Chapter-III

Research Design
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3.1 Need of the Study

Growth and development of the small scale industrial sector has always been a corner-stone of the Indian industrial policy. The Government of India has always awarded high priority to this sector on account of a vital role has been played by this sector in the balanced and sustainable economic growth. Various agencies have been established both at the central and state levels to achieve the objectives declared in the industrial policy, resolutions and the successive five years plans. In Himachal Pradesh, there are abundant mineral deposits of gypsum, limestone, dolomite pyrites and slates. These natural resources need to be exploited more scientifically and systematically. In this regard, small scale industries play an important role in developing countries. About 80 percent of the people in private sector are engaged in small industries. Small scale industries are best suited to provide employment opportunities for the mass in the economy. The problem of developing economies is to promote industries in such a manner which will bring down regional disparities and promote socio-economic justice to the people. In this content, the role of small scale industries keeping in view the unique feature will be the means to cure the several ills of the economy. These industries have been given priority in five year plans in view of the advantage of low investment, high potential for employment generation and dispersal of rural and urban areas.

Yet, it is noteworthy that various studies have been conducted on small scale industries in India but few studies have been done till date to analyse the overall financial performance of small scale industries in Himachal Pradesh. Hence, there is a research gap and there is need for the present study. In this study, all aspects of the financial performance have been taken into consideration. Financial performance of the small scale industries in Himachal
Pradesh for ten years has been measured and conclusions have been drawn which will provide guidelines to management, government, investors, creditors and workers to take decisions.

3.2 Scope of the Study

In this study, the focus has been made on twenty four industrial units which are working as small scale industries in Solan, Mandi, Bilaspur, Hamirpur, Una and Kangra districts of Himachal Pradesh. These industries deal with steel and wooden furniture, paper, chemical, electronic and textile field. Five undertakings have been selected from each field, except for textile in which four industrial units have been chosen. The period of study has been restricted to ten years from 2001 to 2010.

Data for financial appraisal has been taken primarily from financial statements. The initial step which has been taken for financial appraisal is reorganised and arranged the entire financial data as per requirement.

Further, in this study, the establishment of significant relationship between the individual components of profit and loss account and balance sheet has been done through application of the tools and techniques of financial analysis like trend analysis, ratio analysis, common size statement analysis, statement of working capital analysis and fund flow analysis.

Finally, the significance of the collected data obtained by applying tools of financial analysis has been evaluated, interpreted and concluded. The specific conclusions arrived at as a result of financial appraisal have been presented in the form of report which highlights the working capital position, profitability position and financial strength of the small scale industries. In brief, the scope of the study involves compilation of financial and operative data and further interpretation of all measuring devices.
3.2.1 Objectives of the Study

The major objective of the study is to analyse the financial performance of small scale industries in Himachal Pradesh. The followings are the main objectives of the present study:

(a) To analyse the working capital position of the small scale industries in Himachal Pradesh.

(b) To study the overall profitability analysis of the small scale industries in Himachal Pradesh.

(c) To study the short term and long term solvency position of the small scale industries in Himachal Pradesh.

(d) To examine the overall financial performance of the small scale industries in Himachal Pradesh.

(e) To make suggestions for the better financial performance of small scale industries in Himachal Pradesh.

3.3 Methodology of the Study

The scope of the study is focused on financial appraisal of small scale industries in Himachal Pradesh. The study is based on secondary data. It is entirely based on the financial statements of small scale industries. The financial statements for the 10 years from 2001 to 2010 have been collected by making personal visits to the head offices of the small scale industries in Himachal Pradesh.

3.3.1 Tools and Techniques

Tools and techniques, listed below are used to ascertain and measure the relationships among the financial statement items of a single set of statements and the changes that have taken place in these items as reflected in successive financial statements. Data collected from different sources have been arranged in accordance of need and tabulated in such a manner to make the study more
comprehensive. The analysis and interpretation of financial statements have been used to determine the financial position and result of operations. Methods of analysis used in the study to meet the objectives formulated have been presented here under:

(a) **Trend Analysis:** Trend analysis makes it easy to understand the changes over a period of time in an item. For this purpose, one year is taken as base year and all items of profit and loss account and balance sheet for that year are taken as hundred. Trend ratios for the other years are calculated on the basis of base year. This is dynamic method of analysis showing the changes over a period of time.

(b) **Common Size Statement Analysis:** Common size statement analysis is a vertical analysis, depicting a static view of the qualitative relationship between the items of balance sheet and profit and loss account. In common size balance sheet analysis, the various components of assets side are expressed as percentage of total assets, whereas the various components of liabilities side are taken as percentage of total liabilities. Similarly, in common size income statement, all the items of income statement are calculated on the basis of net sales by taking net sales as 100 percent. In present study, common size balance sheet has been used to analyse the financial strength and common size income statement has been used to analyse the profitability of small scale industries.

(c) **Fund Flow Statement Analysis:** The basic purpose of the fund flow statement is to measure changes in the movement of funds as a result of various transactions or events during a certain past period. The term ‘flow of fund’ refers to the movement of funds in the working capital. If any transaction results in the increase in working capital, it is said to be a source or inflow of funds and if it results in the decrease in working capital, it is said to be an application or outflow of funds.

To analyse the working capital position of the small scale industrial units, firstly working capital statement has been prepared and after this, fund
flow statement has been prepared to know the sources and uses of funds in the working capital.

**(d) Ratio Analysis:** The universally used technique for analysis of financial statements in modern time is the ratio analysis. Ratio analysis means the process of computing, determining and presenting relationship of items and groups of items in the financial statement. It expresses the numerical relationship between two figures.

In present study liquidity ratios, long term solvency ratios and profitability ratios have been calculated to know the short term financial position, long term financial position and profitability of the small scale industries.

**(i) Current Ratio:** Current ratio is calculated by dividing the total current assets by total current liabilities. It is a measure of general liquidity and is most widely used to make the analysis of short term financial position. A relatively high current ratio is an indication that the firm is liquid and has the ability to pay its current obligations in time as and when they become due. A ratio equal or near to the rule of thumb 2:1 is considered to be satisfactory.

\[
\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}
\]

**(ii) Liquid Ratio:** Liquid ratio may be defined as the relationship between liquid assets and current liabilities. At the time of calculating liquid assets, inventories and prepaid expenses are excluded from the current assets because inventories and prepaid expenses are not easily convertible into cash within a short period. A high liquid ratio is an indication that the firm is liquid and has the ability to meet its current liabilities in time. Liquid ratio of 1:1 is considered satisfactory.

\[
\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}
\]
(iii) **Absolute Liquid Ratio:** Although receivables, debtors and bill receivables are generally more liquid than inventories, yet there may be doubts regarding their realisation into cash immediately or in time. Absolute liquid assets are calculated by excluding the receivables from the liquid assets. Absolute liquid assets include cash in hand and at bank and marketable securities or temporary investments. The acceptable norm for this ratio is 0.5:1.

\[
\text{Absolute Liquid Ratio} = \frac{\text{Absolute Liquid Assets}}{\text{Current Liabilities}}
\]

Absolute Liquid Ratio = Cash and Bank + Short Term Securities

(iv) **Inventory Turnover Ratio:** Inventory turnover ratio measures the velocity of conversion of stock into sales. It would indicate whether inventory has been efficiently used or not. It evaluates the efficiency with which a firm is able to manage its inventory. A high inventory turnover indicates efficient management of inventory.

\[
\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory at Cost}}
\]

\[
\text{Average Inventory} = \frac{\text{Opening stock} + \text{Closing Stock}}{2}
\]

\[
\text{Inventory Conversion Period} = \frac{\text{Days in a Year}}{\text{Inventory Turnover Ratio}}
\]

(v) **Debt Equity Ratio:** Debt equity ratio indicates the relationship between the external equities or the outsider’s fund and the internal equities or the shareholder’s funds. Debt equity ratio is calculated to measure the extent to which debt financing has been used in a business. A ratio of 1:1 may be usually considered to be satisfactory ratio.

\[
\text{Debt Equity Ratio} = \frac{\text{Outsider's Fund}}{\text{Shareholders' Fund}}
\]
(vi) **Funded Debt to Total Capitalisation Ratio:** This ratio establishes a link between the long term funds raised from outsiders and total long term funds available in the business:

\[
\text{Funded Debt} = \text{Debentures, Mortgage Loan + Bonds + Other Long Term Loans}
\]

\[
\text{Total Capitalisation} = \text{Equity Share Capital + Preference Share Capital + Reserve and Surpluses + Other undistributed reserves + Debentures + Mortgage Loans + Bonds + Other Long Term Loans}
\]

\[
\text{Funded Debt to Total Capitalisation Ratio} = \frac{\text{Funded Debt}}{\text{Total Capitalisation}} \times 100
\]

If this ratio is smaller, better it will be, up to 50 percent or 55 percent this ratio may be tolerable.

(vii) **Proprietary Ratio:** This ratio establishes the relationship between shareholder’s funds to total assets of the firm. The shareholder’s funds are equity share capital, preference share capital, undistributed profits, reserves and surpluses and out of this, accumulated losses should be deducted. Higher the ratio or the share of the shareholders in the total assets of the company, better is the long term solvency position of the company.

\[
\text{Proprietary Ratio} = \frac{\text{Shareholder's Fund}}{\text{Total Assets}} \times 100
\]

(viii) **Solvency Ratio:** This ratio indicates the relationship between the total liabilities to outsiders to total assets of a firm. Lower the ratio of total liabilities to outsiders to total assets, more satisfactory or stable is the long term solvency position of a firm.

\[
\text{Solvency Ratio} = \frac{\text{Total Liabilities to Outsiders}}{\text{Total Assets}} \times 100
\]
(ix) **Fixed Assets to Net Worth Ratio**: This ratio establishes the relationship between fixed assets and shareholder’s funds. 60 to 65 percent is considered to be satisfactory ratio in case of industrial undertakings.

\[
\text{Fixed Assets to Net Worth Ratio} = \frac{\text{Fixed Assets (after depreciation)}}{\text{Shareholder's Funds}} \times 100
\]

(x) **Fixed Assets to Total Long Term Funds Ratio**: The ratio indicates the extent to which the total of fixed assets are financed by long term funds of the firm. The total of fixed assets should be equal to the total of long term funds. The ratio should be 100 percent.

\[
\text{Fixed Assets to Total Long Term Funds Ratio} = \frac{\text{Fixed Assets (after depreciation)}}{\text{Total Long Term Funds}} \times 100
\]

(xi) **Gross Profit Ratio**: Gross profit ratio measure the relationship of gross profit to net sales and is usually represented as a percentage. It reflects the efficiency with which the firm produces its products. Higher the gross profit ratio better the result.

\[
\text{Gross Profit} = \text{Net Sales} - \text{Cost of Goods Sold}
\]

\[
\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100
\]

(xii) **Operating Ratio**: It measures the cost of operations per rupee of sales. The ratio is calculated by dividing operating cost by sales and its generally represented as a percentage. Higher the operating ratio, the less favourable it is

\[
\text{Operating Cost} = \text{Cost of Goods sold} + \text{Operating Expenses}
\]

\[
\text{Operating Ratio} = \frac{\text{Operating Cost}}{\text{Net Sales}} \times 100
\]

(xii) **Operating Profit Ratio**: The ratio is calculated by dividing operating profit by sales. Operating profit is calculated as:

\[
\text{Operating Profit} = \text{Net Sales} - \text{Operating Cost}
\]
Operating Cost = Cost of Goods Sold + Administrative Expenses + Selling and Distributive expenses

Operating Profit Ratio = \( \frac{\text{Operating Profit}}{\text{Sales}} \times 100 \)

(xiv) **Net Profit Ratio:** Net profit ratio establishes a relationship between net profit and sales and indicates the efficiency of the management in manufacturing, selling, administrative and other activities of the firm. This ratio is the overall measure of firm’s profitability. Higher the ratio, the better is the profitability.

\[
\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100
\]

(xv) **Return on Investment Ratio:** Return on investment ratio establishes the relationship between profits and the capital employed in the business. The term capital employed refers to the total of investments made in the business.

\[
\text{Return on Investment} = \frac{\text{Net Profit (before Interest and Tax)}}{\text{Total Capital Employed}} \times 100
\]

(e) **Average:** An average is a figure that represents the whole group.

3.4 **Limitations of the Study**

(a) The study has been based on secondary data collected from the financial statements of the selected industries. Hence, the limitations of the secondary data and that of industries financial statements have been found in the study.

(b) Accounting does not include the quality and character of human capital and it has been very difficult to decide the liquidity of the industries on the basis of papers.

(c) The entire study has been based upon the financial statements. Therefore, the study has been subject to the limitations of the nature of financial statements.

(d) The scope of the study has been restricted to financial constraints.
Due to the lack of time and resources, the scope of present study has been limited to some quantitative indicators.

The data for the study has mainly collected from annual reports as well as published documents of the industries, minor adjustments have been made in order to make the data uniform and coherent.

3.5 Brief Introduction of Selected Industrial Units

<table>
<thead>
<tr>
<th>Industry</th>
<th>Name of Industrial Unit</th>
<th>Address of the Industrial Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wooden &amp; Steel Furniture</td>
<td>Arti Steel and Wooden Furniture Udyog</td>
<td>Maranda, Tehsil Palampur District Kangra (H.P.)</td>
</tr>
<tr>
<td>Industry</td>
<td>Aggarwal Furniture Industries</td>
<td>Village Bhadrag, Tehsil Naswal Distt. Bilaspur (H.P.)</td>
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<tr>
<td></td>
<td>Shree Ganesh Furniture Emporium</td>
<td>Industrial Area, Hamirpur (H.P.)</td>
</tr>
<tr>
<td></td>
<td>Anand Furniture House</td>
<td>Plot No. 5, Phase III, Sauli Khad, Distt. Mandi (H.P.)</td>
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<tr>
<td></td>
<td>Luxmi Furniture Udyog</td>
<td>Tahliwal, District Una (H.P.)</td>
</tr>
<tr>
<td></td>
<td>M/s Ankit Paper Industries</td>
<td>51, Industrial Area, Baddi, Tehsil Nalagarh, Distt. Solan (H.P.)</td>
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<tr>
<td></td>
<td>Hari Om Paper Industries</td>
<td>Plot No. 55, Phase I, Industrial Area, Gwalthai, Distt. Bilaspur (H.P.)</td>
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<td>M/s Jain Paper Industries</td>
<td>VPO Shahpur, Distt. Kangra (H.P.)</td>
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<tr>
<td></td>
<td>M/s Baba Paper Industries</td>
<td>HPSIDC Industrial Area, Baddi, Tehsil Nalagarh, Distt. Solan (H.P.)</td>
</tr>
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<td>Chemical Industry</td>
<td>Krishna Chemical Industries</td>
<td>Industrial Area, Gagret, Distt. Una (H.P.)</td>
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<tr>
<td></td>
<td>Sandy Chemical Industries</td>
<td>Industrial Area, Damtal Distt. Kangra (H.P.)</td>
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<tr>
<td></td>
<td>M/s Prabhu Chemical Industries</td>
<td>82-83, Industrial Area, Baddi, Tehsil Nalagarh, Distt. Solan (H.P.)</td>
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<td></td>
<td>Garg Chemical Industries</td>
<td>Plot No. 9, Phase III, Sauli Khad, Distt. Mandi (H.P.)</td>
</tr>
<tr>
<td>Electronic Industry</td>
<td>M/s Mittal Electronics Pvt. Ltd.</td>
<td>VPO Jasur, Tehsil Nurpur, Distt. Kangra (H.P.)</td>
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<td>------------------------------------------------</td>
</tr>
<tr>
<td>M/s J.S. Electronics</td>
<td>Plot No. 9, Phase III, Industrial Area, Distt. Mandi (H.P.)</td>
<td></td>
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<tr>
<td>M/s Bisht Electro Industries</td>
<td>Shed No. 7, Industrial Area, Baddi, Tehsil Nalagarh, Distt. Solan (H.P.)</td>
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</tr>
<tr>
<td>M/s Drish Electronics</td>
<td>Plot No. 4 &amp; 5, Phase 4, Industrial Area, Gwalthai, Distt. Bilaspur (H.P.)</td>
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<tr>
<td>Ozon Electronics Pvt. Ltd.</td>
<td>Industrial Area, Mehatpur Distt. Una (H.P.)</td>
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<tr>
<td>Textile Industry</td>
<td>Jai Prakash Textile Industries</td>
<td>Sai Road, Baddi Tehsil Nalagarh, Distt. Solan (H.P.)</td>
</tr>
<tr>
<td>M/s Arora Textiles</td>
<td>Industrial Area, Damtal Distt. Kangra (H.P.)</td>
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<td>Jai Bharat Textile Industries</td>
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<tr>
<td>M/s Himachal Textiles</td>
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