

Profitability Analysis of Government and Private Hotel Companies in India

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Abstract

Profitability of a company is based on its capacity to use its resources efficiently and effectively to generate income. Expectation of a positive rate of return is an essential part of investment. Potential investors and creditors always want to ensure that they will get back their original investment and the return thereon. Investors can ensure this by examining performance and analyzing the indicators that are related to profitability. Several ratios can be computed to measure the extent of profitability in quantitative terms. There is a significant difference found between Government and private hotel companies in their gross profit, net profit and return on total assets ratios.

Keywords: Liquidity, hotel companies, Government, private, current ratio, quick ratio.

Introduction

Operational and financial efficiencies, both are the result of profitability. All business activities are done with keep in mind of profitability. Measurement of profitability is not small concept, it is a multi-stage concept. An important meaning to profitability has been given by Hingorani, Ramanathan and Grewal in these words, "A measure of profitability is the overall measure of efficiency".

Profitability is a concept based on profits but since it is a relative concept, profits are to be expressed in relation to some other variables. Several ratios can be computed to measure the extent of profitability in quantitative terms. Profitability ratios are calculated to measure the operating efficiency of an enterprise. Profits can be related mainly to sales and investment to determine profitability.

An enterprise should be able to generate adequate profit on each rupee in sales. If sufficient profits are not generated through sales, it becomes problematic for an enterprise to cover its operating costs and the interest burden.

An appraisal of financial position of any business enterprise is incomplete unless its overall profitability is measured in relation to sales, assets, net worth, capital employed and the earning per share.

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According to William Post, "In terms of financial statement, ratios were initially used in 1906 by American Banks to assess the credit worthiness of those organisations who wanted to avail the credit facility".

Facts given in financial statements are extremely important. But distinct facts in itself has no importance of its own unless and until it is represented in a statement in other facts or facts of co-reports and similar facts of other period are co-ordinated. This process is called analysis. Ratio analysis represents relationship between two different numbers. The use of ratios had started in the twentieth century. It is a powerful tool of financial analysis.

The method of analysing financial statements through ratios was presented by Alexander Wall in 1919, which in one of his writings had criticised the decision of banks to access the credit worthiness based on current ratio only. Now-a-days, ratios are universally used. Specially, analysis of financial statements by ratios has become essential part of modern financial control.

Tools and Technique to Measure Profitability

Ratio analysis is a series of equations that calculate the profitability of a company or individual by comparing their different financial data from balance sheet, fund flow statement, profit and loss account, etc.

Companies use these ratios to gauge their profitability and measure their financial performance. Here is a brief overview of the some important ratios to measure profitability.

1. Gross Profit Ratio

The gross profit ratio expresses the relationship of gross profit on sales or net sales. The gross profit margin reflects the efficiency with which management produces each unit of product. This ratio indicates the average spread between the cost of goods and sales revenue. According to B.R. Rao, Gross profit margin ratio indicates the gross margin of profits on the net sales and from this margin only, all expenses are met and finally the income emerges.

Gross Profit is arrived at by deducting the cost of goods sold from the net sales. The gross profit ratio is calculated as follows:

$$\text{Gross Profit Ratio} = \text{Gross Profit} / \text{Net Sales}$$

Or

$$= (\text{Net Sales} - \text{Cost of Goods Sold}) / \text{Net Sales}$$

The gross profit ratio of the hotel companies under study has been presented in the following Table 1.

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Year	Hotel Ashok	Hotel Samrat	Hotel Taj Palace	Hotel Sheraton
2016-17	8.31	11.56	15.33	67.50
2017-18	2.19	4.44	18.47	59.79
2018-19	10.61	13.86	20.15	58.18
2019-20	10.68	13.93	20.31	68.28
2020-21	-21.59	-18.24	-26.53	47.21
Average (\bar{X})	2.04	5.11	9.55	60.19
Standard deviation (σ)	13.65	13.62	20.27	8.54
Coefficient of variation ($\frac{\sigma}{\bar{X}} \times 100$)	669.35	266.47	212.30	14.18

Source : Annual Reports and Accounts of the Hotel Companies under study for the period from 2016-17 to 2020-21.

From this analysis of the Government and private hotel companies, Hotel Sheraton has highest average gross profit ratio at 60.19 percent followed by Hotel Taj Palace at 9.55 percent, Hotel Samrat at 5.11 percent and Hotel Ashok at 2.04 percent which is lowest and should be improved. There is a huge difference between highest (60.19 percent) and lowest (2.04 percent) gross profit ratio among the hotels under study. Also, except Hotel Sheraton, remaining hotels showing poor performance as far as gross profit is concerned.

(i) F-test and ANOVA Table: Gross Profit Ratio

To test whether the difference in the gross profit ratio of the selected hotel companies under study is significant or not, following hypotheses have been used:

(i) Null Hypothesis (H_{01}): There is no significant difference in the gross profit ratio of the hotel companies under study (Inter Hotels).

(ii) Null Hypothesis (H_{02}): There is no significant difference in the year-wise gross profit ratio of the hotel companies under study (Intra Hotels).

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Table-1a
ANOVA Table: Gross Profit Ratio

Source	Sum	Degree of Freedom (d.f.)	Variance (Sum/df)	F-Ratio
(Between Companies) SSC	384.44	$(c-1)=(4-1)=3$	128.15	F=12.66 (between Companies)
(Within Companies) SSR	58.50	$(r-1)=(5-1)=4$	14.62	F=1.44 (within companies)
Error (SSE)	121.47	$(c-1)(r-1)=12$	10.12	

(a) Inter-Company F-Test

$$F = 128.15 / 10.12 = 12.66$$

Critical Value of F at 0.05 level of significance ($V_1=3$ & $V_2=12$) = 3.4903

Inference: From this analysis of ANOVA table, calculated value of F is more than the critical value of F. Therefore, null hypothesis is rejected and it can be concluded that there is a significant difference in the gross profit ratio among the hotel companies under study.

(b) Intra-Company F-Test

$$F = 14.62 / 10.12 = 1.44$$

Critical Value of F at 0.05 level of significance ($V_1=4$ & $V_2=12$) = 3.2592

Inference: From this intra-company analysis of ANOVA table, calculated value of F is less than the critical value of F. Therefore, null hypothesis is accepted and it can be concluded that there is no significant difference in the year-wise gross profit ratio of the hotel companies under study.

2. Net Profit Ratio

Net profit ratio shows the relationship between net profit and sales as well as managerial efficiency towards manufacturing, administering and selling the product. The net profit ratio is used to judge firm's overall ability to turn each rupee of sales into net profit. A business concern will fail to achieve satisfactory return on shareholders fund if the amount of net profit is not adequate.

Net profit margin is a good indicator of the efficiency of a business firm. As pointed out by Van Horne, this ratio tells us the relative efficiency of the firm after taking into account all expenses and income taxes, but not extraordinary charges.

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Net profit is obtained when operating expenses, interest and taxes are subtracted from gross profit. The net profit ratio is determined by dividing the net profit by sales and expressed as percentage. The formula used is as follows:

$$\text{Net Profit Ratio} = \text{Net Profit (after tax)} / (\text{Net Sales})$$

The net profit ratio of the hotel companies under study has been presented in the following Table 2.

Table 2
Net Profit Ratio of Selected Hotel Companies
(2016-17 to 2020-21)

(Ratio in Percent)

Year	Hotel Ashok	Hotel Samrat	Hotel Taj Palace	Hotel Sheraton
2016-17	8.41	11.66	5.96	66.00
2017-18	10.03	13.28	5.71	79.97
2018-19	16.54	19.79	9.48	85.18
2019-20	11.48	14.73	14.63	87.82
2020-21	-8.59	-5.34	-46.31	67.15
Average (\bar{X})	7.57	10.82	-2.11	77.22
Standard deviation (σ)	9.53	9.53	24.97	10.13
Coefficient of variation ($\frac{\sigma}{\bar{X}} \times 100$)	125.89	88.09	-118.58	13.12

Source : Annual Reports and Accounts of the Hotel Companies under study for the period from 2016-17 to 2020-21.

Table 2 shows that, Hotel Sheraton has highest average net profit ratio at 77.22 percent followed by Hotel Samrat at 10.82 percent, Hotel Ashok at 7.57 percent and Hotel Taj has ratio -2.11 percent which is lowest and should be improved. There is a huge difference between highest (77.22 percent) and lowest (-2.11 percent) net profit ratio among the hotels under study. It can be concluded that Hotel Sheraton, Hotel Samrat and Hotel Ashok showed profitable business but it is suggested that the management of Hotel Taj Palace should take adequate steps to come up from loss and reach at a significant net profit to sustain in business.

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(ii) F-test and ANOVA Table: Net Profit Ratio

To test whether the difference in the net profit ratio of the selected hotel companies under study is significant or not, following hypotheses have been used:

(i) Null Hypothesis (H_{01}): There is no significant difference in the net profit ratio of the hotel companies under study (Inter Hotels).

(ii) Null Hypothesis (H_{02}): There is no significant difference in the year-wise net profit ratio of the hotel companies under study (Intra Hotels).

Table-2a
ANOVA Table: Net Profit Ratio

Source	Sum	Degree of Freedom (d.f.)	Variance (Sum/df)	F-Ratio
(Between Companies) SSC	467.58	$(c-1)=(4-1)=3$	155.86	F=12.22 (between Companies)
(Within Companies) SSR	60.27	$(r-1)=(5-1)=4$	15.07	F=1.18 (within companies)
Error (SSE)	153.01	$(c-1)(r-1)=12$	12.75	

(a) Inter-Company F-Test

$$F = 155.86 / 12.75 = 12.22$$

$$\text{Critical Value of F at 0.05 level of significance } (V_1=3 \text{ \& } V_2=12) = 3.4903$$

Inference: From this analysis of ANOVA table, calculated value of F is more than the critical value of F. Therefore, null hypothesis is rejected and it can be concluded that there is a significant difference in the net profit ratio among the hotel companies under study.

(b) Intra-Company F-Test

$$F = 15.07 / 12.75 = 1.18$$

$$\text{Table value of F at 0.05 level of significance } (V_1=4 \text{ \& } V_2=12) \text{ is } = 3.2592$$

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Inference: From this intra-company analysis of ANOVA table, calculated value of F is less than the critical value of F. Therefore, null hypothesis is accepted and it can be concluded that there is no significant difference in the year-wise net profit ratio of the hotel companies under study.

3. Return on Total Assets

Return on total assets is a useful measure of the profitability of all financial resources invested in a firm's assets.

Profitability can also be measured by establishing relationship between net profit and total assets. This ratio is computed by dividing the net profit after tax by total funds invested or total assets. Total assets mean all net fixed assets, current assets, investments (trade and non-trade). Fictitious assets are excluded but intangible assets are included only when they have realisable value.

The return on total assets can be calculated as follows:

$$\text{Return on Total Assets} = (\text{Net Profit after Tax}) * 100 / (\text{Total Assets})$$

The return on total assets ratio of the hotel companies under study has been presented in the following Table 3.

Table 3
Return on Total Assets Ratio of Selected Hotel Companies
(2016-17 to 2020-21)

(Ratio in Percent)

Year	Hotel Ashok	Hotel Samrat	Hotel Taj Palace	Hotel Sheraton
2016-17	33.39	30.14	27.97	27.64
2017-18	33.36	30.11	36.95	29.23
2018-19	36.26	33.01	37.70	31.76
2019-20	35.20	31.95	38.54	31.87
2020-21	32.12	28.87	35.39	32.04
Average (\bar{X})	34.07	30.82	35.31	30.51
Standard deviation (σ)	1.65	1.65	4.26	1.98
Coefficient of variation ($\frac{\sigma}{\bar{X}} \times 100$)	4.83	5.34	12.07	6.48

Source : Annual Reports and Accounts of the Hotel Companies under study for the period from 2016-17 to 2020-21.

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From Table 3, it is clear that average return on total assets ratio was highest i.e., 35.31 percent for Hotel Taj Palace, followed by 34.07 percent of Hotel Ashok, then 30.82 percent of Hotel Samrat and lowest 30.51 percent for Hotel Shereton. From this analysis, it is clear that there was no significant difference between return on total assets of Hotels' under study.

(iii) F-test and ANOVA Table: Return on Total Assets Ratio

To test whether the difference in the return on total assets ratio of the selected hotel companies under study is significant or not, following hypotheses have been used:

(i) Null Hypothesis (H_{01}): There is no significant difference in the return on total assets ratio of the hotel companies under study (Inter Hotels).

(ii) Null Hypothesis (H_{02}): There is no significant difference in the year-wise return on total assets ratio of the hotel companies under study (Intra Hotels).

Table-3a

ANOVA Table: Return on Total Assets Ratio

Source	Sum	Degree of Freedom (d.f.)	Variance (Sum/df)	F-Ratio
(Between Companies) SSC	653.50	$(c-1)=(4-1)=3$	217.83	F=13.40 (between Companies)
(Within Companies) SSR	110.03	$(r-1)=(5-1)=4$	27.51	F=1.69 (within companies)
Error (SSE)	195.18	$(c-1)(r-1)=12$	16.26	

(a) Inter-Company F-Test

$$F = 217.83 / 16.26 = 13.40$$

$$\text{Critical Value of F at 0.05 level of significance } (V_1=3 \text{ \& } V_2=12) = 3.4903$$

Inference: From this analysis of ANOVA table, calculated value of F is more than the critical value of F. Therefore, null hypothesis is rejected and it can be concluded that there is a significant difference in the return on total assets ratio among the hotel companies under study.

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(b) Intra-Company F-Test

$$F = 27.51 / 16.26 = 1.69$$

Table value of F at 0.05 level of significance ($V_1=4$ & $V_2=12$) is = 3.2592

Inference: From this intra-company analysis of ANOVA table, calculated value of F is less than the critical value of F. Therefore, null hypothesis is accepted and it can be concluded that there is no significant difference in the year-wise return on total assets ratio of the hotel companies under study.

Conclusion

From F-test analysis, significant differences were found in gross profit ratio, net profit ratio and return on assets ratio in Government and private hotel companies (inter-company). Contrarily, no significant difference was found in year-wise gross profit ratio, net profit ratio and return on assets ratio (intra-companies).

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