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Performance Appraisal of Bharat Petroleum Corporation Limited through Free Cash Flow

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Abstract: ***The present research work makes an assessment of the Free Cash Flow position of the BPCL. This study helps to reveal the causes of cash inflows and cash outflows made by the company and make a detailed analysis of its impact on the performance of the company so that fruitful suggestions could be given to improve its performance in future. Cash is the lifeblood of a business and a business needs to generate enough cash from its activities so that it can meet its expenses and have enough left over to repay investors and grow the business. While a company can fudge its earnings, its cash flow provides an idea about its real health. Since, Free Cash Flow is a tool for scientific evaluation of the performance of any business concern; the same has been used in the present research study. The study tries to examine the impact of Free Cash Flow and its different variables on company's performance. The data was collected from the annual reports of BPCL covering the period of ten years starting from 2010-11 to 2019-20 and the data analysis was conducted by using one sample t-test.***

Keywords: Free Cash Flow, Free Cash Flow to Equity and to the Firm, Performance Appraisal

1. Introduction

Free cash flow (FCF) represents the cash a company generates after accounting for cash outflows to support operations and maintain its capital assets. Unlike earnings or net income, free cash flow is a measure of profitability that excludes the non-cash expenses of the income statement and includes spending on equipment and assets as well as changes in working capital from the balance sheet. FCF accounts for changes in working capital, it can provide important insights into the value of a company and the health of its fundamental trends. For example, a decrease in accounts payable (outflow) could mean that vendors are requiring faster payment. A decrease in accounts receivable (inflow) could mean the company is collecting cash from its customers quicker. An increase in inventory (outflow) could indicate a building stockpile of unsold products. Including working capital in a measure of profitability provides an insight that is missing from the income statement. There are three different methods to calculate free cash flow because all companies don't have the exact same financial statements. Regardless of the method used, the final number should be the same given the information a company provides. The three ways in which to calculate free cash flow are by using operating cash flow, using sales revenue, and using net operating profits.

2. Review of Literature

Dr. S. K. Khatik & Dr. Amit Kumar Nag (2016) in their paper highlighted that the Performance Appraisal of HPCL through Free Cash Flow. Its main objective of the study is to examine the impact of Free Cash Flow and its different variables on company's performance. The study reveals that the performance of the company is satisfactory since it is generating sufficient cash to cover its cost and to meet its investment activities as well as to pay dividends, buy back its share or to pay off its debt.

Waseque Uddin Ahmed, Md. Mahedi Hasan, Md. Aminul Hoque, Mohammad Jahangir Alam (2018) in their paper highlighted that the Impact of Free Cash Flow on Profitability: An Empirical Study On Pharmaceutical Company. The whole research was conducted to shed light onto the relation between the FCF and the firm's performance on the datasets of pharmaceutical companies. This can also be a guideline for the managers to better use their resources for the ultimate betterment of the firm and the shareholders.

Period of the Study

The present study covers a period of ten years from 2010-11 to 2019-20. To judge the free cash flow position of BPCL based on the various aspects, a period of 10 years is considered to be long enough to study whether sufficient Free Cash Flow was available to equity as well as to the firm.

Objective of the Study

- To study the concept of Free Cash Flow.
- To examine the Free Cash Flow to Equity of BPCL.
- To analyze the Free Cash Flow to Firm of BPCL.
- To know the impact of free cash flow on the performance of BPCL.

Hypothesis of the Study

Ho1: There is no significant difference in the Free Cash Flow to Equity of BPCL during the study period.

Ho2: There is no significant difference in the Free Cash Flow to Firm of BPCL during the study period.

3. Methodology

For the study, statistical data has been collected from the annual reports published by BPCL. The statistical techniques like percentage, averages, coefficient of variation, t-test have also been applied. Limitations of the Study

Limitations of the Study

As the report is mainly based on secondary data; the following limitations are expected to be part of the required study:

- The performances of BPCL have been shown for just last ten years, ending 2020. Hence, any uneven trend before or beyond the set period will be the limitations of the study.
- This analysis is based on only monetary information, analysis of the non monetary factors are ignored.
- As per the requirement of the study some data have been grouped and sub grouped.

Analysis of Impact of Free Cash Flow on the Performance of BPCL

Free Cash Flow analysis of the BPCL has been done with the help of information in the cash flow analysis. Various elements such as Free Cash Flow, Free Cash Flow to Equity and Free Cash Flow to the Firm have been applied for judging the performance of the company.

Free Cash Flow

Free Cash Flow is helpful in gauging a company's cash flow beyond what is necessary to grow at the normal current rate. In order to exist, develop and grow it is imperative for organization to make capital expenditures and free cash flow considers these expenditures. Free cash flow enables a company to have financial flexibility and in making investments beyond the planned ones. The formula for the calculation of Free Cash Flow is:

Free Cash Flow = Cash Flow from Operations - Capital Expenditures

Where, Cash Flow from Operating Activities (CFO) indicates the inflow of cash from its ongoing and regular activities, i.e., from manufacturing and selling of goods or from providing a service. Cash Flow from Operating Activities (CFO) will never include long term capital expenditure or the investment cost. It is also known as Operating Cash Flow or Net Cash flow from Operating Activities and is therefore calculated as:

Cash Flow from Operating Activities (CFO) = EBIT + Depreciation - Taxes

And Capital Expenditure incorporates the expenditure incurred by a company to acquire assets or to upgrade physical assets and such outflows are made by the company to increase or to maintain the scope of its operations.

Table 1: Statement Showing Free Cash Flow (Rs. in Crores)

Year	Cash Flow from Operations	Capital Expenditure	Free Cash Flow
2010-11	4,206.31	2,532	1,674.31
2011-12	925.84	2,762	-1,836.16
2012-13	5,478.98	3,544	1,934.98
2013-14	8,404.10	5,553	2,851.10
2014-15	18,194.41	8,494	9,700.41
2015-16	10,233.90	9,946	287.90
2016-17	7,881.93	9,128	-1,246.07
2017-18	8,974.67	7,123	1,851.67
2018-19	7,644.85	9,633	-1.988.15
2019-20	6,357.75	9,810	-3,452.25
Mean	7,830.27	6,852.50	1,176.59
Standard Deviation	4,282.17	2864.04	3,520.09
COV %	54.69	41.80	299.18
Growth	51.15	287.44	-306.19
Average Annual Growth %	5.12	28.74	-30.62

Source: Compiled from the annual reports of BPCL. (From 2010 - 2020)

Interpretation

Table 1, shows that the Free Cash Flow was lowest in the year 2019-2020 when it was Rs–3,452.25 cores. Free Cash Flow was recorded highest in the year 2014-2015 when it was Rs.9,700.41 Crores. Expect for 2011-12, 2016-17, 2018-19 and 2019-20 was positive throughout the study period. The overall average of Free Cash Flow for the whole period of study was Rs.1,176..59 crores. The standard deviation of the Free Cash Flow was 3,520.09 with coefficient of variation as 299.18%. The overall growth of the Free Cash Flow during the period of the study was –306.19%, with average annual growth of -30.62 %.

Free Cash Flow to Equity

Free Cash Flow to Equity is basically the adjusted Free Cash Flow for Debt Cash Flows since shareholders or the stakeholders are the sole claimants of the residual of the company. Basically, free cash flow to equity comprises of Net Income, Capital Expenditures, Working Capital and Debt. The Net Income can be identified from the Income statement, Capital Expenditure can be identified from the Cash Flow from Investing Activities section of the Cash Flow Statement, Working Capital Can also be identified from the Cash Flow Statement under the Cash Flow from Operating Activities Section, and Debt or Net borrowings can again be identified from the Cash Flow Statement under the Cash Flow from Financing Activities Section. Free Cash Flow to Equity is used to identify whether repurchases of Stock or payment of dividend are made from Free Cash Flow to Equity or from any other forms of financing. If the amount of Dividend paid or the amount paid for the buyback of shares is less than the amount of Free Cash Flow to Equity, it indicates that the company made funding with either the debt or with the existing Capital. The Free Cash Flow to Equity is:

Free Cash Flow to Equity = Cash Flow from Operations - Capital Expenditures + Net Borrowings

Table 2: Statement Showing Free Cash Flow to Equity (Rs. in Crores)

Year	Cash Flow from Operations	Capital Expenditure	Net Borrowings	Free Cash Flow to equity
2010-11	4,206.31	2,532	18,960	20,634.31
2011-12	925.84	2,762	22,994	21,157.84
2012-13	5,478.98	3,544	23,839	25,773.98
2013-14	8,404.10	5,553	20,322	23,173.10
2014-15	18,194.41	8,494	13,098	22,798.41
2015-16	10,233.90	9,946	15,857	16,144.90
2016-17	7,881.93	9,128	23,159	21,912.93
2017-18	8,974.67	7,123	23,351	25,202.67
2018-19	7,644.85	9,633	29,099	27,110.85
2019-20	6,357.75	9,810	41,875	38,422.75
Mean	7,830.27	6,852.50	23,255.40	24,233.17
Standard Deviation	4,282.17	2864.04	7,524.82	5,561.79
COV %	54.69	41.80	32.36	22.95
Growth	51.15	287.44	120.86	86.21
Average Annual Growth %	5.12	28.74	12.09	8.62

Source: Compiled from the annual reports of BPCL. (From 2010 - 2020)

Interpretation

As per table no.2, the Free Cash Flow to Equity was highest in the 2019-20 when it was Rs.38,422.75 crores and was lowest in the year 2015-2016 when it was Rs.16,144.90 crores. The Free Cash Flow showed a decreasing trend from the year 2013-2014 to 2015-2016 and then increased to Rs.21,912.93 crores in the year 2016-2017, which further increased and reached its highest in the year 2019-20. The overall average of Free Cash Flow to Equity for the whole period of study was Rs.24,233.17 crores. The standard deviation of the Free Cash Flow to Equity was 5,561.79 with coefficient of variation as 22.95%. The overall growth of Free Cash Flow to Equity during the period of the study was 86.21%, with average annual growth of -8.62%.

Free Cash Flow to the Firm

Free Cash Flow to the firm measures the financial performance of a company by calculating the net amount of cash generated for a company or a firm after providing for expenses, taxes, changes in working capital and for investments. It is basically the measurement of a company's profitability after meeting all expenses and investments. It represents the firm's ability to pay dividends, buy back its share as well as pay off debt. A negative Free Cash Flow to the firm indicates that the firm has not generated sufficient funds or revenue to cover its cost or investment activities, whereas a positive Free Cash Flow to the firm indicates excess cash left after meeting all expenses. Free Cash Flow to the firm is also known as the unlevered free cash flow since it is the cash flow before interest on debt. Free Cash Flow to the firm is calculated as:

Free Cash Flow to the Firm= Cash Flow from Operations + Interest Expenses (1-Tax Rate) - Capital Expenditure

Table 3: Statement Showing Free Cash Flow to the Firm (Rs. In Crores)

Year	Cash Flow from Operations	Interest Expenses (1-Tax Rate)	Capital Expenditure	Free Cash Flow to the Firm
2010-11	4,206.31	1,396.68	2,532	3,070.99
2011-12	925.84	2,935.75	2,762	1,099.59
2012-13	5,478.98	2,553.80	3,544	4,488.78
2013-14	8,404.10	1,955.61	5,553	4,806.71
2014-15	18,194.41	676.81	8,494	10,377.22
2015-16	10,233.90	786.64	9,946	1,074.54
2016-17	7,881.93	760.24	9,128	-1,303.83
2017-18	8,974.67	831.36	7,123	2,683.03
2018-19	7,644.85	1,075.32	9,633	-912.83
2019-20	6,357.75	1,702.68	9,810	-1,749.57
Mean	7,830.27	1,467.49	6,852.50	2,363.45
Standard Deviation	4,282.17	760.38	2864.04	3,459.31
COV %	54.69	51.82	41.80	146.37
Growth	51.15	21.91	287.44	-156.97
Average Annual Growth %	5.12	2.19	28.74	-15.70

Source: Compiled from the annual reports of BPCL. (From 2010 - 2020)

Interpretation

Table 3, states that the Free Cash Flow to the Firm was highest in the year 2014-2015 when it was Rs. 10,377.22 crores and was lowest in the 2019-20 when it was Rs.-1,749.57 crores. BPCL witnessed negative Free Cash Flow to the firm in the year 2016-17, 2018-19 & in the year 2019-20. The Free Cash Flow to the firm showed an increasing trend during 2012-13 to 2014-15 when it was Rs. 4,488.78 crores, 4,806.71 crores and Rs.10,377.22 crores respectively and then decreased to Rs.-1,749.57 crores in the year 2019-20. The overall average of Free Cash Flow to the Firm for the whole period of study was Rs.2,363.45 crores. The standard deviation of the Free Cash Flow to the Firm was 3,459.31 with coefficient of variation as 146.37%. The overall growth of Free Cash Flow to the Firm during the period of the study was -156.97%, with average annual growth of -15.70%.

Testing of Hypothesis

Null Hypothesis (Ho)

H_{o1}: There is no significant difference in the Free Cash Flow to Equity of BPCL during the study period.

Table 4: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Free Cash flow to Equity	10	24,233.17	5,561.79	1,760.06

Table 5: One-Sample Test

	Test Value=0					
	t	df	Sig (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Free Cash Flow to Equity	-1.824	9	.101	24,233.17	16,144.90	38,422.75

Interpretation of t-test

t=-1.824 &t0.05=2.262

t < t0.05

When degree of freedom (df) is 9 and level of significance is 5%, the critical value is 2.262. Since the calculated value of t is -1.824 which less than the table value, we conclude that there is no significant difference in the Free Cash Flow to Equity of BPCL during the study period. Hence, null hypothesis is accepted.

H_{o2}: There is no significant difference in the Free Cash Flow to Firm of BPCL during the study period.

Table 6: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Free Cash flow to Equity	10	2,363.45	3,459.31	1,094.72

Table 7: One-Sample Test

	Test Value=0					
	t	df	Sig (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Free Cash Flow to Equity	1.168	9	.273	2,363.45	-1,749.57	10,377.22

Interpretation of t-test

t=1.168 &t0.05=2.262

t < t0.05

When degree of freedom (df) is 9 and level of significance is 5%, the critical value is 2.262. Since the calculated value of t is 1.168 which less than the table value, we conclude that there is no significant difference in the Free Cash Flow to Firm of BPCL during the study period. Hence, null hypothesis is accepted.

4. Conclusion

In light of the present research work it can be concluded that the Free Cash Flow to Firm position of BPCL is very satisfactory with highest Free Cash Flow to Firm in the year 2014-2015 when it was Rs. 10,377.22 crores showing the efficiency with which the company is going through its Free Cash Flow. As regards to the Free Cash Flow to equity, the least was in the year 2015-2016 when it was Rs. 16,144.90 crores. The overall average of free cash flow was satisfactory during the entire period of the study, it was Rs. 1,176.59. On analyzing Free Cash Flow to the Firm, it was observed that the company has put in utmost effort to maintain and increase its Free Cash Flow. The average Free Cash Flow to the Firm was Rs. 2,363.45 crores, with the lowest in the 2019-20 when it was Rs. -1,749.57 crores. The study reveals that the performance of the company is good since it is generating sufficient cash to cover its cost and to meet its investment activities as well as to pay dividends, buy back its share or to pay off its debt.

5. Suggestions

The following suggestions could be laid down in the light of the findings:

1) The company needs to minimize its cash expenses in order to increase its cash in hand, cash at bank and other short term securities.
2) Finding a flexible line of credit that gives your business quick access to funds and when they're required could be a simple way to ride out a cash flow storm.
3) Audit should be planned carefully. If you are going to reduce the outgoings then you must distinguish between the costs that are essential to the business and those that are not.
4) The company should have a check on its Free Cash flow to equity so that the company can have proper flow of cash available for its stakeholders throughout the year.

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