Chapter - IV
Analysis of Non-Financial Parameters

The financial performance of all selected Indian Public Sector Undertakings having Navratna Status, during pre and post revamped region have been analysed through Wilcoxon signed rank test method in the previous chapter. Now as mentioned in the research design, apart from quantitative analysis of selected financial parameters this study also focuses on qualitative aspects. For qualitative aspects as per research design the study to be diverted to through SWOT analysis and the competitiveness & efficiency test of sample companies during the pre and post revamped region by developing some templates. Thus in this chapter focused on qualitative aspects will be analysed through the following aspects.

I. SWOT Analysis based on Macro Perspective.

II. Competitiveness and efficiency test of sample companies based on templates developed during the pre and post revamped region for Actual Average and Three year rolling average:

I. SWOT Analysis based on Macro Perspective.

According to Philip Kotler and Armstrong “SWOT is a technique for analysing the internal and external environments of an organisation through the identification and assessment of its strengths, weakness, opportunities and Threat. SWOT analysis entails a distillation of the findings of an internal and external audit that draws attention, from a strategic perspective, to the critical organisational strengths and weakness and the opportunities and threats facing the organisation”. As per the views of various experts
SWOT analysis is one of the most renowned tools to analyze the overall strategic position of the organization and the prevailing environment.

Thus the main aim of SWOT analysis is to recognize the strategies that will align the company’s resources and capabilities to the requirements of the circumstances in which they have to do their business. It is the basis for estimating the in-house potential and limitations and the likely opportunities and threats from internal and external environment. SWOT analysis will consider all the internal and external positive and negative factors within and outside the organisation that have an effect on the success. In short it is known that with the help of SWOT analysis the circumstances in which the organisation operates will get to know and it will also help the organisation’s forecasting ability in the changing trend and in decision making process. So this chapter, being the analysis of qualitative aspects starts with Strength, Weakness, Opportunities and Threat analysis.

SWOT Analysis of the selected companies during the study period (i.e. of Pre and Post Revamped Regime) is summarized as follows:

1. Analysis of Pre Revamped Regime:
2. Analysis of Post Revamped Regime:

1. Analysis of Pre Revamped Regime:

The SWOT analysis during the pre revamped regime was described as per the perception from macro perspective –

1. Strengths:
   - Assured ROI:

During this Era sample companies provided Guaranteed Return on Investment for all of its stakeholders. The financial analysis shows significant improvement in the ROI growth rate throughout this period, which indicates that, the performance of sample companies never affected by the risks.

---

93. Return on Investment.
• Markets Share was protected.

There was a regulation authority for the downstream company to keep an eye on the market to control their retail outlets in the nation. This regulating authority observe the number of retail outlet of these companies and grant permission to open new outlets in each year and there by their market share were maintained. In short these companies never faced any risk on its sales volume.

• Trim down risk of cost by reimbursement strategy:

The sample companies were provided repayment on all of their investment with safe returns on all these investments. Because of reimbursement strategy especially petroleum industries were sheltered from any risks of costs.

• Profound knowledge of local market and well-known circulation network:

The sample companies have profound understanding about their market, so they were well aware about likes and dislikes of the customers. This was the secret behind their so long operation by gaining competitive advantage during the era.

2. Weakness:

The following are the weakness of sample companies during the study period:-

• No motivation for Enhancing Efficiency or Diminishing Cost:

As mentioned in above case because of being followed by reimbursement policy these companies were granted reimbursement for the costs they incurred with reasonable returns. This worked something like double sword because they were never worried about their returns (there was no special reward for enhancing the efficiency).

94. This point concerned with Petroleum Industry only.
95. Reimbursement Strategy: - This means costs were reimbursed on a cost plus formula
• **Inadequacy of improvement in products and services:**
Because of the company’s market share was regulated/protected by the government, they neither had any internal competition nor shown any quest for improving products and services. In case if the products were homogeneous then the company can provide innovation in the kind of services they provide. But unfortunately the sample companies were failed to delight their customers by offering innovative services.

• **Sample companies failed to balance with international benchmarks:**
The internal system of the sample companies were not in accordance with the international requirements. These companies even failed to took quick decision due to political or government interference and thereby lacking efficiency.

• **High interference of government in fiscal policies:**
This era was known as struggling period for sample companies until they got ‘Navratna’ status. It was only after this ‘Navratna’ status these sample companies had financial freedom to invest in projects. Prior to that these companies had to take permission from ministry for making investment in new projects, which was much time consuming. Many times this was a great hindrance to launch the project at right time.

• **Strict government regulation towards Foreign Direct Investment:**
The sample companies were in need of potential investors to upgrade their products and services and thereby to meet with the requirements international markets. But government policies were much rigid or vulnerable to attract potential investors by making the industry unpleasant for foreign investments.

96. I) Hindustan Petroleum Corporation Limited. 
II) Bharat Petroleum Corporation Limited. and
III) Bharat Petroleum Corporation Limited. 
3. Opportunities:

The following points concerned with the opportunities of the sample companies during the pre revamped regime.

- **Economic Growth:**
  If the economic growth of any nation is growing then it will lead to considerable growth in demand of any products. The pre revamped period being a period from 2000 represents post liberalisation era. During this period economic growth rate of the country was booming. Hence as in case of any industry this period blessed the sample companies by providing plenty of opportunities to the industry.

- **Purchase of equity assets in abroad:**
  Sample companies were growing due to post liberalised era. In this period there were plenty of opportunities in the international market and the same to be utilised by these companies for ensuring a sustained growth rate. Being a part of this the sample companies were interested in investing by the purchase of equity assets in abroad.

- **Modernizing the internal system with technology and internet:**
  This period was well known for the growth of information technology and internet. International organisations were installing own Enterprise Resource Programme software’s for decision making process to improve their operational efficiency and thereby to reduce costs. In this situation sample companies should concentrate on technology updating and internet. In short this circumstance led plenty of opportunities to sample companies for concentrating on Enterprise Resource Programme projects to enhance performance and thereby ensuring sustained growth.
4. Threats:

Threats faced by the sample companies during the study period are given below:

- **Petroleum products faced a threat of replacement by natural gas:**
  During this era there was a trend of replacing petroleum products by natural gas. This replaced the consumption of petroleum products by natural gas by giving potential threat to Bharat Petroleum Corporation and Hindustan Petroleum Corporation Ltd.

- **Highly Competitive environment:**
  Due to liberalisation and globalisation drive Indian market faced tough competition from private and global players. As compared to Indian companies they had highly developed technology, worldwide experience and outstanding financial health. In short Indian companies had to face tough competition from such companies.

- **Diminishing production rates and lack of innovation:**
  This period witnessed the trend of diminishing production rates (i.e. BPCL\(^97\) and HPCL\(^98\)). Apart from this, since last few years there were no major innovations or inventions. This resulted to import major part of their requirements from overseas market and thereby increasing costs.

The following diagram shows an overview of sample company’s strength, weakness, opportunities and Threat position based on macro perspective.

---

97. Bharat Petroleum Corporation Limited.
98. Hindustan Petroleum Corporation Limited.
SWOT Analysis of Sample Companies during Pre Revamped Period

Figure: 4.1

**Strength**
- Assured Return on Investment.
- Markets share were protected.
- Trim down risk of cost by reimbursement strategy.
- Profound knowledge of local market and well-known circulation network.

**Weakness**
- No motivation for Enhancing Efficiency or Diminishing Cost.
- Inadequacy of improvement in products and services.
- Sample companies failed to balance with international benchmarks.
- High interference of government in fiscal policies.
- Strict government regulation towards Foreign Direct Investment.

**Opportunities**
- Economic Growth.
- Purchase of Equity assets in Abroad.
- Modernizing the internal system by the use of Technology and Internet.

**Threat**
- Highly Competitive Environment.
- Threat of replacing Petroleum Products by Natural Gas.
- Diminishing Production Rates and lack of innovations.
I. Analysis of Post Revamped Regime:

The SWOT analysis as per the perception from macro perspective during the post revamped regime is given below:

1. Strengths:
   - Modernized internal System by the use of technology and internet:
     During this Era sample companies were in the transition stage. They had either implemented Enterprise Resource Planning software or were implementing the same to improve their internal systems and thereby reducing cost to compete with the global players.

   - Abolition of Markets share Protection Scheme99:
     Due to improved competition government of India abolished market share protection scheme. So the sample companies focussed on innovative product or services to sustain its customers. Apart from this globalisation led to a change in the preference of customers and this compelled the sample companies to improve their product & services, initiate various scheme and improving infrastructure for catching the attention of customers.

   - Changed the attitude from Risk Averter to Risk Taker:
     Government of India introduced various initiatives during this era. Abolition of market share protection scheme, freedom of financial strategies especially in the matters of investment in convincing projects was few among them. This changing scenario pulled the sample companies to undertook riskier projects (higher the risk – higher the return) for increasing the profit and thereby sustaining marker share of the organisation. The government too helped in this by liberalising the regulations prevailed during pre revamped region.

---

99. This scheme was applicable only for Petroleum industries, i.e. Bharat Petroleum Corporation Limited and Hindustan Petroleum Corporation Limited.
2. Weakness:

- **Non attractiveness of New Exploration Licensing Policy by major International Organizations**:  
One of the major initiatives undertaken by the government during this era was New Exploration Licensing Policy. The management introduced this policy as a financial system for updating technical know-how found less attractive than many other international opportunities so their interest towards NELP was not the way as it was expected. Actually New Exploration Licensing Policy was not a failed policy but it achieved success only among Indian companies.

- **Lack of technological development**:  
As compared to international organisations the sample companies were much backward in case of technological development. For updating technical know-how foreign companies were demanding partnership. But because of many factors Indian companies could not even maintain partnership with these overseas organisations. So these companies had to depend on international organisations for latest technologies.

---

100. This scheme was applicable only for Petroleum industries, i.e. Bharat Petroleum Corporation Limited and - Hindustan Petroleum Corporation Limited.
101. New Exploration Licensing Policy.
Figure: 4.2

SWOT Analysis of Sample Companies during Post Revamped Period

**Strength**
- Modernized internal System by the use of technology and internet.
- Abolition of Markets share Protection Scheme.
- Changed the attitude from Risk Averter to Risk Taker.

**Weakness**
- Non attractiveness of New Exploration Licensing Policy by major International Organizations.
- Lack of technological development.

**Opportunities**
- Investment in CNG and PNG Projects.
  - Latest automation for diminishing Costs.
  - Better prospects in Coal Bed Methane and Shale gas.

**Threat**
- New discoveries are not commendable.
- Lack of technological know-how.
- International market fluctuations.
3. Opportunities:

- **Investment in CNG and PNG Projects**: Considering the increasing demand of Natural gas in the country, we can say that it will become dominant fuel in the upcoming years. Hence there will be plenty of opportunity in the CNG & PNG Projects of various parts of the nation and thereby these companies can sustain its growth for a long period of time.

- **Latest automation for diminishing Costs**: Even though the sample companies were on the path of automation, as compared to international market players these companies still lacks a lot of alternative measures for further improvements. If these sample companies introduce fully automated production process then they can save man hours and thereby reduce losses / improve profits.

- **Better prospects in Coal Bed Methane and Shale gas**: The absence of discoveries and innovation in the production line CBM and Shale gas provide major opportunity in the upcoming years. So, further investment in these projects will be credit worthy in the upcoming years.

4. Threats:

- **New discoveries are not commendable.**

- **Lack of technological know-how.**

Just like in case of pre revamped regime, the sample companies still depends on foreign companies for technological know-how. For many of the technologies they had to participate in the projects which adversely affect the ownership of the company.
• **International market fluctuations**.

During the post revamped regime crude oil prices was unstable in the international market. Because of depending on imports of crude oil its high volatility in price adversely affected the sample companies. But still the industry had sufficient competitive advantage (this proved in Chapter II - Financial Analysis).

II. **Competitiveness and efficiency test of sample companies based on templates developed during the pre and post revamped region for Actual Average and Three year rolling average:**

The following Financial parameters selected and the weights distributions assumed for this research to carry out Competitive and Efficiency test. This will further reinforce the findings through qualitative presentation.

**Table: 4.1**

**Weight age of Parameters for Non-financial Analysis**

<table>
<thead>
<tr>
<th>Weight age</th>
<th>Competitiveness</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Growth</td>
<td>16.67%</td>
<td>16.67%</td>
</tr>
<tr>
<td>Asset growth</td>
<td>33.33%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>16.67%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>16.67%</td>
<td>16.67%</td>
</tr>
<tr>
<td>ROI</td>
<td>0.00%</td>
<td>16.67%</td>
</tr>
<tr>
<td>Operating Cash Flow / Net Sales</td>
<td>16.67%</td>
<td>16.67%</td>
</tr>
</tbody>
</table>

*Competitiveness and Efficiency rating of selected financial parameters.*

---

104. This point is concerned only with Petroleum industries i.e. Bharat Petroleum Corporation Limited and - Hindustan Petroleum Corporation Limited.
Above table shows the templates developed as per the research design for ensuring competitiveness and efficiency factors have been improved or not during the post revamped region as compared to pre revamped region\textsuperscript{105} based on average annual growth rate and compounded annual growth rate. As mentioned in the previous chapter financials and their growth rates help us to know about their competitiveness and efficiency with respect to other companies. So the growth rate of the sample companies have been worked out for the pre revamped period as well as post revamped period.

**Weight distribution applied in the table is based on the following judgement:**

The performance of a company is significantly influenced by its dimension or size, which is symbolised by its assets. So we should consider assets for higher weight age. Now performance of a company can be represented by:

1. Top line i.e. Sales Revenue
2. Bottom line i.e. Profit and
3. Operating Efficiency calculated in terms of current ratio and cash flow.

Because of being the ways of representing the performance of a company all the above factors have been assigned equal weight age. The basic assumptions considered for weight age distribution are:

- **I.** Competitiveness and
- **II.** Efficiency.

\textsuperscript{105} As per the conclusion in Chapter –III, Financial Analysis of Selected Companies.
I. Competitiveness:

As discussed earlier Competitiveness of any organisation is influenced by its assets, processes and performance. Hence it can be represented in the following manner:

Figure: 4.3

Weight age of Parameters for Competitiveness

As per the research design 100% weight age has been equally allocated amongst its key variables i.e. Assets (33.33%), Performance (33.33%), and Processes (33.33%). Individual weight ages are then sub assigned i.e. 33.33% amongst the corresponding fiscal parameter. For example Assets size widely influences the overall performance of the company.
so its 100% weight age is assigned to asset growth. Performance is corresponding to its sales growth and net profit margin so 33.33% are equally distributed among these parameters. As in the same way Current ratio and operating cash flow/Net sales ratio are believed as the part of financial rotation processes and hence 33.33% are equally distributed amongst them.

II. Efficiency Rating:

After Competitiveness, efficiency has been considered for weight age allocation. Efficiency of an organisation can be emerged from size of the organisation, research and development strength and internal system prevailed in the organisation. Amongst these factors (i.e. size of the organisation, research and development strength and internal system) Research and development strength is such an element which cannot be assessed readily so excluding this element rest of the factors can be accessed from fiscal parameters. Appropriate financial variable for the measurement are given below:

Figure: 4.4
Weight age of Parameters for Efficiency Rating

```
Efficiency
[100 %]

Size
(33.33%)

Asset Growth
(33.33%)

Internal System
(33.33%)

Other parameters
(33.33%)

Return on Investment
(16.67%)

Operating Cash flow/Net Sales Ratio (16.67%)

Sales Growth
(16.67%)

Net Profit Margin
(16.67%)
```

As indicated in the research design 100% weight age of efficiency are been equally distributed amongst its key variables i.e. Size (33.33%), Internal System (33.33%), and Other parameters (33.33%). Out of these individual weight ages i.e. 33.33% are further distributed amongst the corresponding fiscal parameter. For example Size depends on asset growth so 33.33% weight age assigned to Asset Growth. In the same manner Efficiency of any organisation can be measured in terms of its sales growth and Net Profit Margin so 33.33% of other parameters are equally distributed amongst these variables. Effectiveness of internal system depends on the current ratio and Operating Cash Flow/Net Sales hence 16.67% are assigned to each parameters.

Computation of Efficiency and Competitiveness rating during the pre and post revamped region of all selected sample companies and its graphical presentation are given below:

**Table: 4.2**

**Bharat Petroleum Corporation Ltd.**

**Computation of Financial Parameters based on Efficiency and Competitiveness during Pre and Post Revamped Regime**

<table>
<thead>
<tr>
<th>Financial Parameters</th>
<th>Criteria</th>
<th>Pre Revamped Regime</th>
<th>Post Revamped Regime</th>
<th>Pre Revamped Regime</th>
<th>Post Revamped Regime</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPCL 106</td>
<td></td>
<td>Value based on Actual Average Growth Rate</td>
<td>Value based on Compound Average Growth Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales Growth</td>
<td>Competitiveness</td>
<td>12.72%</td>
<td>11.14%</td>
<td>16.93%</td>
<td>11.60%</td>
</tr>
<tr>
<td>Assets Growth</td>
<td>Competitiveness</td>
<td>13.05%</td>
<td>15.57%</td>
<td>13.26%</td>
<td>18.21%</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>Competitiveness</td>
<td>1.15%</td>
<td>1.31%</td>
<td>1.10%</td>
<td>1.27%</td>
</tr>
<tr>
<td>Earnings per Share</td>
<td>Efficiency</td>
<td>69.94%</td>
<td>34.57%</td>
<td>63.67%</td>
<td>40.88%</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>Efficiency</td>
<td>2.18%</td>
<td>1.05%</td>
<td>2.27%</td>
<td>1.21%</td>
</tr>
<tr>
<td>Return on Investment</td>
<td>Efficiency</td>
<td>32.60%</td>
<td>16.17%</td>
<td>32.60%</td>
<td>18.35%</td>
</tr>
<tr>
<td>Operating Cash Flow/ Net Sales</td>
<td>Efficiency</td>
<td>4.11%</td>
<td>2.06%</td>
<td>4.43%</td>
<td>2.51%</td>
</tr>
</tbody>
</table>

106. Bharat Petroleum Corporation Limited.
In the above table values given in pre or post revamped regime is the average value of variable during the regime, which was computed in the previous chapter, Chapter Three - Financial Analysis of Selected companies. Hence the value of sales growth/Assets Growth/Current ratio/EPS\textsuperscript{107}/ Net profit margin/ROI\textsuperscript{108}/Operating Cash Flow/Net Sales represents the average value of the era.

**Calculation of Efficiency and Competitiveness of BPCL\textsuperscript{109}**

The computation of efficiency and competitiveness of Bharat Petroleum Corporation is based on the weight age assigned in the figure: 4.1 and 4.2. Hence the efficiency and competitiveness can be calculated as follows:

\[
\text{Competitive Rating} = (\text{Sales Growth} \times 16.67\%) + (\text{Assets Growth} \times 33.33\%) + (\text{Current Ratio} \times 16.67\%) + (\text{Net Profit Margin} \times 16.67\%) + (\text{Operating Cash Flow/Net Sales} \times 16.67\%)
\]

<table>
<thead>
<tr>
<th>Table: 4.3</th>
<th>Competitive Rating of BPCL\textsuperscript{106}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Revamped Period</td>
<td>Pre Revamped Period</td>
</tr>
<tr>
<td>Based on actual Average growth rate:</td>
<td>Based on compound Average growth rate:</td>
</tr>
<tr>
<td>Pre Revamped Period</td>
<td>Post Revamped Period</td>
</tr>
<tr>
<td>= (12.72 * 16.67%) + (13.05 * 33.33%) + (1.15 * 16.67%) + (2.18 * 16.67%) + (4.11 * 16.67%)</td>
<td>= (12.72 * 16.67%) + (13.05 * 33.33%) + (1.15 * 16.67%) + (2.18 * 16.67%) + (4.11 * 16.67%)</td>
</tr>
<tr>
<td>= 7.71%</td>
<td>= 7.71%</td>
</tr>
<tr>
<td>Post Revamped Period</td>
<td>Post Revamped Period</td>
</tr>
<tr>
<td>= (11.14 * 16.67%) + (15.57 * 33.33%) + (1.31 * 16.67%) + (1.05 * 16.67%) + (2.06 * 16.67%)</td>
<td>= (11.14 * 16.67%) + (15.57 * 33.33%) + (1.31 * 16.67%) + (1.05 * 16.67%) + (2.06 * 16.67%)</td>
</tr>
<tr>
<td>= 7.78%</td>
<td>= 7.78%</td>
</tr>
<tr>
<td>Pre Revamped Period</td>
<td>Pre Revamped Period</td>
</tr>
<tr>
<td>= (16.93 * 16.67%) + (13.26 * 33.33%) + (1.10 * 16.67%) + (2.27 * 16.67%) + (4.43 * 16.67%)</td>
<td>= (16.93 * 16.67%) + (13.26 * 33.33%) + (1.10 * 16.67%) + (2.27 * 16.67%) + (4.43 * 16.67%)</td>
</tr>
<tr>
<td>= 8.54%</td>
<td>= 8.54%</td>
</tr>
</tbody>
</table>

\textsuperscript{107}Earnings per Share. 
\textsuperscript{108}Return on Investment. 
\textsuperscript{109}Bharat Petroleum Corporation Limited
Efficiency Rating = (Sales Growth*16.67%)+(Assets Growth*33.33%)+(Return on Investment*16.67%)+(Net Profit Margin*16.67%)+(Operating Cash Flow/Net Sales* 16.67%).

Table: 4.4

Efficiency Rating of BPCL\textsuperscript{110}

<table>
<thead>
<tr>
<th>Based on actual Average growth rate:</th>
<th>Pre Revamped Period</th>
<th>Post Revamped Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Revamped Period</strong></td>
<td>(= (12.72 \times 16.67%)+ (13.05 \times 33.33%)+)</td>
<td>(= (16.93 \times 16.67%)+ (13.26 \times 33.33%)+)</td>
</tr>
<tr>
<td></td>
<td>( (32.60 \times 16.67%)+ (2.18 \times 16.67%) + (4.11 \times 16.67%)))</td>
<td>( (32.60 \times 16.67%)+ (2.27 \times 16.67%) + (4.43 \times 16.67%)))</td>
</tr>
<tr>
<td></td>
<td>(= 12.95%)</td>
<td>(= 13.79%)</td>
</tr>
<tr>
<td><strong>Post Revamped Period</strong></td>
<td>(= (11.14 \times 16.67%)+ (15.57 \times 33.33%)+)</td>
<td>(= (11.60 \times 16.67%)+ (18.21 \times 33.33%)+)</td>
</tr>
<tr>
<td></td>
<td>( (16.17 \times 16.67%)+ (1.05 \times 16.67%) + (2.06 \times 16.67%)))</td>
<td>( (18.35 \times 16.67%)+ (1.21 \times 16.67%) + (2.51 \times 16.67%)))</td>
</tr>
<tr>
<td></td>
<td>(= 10.26%)</td>
<td>(= 11.68%)</td>
</tr>
</tbody>
</table>

\textsuperscript{110}. Bharat Petroleum Corporation Limited
The above graph represents Competitive and efficiency ratings of Bharat Petroleum Corporation based on templates as per the research design during the two study periods actual average growth rate and three years compound average growth rate correspondingly. BPCL\textsuperscript{111} had demonstrated Competitive growth rate moderately during post revamped regime. While financial analysis, Competitive and non–parametric test support that post revamped regime depicts an improved growth rate, the trend was otherwise in case of efficiency parameter. BPCL\textsuperscript{111} recorded a mild decrease in the value computed on the basis of actual average growth as well as in the compound average growth rate.

\textsuperscript{111} Bharat Petroleum Corporation Limited
### Table: 4.5

**Hindustan Petroleum Corporation Ltd.**

**Computation of Financial Parameters based on Efficiency and Competitiveness during Pre and Post Revamped Regime**

<table>
<thead>
<tr>
<th>Company</th>
<th>Criteria</th>
<th><strong>HPCL</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre Revamped Regime</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value based on Actual Average Growth Rate</td>
</tr>
<tr>
<td>Sales Growth</td>
<td></td>
<td>13.61%</td>
</tr>
<tr>
<td>Assets Growth</td>
<td></td>
<td>4.58%</td>
</tr>
<tr>
<td>Current Ratio</td>
<td></td>
<td>1.34%</td>
</tr>
<tr>
<td>Earnings per Share</td>
<td></td>
<td>37.58%</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td></td>
<td>2.55%</td>
</tr>
<tr>
<td>Return on Investment</td>
<td></td>
<td>34.81%</td>
</tr>
<tr>
<td>Operating Cash Flow/ Net Sales</td>
<td>Efficiency</td>
<td>4.18%</td>
</tr>
</tbody>
</table>

*Efficiency and Competitiveness rating computed on the basis of Financial Analysis Chapter - III*

In the above table values given in pre or post revamped regime is the average actual value of variable during the regime, which was computed in the previous chapter, Chapter – Three, Financial Analysis of Selected companies. Hence the value of sales growth/ Assets Growth/ Current ratio/ EPS\(^{113}\)/ Net profit margin/ ROI\(^{114}\)/ Operating Cash Flow/ Net Sales represents the average value of the era.

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112. Hindustan Petroleum Corporation Limited
113. Earnings per Share.
114. Return on Investment.
Calculation of Efficiency and Competitiveness of HPCL

The calculation of efficiency and competitiveness of Hindustan Petroleum Corporation is based on the weight age assigned in the figure: 4.1 and 4.2. Hence the efficiency and competitiveness can be calculated as follows:

\[
\text{Competitive Rating} = (\text{Sales Growth} \times 16.67\%) + (\text{Assets Growth} \times 33.33\%) + (\text{Current Ratio} \times 16.67\%) + (\text{Net Profit Margin} \times 16.67\%) + (\text{Operating Cash Flow/Net Sales} \times 16.67\%).
\]

**Table: 4.6**

<table>
<thead>
<tr>
<th>Competitive Rating of HPCL</th>
<th>Pre Revamped Period</th>
<th>Post Revamped Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on actual Average growth rate:</td>
<td>Pre Revamped Period</td>
<td>= (13.61 * 16.67%) + (4.58 * 33.33%) + (2.55<em>16.67%) + (4.18</em> 16.67%)  = 5.14%</td>
</tr>
<tr>
<td>Post Revamped Period</td>
<td>= (11.49<em>16.67%) + (17.90</em>33.33%) + (0.97<em>16.67%) + (2.19</em> 16.67%)  = 6.63%</td>
<td>= (11.94<em>16.67%)+(18.07</em> 33.33%) +(1.34<em>16.67%)+(2.19</em> 16.67%)  = 8.87%</td>
</tr>
</tbody>
</table>

Efficiency Rating = (Sales Growth * 16.67%) + (Assets Growth * 33.33%) + (Return on Investment * 16.67%) + (Net Profit Margin * 16.67%) + (Operating Cash Flow/Net Sales * 16.67%).

---

115. Hindustan Petroleum Corporation Limited.
Pre Revamped Period
= (13.61 * 16.67%) + (4.58 * 33.33%) + (34.81 * 16.67%) + (4.18 * 16.67%)
= 10.72%

Post Revamped Period
= (14.28 * 16.67%) + (6.79 * 33.33%) + (34.85 * 16.67%) + (4.87 * 16.67%)
= 11.72%

Pre Revamped Period
= (11.49 * 16.67%) + (17.90 * 33.33%) + (29.94 * 16.67%) + (0.97 * 16.67%) + (2.55 * 16.67%)
= 13.40%

Post Revamped Period
= (11.94 * 16.67%) + (18.07 * 33.33%) + (29.57 * 16.67%) + (1.19 * 16.67%) + (2.73 * 16.67%)
= 13.57%

Table: 4.7
Efficiency Rating of HPCL

<table>
<thead>
<tr>
<th></th>
<th>Pre Revamped Period</th>
<th>Post Revamped Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre Revamped Period</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Revamped Period</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure: 4.6
Competency & Efficiency Rating of HPCL

Prepared on the Basis of above Table No: 4.3 & Table No: 4.4

The above graphical presentation represents Competitiveness and efficiency ratings of Hindustan Petroleum Corporation based on templates as per the research design during the two study periods i.e., actual average growth rate and three years compound average growth rate respectively. It may be observed that the Competitiveness and efficiency ratings of HPCL significantly improved during the post revamped regime (both the case i.e. in Actual Average rating and Compound average rating) which strengthens the findings of previous chapter through financial analysis and non parametric test.

Table: 4.8

Computation of Financial Parameters based on Efficiency and Competitiveness during Pre and Post Revamped Regime

<table>
<thead>
<tr>
<th>Company</th>
<th>Criteria</th>
<th>SCIL 117</th>
<th>Pre Revamped Regime</th>
<th>Post Revamped Regime</th>
<th>SCIL 118</th>
<th>Pre Revamped Regime</th>
<th>Post Revamped Regime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Financial Parameters</td>
<td>Value based on Actual Average Growth Rate</td>
<td>Value based on Compound Average Growth Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sales Growth</td>
<td>4.84%</td>
<td>0.83%</td>
<td>2.43%</td>
<td>4.20%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assets Growth</td>
<td>5.10%</td>
<td>13.26%</td>
<td>2.34%</td>
<td>13.06%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Current Ratio</td>
<td>1.47%</td>
<td>3.02%</td>
<td>1.56%</td>
<td>2.84%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Earnings per Share</td>
<td>18.38%</td>
<td>24.16%</td>
<td>12.75%</td>
<td>29.14%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Net Profit Margin</td>
<td>16.07%</td>
<td>19.43%</td>
<td>12.21%</td>
<td>22.64%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Return on Investment</td>
<td>29.42%</td>
<td>23.58%</td>
<td>30.89%</td>
<td>25.34%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Efficiency</td>
<td>Operating Cash Flow/Net Sales</td>
<td>25.90%</td>
<td>20.99%</td>
<td>22.71%</td>
<td>24.05%</td>
<td></td>
</tr>
</tbody>
</table>

Efficiency and Competitiveness rating computed on the basis of Financial Analysis Chapter- III

117. Hindustan Petroleum Corporation Limited.
118. Shipping Corporation of India Limited.
In the above table values given in pre or post revamped regime is the average actual value of variable during the regime, which was computed in the previous chapter, Chapter – 3, Financial Analysis of Selected companies. Hence the value of sales growth/ Assets Growth/ Current ratio/ EPS\textsuperscript{119}/ Net profit margin/ ROI\textsuperscript{120}/ Operating Cash Flow/ Net Sales represents the average value of the era.

**Calculation of Efficiency and Competitiveness of SCIL\textsuperscript{121}**

The calculation of efficiency and competitiveness of Shipping Corporation is based on the weight age assigned in the figure: 4.1 and 4.2. Hence the efficiency and competitiveness can be calculated as follows:

\[
\text{Competitive Rating} = (\text{Sales Growth} \times 16.67\%) + (\text{Assets Growth} \times 33.33\%) + (\text{Current Ratio} \times 16.67\%) + (\text{Net Profit Margin} \times 16.67\%) + (\text{Operating Cash Flow/Net Sales} \times 16.67\%)
\]

**Table: 4.10**

<table>
<thead>
<tr>
<th>Competitive Rating of SCIL\textsuperscript{121}</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Revamped Period</strong></td>
</tr>
<tr>
<td>Based on actual Average growth rate:</td>
</tr>
<tr>
<td>Pre Revamped Period</td>
</tr>
<tr>
<td>(= (4.84 \times 16.67%) + (5.10 \times 33.33%) + (1.47 \times 16.67%) + (16.07 \times 16.67%) + (25.90 \times 16.67%))</td>
</tr>
<tr>
<td>(= 9.75%)</td>
</tr>
<tr>
<td>Post Revamped Period</td>
</tr>
<tr>
<td>(= (0.83 \times 16.67%) + (13.26 \times 33.33%) + (3.02 \times 16.67%) + (19.43 \times 16.67%) + (20.99 \times 16.67%))</td>
</tr>
<tr>
<td>(= 11.80%)</td>
</tr>
</tbody>
</table>

\textsuperscript{119} Earnings per Share.

\textsuperscript{120} Return on Investment.

\textsuperscript{121} Shipping Corporation of India Limited.
Efficiency Rating = (Sales Growth*16.67%) + (Assets Growth*33.33%) + (Return on Investment*16.67%) + (Net Profit Margin*16.67%) + (Operating Cash Flow/Net Sales*16.67%).

### Table: 4.11

#### Efficiency Rating of SCIL

<table>
<thead>
<tr>
<th>Based on actual Average growth rate:</th>
<th>Pre Revamped Period</th>
<th>Post Revamped Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>= (4.84 * 16.67%) + (5.10 * 33.33%) + (29.42 * 16.67%) + (16.07 * 16.67%) + (25.90 * 16.67%)</td>
<td>= (0.83 * 16.67%) + (13.26 * 33.33%) + (30.89 * 16.67%) + (19.43 * 16.67%) + (20.99 * 16.67%)</td>
</tr>
<tr>
<td></td>
<td>= 14.41%</td>
<td>= 16.45%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Based on compound Average growth rate:</th>
<th>Pre Revamped Period</th>
<th>Post Revamped Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>= (2.43 * 16.67%) + (2.34 * 33.33%) + (23.58 * 16.67%) + (12.21 * 16.67%) + (22.71 * 16.67%)</td>
<td>= (4.20 * 16.67%) + (13.06 * 33.33%) + (25.34 * 16.67%) + (22.64 * 16.67%) + (24.05 * 16.67%)</td>
</tr>
<tr>
<td></td>
<td>= 10.94%</td>
<td>= 17.06%</td>
</tr>
</tbody>
</table>

122. Shipping Corporation of India Limited.
The above graphical illustration represents Competitiveness and efficiency ratings of Shipping Corporation based on templates as per the research design during the two study periods i.e., actual average growth rate and three years compound average growth rate respectively. This diagram powerfully support the results of financial analysis and non-parametric test that the performance during post revamped region reveals improved performance as compared to pre revamped period. As compared to the Competitiveness and efficiency ratings results of BPCL and HPCL, SCIL grades was ever record. SCIL recorded 21.03% growth rate in Competitiveness and 14.16% growth in efficiency ratings during the post revamped regime as compared to pre revamped regime both in computation based on Actual Average Growth rate and Three years Rolling Average Growth Rate.

123. Shipping Corporation of India Limited.
124. Bharat Petroleum Corporation Limited
125. Hindustan Petroleum Corporation Limited.
Concluding Remark:

As per the research design this chapter concerned with qualitative aspects, has been divided into two parts. First part of the Chapter is concerned with Strength, Weakness, Opportunities, and Threat analysis. SWOT analysis based on the pre revamped period shows that during this period the sample companies had an assured return on investment, market share were protected, reduced risk of cost by reimbursement strategy and well knowledge of local market with considerably good network. But they had to fight against highly competitive environment with its diminishing production rates & innovation. In these circumstances these sample companies had plenty of opportunities due to the kind of economic growth prevailed in the country. During this era these sample companies tried to modernize the system by using updated technology and internet but they failed to balance with international markets. Apart from this the sample companies had to face high interference of government in financial policies and strict regulation towards foreign direct investment during this era. But in case of post revamped region the things were changed. The sample companies modernised their internal system by using internet and technology. By the implementation of ‘Abolishing Market Share Protection Scheme’, the sample companies changed their attitude from risk averter to risk taker. Post revamped regime was an era of latest automation for diminishing costs & investment in credit worthy projects for sample companies.

In short during the post revamped period the sample companies were strong enough with plenty of opportunities to face the competition from indigenous or global practitioners. As compared to pre revamped regime threat and weakness of the organisation were considerable to chase its mission and thereby to sustain the growth. Efficiency and competitiveness test based on templates developed too suggest that post revamped regime witnessed promising competitiveness and enhanced efficiency.

The second part of the chapter is competitiveness & efficiency test by developing some templates of sample companies during the pre and post revamped region. The
Efficiency test of Hindustan Petroleum Corporation Limited and Shipping Corporation of India Limited recorded higher improvement during post revamped period.

If HPCL\textsuperscript{126} and SCIL\textsuperscript{127} recorded 8.87\% and 16.45\% efficiency growth rate respectively during post revamped regime, it was 6.13\% and 14.41\% during the pre revamped period. Only in case of BPCL\textsuperscript{128} there was moderate decline in the efficiency growth rate. In this case it was reduced by 2.96\%. The comparative competency test performed during the two study periods also shows that all the sample companies recorded higher competitiveness during the post revamped regime. In the post revamped period BPCL\textsuperscript{128}, HPCL\textsuperscript{126} and SCIL\textsuperscript{127} recorded 7.78\%, 6.63 \%, and 11.80 \% competency growth rate as against 7.71\%, 5.14\% and 9.75\% respectively, during the pre revamped period. In short Competitiveness & Efficiency Test based on templates developed too indicate that the post revamped regime shows promising competitiveness and enhanced efficiency as against the Pre revamped regime.

\begin{itemize}
\item \textsuperscript{126} Hindustan Petroleum Corporation Limited.
\item \textsuperscript{127} Shipping Corporation of India Limited.
\item \textsuperscript{128} Bharat Petroleum Corporation Limited
\end{itemize}
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