert its current assets quickly into cash in order to meet its current liabilities. It is calculated by the following formula.

\[
\text{Liquidity Ratio} = \frac{\text{QuickAssets} \quad \text{CurrentAssets} - \text{Stock} - \text{PrepaidExpenses}}{\text{CurrentLiabilities}}
\]

\[
= \frac{7.3327 - 4.2561}{4.8063} = \frac{3.0766}{4.8063} = 0.64
\]

As the liquid ratio is less than the standard ratio (1), the ability of small-scale industrial units in Kanyakumari District to meet quickly the short term obligations is not satisfactory. This is due to the fact that more than 50 per cent of current assets consist of closing stock. This indicates poor sales promotional efforts. So, it is essential to increase sales promotional efforts to clear off unsaleable stock and to increase the sales.

5.6.4 Debt – Equity Ratio

This ratio indicates ratio of internal liabilities (owned funds) and External liabilities (long term borrowed funds and current liabilities). It is the ratio of total outside liabilities to owners' funds. This ratio reveals the financial structure of affirm. It has important implications from the viewpoint of creditors and owners and the firm itself. The ratio reflects the relative contribution of creditors and owners of business in its financing. A high ratio shows a large share of financing by creditors, a low ratio implies a smaller
claim of creditors. The debt equity ratio indicates the margin of safety to the creditors. For example, if debt equity ratio is 1:2, it implies that for every rupee of outside liability, the firm has two rupee of owner's capital, or the stake of creditors' on-half of the owners. Therefore the safety of margin 66.67 per cent ($\frac{2}{H_2} \times 100$) is available to the creditors. This is to say, even if the value of assets declines by 66.67 per cent, the firm would be able to pay its creditors.

A high debt equity ratio would lead to inflexibility in the operations of firm, as creditors would exercise pressure and interfere in management. The firm will find it very difficult to pay interest especially when profit declines. But shareholders can magnify their return with a larger portion of debt contents (due to trading on equity).

A low debt equity ratio involves high stake of owners, easy servicing of debts, sufficient safety margin to creditors but stakeholders cannot magnify their return because lesser debt contents which deprived them of the benefits of trading on equity.

There is no standard debt equity ratio. The general proposition is that, the money should be in reasonable proportion and the owners should have sufficient stake in the fortunes of the enterprise.

Debt equity ratio = \[
\frac{\text{External Liabilities}}{\text{Internal Liabilities}}
\]

= \[
\frac{4.7954 + 4.8063}{8.6090} = \frac{9.6017}{8.6090} = 1.12:1
\]

The debt equity ratio of small-scale industrial units in Kanyakumari District reveals that the relative contribution of creditors and owners in the financing is 1:12 and 1 respectively. So, the owner does not have sufficient stake in the fortunes of the company. As the debts are more than the owned funds, small-scale industrial will find it difficult to settle debts especially when profit declines. And the small-scale industrial units
will find it difficult to raise funds in the future. So the long term solvency position is not satisfactory.

5.6.5 Proprietary Ratio

This is another form of debt equity ratio. It indicates the proportion of owned funds in the total tangible assets of the company.

\[
\text{Proprietary Ratio} = \frac{\text{OwnedFunds}}{\text{TotalTangibleAssets}} = \frac{8.6090}{16.9562} = 0.50772
\]

Total tangible assets = total assets excluding unwritten loss

The ratio indicates 50 per cent of investment in total tangible assets and it is from the source of owned funds.

5.7 Conclusion

The short term and long term solvency position of the company, as revealed by financial ratios are not satisfactory. The liquidity position of the company is marred by the substantial amount of unsaleable stock. The average financial structure of small-scale industrial unit is marked by more debt contents than the owned funds. It is dangerous as the profit margin and ROI are low which may result in servicing the debts.
References


3. Ibid., p.193


5. Murugan S, op.cit., p.194

6. Ibid

7. Ibid. p.182

8. Khan M.Y and Jain P.K, op.cit., p.16.2
