Research Paper   **Commerce**

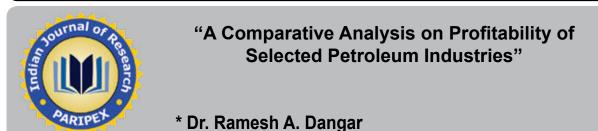# "A Comparative Analysis on Profitability of Selected Petroleum Industries"

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ABSTRACT

Every day in the news, people around the world are very concerned with the price of oil; countries who may be at war attempt to cut off the supply of oil to their enemies. However price of oil different from other commodities which are traded in the world market such as wheat, fish, steel all of which are important in our daily lives. For the purpose of research, researcher has selected 3 units and 5 years data are selected as sample. For the purpose of analysis, researchers have used ratio techniques and to test hypothesis ANOVA technique has been used.

Keywords : Profitability analysis, petroleum industries

INTRODUCTION :

Almost every day in the news, people around the world are very concerned with the price of oil; countries who may be at war attempt to cut off the supply of oil to their enemies. Countries like Canada and the United States are concerned with obtaining a secure supply of oil why does the whole world seem to be pre occupied with oil? How is oil different from other commodities which are traded in the world market such as wheat, fish, steel all of which are important in our daily lives?

Indian Oil began operation in 1959 as Indian Oil Company Ltd. The Indian Oil Corporation was formed in 1964, with the merger of Indian Refineries Ltd. The Indian Oil Corporation Ltd. operates as the largest company in India in terms of turnover and is the only Indian company to rank in the Fortune "Global 500" listing. The oil concern is administratively controlled by India's Ministry of Petroleum and Natural Gas, a government entity that owns just over 90 percent of the firm.

Hindustan Petroleum Corporation Limited (HPCL) is an Indian state-owned oil company headquartered at Mumbai, India and is a Fortune 500 company of India listed at number 336. HPCL operates 2 major refineries producing a wide variety of petroleum fuels & specialties, one in Mumbai (West Coast) of 6.5 Million Metric Tonnes Per Annum (MMTPA) capacity and the other in Vishakapatnam, (East Coast) with a capacity of 8.3 MMTPA. HPCL holds an equity stake of 16.95% in Mangalore Refinery & Petrochemicals Limited (MRPL), a state-of-the-art refinery at Mangalore with a capacity of 9 MMTPA.

In 1860s during vast industrial development, an important player in the South Asian market was the Burmah Oil Company Ltd. Though incorporated in Scotland in 1886, the company grew out of the enterprises of the Rangoon Oil Company, which had been formed in 1871 to refine crude oil produced from primitive hand dug wells in Upper Burma. In 1928, Asiatic Petroleum Company (India) started cooperation with Burmah Oil Company. This alliance led to the formation of Burmah-Shell Oil Storage and Distributing Company of India Limited. Burmah Shell began its operations with import and marketing of Kerosene and later on converted into Bharat Petroleum Corporation Limited (BPCL).

REVIEW OF LITERATURE:

Few studies has been conducted in India are summarized here: Dr. Bhayani (2004) has conducted study on working capital and profitability of cement industry and found that profitability is highly influenced by working capital. Linkage between asset management and profitability of Indian Industry has been conducted by Narware P.C. (2004), Debasis and Debdas (2005) and finds that long-term asset management made positive as well as very significant contribution towards improvement of corporate profitability. Chakraborty P.K. (2005), Malik A.K. and Sur D . (1998 & 1999) has conducted to study the effect of working capital management on profitability with case study. Conducting a survey among 94 Japanese companies in USA, Suk et al.(1992) found that they differ in working capital management practices from in the US and 39 terms of lower level of inventory and higher levels of account receivable. The study revealed that while the US firms piled-up their inventories, Japanies firm had higher percentage of receivable to total assets.

RESEARCH METHODOLOGY:

Sources of the data:

The study has been based on secondary data of petroleum producing companies using financial statement of all the three major players having last five years data i.e. 2006-2007 to 2010-2011. The data has been collected from the annual reports of Bharat Petroleum Company Ltd., Hindustan Petroleum, Indian Oil company.

Hypothesis of the study:

1) The size of trend value of Profit after Tax to Gross sales ratio is uniform.
2) The size of trend value of Profit after Tax to Net Worth ratio is uniform.
3) The size of trend value of Profit after Tax to Total Asset ratio is uniform.
4) The size of trend value of Profit after Tax to Total Current Asset ratio is uniform.

Techniques of Analysis:

For the purpose of profitability analysis of petroleum companies various ratios are selected and calculated through various statistical tools and techniques like mean and ANOVA test. This tools can be analyzed the profitability trends of major players of petroleum companies.

Empirical Analysis:

Ratio of Profit after Tax to Gross sales

This ratio is obtained when operating expenses, interest and taxes are subtracted from the gross profit. The ratio measured by dividing profit after tax by sales.

Net Profit Margin=Profit After tax * 100

Sales

The profit after tax (PAT) figures excludes interest on borrowing. Interest is tax deductible and therefore a firm which pays more interest pays less tax. Tax saved on account of payment interest is called interest tax shield.

Table-1 Ratio of Profit after Tax to Gross sales						
Name of the company	2006-2007	2007-08	2008-09	2009-10	2010-11	Average
IOCL	2.25	3.51	0.89	2.57	3.15	2.47
HPCL	1.23	1.47	0.65	0.51	1.31	1.03
BPCL	1.09	1.74	1.89	1.23	2.23	1.64
Average	1.52	2.24	1.14	1.43	2.23	1.71

From the above table-1, it is reveal that as per the industries average 1.71, only IOCL has maintained the ratio. BPCL and HPCL is below the average. At the same time the fluctuation is also found out in the ratio of IOCL.

Table 2 : one-way ANOVA result of selected sample units						
Source of Variation	SS	df	MS	F Cal	P-value	F crit
Between Groups	2.945573	4	0.736393	0.920331	0.489298	3.47805
Within Groups	8.0014	10	0.80014			
Total	10.94697	14				

SS= sum of the square, df=degree of freedom, MS=Mean square, F cal= calculated value of f, P- value= Probability value of F ratio, F crit= Critical value of F ratio at 5% significant level.

The table-2 shows the one-way ANOVA results of Profit after Tax to Gross sales of selected sample units. The F cal value is 0.920331 and F crit value is 3.47805. It suggests that there is significant difference between the two variable.

Profit after Tax to Net Worth

This is known as 'Return On Shareholders' funds. Return on shareholders funds is very effective measure of the profitability of an enterprise. These ratios measure the return on the total equity of the shareholders. It should be compared with the ratios of other similar companies to determine whether the rate of return is attractive. In fact, this ratio is one of the most important relationships in financial statement analysis. It shows the ratio of net profit to owners equity.

Return On Proprietor's Equity= Profit After Tax * 100

Shareholder's Fund

Net profit is calculated after charging interest on long term liabilities and payment of taxes shareholders funds include equity capital, preference capital, capital reserve, general reserve and other undistributed profits.

Table-3 Ratio of Profit after Tax to Net Worth						
Name of the company	2006-2007	2007-08	2008-09	2009-10	2010-11	Average
IOCL	13.46	20.22	6.7	16.95	21.51	15.77
HPCL	13.04	13.69	7.61	5.02	12.02	10.31
BPCL	11.71	15.95	20.85	11.59	20.92	16.2
Average	12.73	16.62	11.72	11.19	18.15	14.09

Table 4 : one-way ANOVA result of selected sample units						
Source of Variation	SS	df	MS	F cal	P-value	F crit
Between Groups	116.286	4	29.07149	1.049291	0.429658	3.47805
Within Groups	277.0583	10	27.70583			
Total	393.3443	14				

SS= sum of the square, df=degree of freedom, MS=Mean square, F cal= calculated value of f, P- value= Probability value of F ratio, F crit= Critical value of F ratio at 5% significant level.

The ANOVA table-4 reflects the results for the ratio of profit after tax to Net worth. The F cal value is 1.04929 and F crit value is 3.47805. It suggest that there is positive relationship

between the two variable i.e. Profit after tax and net worth of the company.

Profit after Tax to Total Asset ratio

This ratio is computed to know the productivity of the total assets. This ratio is calculated as follows:

PAT To Total Assets = Profit After Tax *100

Total Assets

The profitability of the firm's measured by establishing relation of net profit which is also called profit after tax with the total assets of the organization. This ratio is indicates the efficiency of utilization of assets in generating revenue.

Table-5 Ratio of Profit after Tax to Total Assets						
Name of the company	2006-2007	2007-08	2008-09	2009-10	2010-11	Average
IOCL	6.89	10.75	3.32	9.09	12.11	8.43
HPCL	4.36	4.82	2.44	1.94	5.82	3.88
BPCL	4.98	5.92	7.59	5.07	10.19	6.75
Average	5.41	7.16	4.45	5.36	9.37	6.35

Table 6 : one-way ANOVA result of selected sample units						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	45.78769	4	11.44692	1.3462	0.319065	3.47805
Within Groups	85.0314	10	8.50314			
Total	130.8191	14				

SS= sum of the square, df=degree of freedom, MS=Mean square, F cal= calculated value of f, P- value= Probability value of F ratio, F crit= Critical value of F ratio at 5% significant level.

The ANOVA table-6 reflects the results for the ratio of profit after tax to Net worth. The F cal value is 1.34962 and F crit value is 3.47805. It suggest that there is relationship between the two variable i.e. Profit after tax and Total Assets of the company.

Profit after Tax to Current ratio

From the calculation & analysis of this ratio, the firm can find out the utilization of current assets in the firm. Whether the firms are utilizing the assts at maximum level or not that can be found out.

PAT to Total Assets= PAT/ Total Current Assets * 100

Table-7 Ratio of Profit after Tax to Total Current Assets						
Name of the company	2006-2007	2007-08	2008-09	2009-10	2010-11	Average
IOCL	23.25	18.05	9.25	23.70	12.66	17.38
HPCL	11.1	3.78	7.02	10.37	8.45	8.14
BPCL	19.81	12.25	19.19	24.02	10.95	17.24
Average	18.05	11.36	11.82	19.36	10.68	14.25

Table 8 : one-way ANOVA result of selected sample units						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	202.6969	4	50.67423	1.280480789	0.340635	3.47805
Within Groups	395.7438	10	39.57438			
Total	598.4407	14				

SS= sum of the square, df=degree of freedom, MS=Mean square, F cal= calculated value of f, P- value= Probability value of F ratio, F crit= Critical value of F ratio at 5% significant level.

The ANOVA table-8 reflects the results for the ratio of profit after tax to Net worth. The F cal value is 1.2804 and F crit value is 3.47805. It suggest that there is positive relationship between the two variable i.e. Profit after tax and Total Current Assets of the company.

CONCLUSION

From above tables, it is reveal that the profitability of IOCL is best and superior in the petroleum sector and then after BPCL

and HPCL are standing. It is also reveals from the above tables that there is positive relationship between profitability and various selected variables.

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