



LIQUIDITY AND PROFITABILITY ANALYSIS OF BHARAT HEAVY ELECTRICAL LIMITED- A CASE STUDY

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ABSTRACT

Liquidity and Profitability management is of crucial importance in financial management decision. The most favorable fiscal performance could be achieved by a company that can trade off between profitability and liquidity performance indicators. The purpose of this study is to find out the liquidity and profitability position of and know the significance of them. In this connection researcher is interested in analyzing liquidity and profitability of one of the maharathna company Bharat Heavy Electrical Limited. It is concluded that managers can increase profitability and maintain liquidity by putting in place improve their current ratio, maintain adequate amount of liquid assets, control the cost of goods sold and operating expenses and strengthen their financial position.

Key Words: Indicators, Liquidity, Profitability, Significance, Strengthen.

INTRODUCTION

Liquidity refers to ability of a firm to meet short term commitments or obligations. Liquidity is very important for the firm in the scene that working capital requirements of the firm is dully met. Bad liquidity implies that the firms find fewer funds to meet its commitment on daily basis. As a result, the reputation and goodwill of the firm are eroded in the minds of all stakeholders so as to affect the firm borrowing capacity.

Excess liquidity means the firm as more funds than needed and find difficult to deploy the excess funds profitably due to lack of investment opportunities. As a result such surplus funds, since earn no returns, impact profitability and thereby affect shareholders wealth maximization.

Every firm aims at profit making because profit is the indicated through which one can visualize the success or failure of the business. Profitably can be notioned in different ways. They are operating profit, profit before tax, and profit after tax, return on shareholders' investment, return on total assets etc., but there is lot of disagreements between various experts of finance as true which profit exactly measures the success of the business. So a firm as true maintains all times all profits in different perception as we said above so that shareholders get their due as and when due which ultimately paves for shareholders wealth maximization.

In this connection that is having seen the importance of liquidity and profitability in the preceding paragraphs and how these two place a major role in shaping the success of the business. The researcher is interested in analyzing liquidity and profitability of one of the maharatna company Bharat Heavy Electrical Limited.

REVIEW OF LITERATURE

Bhunja, (2010), stated in his article that "A study of liquidity trends on private sector steel companies in India". The study has analysed the importance of liquidity management on profitability as a factor responsible for poor financial performance in the private sector steel Industry in India.

Khartik and Varghese, (2011) in their paper entitled "Profitability Analysis of Public Sector Undertaking: A Case Study of Hindustan Newsprint Limited (HNL)", studied the profitability mostly depends upon the effective utilization of resources and to manpower. It is valuable to increase production capacity and use advance technology to cut down cost of production and wage cost in order to increase profitability.

Syed azhar and Ramesh, (2012), in their study relating to relationship between profitability of a firm and cash conversion cycle, thus it is possible to increase firm's profitability through more effectiveness of working capital management. In case of the practice of an asset-liability difference may happen which may increase firm's profitability in the short-run but at a risk of its bankruptcy.

Nandi Chandra Kartik (2012), under took study on "Trends in Liquidity Management and Their Impact on Profitability: A Case Study", makes an attempt to evaluate the trends in liquidity management and their impact on profitability. On the basis of overall analysis, it is therefore essential to state that the selected company always tries to maintain adequate amount of net working capital in relation to current liabilities so as to keep a good amount of liquidity throughout the study period.

Nishanthini and Nimalathasan(2013), conducted the study "Determinants of profitability: A case study of listed manufacturing companies in Sri Lanka". It is concluded that selected manufacturing companies has different ranking based on each profitability indicators such as GPR, OPR, NPR, ROI, and ROCE. Based on the GPR, OPR, NPR, Royal Chericam is at first whereas Chevron Lubricants is at first based on Return on Investment, Return on Capital Employed.

OBJECTIVES OF THE STUDY

The main objective of the present study is to provide an insight into the conceptual side of trade off between liquidity and profitability and to assess the efficiency of the management in maintain good liquidity, profitability and solvency in BHEL. The specific objectives of this study are follows:

- I. To assess the liquidity position of the BHEL
- II. To find out the solvency position of the BHEL
- III. To determine the profitability position of the BHEL
- IV. To measure the closeness of association between liquidity and profitability by computing Pearson's simple correlation co-efficient.

SAMPLING AND RESEARCH METHODOLOGY

The present study is analytical in nature and it is based on secondary data. The proposed study will aim at examining the Liquidity and Profitability Analysis of Bharat Heavy Electrical Limited- A Case Study which is leading public sector maharatna manufacturing company in India. The study is based upon secondary data covering the period from 2007-08 to 2013-14 have been collected from the financial statements published in Annual Reports of BHEL Editing, classification and tabulation of financial data collection from the above mentioned source have been done as per the requirement of the study. For analyzing the data simple statistical tools such as ratios, mean, standard deviation, Coefficient of Variation, Skewness, Compound Annual Growth Rate and correlation Analysis have been used. All statistical calculation has been done through SPSS.

Findings and Data Analysis

Liquidity Position of BHEL: Liquidity or short-term solvency refers to the ability of a business concern to pay off its short-term liabilities. Liquidity ratios are those ratio which are computed to evaluate the capacity of the company to repay its short-term liabilities.

Table: 1 Showing the Liquidity and Solvency Position of BHEL

YEARS/ RATIOS	CR	QR	ALR	DER	PR	CGR	CAFAR
2007-08	1.38	1.14	0.06	0.01	0.99	0.01	3.08
2008-09	1.36	1.09	0.07	0.01	0.99	0.01	2.96
2009-10	1.37	1.09	0.03	0.01	0.99	0.01	2.77
2010-11	1.38	1.10	0.25	0.01	0.99	0.01	2.65
2011-12	1.47	1.14	0.16	0.00	1.00	0.00	2.38
2012-13	1.67	1.37	0.20	0.05	0.96	0.05	2.01
2013-14	1.81	1.54	0.32	0.08	0.93	0.08	1.88
MEAN	1.49	1.21	0.16	0.02	0.98	0.02	2.53
S.D	0.18	0.18	0.11	0.03	0.03	0.03	0.46
C.V.%	11.94	14.60	69.71	122.88	2.74	122.88	18.22
MIN	1.36	1.09	0.03	0.00	0.93	0.00	1.88
MAX	1.81	1.54	0.32	0.08	1.00	0.08	3.08
SKEW	1.27	1.49	0.32	1.66	-1.62	1.66	-0.41
CAGR %	4.59	5.12	31.35	44.47	-1.13	44.47	-7.91

Source: Computed

Current Ratio (CR): This ratio also called 'Working capital ratio'. It is an indicator of the company's ability to meet its short-term obligations. It matches the total current assets of the company against its current liabilities. The ideal current ratio is supposed to be 2:1. The higher the ratios, the more protected are the short-term creditors. The current ratio of BHEL is varied between 1.38 times in 2007-08 and 1.81 times in the year 2013-14. It is clear from the analysis that this ratio is almost below than the ideal standard of 2:1. The average ratio is 1.49 times, S.D. is 0.18, the value of C.V. is 11.94 per cent and skewness is 1.27 with a growth rate of 4.59 per cent. Hence, there is more consistency in this ratio in case of BHEL over the entire study periods.

Quick Ratio (QR): It measures the ability of the company to meet its current obligations and shows the relationship between liquid assets and current liabilities. A quick ratio of 1:1 is usually considered to be good and satisfactory. In case of BHEL, quick ratio is in a satisfactory position in the entire study period because it is more than the idle standard of 1:1 but it is more than the standard norm during the period from 2012-13 to

2013-14. On average, this ratio is 1.21 times, which is in a satisfactory position as per the norm. The Growth rate is 5.12 per cent which shows that the liquidity position of the company is in a positive direction during the study period.

Absolute Liquid Ratio (ALR): This ratio also called, 'cash position ratio' or 'cash ratio' or 'super quick ratio'. This ratio establishes relationship between absolute liquid assets and current liabilities. Generally, an absolute liquidity ratio of 0.75:1 is considered ideal and satisfactory. Table 1 reveals that the absolute liquid ratio of BHEL is lower than the idle norm of 0.75:1 during the study period. The overall average is 0.16 times, S.D. is 0.11 and the value of C.V. is 69.71 per cent with a growth rate of 31.35 per cent. The CAGR is positive growth trend. Thus, the cash position of BHEL is not satisfactory during the study period, because the level of cash and bank balances maintained by the company is always lower than the standard norm.

Solvency Position of BHEL: Solvency Ratios refers to those ratio which deals with company's ability to meet long-term liabilities. Long-term creditors include debenture holders, vendors selling equipments on hire purchase basis and other financiers supplying long-term loans. The long-term creditors are primarily interested in ascertaining whether the company is sufficiently strong enough to meet long-term liabilities/debts and whether the company is having adequate profits to pay its interest obligations regularly.

Debt Equity Ratio (DER): This ratio also called 'External-Internal Equity ratio'. It is mainly calculated to assess the soundness of long-term financial policies and to determine the relative stakes of outsiders and owners (share holders). Generally a ratio of 2:1 is considered satisfactory. It is clear from the analysis that this ratio is always lower than the ideal standard of 2:1. The lower the ratio is the higher the degree of protection enjoyed by the creditors. The average ratio is 0.02 times with a growth rate of 44.47 per cent. The S.D. is 0.03 and the value of C.V. is 122.88 per cent.

Proprietary Ratio (PR): This ratio also called 'Equity ratio' (or) 'Owners funds ratio' (or) 'Net worth ratio' (or) 'Shareholders equity ratio'. This ratio points out relationship between the shareholders funds and total tangible assets. A high ratio shows that there is safety for creditors of all types. According to Table 1, the Proprietary Ratio of BHEL is always more than 50 per cent of the total assets. Higher ratio indicates a secured position to creditors. It ranged from 0.99 times in the year 2007-08 and ends with 0.93 in the year 2013-14. The overall average is 0.98 times.

CAPITAL GEARING RATIO (CGR): This ratio is also known as "capital structure ratio" or "leverage ratio" (or) "capitalization ratio". It is used to analyze the capital structure of the company. This ratio shows the proportion of various items of long-term funds employed in the business. Its main emphasis is on indication of the proportion between owners' funds and non owners funds. This proportion is termed as leverage. If securities carrying a fixed rate of return are greater in proportion to equity shareholders funds, the capital structure is to be highly geared. If the equity shareholders fund is more than the fixed interest and dividend securities, the capital structure is said to be 'low geared'. The ratio is less than the normal position during the study period, because equity funds are more than the fixed interest bearing securities. It indicates capital structure of BHEL is low geared. The overall average is 0.02 times, S.D. is 0.03 and the value of C.V. is 122.88 per cent with a growth rate of 44.47 per cent.

Current Assets to Fixed Assets Ratio (CAFAR): Every manufacturing concern should maintain adequate funds in current assets to meet their short-term obligations and at the same time it has to keep the good amount of fixed assets which is sufficient to meet long term obligations. The average ratio is 2.53 times with a negative growth rate of -7.91 per cent. The S.D. is 0.46 and the value of C.V. is 18.22 per cent. This is almost more than ten percent; it indicates that the company has quipped with more funds in fixed assets i.e. around 90 per cent. It indicates that the vigor of long-term solvency of the concern.

PROFITABILITY POSITION OF BHEL: Any company should earn profits to live and grow over a long period of time. Profit is the ultimate "Output" of a company, and it will have no future if it fails to make sufficient profits. Therefore, the financial manager should continuously evaluate to the efficiency of the company in term of profits. The profitability ratios are calculated to measure the operating efficiency of

the company. Besides management of the company, creditors and owners are also interested in the profitability of the firm. Creditors want to get interest and repayment of principle regularly. Owners want to get a required rate of return on their investment. This is possible only when the company earns enough profits. Generally two major types of profitability ratios are calculated. I. Profitability In Relation To Turnover, II. Profitability In Relation To Investment

Profitability of BHEL in Relation to Turnover

The following are the main significant ratios to know the profitability of any concern:

- a. Gross profit margin b. Net profit ratio c. Operating margin

a. Gross profit Ratio (GPR): Gross profit ratio shows the gap between revenue and trading costs. Maintenance of steady gross profit ratio is important. Higher ratio is better. The financial manager must be able to detect the causes of a falling gross margin and initiate action improve the situation. A ratio of 25 per cent to 30 per cent may be considered good. The table 2 indicates that Gross Profit Ratio of BHEL is always performs well over the past seven years i.e. from 2007-08 to 2013-14. It was growing with 2.79 per cent with an average of 47.51 per cent during the study period. The S.D is 4.53 and the value of C.V is 9.54 per cent. Thus, the profitability of BHEL is at satisfactory position over the period of study.

Table: 2 Showing the Profitability Position of BHEL

Year/ Ratios	GPR	NPR	OPR	ROCE	ROSI	ROTA
2007-2008	45.10	14.71	19.27	34.47	26.54	26.31
2008-2009	40.15	11.79	15.72	31.97	24.25	23.98
2009-2010	45.55	12.97	18.36	38.01	27.08	26.87
2010-2011	51.97	14.23	20.32	42.38	29.83	29.68
2011-2012	46.59	14.67	20.65	38.86	27.75	27.61
2012-2013	50.06	13.66	19.39	29.47	21.73	20.76
2013-2014	53.18	8.85	11.56	12.66	10.47	9.69
MEAN	47.51	12.98	17.90	32.55	23.95	23.56
S.D	4.53	2.10	3.23	9.79	6.48	6.74
C.V.%	9.54	16.14	18.06	30.09	27.07	28.61
MIN	40.15	8.85	11.56	12.66	10.47	9.69
MAX	53.18	14.71	20.65	42.38	29.83	29.68
SKEW	-0.34	-1.53	-1.55	-1.62	-1.84	-1.78
CAGR %	2.79	-8.12	-8.17	-15.37	-14.36	-15.33

Source: Computed

Net Profit Ratio (NPR): Net profit ratio is an indicator of overall profitability of the business. Higher the net profit ratio, better the business. A lower net profit ratio, on the other hand, reveals that the company has poor profitability as compared to that of the industry. This ratio is highly useful in making inter-firm comparison of the profitability. The NPR of BHEL has been depicted from the table 2, it was always performed more than ten percent over the period of study except during the period 2013-14. The BHEL obtained good profits with an aggregate of 12.98 per cent during the period of study. During the period of study, the NPR of BHEL maintained SD is 2.10 and the value of CV is 16.14 percent. Hence, the net profitability margin of BHEL is at satisfactory position over the period of study.

Operating Profit Ratio (OPR): This ratio establishes the relationship between the total cost incurred and sales. Operating profit is the Net profit after depreciation but Before Interests and Taxes. The table 2 shows the operating profit ratio of BHEL from 2007 – 08 to 2013-14. It was maintained as an aggregate of 17.90 per cent, the SD is 3.23 and CV is 18.06 per cent. Finally, we conclude that the overall operational effectiveness of the business apprehension is at satisfactory.

Profitability Ratios in Relation to Investment

Return on capital employed (ROCE): This is known as Rate of Return. The prime objective of making investments in any business is to obtain satisfactory return on capital invested. It indicates the percentage of return on the capital employed in the business and it can be used to show the efficiency of the business. The ROCE of BHEL is varied between 34.47 to 12.66 percentages with an aggregate of 32.55 per cent. The S.D. is 9.79 and the value of Co-variance is 30.09 per cent. Hence, Insight into how efficiency the long-term funds of owners and creditors are being used and it was efficiently utilized the capital employed.

Return on Shareholders' Investment (ROSI): Investment represents pool of funds supplied by shareholders and lenders, while Profit after tax (PAT) represents residual income of shareholders; therefore, it is conceptually unsound to use PAT in the calculation of ROI. PAT is affected by capital structure. It is, therefore more appropriate to use one of the following measures of ROI for comparing the operating efficiency of firms. The ROSI of BHEL is varied 26.54 per cent to 10.47 per cent with the average of 23.95 per cent.

Return on Total Assets (ROTA): Return on total assets ratio measures the profitability and efficiency of a business concern. Assets generate income. Hence an analyst should judge the earning of the company in relation total assets. This ratio show how the total assets at the disposal of management of company have been used to generate income. Higher the ratio better is the efficiency of management. The BHEL was gained an immense of growth in terms of ROTA i.e. 23.56.

Correlation Analysis between the Selected Variables with Return on Capital Employed

Table No. 3 Correlation Analysis between the Selected Variables with Return on Capital Employed of BHEL

Ratios	r	p-value
CR	-.851	0.015*
QR	-.901	0.006**
ALR	-0.515	0.237
DER	-.915	0.004**
PR	.926	0.003**
CGR	-.915	0.004**
CAFAR	0.623	0.135
GPR	-0.352	0.439
NPR	.869	0.011*
OPR	.890	0.007**
RSHI	.994	0.000**
ROTA	.993	0.000**

Source: Computed

*Note: ** indicates correlation coefficients are statistically significant at 1% level and*

**indicates correlation coefficient is statistically significant at 5% level*

An attempt has been undertaken to measure the degree of relationship between the selected variables and Return on Capital Employed (shown in Table-3) of the selected company, for which correlation analysis has been applied taking into account their magnitudes by Pearson's simple correlation coefficient. In order to examine whether the computed values of correlation coefficients between the selected ratios and Return on Capital Employed are statistically significant or not. It is observed from Table-3 that the correlation coefficients between ROCE & PR, ROCE & NPR, ROCE & OPR, ROCE & RSHI and ROCE & ROTA have significant positive correlation with profitability and the coefficients are 0.926, 0.869, 0.890, 0.994, and 0.993 respectively and ROCE & CR, ROCE & QR, ROCE & DER, ROCE & CGR, have negative correlation with profitability and the coefficients are -0.851, -0.901 and -0.915. The correlation between CAFAR and profitability (ROCE) is positive (0.623) which is found to be insignificant both at 1% and 5%

levels. The study of correlation coefficients between ROCE & ALR and ROCE & GPR reveals that negative insignificant both at 1% and 5% levels.

CONCLUSION AND SUGGESTIONS

Profitability and liquidity management is of crucial importance in financial management decision. The most favorable fiscal performance could be achieved by a company that can trade off between profitability and liquidity performance indicators. The purpose of this study is to find out the liquidity and profitability position of and know the significance of them. Descriptive statistics discloses that performance of the selected unit in terms of liquidity, solvency and profitability position is very satisfactory and relatively efficient financial position is found in all the cases. Therefore, it is suggested to the under the study should concern on financial profitability, especially unexplained variables in purpose of creating shareholders' wealth. On the basis of foregoing analysis, the following conclusions can be made:

1. The overall liquidity position of BHEL has been fluctuated through the period of study but necessary steps may be taken by the company to improve their current ratio.
2. The company must maintain a considerable amount of cash & bank balance in order to meet its short-term commitments and for emergency requirements. This will help the company to increase its margin of working capital and also to make adequate arrangement of credit facilities with banks so as to maintain good amount of liquidity.
3. The company should try to maintain adequate amount of liquid assets to meet its short-term maturing obligations.
4. In order to increase the profitability of the company, it is suggested to control the cost of goods sold and operating expenses.
5. The management of select company should try to adopt cost reduction techniques in their company to get over this critical situation.
6. The select company is suggested to concentrate on liquidity, solvency and its profitability position. So as strengthen their financial position.
7. The study of correlation analysis reveals both positive and negative coefficients. Out of twelve ratios relating to liquidity, solvency and profitability management selected during the period under study, five ratios namely, PR, NPR, OPR, RSHI and ROTA registered positive association with the selected profitability ratio (ROCE) and the remaining ratios like CR, QR, and CGR witnessed negative significant association with the selected profitability ratio. The ratio of ALR and GPR are insignificant.
8. Finally the management of BHEL should also try to maintain a definite proportion among different components of working capital in regard to overall current assets to keep and adequate quantum of liquidity all the times. Such percentage can be worked out on the basis of past experience by the management of BHEL.

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