ISSN: 0474-9030
Vol-68-Issue-1-January-2020

Determinants of Capital Structure of Hindustan Petroleum Corporation

Dr. J. Tamilselvi
Head, Department of Business Administration,
Cauvery College for Women, Tiruchirappalli 620 018.
E-mail : tamilkarthik.18@gmail.com

ABSTRACT

The Hindustan Petroleum Corporation had shown an inclination in strengthening long term funds consisting of both shareholders funds as well as long term borrowed funds in order to finance its assets requirement. Hindustan Petroleum Corporation generally depended on equity financing. So, the financial risk of the company is low, but it could fail to enjoy the advantages of financial gearing. Hindustan Petroleum Corporation should raise the debt funds to bring the optimum capital structure for improving the financial performance of the company. A higher interest coverage ratio is advantageous, but too high ratio is some of the years of the study specify that the Hindustan Petroleum Corporation is very conservative in using debt, and it is not using debt to the best gain of the shareholders.This paper analysed the "Capital Structure Pattern of Hindustan Petroleum Corporation". A study on long-term solvency, assessment of debt-equity, debt to total fund and justification for the employ of debt in Hindustan Petroleum Corporation through the appliance of ratio analysis and statistical test has been undertaken. The time period considered for evaluating the study is five years i.e. from 2015 to 2019. It is discovered that the long term funds had contributed more on an average of total funds when compared to short term funds in Hindustan Petroleum Corporation. Long term funds had apportioned almost two-third of total funds. Shareholders' funds had occupied major chunk of the total funds when compared to the borrowed funds.

Key Words: Debt-Equity Ratio, Debt to Total Fund Ratio and Interest Coverage Ratio.

INTRODUCTION

The major critical areas of the finance function are to make decisions about the firm's capital structure. Capital is essential to finance investments in plant and machinery, inventory, accounts receivable and so on. Capital structure is the component of financial structure, which represents long term sources. It is the permanent financing of the company represented primarily by shareholders' funds and long term debt and excluding all short-term credit. It refers to the capitalisation of long term sources of funds such as debentures, preference share capital, long term debt and equity share capital including reserves and surplus (retained earnings).

HINDUSTAN PETROLEUM CORPORATION

HPCL is a **Navratna Status**, and a **Forbes 2000 company**. It is listed on the Bombay Stock exchange (BSE) and National Stock Exchange (NSE), India. HPCL owns & operates 2 major refineries producing a wide variety of petroleum fuels & specialties, one in **Mumbai** (West Coast) of **7.5** Million Metric Tonnes Per Annum

ISSN: 0474-9030
Vol-68-Issue-1-January-2020

(MMTPA) capacity and the other in **Visakhapatnam**, (East Coast) with a capacity of **8.3** MMTPA. HPCL also owns and operates the largest Lube Refinery in the country producing Lube Base Oils of international standards, with a capacity of 428 TMT.

HPCL has the second largest share of product pipelines in India with a pipeline network of more than 3370 kms for transportation of petroleum products and a vast marketing network consisting of 14 Zonal offices in major cities and 128 Regional Offices facilitated by a Supply & Distribution infrastructure comprising Terminals, Pipeline networks, Aviation Service Stations, LPG Bottling Plants, Inland Relay Depots & Retail Outlets, Lube and LPG Distributorships. Consistent excellent performance has been made possible by highly motivated workforce of over 10,500 employees working all over India at its various refining and marketing locations. HPCL is committed to achieve the economic, ecological & social responsibility objectives of sustainable development consistently through varied operations and activities. HPCL's focus areas are in the fields of Child Care, Education, Health Care, Skill Development & Community Development, touching lives of weaker section of society.

REVIEW OF LITERATURE

According to Bogen, "The capital structure may consist of a single class of stock, or it may be complicated by several issues of bonds and preferred stock, the characteristics of which may vary considerably"(Bogen). In other words, "capital structure refers to the composition of capitalisation i.e., to the proportion between debt and equity that make up capitalisation" (Philips).

Capital structure decision is a significant managerial decision. The market value of the share may be affected by the capital structure decision (Pandey). The selection of the capital structure will obviously depend on the bearing that is has on the firm's objective of maximisation of shareholders' wealth (Khan and Jain).

Estimation of requirement of capital is necessary, but the formation of capital structure is most important (Sharma and Gupta). Harry Gouthmann and Herbert E. Dougall stated that the phrase capital structure may be used to cover any long term debts like mortgages and long-term loans as well as total stockholders' investment including retained earnings as well as original investment (Gouthmann and Dougall).

SCOPE AND COVERAGE

The present study is confined to Hindustan Petroleum Corporation Ltd. This study is restricted to evaluate the pattern of capital structure in Hindustan Petroleum Corporation Ltd with the help of the ratio analysis. The time period considered for evaluating the study is five years i.e. from 2015 to 2019.

OBJECTIVES

- To analyse the capital structure Pattern;
- To assess of long-term solvency; and
- To ascertain the justification for the use of debt.

RESEARCH METHODOLOGY

The data drawn from the annual reports of Hindustan Petroleum Corporation Ltd have been carefully analysed,

ISSN: 0474-9030
Vol-68-Issue-1-January-2020

tabulated and interpreted by using well established financial tools. The analysis of data is carried out through capital structure ratios such as debt-equity ratio, debt to total fund ratio and interest coverage ratio. Statistical tools like mean, standard deviation, coefficient of variation and coefficient of correlation are also applied. Graphs and diagrams are presented to illuminate the facts and figures.

ANALYSIS AND INTERPRETATION

Capital Structure – Planning

A company should plan its capital structure to maximise the use of funds. The primary objective of every capital structure planning is to minimise the cost of capital and to maximise the share value of the firm. Proper planning of capital structure also helps companies to enlarge their area for getting funds as well as creates the mobility of sources of the funds. But a range can be determined on the basis of empirical study.

Table 1 The quantum and structure of total funds in Hindustan Petroleum Corporation Ltd is shown

	Particulars	**Mar'19 12 months**		**Mar'18 12months**		**Mar'17 12months**		**Mar'16 12months**		**Mar'15 12months**		**Average**	
		Rs	**%**	**Rs**	**%**	**Rs**	**%**	**Rs**	**%**	**Rs**	**%**	**Rs**	**%**
	Share Capital	1,524.21	1.50	1,524.21	1.80	1,016.27	1.33	339.01	0.49	339.01	0.52	948.54	1.20
	Reserves	26,650.61	26.25	22,424.01	26.62	19,331.14	25.47	18,017.09	26.37	15,683.08	24.28	20421.19	25.88
	Share holder's finds-I	28174.82	27.75	23948.22	28.43	20347.41	26.81	18356.1	26.87	16022.09	24.81	21369.73	27.08
	Borrowed fund-II	25,110.33	24.73	19,592.96	23.26	17,170.56	22.62	14,522.02	21.25	17,055.64	26.41	18690.30	23.68
A	Long term funds (I+II)	53285.15	52.48	43541.18	51.69	37517.97	49.44	32878.12	48.12	33077.73	51.22	40060.03	50.77
B	Short term funds	48,238.52	47.51	40,680.57	48.30	38,361.06	50.55	35,436.02	51.87	31,493.92	48.77	38842.09	49.22
C	TOTAL FUNDS (A+B)	101523.67	100	84221.75	100	75879.03	100	68314.14	100	64571.65	100	78902.05	100

Source: Compiled from Annual Reports of Hindustan Petroleum Corporation Ltd.
Note: Figures in parentheses represent common size percentages considering total funds for the respective years equal to hundred.

Assessment of Long-Term Solvency

Leverage ratios indicate the extent to which the firm has used its long-term solvency by borrowing funds. As a general rule, there should be an appropriate mix of debt and owner's equity in financing the firm's assets. The leverage or capital structure ratio include for the purpose of analysis:

- Debt-equity ratio
- Debt to total fund ratio
- Interest coverage ratio

ISSN: 0474-9030
Vol-68-Issue-1-January-2020

Debt - Equity Ratio

The main object of calculating the debt-equity ratio is to measure the relative interest of owners and creditors in the firm. From the creditor's point of view, it measures the extent to which their interest is covered by owned funds. A standard debt-equity norm for all industrial units is neither desirable nor practicable. Different standard debt-equity ratios are used for different industry groups. The generally accepted standard norm of debt-equity ratio is 2:1. Debt - equity ratio is calculated by using the following Formula**: Debt – Equity Ratio = Long Term Debt / Net Worth.**

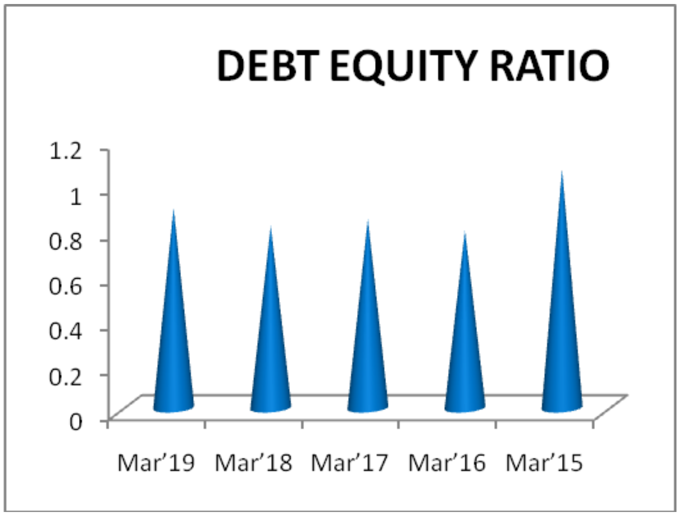
The debt - equity ratio of Hindustan Petroleum Corporation Ltd is presented in Table - 2 and Figure - 1.

Year	**Long Term Debt (Rs. In Crores)**	**Net Worth (Rs. In Crores)**	**Ratio (In Times)**
Mar'19	25,110.33	28174.82	0.89
Mar'18	19,592.96	23948.22	0.81
Mar'17	17,170.56	20347.41	0.84
Mar'16	14,522.02	18356.1	0.79
Mar'15	17,055.64	16022.09	1.06
Mean	18690.30	21369.72	0.878
Standard Deviation	4012.10	4787.54	0.108
C.V (%)	160969.65	229205.54	0.01177
Coefficient of correlation between debt and equity (r) = 0.89			

Source: Compiled from Annual Reports of Hindustan Petroleum Corporation Ltd

Table - 2 shows debt-equity ratio of Hindustan Petroleum Corporation Ltd. The debt-equity ratio is calculated by dividing the long term debt with net worth. It is evident that long term debt of the company had increased remarkably from Rs. 17,055.64 crores in 2015 to Rs. 25,110.33 crores in 2019. Net worth had gradually moved from Rs. 16022.09 crores to Rs. 28174.82 crores over the study period. Debt-equity ratio had varied from the higher of 1.06 times in 2015 to the lowest of 0.89 times in 2019. The ratio is well below than the standard ratio of 2:1. It means that the debt employed by the company was low from the point of view as the standard ratio. However, the interest of the debt- holders of the company was well protected. The coefficient of correlation between debt and equity in Hindustan Petroleum Corporation Ltd was 0.89 and thereby indicating that there was highly positive relation between debt and equity. It may be concluded that the Hindustan Petroleum Corporation Ltd could still mobilize the debt funds in order to reap the benefits of financial leverage. It increases the earning per share of company.

ISSN: 0474-9030
Vol-68-Issue-1-January-2020



Debt to Total Fund Ratio

Debt ratios may be used to analyze the long-term solvency of a firm. The firm may be involved in knowing the proportion of the debt in the financial structure. It may, therefore, calculate debt to total fund ratio by dividing total debt by total fund. Total debt will include short-term funds plus long-term debt i.e. borrowed funds. Debt to total fund ratio is calculated by using the following formula: **Debt to Total Fund Ratio = Total Debt / Total Fund. The debt to total fund.**

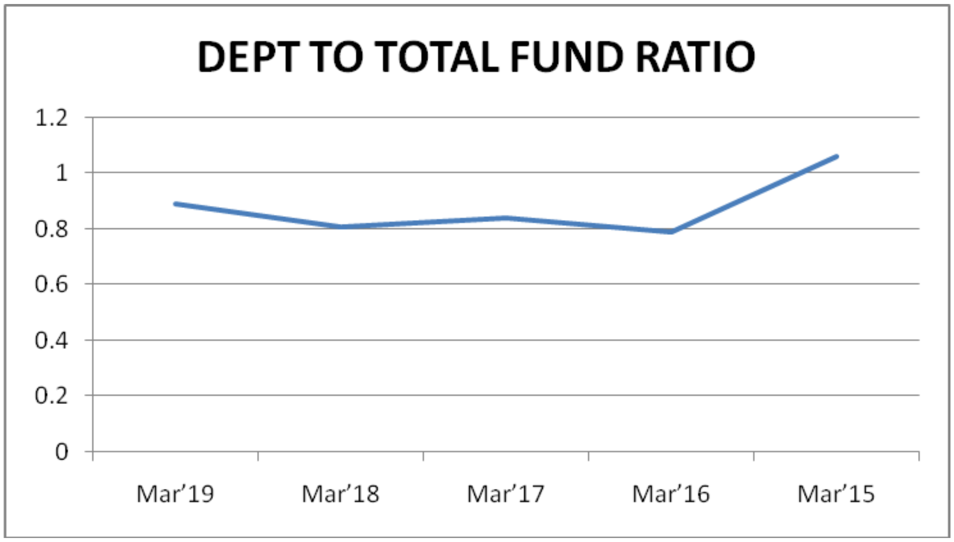
Table 3 DEBT TO TOTAL FUND RATIO

Year	**Total Debt (Rs. In Crores)**	**Total Fund (Rs. In Crores)**	**Ratio (In Times)**
Mar'19	73348.85	101523.67	0.72
Mar'18	60273.53	84221.75	0.71
Mar'17	55531.62	75879.03	0.73
Mar'16	49958.04	68314.14	0.73
Mar'15	48549.56	64571.65	0.75
Mean	57532.32	78902.04	0.728
Standard Deviation	9996.74	14719.37	0.014
C.V (%)	999348.37	2166599.37	0.00022
Coefficient of correlation between debt and equity (r) = 0.99			

Source: Compiled from Annual Reports of Hindustan Petroleum Corporation Ltd.

Table - 3 gives the debt to total fund ratio. The financial variables measured for the competition of debt to total fund ratio comprise total debt and total fund. Total fund had jumped from Rs. 48549.56 crores in 2015 to Rs. 73348.85 crores in 2019. The total fund had exceeded over the total debt during the complete period of the study. The ratio is less than the unity. The debt to total fund of Hindustan Petroleum Corporation Ltd had a positive relationship as the coefficient of correlation is very high i.e., 0.99 that means almost all one. It may be concluded that the financial risk of the company is low. But the company could fail to enjoy the advantages of financial gearing.

ISSN: 0474-9030
Vol-68-Issue-1-January-2020



INTEREST COVERAGE RATIO

The interest coverage ratio shows the number of times the interest charges are covered by funds that are normally accessible for their payment. The lender will be interested in finding out whether the business would earn sufficient profits to pay the interest charges and interest being paid periodically. The universal standard of Interest Coverage Ratio is around 7 to 8 times. The ratio indicates the extent to which the earnings may fall without causing any embarrassment to the firm regarding the payment of fixed interest charges. Interest coverage ratio is calculated by using the following formula: **Interest Coverage Ratio = EBIT / Interest.**

The interest coverage ratio of Hindustan Petroleum Corporation Ltd presented in Table – 4

YEAR	RATIO
Mar'19	13.88
Mar'18	17.33
Mar'17	17.81
Mar'16	9.97
Mar'15	6.87
Mean	13.172
Standard Deviation	4.724
C.V (%)	22.31732

Source: Compiled from Annual Reports of Hindustan Petroleum Corporation Ltd.

This ratio is used to decide how easily a company can pay interest on outstanding debt. Interest coverage ratio is calculated by dividing the earnings before interest and taxes with interest charges. It is clear those earnings before interest and taxes and interest charges as shown an increasing trend over the study period. The highest interest coverage ratio was recorded at 17.81 times in 2017 and the lowest being 6.87 times in 2015. The mean, standard deviation and co-efficient of variation (C.V) of interest coverage ratio in Hindustan Petroleum Corporation Ltd are **13.172** times, **4.724** times and **22.32** percent respectively.

ISSN: 0474-9030
Vol-68-Issue-1-January-2020

In contrast, a low ratio is a danger signal indicating that firm uses excessive thereby a firm is indicating inability to honour the assured payment of interest to the creditors.

FINDINGS AND SUGGESTIONS

Previous analysis reveals that long term debt of the company had increased remarkably from Rs. 17,055.64 crores in 2015 to Rs. 25,110.33 crores in 2019. Net worth had gradually moved from Rs. 16022.09 crores to Rs. 28174.82 crores over the study period. Debt-equity ratio had varied from the highest of 1.06 times in 2015 to the lowest of 0.89 times in 2019.The Hindustan Petroleum Corporation Ltd had shown a tendency in strengthening long term funds consisting of both shareholders funds as well as long term borrowed funds in order to finance its assets requirement. Hindustan Petroleum Corporation Ltd mostly depended on equity financing. So, the financial risk of the company is low. But the company could fail to enjoy the advantages of financial gearing.

CONCLUSION

The company could still mobilize the debt funds. It means that the company could raise the external funds to bring the optimum capital structure i.e. minimise the cost of capital and maximise the share value of the firm. It is due to the tax deductibility of the interest paid on debt. So, these benefits of financial leverage shall be reaped for improving the financial performance of the company. The interest charges are fully covered by the earnings before interest and taxes. A higher interest coverage ratio is desirable, but too high ratio is some of the years of the study indicate that the Hindustan Petroleum Corporation Ltd is very conservative in using debt, and it is not using debt to the best advantage of the shareholders. Hence, it is suggested that HCL shall tap the debt funds optimally to maintain the balanced capital structure.

SCOPE FOR FURTHER RESEARCH

- The future study can be extended by introducing some more variable like collateral value of assets corporate tax dividend pay-out ratio, debt service capacity etc., and also consider economic factors like GDP, consumer price index ,interest rate etc.,
- The study may also include the cost of capital and shareholders' value with the same methodology.
- A future study could be conducted as a comparative or an individual study for other sector and also for other countries too.
- The study can be extended by testing the applicability of all capital structure theories.

REFERENCES

[1] Bogen, J.I., "Financaial Hand Book", New York: The Ronald Press, 1957, P893.
[2] Childs, J.F., "Long-Term Financing", Eaglewood Cliffs, New Jersey: Prentice Hall Inc., 1961, P9.

ISSN: 0474-9030
Vol-68-Issue-1-January-2020

[3] Harry G., Guthmann and Herbert E. Dougall, "Corporate Financial Policy", New Jersy: Prentice Hall Inc., 1955, P76.
[4] Khan, M.Y., and Jain, P.K., "Financial Management Text, Problems and Cases", Sixth Edition, New Delhi: Tata McGraw Hill Education Private Limited, 2011, P18.1.
[5] Pandey, I.M., "Financial Management", Ninth Edition, New Delhi: Vikas Publishing House Pvt. Ltd., 2004, P289.
[6] Paul S.K.R., "Management Accounting", New Central Book Agency (P) Ltd., Calcutta, 2002, P331.
[7] Philips, F.C. Jr., "The Economics of Regulation – Theory and Practice", Home Wood, Illinois: Ricard D.Irwing Inc., 1970, P.167.
[8] Roy Choudhary, A.B., "Analysis and Interpretation of Financial Statements Through Financial Ratios", Calcutta: Orient Longmans, 1st Edn., 1970, P31.
[9] Sharma, R.K. and Gupta S.K., "Management Accounting – Principles and Practices", Kalyani Publishers, 1996, P.16.1.