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A STUDY ON FINANCIAL PERFORMANCE ANALYSIS OF SELECTED OIL REFINERY CORPORATION IN INDIA

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Abstract

Financial analysis is a process of identifying the financial strength and weakness of the firm by properly establishing relationships between the items, the balance sheet and the profit and loss account. Financial analysis helps to assess the financial position and profitability of a concern. This is done through comparison by ratios for the same concern over a period of years, or for one concern against the pre-determined standards. Accounting ratios calculated for a number of years show the trend of change of financial position i.e., whether the trend is upward or downward, or static. The ascertainment of trend helps us in making right estimates for the future. Financial Analysis can be undertaken by management of the firm or by parties outside the firm Viz., owners, creditors, investors and others. Five Public Limited corporations have been taken for this study for the period of 6 years starting from 2007-08 to 2012-2013. Short term solvency position ratio (current ratio and liquid ratio),long term solvency ratio and efficiency ratio have applied to construct descriptive statistics. ANOVA applied to find out which company's mean value is significantly differing from other companies and after that Post-hoc test applied to find out the differing companies mean values.

Key Words: Ratio Analysis, Descriptive Statistics, ANOVA and Post hoc analysis.

Introduction

Financial analysisrefers to an assessment of the viability, stability and profitability of a business, sub-business or project.It is performed by professionals who prepare reports using ratios that make use of information taken from financial statements and other reports. These reports are usually presented to top management as one of their bases in making business decisions. Financial analysis may determine if a business will:

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- Continue or discontinue its main operation or part of its business;
- Make or purchase certain materials in the manufacture of its product;
- Acquire or rent/lease certain machineries and equipment in the production of its goods;
- Issue stocks or negotiate for a bank loan to increase its working capital;
- Make decisions regarding investing or lending capital;
- Make other decisions that allow management to make an informed selection on various alternatives in the conduct of its business

Financial analysts often compare financial ratios (solvency, profitability, growth, etc.):

- **Past Performance** - Across historical time periods for the same firm
- **Future Performance** - Using historical figures and certain mathematical and statistical techniques, including present and future values, this extrapolation method is the main source of errors in financial analysis as past statistics can be poor predictors of future prospects.
- **Comparative Performance** - Comparison between similar firms.

Statement of Problem

The refinery corporation in India is one of the core sectors in the economic development of India. So, the purpose of the study is concentrating the financial performance of the selected refinery corporations in India.

Objectives of the Study

The main objectives of the study are to analyse the profitability, liquidity and solvency of the selected refinery corporations in India.

In tune with this, the following are the important objectives of the study.

- ➢ To analyse the financial performance of the company with the help of its profitability, liquidity solvency and efficiency of assets utilization.
- ➢ To analyse the significant difference between the mean values of selected corporations.
- ➢ To suggest suitable measures to improve the financial health on the companies.

Scope of the Study

The purpose the study is to measure financial performance of selected refinery corporations in India, and not measure other sector.

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Research Methodology

Data Source: Data collected from Prowess Database.

Methodology: The study is an empirical and analytical study based on the secondary data which are collected from the published financial statement viz, Trading and profit and Loss Account and Balance Sheet contained in the annual report of the selected refinery corporations in India.

Tools Used:

Statistical tools: Mean, ANOVA, Post-hoc test.

Financial tools: Ratio analysis, Mean, Standard Deviation, Co-efficient of Variation.

Limitations of the Study

This study is a time bound study which cover only a 6 year from 2007-08 to 31st March 2012-13. The study is based on the figures contained in the Prowess Database. Limitations of financial statements and ratio analysis are equally applicable to this study.

Industry Profile

Table No-1

Particulars	Bharat Petroleum Corpn. Ltd.	Essar Oil Ltd.	Hindustan Petroleum Corpn. Ltd.	Mangalore Refinery & Petrochemical Ltd.	Numaligar Refinery Ltd.
Date of Incorporation	1952	1989	1952	1988	1993
Industry Group	Refinery	Refinery	Refinery	Refinery	Refinery
Main product	Petroleum Products (Refineries)	Petroleum products (Refineries)	Petroleum products (Refineries)	Petroleum products (Refineries)	Middle distillates
Ownership group	Central	Essar (Ruia) Group	Central Govt. Commercial Enterprises	Central Govt. - Commercial Enterprises	Central Govt. - Commercial Enterprises
Entity Type	Public Ltd	Public Ltd.	Public Ltd.	Public Ltd.	Public Ltd.
Size group	Top decile	Top decile	Top decile	Top decile	Top decile

Source: Computed from respective corporations's History.

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Descriptive Statistics

Table –2 Gross Profit Ratio

Company Name	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Average	SD	COV
Bharat	3.8	4.1	4.3	3.2	3.2	3.5	3.68	0.46	12.55
Essar	-2.7	6.3	5.5	3.7	2.6	4.5	3.32	3.22	97.17
Hindustan	3.1	3.4	4.3	3.4	3.4	3	3.43	0.46	13.37
Mangalore	6.2	6.8	6	5.1	4.5	1.5	5.02	1.91	38.02
Numaligar	6.7	5.5	6.7	6.9	3.5	6.3	5.93	1.29	21.78

Null Hypothesis: All the companies under study have on an average same level of Gross profit Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Gross Profit Ratio

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Gross Profit Ratio	Between Groups	31.662	4	7.915	2.455	.072
	Within Groups	80.592	25	3.224		
	Total	112.254	29			

Source: Computed from respective Annual Report

Interpretation : From the above table it is understood that the Gross profit ratio for the selected corporations ranges minimum of -2.7 for Essar during the year 2007 - 08 and maximum of 6.8 for Mangalore during the year 2008-09 The minimum average ratio 3.32 for Essar and maximum average ratio of 5.93 for Numaligar.

The minimum average gross profit ratio(3.32) for Essar indicates that it has lowest average performance compared to other selected corporations. The Numaligar corporation has the highest average Gross profit ratio indicating good performance, but the consistency is more only for the Bharat corporation because of the lowest Co-efficient of Variation12.66% The Essar corporation has got more volatility as far as performance is concerned, because of the next to the highest Co-efficient o Variation of 97.17.

From the ANOVA table it is inferred that since significant value (0.072) is more than the level of significance at 0.05, accept the Null hypothesis, i.e., there is no significant difference between the Refinery Companies in gross profit ratio.

Table –3 Net Profit Ratio

Company	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Average	SD	COV
Bharat	1.00	0.50	0.83	1.10	1.47	1.56	1.08	0.40	36.79
Essar	0.83	0.61	0.64	0.82	0.85	1.00	0.79	0.14	18.22
Hindustan	0.97	0.61	0.83	1.29	1.49	1.76	1.16	0.43	37.34
Mangalore	1.08	0.69	0.58	0.83	1.11	1.04	0.89	0.22	25.21
Numaligar	1.18	1.34	1.18	1.28	1.32	1.75	1.34	0.21	15.65

Null Hypothesis: All the companies under study have on an average same level of current Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of current Ratio.

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Current Ratio	Between Groups	1.142	4	.286	3.109	.033
	Within Groups	2.296	25	.092		
	Total	3.439	29			

Interpretation: From the above table it is understood that the Net profit ratio for the selected corporations ranges minimum of -6.2 for Essar during the year 2007 - 08 and maximum of 4.2 for Numaligar during the year 2007-08 The minimum average ratio -1.83 for Essar and maximum average ratio of 2.62 for Numaligar.

The minimum average Net profit ratio of -1.83 for Essar indicates that the company incurred a heavy indirect expenses, investment pattern or capital of the firm. The Numaligar has the highest average ratio indicating good performance. Essar has got the more volatility as far as performance is concerned (CV 122.97). But the consistency is more only for the Bharat corporation because of the lowest Co-efficient of Variation 33.70%.

Comparing Gross profit and net profit ratio it is inferred that Numaligar has was able to maintain the highest Gross profit ratio and net profit ratio.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, reject the Null hypothesis, i.e., there is significant difference between the Refinery Companies in net profit ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

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POST HOC TESTS – Multiple Comparisons

Company Vs. Company	Mean Difference	Significance
Hindusthan-Essar	2.58	0.003
Mangalore -Essar	3.90	.000
Numaligar -Bharat	1.71	0.038
-Essar	4.45	0.000
-Hindusthan	1.86	0.025

From the above Post-hoc table reveals that Hindustan's Net profit ratio is higher than Essar.Hindustan (mean 0.75) differ significantly from Essar (-1.83) in the net profit ratio.

It is inferred that Mangalore's net profit ratio is higher than Essar company. Mangalore (mean 2.07) differ significantly from Essar (-1.83).

Numaligar's net profit is higher than the Bharat, Essar and Hindustan Corporation. Numaligar (mean 2.62) differ significantly from Bharat, Essar and Hindustan (0.90, -1.83, 0.75 respectively) in the net profit ratio.

Hindustan, Mangalore and Numaligarcorporations are higher mean values, so these three corporations are advised to increase the net profit in the years to come.

Company Name	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	**Average**	**SD**	**COV**
Bharat	1.00	0.50	0.83	1.10	1.47	1.56	1.08	0.40	36.79
Essar	0.83	0.61	0.64	0.82	0.85	1.00	0.79	0.14	18.22
Hindustan	0.97	0.61	0.83	1.29	1.49	1.76	1.16	0.43	37.34
Mangalore	1.08	0.69	0.58	0.83	1.11	1.04	0.89	0.22	25.21
Numaligar	1.18	1.34	1.18	1.28	1.32	1.75	1.34	0.21	15.65

Null Hypothesis: All the companies under study have on an average same level of current Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of current Ratio.

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Current Ratio	Between Groups	1.142	4	.286	3.109	.033
	Within Groups	2.296	25	.092		
	Total	3.439	29			

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Interpretation: From the above table it is understood that the current ratio for the selected corporations ranges minimum of 0.50 for Bharat during the year 2008 -09 and maximum of 1.76 for Hindustan during the year 2012-13 The minimum average ratio 0.79 for Essar and maximum average ratio of 1.34 for **Numaligar**.

The minimum average current ratio of 0.79 for Essar corporation indicates that it is no satisfactory, which is much below the accepted standard 2:1. Numaligar has got highest average current ratio indicating that the company is having good short term paying capacity. Consistency is more for the Numaligar because of the lowest CV(15.65%). The Hindustan has got more volatility as far as performance is concerned because of highest CV(37.34%).

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, we reject the Null hypothesis, i.e., there is significant difference between the Refinery Corporations in current ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

Company Vs. Company	Mean Difference	Significance
Hindustan Essar	0.36	0.046
Numaligar - Essar	0.55	0.004

From the above Post-hoc table reveals that Hindustan's current ratio is higher than Essar.Hindustan (mean 1.16) differs significantly from Essar (0.79) in the current ratio. Numaligars current ratio is higher than Essar.Numaligar (mean 1.34) differ significantly from Essar (0.79) in the current ratio.

Company Name	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Average	SD	COV
	0.43	0.23	0.33	0.41	0.80	0.80	0.50	0.24	49.21
Essar	0.23	0.34	0.31	0.45	0.45	0.49	0.38	0.10	26.82
Hindustan	0.34	0.27	0.30	0.48	0.66	1.04	0.51	0.30	57.68
Mangalore	0.46	0.28	0.21	0.42	0.47	0.47	0.38	0.11	29.15
Numaligar	0.62	0.44	0.18	0.49	0.40	0.73	0.48	0.19	40.28

Null Hypothesis: All the companies under study have on an average same level of quick Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of quick Ratio.

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Quick Ratio	Between Groups	0.101	4	.025	.615	.656
	Within Groups	1.024	25	.041		
	Total	1.124	29			

Source: Computed from respective Annual Report

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Interpretation: From the above table it is understood that the Quick ratio for the selected corporations ranges minimum of 0.21 for Mangalore during the year 2009 -10 and maximum of 1.04 for Hindustan during the year 2012-13 The minimum average ratio 0.38 for Essar and Mangalore maximum average ratio of 0.51 for Hindustan.

The minimum average quick ratio of 0.38 for Essar and Mangalore which i below the neither standard nor 1:1. The Hindustan has got the highest average quick ratio which is also below the standard norm. Consistency is more for Essar because of the lowest CV (26.82). Hindustan has got more volatility as far as Quick ratio is concerned. From the ANOVA table it is inferred that since significant value (0.656) is more than the level of significance 0.05, accept the Null hypothesis, i.e., there is no significant difference between the Refinery Companies in quick ratio.

Table –6 Debt Equity Ratio

Company Name	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	**Average**	**SD**	**COV**
Bharat	1.287	1.746	1.696	1.35	1.542	1.433	1.51	0.19	12.31
Essar	2.782	2.812	2.216	4.284	9.226	36.827	9.69	13.54	139.72
Hindustan	1.589	2.121	1.843	1.997	2.29	2.487	2.05	0.32	15.57
Mangalore	0.548	0.423	0.305	0.24	0.856	1.169	0.59	0.36	60.59
Numaligar	0.035	0.022	0.085	0.085	0.114	0.151	0.08	0.05	58.77

Null Hypothesis: All the companies under study have on an average same level of Debt equity Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of debt equity Ratio.

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Debt Equity	Between Groups	371.883	4	92.971	2.532	.066
	Within Groups	918.080	25	36.723		
	Total	1289.963	29			

Interpretation: From the above table it is understood that the debt equity ratio for the selected corporations ranges minimum of 0.22 for **Numaligar** during the year 2008 -09 and maximum of 36.827 for Essarduring the year 2012-13 The minimum average ratio 0.08 for **Numaligar** and maximum average ratio of 9.69 for Essar.

The minimum average debt equity ratio of 0.08for Numaligarindicates that it depends more on own funds. The Essar has got the highest average Debt equity ratio indicating that the company depends more on debt capital so the company is in a position to pay off dues such as debenture interest in time. In general excess of debt capital is not advisable, and consistency is more for Bharat Company because of the lowest CV 12.31%. The Essar has got the more volatility as far as debtequity ratios are concerned.

From the ANOVA table it is inferred that since significant value (0.066) is more than the level of significance 0.05, accept the Null hypothesis, i.e., there is no significant difference between the Refinery Companies in debt equity ratio.

Table –7
Interest Coverage Ratio

Company Name	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	**Average**	**SD**	**COV**
Bharat	5.122	1.502	3.482	3.244	2.487	5.518	3.56	1.53	43.10
Essar	-10.29	0.293	0.982	1.679	0.969	0.732	-0.94	4.60	490.11
Hindustan	2.207	1.296	3.119	3.236	1.717	1.547	2.19	0.82	37.67
Mangalore	12.75	13.6	15.576	17.408	5.702	0.113	10.86	6.61	60.85
Numaligar	18.404	15.454	69.232	15.976	8.772	5.248	22.18	23.57	106.27

Null Hypothesis: All the companies under study have on an average same level of Interest coverage ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of interest coverage ratio.

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Interest Coverage Ratio	Between Groups	2050.576	4	512.644	4.111	.011
	Within Groups	3117.740	25	124.710		
	Total	5168.317	29			

Source: Computed from respective Annual Report

Interpretation: From the above table it is understood that the interest cover ratio for the selected corporations ranges minimum of -10.29 for Essar during the year 2007-08 and maximum of 69.232 for Numaligar during the year 2009-10 The minimum average ratio -0.94 for Essar and maximum average ratio of 22.18 for Numaligar.

The minimum average interest coverage ratio of -0.94 for Essar indicates that it was not in a position to pay off the long term debt interest. The**Numaligar** has the highest average interest coverage ratio indicating that the company is safer for the long-term creditors because even if earnings of the company fall, the company shall be able to meet its commitment of fixed interest charges. Hindustan has got more consistency because of the lowest CV 37.67%. Essar has got more volatility because of the highest CV 490.11%.The interest coverage ratio indicates that the number of time interest is covered by the profits available to pay the interest charges. Long term creditors of a firm are interested in knowing the firms' ability to pay interest on their long-term borrowing. The interest coverage ratio does not take into consideration other fixed obligations like payment of preference dividend and repayment of loan instalments. From the ANOVA table it is inferred that since significant value (0.011) is less than the level of significance 0.05, reject the Null hypothesis, i.e., there is significant difference between the Refinery Companies in interest coverage ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company	Mean Difference	Significance
Numaligar - Bharat	18.62	0.008
-Essar	23.12	0.001
-Hindustan	19.99	0.005

From the above Post-Hoc tablereveals that Numaligar's interest coverage ratio is higher than Bharat, Essar and Hindustan companies. Hindustan (mean 22.18) differsignificantly from Bharat, Essar and Hindustan companies (3.56, -0.94, and 2.19 respectively) in the interest coverage ratio. Numaligar Corporation has higher earned value, so it is advised to maintain the same and gradually improve the interest coverage

Table – 8

Debt Collection Period

Company Name	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Average	SD	COV
Bharat	5.8	4.7	6.9	7	8	8	6.73	1.29	19.15
Essar	274.7	8.6	13.7	15.2	18.5	16.4	57.85	106.29	183.73
Hindustan	5.8	5.9	7.9	7.6	6.9	7.6	6.95	0.91	13.15
Mangalore	17.1	15.5	15.9	18.5	19.9	20.4	17.88	2.05	11.46
Numaligar	14.4	12.8	6	17.8	20.3	31.7	17.17	8.64	50.30

Null Hypothesis: All the companies under study have on an average same level of Debt collection Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Debt collection Ratio.

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Debt Collection Period	Between Groups	10696.617	4	2674.154	1.175	.346
	Within Groups	56890.605	25	2275.624		
	Total	67587.222	29			

Source: Computed from respective Annual Report

Interpretation: From the above table it is understood that the debtors ratio for the selected companies ranges minimum of 4.7 for Bharat company during the year 2008-09 and maximum of 274.7 for Hindustan company during the year 2007-08 The minimum average ratio 6.73 for Bharat and maximum average ratio of 57.85 for Essar.

The minimum average debt collection period of6.73 daysfor Bharat indicates that it hasbetter quality of debtors as a short collection period impliesthat quick payment by debtors compared to other selected companies. The Essar has the highest average debt collection period indicates inefficient collection performance which in turn adversely affects the liquidity of short term paying capacity of a firm out of its current liability. Moreover, longer the average collection period, larger is the chances of bad debts. Consistency is more or Mangalore Companybecause of the lowest CV of 11.46%. Essar has got more volatility as far as debt collection period is concerned, because of the highest CV of 183.73%.

From the ANOVA table it is inferred that since significant value (0.346) is more than the level of significance 0.05, accept the Null hypothesis, i.e., there is no significant difference between the Refinery Companies in Debt collection period ratio.

Table –9
Credit Payment Period

Company Name	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Average	SD	COV
Bharat	36.5	32.1	35.3	38	36.6	34.5	35.50	2.05	5.78
Essar	3,504.10	67.7	74.8	90	100	74.1	651.78	1397.39	214.40
Hindustan	33	31.7	39.1	41.1	40.3	39.3	37.42	4.01	10.72
Mangalore	39.5	36.4	49.2	68	71.1	62.6	54.47	14.86	27.28
Numaligar	51.2	50.3	45.9	61.1	43.3	55.7	51.25	6.47	12.63

Null Hypothesis: All the companies under study have on an average same level of Credit payment Ratio

Alternate Hypothesis: All the companies under study do not have on an average same level of credit payment Ratio.

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Credit Payment Period	Between Groups	1770939.497	4	442734.874	1.133	.363
	Within Groups	9764972.045	25	390598.882		
	Total	1.154E7	29			

Source: Computed from respective Annual Report

Interpretation: From the above table it is understood that the creditors ratio for the selected corporations ranges minimum of 31.7 for Hindustan during the year 2008 - 09 and maximum of 3504.10 for Essarduring the year 2007-08.The minimum average ratio of 35.50for Bharat and maximum average ratio of 651.78 forEssar.

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The minimum average credit payment period 35.50 for Bharat indicates that it has got better liquidity position and the low average number of days taken by the company to pay its debts. The Essar has the highest average credit payment period indicates that greater the credit period enjoyed by the company and consequently larger benefits reaped from credit suppliers.

Consistency is more for Bharat because of the lowest CV 5.78%. The Essar has got more volatility as far as performance is concerned, because of the highest CV of 214.40%. From the ANOVA table it is inferred that since significant value (0.363) is more than the level of significance 0.05, accept the Null hypothesis, i.e., there is no significant difference between the Refinery Companies in Credit payment period ratio.

Table – 10

Debtors Turnover Ratio

Company Name	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Aver age	SD	COV
Bharat	63.025	77.155	53.068	52.378	45.701	45.491	56.14	12.12	21.60
Essar	1.329	42.477	26.586	24.042	19.703	22.239	22.73	13.22	58.17
Hindustan	62.883	62.223	46.02	48.016	52.658	48.15	53.33	7.47	14.02
Mangalore	21.324	23.521	22.931	19.694	18.315	17.878	20.61	2.36	11.47
Numaligar	25.397	28.452	60.505	20.48	17.949	11.532	27.39	17.26	63.04

Null Hypothesis: All the companies under study have on an average same level of Debtor's turnover Ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of Debtor's turnover Ratio.

ANOVA

		Sum of Squares	**DF**	**Mean Square**	**F**	**SIG**
Debtors Turnover Ratio	Between Groups	7156.630	4	1789.158	13.131	.000
	Within Groups	3406.242	25	136.250		
	Total	10562.872	29			

Source: Computed from respective Annual Report

Interpretation: From the above table it is understood that the debtors turnover ratio for the selected corporations ranges minimum of 1.329 for Essarduring the year 2007-08 and maximum of 77.155 for Bharat during the year 2008-09 The minimum average ratio 20.61 for Mangalore and maximum average ratio of 56.14 for Bharat. Debtor' sturnover indicates the number of times the debtors are turned over during a year. The minimum average debtors turnover ratioin times 20.61 for Mangalore indicates that the Inefficient management of debtors orsales and less liquid debtors. The Bharat has the highest average debtors turnover ratio, moreefficient is the management of debtors/ sales or more liquid are the debtors. And consistency is more for Mangalore because of the lowest CV 11.47%. Numaligarhasa got the more volatility because of the highest CV 63.04%.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, reject the Null hypothesis, i.e., there is significant difference between the Refinery Companies in Debtors turnover ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company	Mean Difference	Significance
Bharat -Essar	33.40	0.000
-Mangalore	35.52	0.000
- Numaligar	28.75	0.000
Hindustan-Essar	30.59	0.000
-Mangalore	32.71	0.000
-Numaligar	25.93	0.001

From the above Post hoc table reveals that Bharat Debtors' turnover ratio is higher than Essar, Mangalore and Numaligar. Bharat (mean 56.14) differ significantly from Essar, Mangalore and Numaligar companies (22.73, 20.61, and 27.39respectively) in the Debtors Turnover ratio. Hindustan'sdebtor's turnover ratio is higher than Essar, Mangalore and Numaligar companies. Hindustan (mean 53.33) differ significantly from Essar, Mangalore, Numaligar companies (22.73, 20.61, 27.39 respectively) in the debtors turnover ratio. Bharat and Hindustan companies are higher mean value, so these two companies are advised to faster the debtors turnover ratio.

Table – 11
Creditors Turnover Ratio

Company Name	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Average	SD	COV
Bharat	14.117	16.704	16.104	17.164	18.895	21.005	17.33	2.37	13.70
Essar	0.093	5.315	4.766	5.935	6.381	7.547	5.01	2.59	51.71
Hindustan	17.993	18.526	15.733	15.568	15.68	16.591	16.68	1.29	7.71
Mangalore	8.567	9.607	7.58	5.361	5.157	5.953	7.04	1.83	26.01
Numaligar	7.962	9.254	10.872	7.265	9.726	7.288	8.73	1.46	16.74

Null Hypothesis: All the companies under study have on an average same level of creditors turnover ratio.

Alternate Hypothesis: All the companies under study do not have on an average same level of creditors turnover Ratio.

ANOVA

		Sum of Squares	DF	Mean Square	F	SIG
Creditors Turnover Ratio	Between Groups	774.912	4	193.728	49.723	.000
	Within Groups	97.404	25	3.896		
	Total	872.316	29			

Source: Computed from respective Annual Report

Interpretation : From the above table it is understood that the Creditors turnover ratio for the selected corporation ranges minimum of 0.093 for Essar during the year 2007 -08 and maximum of 21.005 for Bharat during the year 2012-13 The minimum average ratio 5.01 for Essar and maximum average ratio of 17.33 for Bharat.

The minimum average creditor's turnover ratio in times 5.01forEssar indicates that it hasless favourabe results. The Bharat has the highest average creditor's turnover ratio indicating that the company hascomparatively better than other companies. And consistency is more for Hindustan because of the lowest CV 7.71% andMangalore has got more volatility as far as performance is concerned because of the highest CV 26.01%.

From the ANOVA table it is inferred that since significant value (0.000) is less than the level of significance 0.05, reject the Null hypothesis, i.e., there is significant difference between the Refinery Companies in Debtors turnover ratio. Hence to find out which company differs significant from other companies, Post Hoc tests is applied.

POST HOC TESTS – Multiple Comparisons

Company Vs. Company	Mean Difference	Significance
Bharat -Essar	12.32	0.000
- Mangalore	10.29	0.000
-Numaligar	8.60	0.000
Hindustan-Essar	11.67	0.000
- Mangalore	9.64	0.000
Numaligar- Essar	3.72	0.003

From the above post hoc table reveals that Bharat's creditors turnover ratio is higher than Essar ,Mangalore, and Numaligar companies. Bharat (Mean 17.33) differ significantly from Essar, Mangalore and Numaligar (5.01, 7.04, and 8.73 respectively) in the creditor's turnover ratio. Hindustan'screditor's turnover ratio is higher than Essar and Mangalore companies. Hindustan (mean 16.68) differs significantly from Essarand Mangalore (5.01, 7.04 respectively) in the creditor's turnover ratio. Numaligar's creditors' turnover ratio is higher than Essar. Numaligar (mean 8.73) differ significantly from Essar (5.01) in the creditor's turnover ratio.

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Discussion: By Comparing the profitability ratios, gross profit and net profit ratio, Bharat corporation has got same uniformity. And other companies have not any uniformity in terms of selected profitability ratios.By comparing the liquidity ratios, Numaligar and Essarare maintaining uniformity. Considering short term liquidity, Numaligar and Essar have performed well and by comparing long term liquidity Bharat Company has performed well.

By comparing efficiency ratios, it is inferred that Hindustan has company has got uniformity in terms of Interestcoverage ratio and Creditors turnover ratio. In these two ratios, it has got maximum performance. Mangalore Corporation has got better performance in Debt collection period, Bharat Corporation has got better performance in credit payment period, and MangaloreCorporation has got better performance in Debtors turnover ratio. Considering all the three broad classifications it is inferred that Bharat Corporation,HindustanCorporation and Mangalore Corporation were better performed companies compared to other selected companies.

Suggestions

- EssarCorporation has to reduce some of indirect expenses, as itboosts the earnings of the company.
- HindustanCorporation has to improve its current assets position to meet out short term financial stringency.
- EssarCorporation has to improve its long term solvency position.
- EssarCorporation has to take steps to collect cash from debtors, as it will reduce the dab debts.
- EssarCorporation has to take steps to make payment to creditors in time as it affects goodwill of the corporation and also the good image and reputation among the minds of the suppliers.
- NumaligarCorporation has to take effective steps to meet debtors' turnover ratio.
- Mangalore Corporation has to take effective steps to meetcreditors' turnover ratio.

Conclusion

Direct relationship exists between a company growth and its financial performance. The financial performance can be re-examined by using a new methodology, improved technique and industry-specific control groups. A heavy capital is to be needed to adopt all those techniques. A large scale firm can afford the huge amount for industry improvements. A small scale firm cannot afford. But In order to withstand in the market for long and sustained development in the same line of industry there is in need of enough profit. So the financial analysis is a technique , it helps us to known whether the company is in the upward trend direction or downward trend direction. After knowing this information, it is easy for the companies to proceed further to reach its desired direction. Based on the analysis and its subsequent findings it is concluded that the Bharat Corporation performed better followed by Hindustan Corporationand MangaloreCorporation.

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