

**A STUDY ON EFFECTIVENESS OF COST OF CAPITAL  
ONBHARATPETROLEUM CORPORATION LIMITED (BPCL)**

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**ABSTRACT**

**AREA:FINANCE**

The analysis of cost of capital is also very useful for long – term management of funds. Oil fields have been opened for exploitation by private companies – both foreign and Indian. Similarly, refining and, to some extent, marketing of petroleum products have also been thrown open to private players. Expansion, acquisition, modernisation and replacement of long-term assets. The investment decision is crucial to the company because they are irreversible decisions; having a long-term implication and involve huge amount of funds. When making an investment decision, the company has to take into account the returns expected by the investors, as they provide the money to the corporate.

Investors are generally risk-averse and demand a premium for bearing risk. The greater the risk of an investment opportunity, the greater would be the risk-premium required by the investors. For a firm like BHARAT PETROLEUM CORPORATION LIMITED (BPCL) the main objective should be to maximise the shareholder's wealth through its investment projects and to make the best use of its capital by reducing cost to sustain in the market more successfully. Thus this study takes into account the various ratios related to cost of capital to determine the current position of the firm. Five years data has been collected and various tools have been used to determine the cost of capital.

**Key words:** cost of capital, current position, investment

## **INTRODUCTION**

The cost of capital determines how a company can raise money through a stock issue, borrowings, or a mix of the two. This is the rate of return that a firm would receive if it invested in a different vehicle with similar risk. An investment to be worthwhile, the expected return on capital must be greater than the cost of capital. The cost of capital is the rate of return that capital could be expected to earn in an alternative investment of equivalent risk. A company's securities typically include both debt and equity, one must therefore calculate both the cost of debt and cost of equity to determine a company's cost of capital. However, a rate of return larger than the cost of capital is usually required. Cost of capital is very important in modern business.

## **COMPANY PROFILE**

Bharat Petroleum Corporation Ltd, Is India's 2nd Largest Oil Company In Terms Of Market Share And It Has Been A Front-Runner In The Alternate Fuels Segment. It Came To Existence In The Business From The Year 1976 By The Reason Of Merger Plays In Refinery And Marketing Companies Of Burmah Shell Oil Storage & Distribution Company. Bharat Petroleum Corporation traces its history to 1928 when the Burmah Shell Oil Storage & Distribution Company of India was incorporated in England to enter the petroleum products business in India. Given the international backing of Shell the business of the company grew substantially. It had soon achieved the leadership position in India. Burmah Oil Refineries Ltd was incorporated in 1952 as a joint venture between Burmah Oil Company, UK and Shell Petroleum Company by an agreement with the Indian Government to set up a refinery at Mahul in Mumbai, which went on stream in 1957. In 1976 the Indian Government nationalized the petroleum industry and acquired 100% equity in Burmah Oil Refineries and named it Bharat Refineries Ltd. The name was later changed to Bharat Petroleum Corporation Ltd. (BPCL) in 1977. BPCL was an integrated refining and marketing company. It markets a diverse range of products from petrochemicals, solvents, specialty lubricants, aviation fuel and LPG.

## **REVIEW OF THE LITERATURE**

**Canadian Transportation Agency Ottawa, Ontario (2011)** According to this research the Canadian Transportation Agency's cost of capital methodology is currently in progress.

The review is being conducted in two phases: a study phase and hearing phase. In the study phase, an independent consultant will examine existing cost of capital methodologies and principles. The consultant will also review the Agency's current cost of capital methodology and the cost of capital methodologies used by other economic regulatory bodies. When this phase has concluded, there will be a hearing phase during which a panel of Agency Members will consider the consultant's report and gather evidence from railway companies, shippers and other interested parties to ascertain if there is a potentially superior methodology or methodologies, or improvements that should be made, to the Agency's current "benchmark" methodology. During the study phase, interested parties will be given the opportunity to provide feedback at specific points in the process as outlined in the terms of reference.

**Ahsan Habib, Lincoln University, Accounting Group (2005)** The purpose of this paper is to synthesize the empirical research on the relationship between information risk and the cost of capital. Although theory suggests that, increase in information should reduce the cost of capital through reduced transaction cost and / or reduced estimation risk, traditional asset pricing model does not allow any role for information. This survey documents recent development in the measurement of cost of equity capital and how this is affected by the quality of information disclosed. The empirical literature on the effect of disclosure quality, earnings quality and corporate governance risk on the cost of capital is synthesized. The survey shows that considerable progress has been made in understanding the role of information in influencing the cost of capital, however, more research needs to be done and these are identified.

#### **OBJECTIVES OF THE STUDY**

- ❖ To assess the factors influencing the financial performance of the organization and to point out how well the company manage its cash.
- ❖ To understand the liquidity, profitability and financial position of the firm and the overall financial position of the company.

#### **RESEARCH METHODOLOGY**

The researcher has to evaluate all pricing strategies and yield management for maximizing revenue. The researcher has monitored the impact of supply and demand characteristics over the asset revenue and profitability. Both primary and secondary data has been used for the study. Primary data was collected through direct interaction with the company's finance and

accounts department. In this study tools like trend analysis, comparative statement has been used. Further the study is based on last 5 years Annual Reports.

### **SOURCE OF DATA**

The secondary data is mainly used for the study. It is taken from published source of the company like the Bharat Petroleum Corporation: BSE: 500547|NSE: BPCL|ISIN: INE029A01011|SECTOR: Refineries and Dion Global Solutions Limited financial records. Profit and loss account and balance sheet of 5 year period from 2009 – 2010 & 2013 - 2014 of theBharat Petroleum Corporation Limited some more information has been collected from different websites, magazine and company records. The data have been analysed with the help of different accounting and statistical techniques such as Ratios and Trend Analysisand Percentage analysis also.

### **DATA ANALYSIS**

The cost of capital is a term used in the field of financial investment to refer to cost of company’s funds or from an investor’s point of view “the shareholder’s required return on a portfolio of all the company’s existing securities” Different financial analysis communicate the strength and financial standing of the company to the internal and external parties.Financial analysis gives the information about the share capital, dividend, sales profit after tax etc., It helps to analysis the company’s financial position by the shareholders, creditors and other outsiders to decide to continue or to revoke their relationship with the company. These are the indicators of financial strength, soundness, position or weakness of an enterprise. One can draw conclusion about the exact financial position of a concern with

<b>YEAR</b>	<b>DIVIDEND PAY OUT</b>	<b>DEBT EQUITY RATIO</b>	<b>CURRENT RATIO</b>	<b>ABSOLUTE LIQUID RATIO</b>	<b>INVENTORY TURNOVER RATIO</b>	<b>CURRENT ASSET TURNOVER RATIO</b>
<b>2009 – 2010</b>	32.92	0.59	0.91	0.02	10.93	8.75
<b>2010 – 2011</b>	32.73	0.85	0.79	0.02	9.86	8.29
<b>2011 – 2012</b>	30.33	0.70	0.84	0.04	13.29	9.09
<b>2012 – 2013</b>	30.10	0.71	0.96	0.09	14.39	10.42
<b>2013 – 2014</b>	30.27	0.97	0.80	0.01	13.64	11.14

the help of ratio analysis.

**TABLE NO 1.1**

**Chart showing pictorial representation of various ratios related to cost of capital for the  
Period 2010 to 2014**

Source: Bharat Petroleum Corporation: BSE: 500547|NSE: BPCL|ISIN: INE029A01011|SECTOR: Refineries., and Dion Global Solutions Limited.

**DESCRIPTIVE STATISTICS**

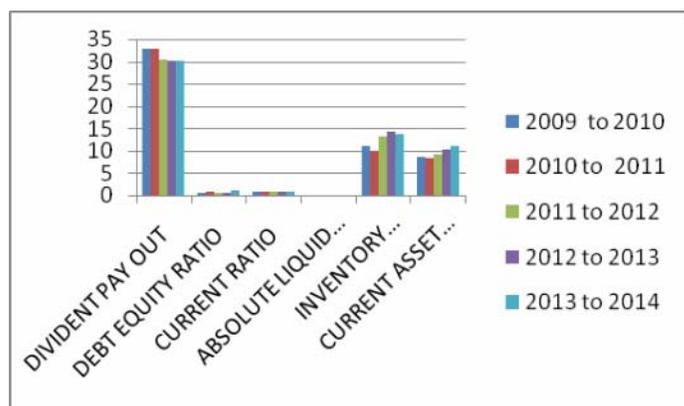
DIVIDEND PAY OUT		DEBT EQUITY RATIO			INVENTORY TURNOVER RATIO		CURRENT ASSET TURNOVER RATIO	
Mean	31.27	Mean	0.764	0.036	Mean	12.422	Mean	9.538
Median	30.33	Median	0.71	0.02	Median	13.29	Median	9.09
Standard Deviation	1.42360458	Standard Deviation	0.147580487	0.032094	Standard Deviation	1.930018	Standard Deviation	1.19619
Sample Variance	2.02665	Sample Variance	0.02178	0.00103	Sample Variance	3.72497	Sample Variance	1.43087
Kurtosis	-3.249214165	Kurtosis	-0.628536808	2.711848	Kurtosis	-2.0715	Kurtosis	-1.86825
Skewness	0.602520171	Skewness	0.478361872	1.660797	Skewness	-0.58275	Skewness	0.553706
Range	2.82	Range	0.38	0.08	Range	4.53	Range	2.85
CURRENT RATIO		ABSOLUTE LIQUID RATIO						
Mean	0.86	Mean						
Median	0.84	Median						
Standard Deviation	0.073144	Standard Deviation						
Sample Variance	0.00535	Sample Variance						
Kurtosis	-1.73832	Kurtosis						
Skewness	0.594145	Skewness						
Range	0.17	Range						

**TWO WAY ANOVA FOR COST OF CAPITAL RATIOS OF BHARAT PETROLEUM CORPORATION LIMITED (BPCL) H0: there is a significant difference on the cost of capital ratios of the firm .H1: there is no a significant difference on the cost of capital ratios of the firm .**

**Two way ANOVA for cost of capital ratios for BHARAT PETROLEUM CORPORATION LIMITED (BPCL)**

Source of Variation	SS	Df	MS	F	P-value	F crit
Rows	2.234567	4	0.558642	0.419905	0.792355	2.866081
Columns	3611.325	5	722.265	542.8924	1.23E-20	2.71089
Error	26.60803	20	1.330402			
Total	3640.168	29				

**DECISION RULE:** Decision (a) the computed value of  $FC = 2.86 >$  the table value of  $F$  at significant level = 0.05 and for 4 and 20 degree of the null hypothesis is rejected =  $H_1$  is accepted i.e., there is no significant difference on the cost of capital ratios of Bharat petroleum corporation Ltd



#### INTERPRETATION FOR THE ABOVE TABLE 1.1

- ❖ This table shows dividend payout ratio whichever is above in the year 2010 was 32.92 percent is considered to be the peak development in the business. Debt equity ratio in the year 2010 is 0.59, and in the year 2011, 2012, 2013 and 2014 the ratio was 0.85, 0.70, 0.71 and 0.97. This is particularly important issue the companies make decisions of whether to issue new debt or issue new equity for financing. Incurring new debt will increase the risk of a company.
- ❖ The current ratio is mainly used to give an idea of the company's ability to pay back its short – term liabilities (debt and payables) with its short – term assets (cash, inventory, receivables). The higher the current ratio, the more capable the company is of paying its obligations. The ratio in the year 2010 is 0.91, and in the year 2011, 2012, 2013 and 2014 was 0.79, 0.84, 0.96 and 0.80.
- ❖ Absolute liquid ratio is to eliminate accounts receivables from the list of liquid assets because there may be some doubt about their quick collection. Throughout the years from 2010, 2011, 2013 and 2014 the ratio was 0.02, 0.02, 0.04 and 0.09 and but in the year 2012 the ratio was 0.01. Inventory turnover ratio shows in upward trend till the year 2012-2013 and gradually increase in the year 2009-2010 ,2011-2012 and 2012-2013. There has a decrease in the year 2010-2011.

- ❖ A low inventory turnover ratio indicates an inefficient management of inventory in cases of too high or too low inventory turnover further investigation should be made before interpreting the final results.
- ❖ The current asset turnover ratio was 11.14 maximum in the year 2013-2014 and increasing ratio from 2009-2010 to 2011 -2012. In 2010-2011 the ratio was 8.75, 9.09 and 8.29 and In the year 2012-2013 the ratio was 10.42 .This indicates a slack in the utilization of current assets for increasing sales. a steady increase in the current assets turnover ratio indicates in the better utilization of current asset for increasing sales.

## **FINDINGS**

It is important issue the companies make decisions of whether to issue new debt or issue new equity for financing. Incurring new debt will increase the risk of a company. The sales trend of the company is witnessing an increasing trend at the increasing rate.

## **CONCLUSION**

In this market scenario, public sector petroleum producing, refining and marketing companies must rise to new challenges. They must build up adequate refining capacity, update technologies to meet the predominant demand for middle distillates and improve the quality of products to make them environment-friendly and globally competitive. The petroleum industry had many international players operating in the country till it was nationalized in the 1970s. The cost of capital on financial analysis of the company shows that the firm's liquidity positions and solvency position are considered satisfactory. This analysis is very helpful in financial forecasting, relating to past sales, profits and financial position are the base for future trends and its further development and progress should therefore be of great concern to everyone. The most firmly established an industry in the **BHARAT PETROLEUM CORPORATION LIMITED (BPCL)** Hence a Financial and Statistical analysis of this unit has been undertaken.

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