Research Paper Management

Operating Margin Ratio (A Comparative Study of Selected Public and Private Sector Companies)

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ABSTRACT

How much profit makes a company after paying for variable costs of production like - raw materials, wages etc shows by the operating profit margin ratio? It is indicated as a percentage of sales and shows the efficiency of a company. Phrased more simply, it is the return achieved from standard operations and does not include unique or one time transactions. The operating margin ratio, also known as the operating profit margin, is a one of the profitability ratios that measures what percentage of total revenues is made up by operating income or sales.

KEYWORDS Operating Margin, Profitability, Business Operations, Fluctuations, Consistency.

Meaning and Concept of Operating Margin Ratio
Operating Margin Ratio establishes relationship of operating margin and net sales of a firm. This ratio is also known as "Net Operating Income ratio". Operating margin refers to the amount of margin which is left after deducting all direct and indirect expenses relating to the business.

Profit margin ratios are calculated by using company's income statement. The gross profit margin, operating profit margin and net profit margin are the three common ratios. Each ratio offers a different glimpse of company's performance, but collectively, they offer a general view of how well the company turns revenue into profits.

Profit margins are among the most important indicators of a company's financial health. Profits show how much money the company has made in the most recent period, but margin ratios offer a look at the profitability. Maintaining or improving profit margins allows the management to invest aggressively in marketing, expansion and business growth, which helps the company to continue to thrive rather than to fall back as a company. Falling margins may lead to downsizing or budget reductions.

As a matter of fact, margin is a magic eye that mirrors all aspects of entire business operations including-the quality of output. The margin of a concern influences not only the proprietors but also its managers, directors, tax authorities etc.

Operating margin is a measure of profitability. It indicates how much of each rupee of revenues is left over after both costs of goods sold and operating expenses are deducted. The operating profit of a company can be ascertained as follows:

Operating Profit= Gross Profit - Operating Expenses
Why it Matters:
Operating margins are important because they measure efficiency.

Several things can affect operating margin like: strategy for pricing, prices for raw materials, costs of labor, etc.), but because these items directly relate to the day-to-day decisions. Operating margin is a measure of managerial flexibility and competency too.

Hypothesis of the Study:
The present study is based on the null hypothesis i.e. there is no significant difference in the operating profit ratio of the companies under study.

Methodology of the Study:
To conduct the present study secondary data have been used. All the figures have been collected from published annual reports and accounts. For this purpose three companies of public sector and three companies of private sector have been taken. The companies of public sector are Bharat Heavy Electricals Limited (BHEL), Steel Authority of India Limited (SAIL), and Shipping Corporation of India (SCI). The companies of private sector are Larsen and Toubro (L&T),Tata Iron and Steel Company Limited (TISCO) and Essar Shipping Ports and Logistics Limited (ESPLL). The figures have been redrafted in the form of 'Common –Size Income Statement' which has been used to analyze the operating margin ratio. Analysis has been made by using the technique of ratio analysis and hypothesis has been tested by applying two way analysis of F test.

Analysis of Operating Margin Ratio of the Companies under Study:

Operating Margin Ratio establishes relationship of operating. The Operating Profit Ratio in present study has been calculated by using the following formula-

Operating profit Ratio =

$$\frac{\text{Operating Profit}}{\text{Net Sales or Operating Income}} \times 100$$

Net Sales means Gross Sales (both Cash and Credit) minus Sales Returns. The operating profit ratio of the companies under study has been presented in the following table:

Table 1
Profit Ratio of the Selected Companies under Study (From 2005-06 to 2009-10)
(Ratio in Percentage)

Year	BHEL	SAIL	SCI	L&T	TISCO	ESPLL
2005-06	12.10	16.63	27.27	5.74	33.71	20.50
2006-07	16.09	22.91	18.45	8.96	34.20	20.97
2007-08	11.37	23.63	16.32	10.46	37.52	9.13
2008-09	8.46	16.41	18.25	9.88	33.56	11.30
2009-10	12.73	19.15	2.75	10.91	31.45	19.76

Year	BHEL	SAIL	SCI	L&T	TISCO	ESPLL
Average	12.15	19.75	16.61	9.19	34.09	16.33
S. D.	2.45	3.04	7.90	1.84	1.96	5.06
C.V. (%)	20.19	15.41	47.55	20.05	5.75	30.96

Source: Annual Reports & Accounts of the Companies under study for the period 2005-06 to 2009-10.

From the table 1 it can be observed that the operating profit ratio in BHEL showed a mixed fluctuating trend during the period of study and the average of the ratio was 12.15 percent which cannot be regarded satisfactory looking at the investment made by the company. In SAIL's the operating profit ratio showed an increasing cum decreasing trend during the period of study and fluctuated within the range of 23.63 percent in 2007-08 to 16.41 percent in 2008-09. The average of the ratio for the period of study was 19.75 percent which is satisfactory but the decreasing trend of the ratio shows inefficiency of the management. The operating profit ratio in SCI showed a decreasing trend during the whole period of study except in the year 2008-09 and fluctuated within the range of 27.27 percent in 2005-06 to 2.75 percent in 2009-10. The decreasing trend of the ratio denotes an inefficient management and signifies that the management o the company failed to utilize the funds in optimum way. The average of the ratio was 16.61 percent showing a satisfactory position but decreasing trend of the ratio shows a poor profitability position of the company.

In Private sector companies the operating profit ratio of L&T showed an increasing trend except in the year 2008-09.The operating profit ratio of L&T during the year 2005-06 was 5.74 percent which increased to 10.46 percent in 2007-08 but decreased to 9.88 percent in 2008-09 and finally increased to 10.91 percent in 2009-10.The average of the ratio was 9.19 percent which is not showing a profitable position of the company but the increasing trend of the ratio shows a satisfactory position of the management. In TISCO the operating profit ratio showed an increasing cum decreasing trend and varied within the range of 37.52 percent in 2007-08 to 31.45 percent in 2009-10. The average of the ratio was 34.09 percent showing a sound profitability position of the company. The operating profit ratio in ESPLL showed a mixed fluctuating trend during the period of study and fluctuated within the range of 20.97 percent in 2006-07 to 9.13 percent in 2007-08. The average of the ratio was 16.33 percent which is satisfactory but the decreasing trend of the ratio should be controlled by the management..

The coefficient of variation was highest for SCI followed by ESPLL, BHEL, L&T etc. Among public ltd. companies SAIL perform better while in the case of private companies TISCO had the minimum fluctuations and ESPLL had the maximum fluctuations.

Test of Significance (F-Test): To test the significance of operating profit ratio of the companies under study F test has been applied and following hypotheses has been tested

Null Hypothesis (Ho) : There is no significant difference is the operating profit ratio of the companies under study.(Inter Company)

Null Hypothesis (Ho): There is no significant difference is the year-wise operating profit ratio of the companies under study.(Intra Company)

Table 2
ANOVA TABLE

Source	Sum	Degree of Freedom (d.f.)	Variance (Sum /d.f)	F Ratio
Between Companies (SSC)	1892.14	(c-1)=(6-1)=5	378.43	F= 16.01 (Between Companies)
Within Companies (SSR)	79.52	(r-1)=(5-1)=4	19.88	F= 1.19 (Within Companies)
Error (SSE)	472.75	(c-1)(r-1)=20	23.64	

(i) F Test Between the Companies

$$F = \frac{\text{Higher Variance}}{\text{Smaller Variance}}$$

$$F = \frac{378.43}{23.64} = 16.01$$

Critical value of F at 5 percent level of significance (V1 = 5 and V2 = 20) is 2.71

Decision: Since the calculated value of F is more than the critical value of F at 5 percent level of significance, therefore the null hypothesis is rejected and it is concluded that the difference in the operating profit ratio of the companies under study is significant.

(ii) F Test Within the Companies

$$F = \frac{\text{Higher Variance}}{\text{Smaller Variance}}$$

$$F = \frac{23.64}{19.88} = 1.19$$

Critical value of F at 5 percent level of significance (V1 = 20 and V2 = 4) is 5.80

Decision: Since the calculated value of F is less than the critical value of F at 5 percent level of significance, therefore the null hypothesis is accepted and it is concluded that the intra company difference in the operating profit ratio of the companies under study is not significant.

Conclusion:
In the above table shows the Inter Firm Comparison of the companies for operating margin. It can be noted from the above table that the average rate of operating margin ratio in TISCO was highest above all the companies under study because the average rate of operating profit was 34.09 percent followed by SAIL, SCI, ESPLL, BHEL and L&T. The fluctuations were highest in SCI followed by ESPLL. On the other hand the other companies namely TISCO and BHEL the fluctuations were kept under control. For the other companies namely SAIL and L&T the fluctuations were very appreciable. The management of SCI and ESPLL should try to control the fluctuations in operating profit ratio by bringing consistency in operating profit ratio.

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