CHAPTER - VI

ANALYSIS OF EFFICIENCY
FOR MPSEZ AND KPT

These ratios indicate the degree to which the activities of a firm are supported by creditors’ funds as opposed to owners. The relationship of owner’s equity to borrowed funds is an important indicator of financial strength. The debt requires fixed interest payments and repayment of the loan and legal action can be taken if any amounts due are not paid at the appointed time. A relatively high proportion of funds contributed by the owners indicate a cushion (surplus) which shields creditors against possible losses from default in payment.

The greater the proportion of equity funds, the greater the degree of financial strength. Financial leverage will be the advantage of the ordinary shareholders as long as the rate of earnings on capital employed is greater than the rate payable on borrowed funds. The following ratios can be used to identify the financial strength and risk of the business.
6.1 Efficiency by Debt Ratio

Debt Ratio is the measure of financial strength that reflects the proportion of capital which has been funded by debt including preference shares. With higher debt ratio (low equity ratio), a very small cushion has developed thus not giving creditors the security they require. The company would therefore find it relatively difficult to raise additional financial support from external sources if it wished to take that route. The higher the debt ratio the more difficult it becomes for the firm to raise debt.

This is calculated as follows;

Debt Ratio = Total Debt / Share Holder’s Fund

<table>
<thead>
<tr>
<th>Port/Yr</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPSEZ</td>
<td>375.4</td>
<td>199</td>
<td>437.2</td>
<td>525.5</td>
<td>353</td>
<td>472.6</td>
<td>573.3</td>
</tr>
<tr>
<td>KPT</td>
<td>0.79</td>
<td>0.75</td>
<td>0.83</td>
<td>0.76</td>
<td>0.7</td>
<td>0.65</td>
<td>0.58</td>
</tr>
<tr>
<td>APPLI MEAN STDEV TREND MEDI</td>
<td>419.4</td>
<td>124.49</td>
<td>306.2</td>
<td>525.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where, MPSEZ is assumed as X and KPT is as Y.

Source: Calculation of data, for details, refer Annexure-IV
Table Explanations:

The above table represents comparative debt ratios for MPSEZ and KPT from year 2003 to year 2009 respectively. In the year 2003 Mundra Port is having a debt for Rs.525.49 Cr against the equity of Rs.140 Cr that means debt is 375.35% higher which also represents higher risk factor. It is reduced in year 2004 where debt ratio is 199.01% because debt also reduced and stands at Rs.284.20 Cr and equity fund rise up to Rs.142.81 Cr here company has issued preference share capital fund for Rs.2.81 Cr to raise shareholder’s fund. Again the year 2005 it is rise up at 437.21% as indicated in this research study where company has rise up debt for Rs.624.38 Cr against the shareholder’s fund for Rs.142.81 Cr which is high risk factor. It is again rise up for debt in year 2006 where total debt for Rs.961.82 Cr and shareholder’s fund is Rs.183.03 Cr which is 525.50% higher than shareholder’s fund. In the year 2007 total debt is for Rs.1282.25 Cr and shareholder’s fund is Rs.363.24 Cr where total debt is 353% higher than shareholder’s fund. In the year 2008 total debt is for Rs.1906.75 Cr and shareholder’s fund is Rs.403.49 Cr where total debt is 472.56% higher than shareholder’s fund. Again the year 2009 total debt is for Rs.2313 Cr and shareholder’s fund is Rs.403.49 Cr where total debt is 573.25% higher than shareholder’s fund. Here in this research study it is clear that among all the years the total debt is higher than shareholder’s fund but Mundra Port is managing efficient utilization of their debt funds as they are increasing their assets as well as their investments to getting maximum return in future.
This is risky but satisfied positioning for Mundra Port. On the other side KPT enjoys the superior margin of own capital, there is one strong reason or advantage is public sector port.

Therefore, Kandla Port Trust is having fully reverse situation compared to Mundra Port & SEZ for debt ratio. As indicated in this research study that their debt is merle less than 1% every year due to limited fixed capital debt. In the year 2003 total debt for Kandla Port is Rs.16.12 Cr and Share Holder’s fund is Rs.2043.38 Cr where only 0.79% debt available against their equity holder’s fund. Its slight decrease in the year 2004 total debt for Kandla Port is Rs.16.12 Cr and Share Holder’s fund is Rs.2145.43 Cr where only 0.75% debt available against their equity holder’s fund. Again the year 2005 total debt for Kandla Port is Rs.16.12 Cr and Share Holder’s fund is Rs.1930.54 Cr where only 0.83% debt available against their equity holder’s fund.

In the year 2006 total debt for Kandla Port is Rs.16.12 Cr and Share Holder’s fund is Rs.2121.32 Cr where only 0.76% debt available against their equity holder’s fund. As indicated in the table in the year 2008 total debt for Kandla Port is Rs.16.12 Cr and Share Holder’s fund is Rs.2491.65 Cr where only 0.65% only debt available against their equity holder’s fund. Which is again reduced by increasing shareholder’s fund in the year 2009 where the fixed debt for Rs.16.12 Cr and shareholder’s fund increased by Rs.2775.83 Cr where only
0.58% debt against shareholder’s fund which is most satisfied positioning and quite safe for Kandla Port Trust.

The debt risk factor is indicated by standard deviation (STDEV) showing highest percentage of risk. The following figure also indicate comparative risk factor for MPSEZ and KPT from year 2002-03 to 2008-09.

Figure No. 6.1
Comparative Efficiency by Debt Ratio
From year 2002-03 to 2008-09

Source: Calculation of data, for details, refer Annexure-IV

The above figure indicates the rising debt for MPSEZ it also ultimately raises of risk in port. On the other hand KPT plays with
sound stability almost unchanged in fixed debt; it is also due to advantage of government port.

The above comparison between Mundra Port and Kandla Port stated in this research studies it is clear that Mundra Port is growing with high risk and low margin of owner’s fund.

6.2 Efficiency by Debt-Equity Ratio

Debt-Equity Ratio indicates the extent to which debt is covered by shareholders’ funds. It reflects the relative position of the equity holders and the lenders and indicates the company’s policy on the mix of capital funds. The debt to equity ratio is calculated as follows:

Debt-Equity Ratio = Total Debt / Net Worth

<table>
<thead>
<tr>
<th>Port/Yr</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPSEZ</td>
<td>273.3</td>
<td>60.69</td>
<td>109.1</td>
<td>160.7</td>
<td>171.8</td>
<td>72.99</td>
<td>78.53</td>
</tr>
<tr>
<td>KPT</td>
<td>0.79</td>
<td>0.75</td>
<td>0.83</td>
<td>0.76</td>
<td>0.7</td>
<td>0.65</td>
<td>0.58</td>
</tr>
<tr>
<td>APPLI MEAN STDEV TREND MEDI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPSEZ</td>
<td>132.4</td>
<td>75.62</td>
<td>185.7</td>
<td>160.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KPT</td>
<td>0.7</td>
<td>0.09</td>
<td>0.8</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where, MPSEZ is assumed as X and KPT is as Y.

Source: Calculation of data, for details, refer Annexure-IV
Table Explanations:

The above table represents comparative Debt-Equity Ratios for MPSEZ and KPT from year 2003 to year 2009 respectively. With reference to the above table MPSEZ having very high risk burden for debt equity margin compare to KPT. In the year 2003 Mundra Port is having a debt for Rs.525.49 Cr against the Net Worth of Rs.192.31 Cr that means debt is 232.25% higher which also represents higher risk factor. It is reduced in year 2004 where debt ratio is 60.69% because debt also reduced and stands at Rs.284.20 Cr and Net Worth rise up to Rs.468.29 Cr. Again the year 2005 it is rise up at 109.08% as indicated in this research study where company has rise up debt for Rs.624.38 Cr against the Net Worth for Rs.572.43 Cr which is high risk factor.

It found again rise up for debt in year 2006 where total debt for Rs.961.82 Cr and Net Worth is Rs.598.57 Cr which is 160.69% higher than Net Worth. In the year 2007 total debt is for Rs.1282.25 Cr and Net Worth is Rs.746.35 Cr where total debt is 171.80% higher than Net Worth. In the year 2008 total debt is for Rs.1906.75 Cr and Net Worth is Rs.2612.51 Cr where total debt is 72.99% here Net worth is higher than the debt now company has got positioning better utilization of resources. Again the year 2009 total debt is for Rs.2313 Cr and Net Worth is Rs.2945.27 Cr which represents 78.53% of debt against Net Worth. Here in this research study it is clear that among all the years the total debt is higher than Net Worth except year 2008 and 2009.
During 2008 Mundra Port has managed efficient utilization of their resources and got higher return due to huge reserve support.

The performance by Mundra Port for Debt-Equity ratio contains high risk margins. On the other hand KPT represents the outstanding performance by Kandla Port Trust for Debt-Equity ratio.

As indicated in this research study that their debt is merle less than 1% every year due to limited fixed capital debt. In the year 2003 total debt for Kandla Port is Rs.16.12 Cr and Net Worth is Rs.2043.38 Cr where only 0.79% debt available against their equity holder’s fund. Its slight decrease in the year 2004 total debt for Kandla Port is Rs.16.12 Cr and Net Worth is Rs.2145.43 Cr where only 0.75% debt available against their Net Worth. Again the year 2005 total debt for Kandla Port is Rs.16.12 Cr and Net Worth is Rs.1930.54 Cr where only 0.83% debt available against their equity holder’s fund. In the year 2006 total debt for Kandla Port is Rs.16.12 Cr and Share Holder’s fund is Rs.2121.32 Cr where only 0.76% debt available against their equity holder’s fund. As indicated in the table in the year 2008 total debt for Kandla Port is Rs.16.12 Cr and Share Holder’s fund is Rs.2491.65 Cr where only 0.65% only debt available against their equity holder’s fund. Which is again reduced by increasing shareholder’s fund in the year 2009 where the fixed debt for Rs.16.12 Cr and shareholder’s fund increased by Rs.2775.83 Cr where only 0.58% debt against shareholder’s fund which is most satisfied positioning compare to
MPSEZ. Therefore MPSEZ is also required to manage their debt equity margin.

6.3 Efficiency by Equity Ratios

A high equity ratio reflects a strong financial structure of the company. A relatively low equity ratio reflects a more speculative situation because of the effect of high leverage and the greater possibility of financial difficulty arising from excessive debt burden.

Equity Ratio = Equity Share Capital / Total Assets

Table No. 6.3
Comparative Efficiency by Equity Ratio
(Figures Represents Ratios in Percentage)

<table>
<thead>
<tr>
<th>Port/Yr</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPSEZ</td>
<td>19.5</td>
<td>18.6</td>
<td>11.7</td>
<td>11.55</td>
<td>17.77</td>
<td>8.87</td>
<td>7.62</td>
</tr>
<tr>
<td>KPT</td>
<td>27.85</td>
<td>29.74</td>
<td>36.43</td>
<td>36.89</td>
<td>39.07</td>
<td>40.09</td>
<td>38.12</td>
</tr>
<tr>
<td>APPLI MEAN STDEV TREND MEDI</td>
<td>13.7</td>
<td>4.88</td>
<td>18.9</td>
<td>11.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPSEZ</td>
<td>35.5</td>
<td>4.75</td>
<td>29.7</td>
<td>36.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KPT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where, MPSEZ is assumed as X and KPT is as Y.

Source: Calculation of data, for details, refer Annexure-IV

Table Explanations:

The above table represents comparative Equity Ratios for MPSEZ and KPT from year 2003 to year 2009 respectively. In the beginning years of study period from 2003 the ratio indicates good
positioning for MPSEZ but later on it decreases year by year. With reference to data in the year 2003 Equity Share Capital is Rs.140 Cr and Total Assets is Rs.717.80 Cr which is 19.50 times higher than Equity Share Capital performance in year 2003 is satisfied. It is decreased in year 2004 where Equity Share Capital is Rs.140 Cr and Total Assets is 752.49 Cr that means assets are rising and equity capital is stable. Again the year 2005 Equity Share Capital is Rs.140 Cr and on the other hand Total Assets is Rs.1196.80 Cr which is again creased compare to previous year therefore Equity ratio is 11.70%. It is good strategy to increase assets every year. In the year 2006 Equity Share Capital is Rs.180.21 Cr and Total Assets is increased to Rs.1560.38 Cr so Equity ratio stands at 11.55% which is lower among all previous years performance. In the year 2007 Equity Share Capital raised for Rs.360.43 Cr and on the other hand Total Assets also increased for Rs.2028.60 Cr which is 17.77 times higher than equity share capital. Again the year 2008 Equity Share Capital is raised for Rs.400.68 Cr which is now final share capital for Mundra Port after issuing public share during this year also total assets increased for Rs.4519.25 Cr which directly affect to equity ratio which now become more lower positioning at 8.87% and in year 2009 also having lower equity ratio at 7.62% as indicated in this research study where Equity Share Capital is Rs.400.68 Cr and Total Assets is Rs.5258.27 Cr respectively.

KPT is having strong and sound positioning for Equity ratio which is quite satisfied. Here as Kandla Port is not Public Port therefore there is no equity share capital thus this ratio is calculated on the basis
of Capital Reserve. In the year 2003 Capital Reserve is Rs.573.51 Cr and the Total Assets is Rs.2059.50 Cr therefore Equity ratio is 27.85% quite higher than Mundra Port. In the year 2004 it is increased up to 29.74% where Capital Reserve is 642.94 Cr and Total Assets is Rs.2161.55 Cr which is quite satisfied. The performance for Kandla Port is improving every year compare to previous years performance. In the year 2005 Capital Reserve is Rs.709.18 Cr and Total Assets is Rs.1946.66 Cr and again the equity ratio increased to 36.43%.

It is also performing well in year 2006 and 2007 where Equity ratio is 36.89% and 36.07% where the capital reserves are Rs.788.58 Cr and Rs.910.3 Cr and Total Assets are Rs.2137.44 Cr and Rs.2330.10 Cr respectively as stated in this research study. In year 2008 Kandla Port Trust is enjoying outstanding performance where more than 40% part of total assets enjoying by Capital Reserve where Capital Reserve is Rs.1005.46 Cr and Total Assets is Rs.2507.77 Cr thus the equity ratio comes at 40.09% which is quite satisfied.

The performance is somewhat decrease in year 2009 where Capital Reserve is Rs.1064.20 Cr and Total Assets is Rs.2791.95 Cr therefore equity ratio is 38.12% this is because rise in total assets is more higher than rise in capital reserve. Kandla Port is more efficient to manage its equity and assets compare to Mundra Port. Therefore MPSEZ also require maximizing equity margin to get sound financial positioning or decrease the debt.
6.4 Efficiency by Debt-Coverage Ratios

These ratios will help to identify the total margin on operating income by total debt. It is computed with Operating Income divided by Total Long Term debt. The debt coverage ratio represents the debt against the operating income to identify the earning efficiency of the port. Higher the ratio will indicate better efficiency in financial management. It is calculated with the following formula.

Debt-Coverage Ratio = Operating Income / Total Debt

Table No. 6.4
Comparative Efficiency by Debt-Coverage Ratio
(Figures Represents Ratios in Percentage)

<table>
<thead>
<tr>
<th>Port/Yr</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPSEZ</td>
<td>9.96</td>
<td>37.17</td>
<td>43.58</td>
<td>40.05</td>
<td>45.31</td>
<td>42.93</td>
<td>49.18</td>
</tr>
<tr>
<td>KPT</td>
<td>1315</td>
<td>1308</td>
<td>1466</td>
<td>1577</td>
<td>1864</td>
<td>2119</td>
<td>2536</td>
</tr>
</tbody>
</table>

APPLI   MEAN   STDEV   TREND   MEDI

<table>
<thead>
<tr>
<th>Port/Yr</th>
<th>MEAN</th>
<th>STDEV</th>
<th>TREND</th>
<th>MEDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPSEZ</td>
<td>38.3</td>
<td>13.07</td>
<td>24.3</td>
<td>40.05</td>
</tr>
<tr>
<td>KPT</td>
<td>1741</td>
<td>458.40</td>
<td>1132</td>
<td>1577</td>
</tr>
</tbody>
</table>

Where, MPSEZ is assumed as X and KPT is as Y.

Source: Calculation of data, for details, refer Annexure-IV

Table Explanations:

The above table represents comparative Debt-Coverage Ratios for MPSEZ and KPT from year 2003 to year 2009 respectively. With reference to the above table KPT delivers the extra ordinary
performance for all the year that is because of the advantage of zero debt. MPSEZ represents improved performance year by year. It is also clear that they have better position in performance improvement compare to previous year’s performance. As indicated in the year 2003 Debt-Coverage Ratio is 9.96% and it is mainly depend on Operating Income and Total Debt. It simply indicates the percentage of return against the total debt. As in the year 2003 Operating Income is Rs.52.34 Cr and Total Debt is Rs.525.49 Cr where Operating Income is 9.96% of total debt. It is jumped in year 2004 where Operating Income is Rs.105.65 Cr and Total Debt is Rs.284.20 Cr thus the Debt-Coverage Ratio reached to 37.17% which is quite satisfied.

Financial efficiency for Mundra Port again improved in year 2005 where Operating Income is Rs.272.13 Cr and Total Debt is Rs.624.38 Cr therefore Debt-Coverage Ratio is 43.58% which is quite satisfied. In year 2006 it is somewhat decreased due to high rise in debt compare to operating income, here Operating Income is Rs.385.20 Cr and Total Debt is Rs.961.82 Cr therefore Debt-Coverage Ratio is 40.05%. It is also performing satisfied in year 2007 where Debt-Coverage Ratio is 45.31% it represents good efficiency to manage Operating Income and debt. Here Operating Income for Mundra Port is Rs.581.04 Cr against the debt for Rs.1282.25 Cr. In the year 2008 and 2009 the financial efficiency for Mundra Port is now much better improved to manage debt-coverage ratio where the Operating Income are Rs.818.58 Cr and Rs.1137.59 Cr against the Total Debt for Rs.1906.75 Cr and Rs.2313 Cr thus the performance for these years
stands at 42.93% and 49.19% respectively. Financial efficiency for Mundra Port to managing their Debt-Equity margin is quite satisfied as private port player and it is also getting improved every year.

Performance analysis for KPT is not essential to judge the performance of MPSEZ but it would be better if the performance of KPT is also analyzed. Therefore, in the in this research study it is very clear that Kandla Port Trust having outstanding performance to manage its debt. Here the most beneficial advantage for Kandla Port is it is government managed port therefore there is no out debt only capital debt available and which shows the fixed amount for all the year thus the rise up in operating income will become the reason for high debt coverage ratio for Kandla Port Trust as indicated in this research study. In the year 2003 Operating Income is Rs.211.98 Cr and the Total Debt is Rs.16.12 Cr thus the Debt Coverage Ratio is 1315.01% which is quite satisfied for Kandla Port Trust. In the year 2004 Operating Income is Rs.210.92 Cr and Total Debt is Rs.16.12 Cr therefore Debt Coverage Ratio is 1308.44%. It is improved in year 2005 where Operating Income is Rs.236.26 Cr and Total Debt is Rs.16.12 Cr therefore the Debt Coverage Ratio is 1465.63% which is quite satisfied performance by Kandla Port to handover its financial efficiency to manage its debt coverage ratio. It is again improved in year 2006 where Debt Coverage Ratio is 1576.86% where Operating Income is Rs.254.19 and Total Debt is Rs.16.12 Cr. For the year 2007, 2008 and 2009 outstanding performance by Kandla Port Trust where Debt-Coverage ratios are 1863.65%, 2118.92% and 2535.73% here the
Operating Income are Rs.300.42 Cr, Rs.341.57 Cr and Rs.408.56 Cr respectively which is quite satisfied performance.

6.5 Efficiency Measurement

On the basis of entire efficiency performance, it is to be noted that MPSEZ requires to re arranging the debt margin against its equity. It is merely lower than desired level of its existence; ultimately it is saving the port against the risk factor, even outer finance become with high ratios the port requires to having sufficient liquidity positioning to handle over it. With reference to liquidity performance, MPSEZ also having average satisfy performance with management of liquidities. For the management of current assets and current liabilities, MPSEZ enjoys high margin of liabilities against their current assets. Even the performances for current ratios are below the average levels. So MPSEZ requires to re arranging the current assets margins as it also contains the high debt, it is most essential to have sufficient and sound positioning for current ratios. To manage the Profitability, it is fount that MPSEZ performs the extra-ordinary performance to manage and generate the profitability. It enjoys good margin for Gross Profit as well as Net Profit. The rise up in net profit during the study period (from year 2003 to year 2009) is outstanding.

The performance regarding Operating Income and Non Operating income are highly sound. However, MPSEZ requires taking
control tool particularly for managing the Operating and Non Operating Expenses as these found with somewhat higher compare to KPT.

Overall profitability performance is pleasing compare to liquidity and efficiency ratios performance. An efficiency ratio speaks about requirement of improvement either in sufficient liquidity, higher the margin of owner’s fund or decrease the debt level. The performance regarding managing their efficiency particularly Debt Ratio, Debt-Equity, Equity and Debt Coverage ratio are found under down performance for MPSEZ. The minimum margin of own capital is needed to rise up or decrease the debt to control risk factor.

References:


(2) Gupta S.P. “Statistical Methods” Pearson Education publishers


