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A STUDY ON FINANCIAL PERFORMANCE USING RATIO ANALYSIS OF BHEL, TRICHY

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Abstract—*This paper is to enlighten the financial performance of the public sector undertaking that is, BHEL (Bharat Heavy Electricals Limited). Accounting ratios helpful in a great manner to analyze the financial position of a company. Financial analysis helps to assess the profitability and financial position of a concern. This analysis can be done by comparing the ratios for the same over a period of years, or for one concern against the industry as a whole, or for the concern against as the predetermined standards, or for just one department of the concern against the other departments of the same concern. Accounting ratios are calculated for a number of years which shows the trend for the change of position. To take certain important decisions for their business various users like managements of the companies, bankers, investors and creditors etc uses the accounting ratios for analyzing the financial position. In order to analyze the financial performance of BHEL also the accounting ratios are used. The secondary data is used for the entire study. The financial information of BHEL has been collected from the annual reports of the company which is printed. The final result of the paper in accordance to the financial performance of BHEL is not similar during the period of the study. In the present globalized era, the manufacturing of power plant equipment is an important commodity. The financial soundness of the company will automatically affected by the increasing capacity of production. In a business for each and every activity finance is the base. So, to analyze the financial position of the company it is very essential.*

Keywords—*Accounting Ratios, Annual Reports, BHEL, Financial Performance, Power Plant Industry*.

INTRODUCTION

The management decision making, policy is the greatest important factor for the financial management in modern thinking. Today, the role of financial manager is not only passive such as score keeper for the information of accounts and fund arrangements but also, he must involve in the role of solving complex management problems. And also, he is not only responsible for shaping the enterprise fortunes but also, he must involve in the most vital role of management decision of allocating resources.

For financial analysis, Ratio analysis is the widely-used tool. Quantitative or numerical relationship between two variables is the reference of the term "Ratio". The Ratio analysis is a systematic use of ratio which is used to determine current financial condition, its historical performance, strength and weakness of the firm and also to interpret the financial statements. It helps to conclude in the aspects of financial health, operating efficiency and profitability of the firm. It also helps in inter-firm comparison through necessary data. The inter-firm comparison provides the relative position and also provides relevant data for comparing the performance of different departments. If there are any variations the reasons for those variations should be identified if the results are negative. This identification helps to bring them in line immediately.

Ratio analysis is one of the techniques of financial analysis where it is used as a yardstick for evaluating the financial conditions and performance of a firm. Ratio analysis is a powerful tool of financial analysis. It is used as a device to analyze and interpret the financial health of a firm. Analysis of financial statements with the aid of ratios helps the management in decision making and control. Ratio analysis is the widely-used tool for appraisal of efficiency and profitability of the business, financial condition. Therefore, the ratio analysis is useful from the objects following;

- Short term planning and long term planning
- Measurement of financial performance and evaluation of those financial performance
- Study based on the financial trends
- Decision making for operations and investments
- Financial ills must be diagnosed
- Providing the valuable insight into firms picture or firms financial position

OBJECTIVES

- To identify the cash fluctuations of profitability, liquidity position in the BHEL.
- To identify the financial performance and distribution of BHEL.
- To do the feasibility examination of present system for the purpose of managing working capital turnover ratios in BHEL company.
- To do the performance examination and the operational efficiency examination of BHEL and also to test the solvency position and liquidity of BHEL.
- To do the profitability analyzation and overall financial performance analyzation of BHEL.

LIMITATIONS OF THE STUDY

- Due to the difference in accounting period and accounting policies the comparison in the company may not give a correct picture.
- The reflection of the impact inflation is not properly indicated in the numbers.
- The approach may differ on treating certain items and in the interpretation of the ratios. The time given for the study is very less so the gathering of entire information is not possible.
- The confidential cannot be given by the company so the analyzation may be varied on the actual performance and the predicted performance.
- The research report is restricted to certain information which should be shown in the report.
- The ratio analysis gives only on the aspects of quantitative. It fully ignores the aspect of qualitative measurement.
- To do the ratio analysis mass data is required. This become a burden more than clarifying their relationship.

RESEARCH METHODOLOGY

This research follows the analytical research methodology which is based on the quantitative data that is already collected by someone for different purpose. For an effective result from the research the study should be done with the secondary sources of data. The main sources for this secondary data is annual reports of the company. The reference from the books like financial management, management accounting or any other standard textbooks can be used. Statistical and non-statistical tools can be used for the analyzation of data. Additionally, in order to achieve the efficiency of financial analysis the conventional tools can also be used.

REVIEW OF LITERATURE

Prasanta Paul (2011) stated on the Financial Performance Evaluation – Some of the selected NBFCs are taken for the comparative study. In the study, five of the listed NBFCs are considered for the analyzation of comparative financial performance. Different type of statistical tools like standard deviation, arithmetic mean, correlation etc. are used extensively.

Sheela Christina (2011) reported on Financial Performance of Wheels India Ltd. Secondary data collection method is used for the analytical type of research design. Before conducting the study, validity and reliability is checked for the past five years where the researcher used this for the purpose of study.

Ried Edwardj and Srinivasan Suraj (2010) made an investigation to check whether the special items presented by the managers' in the financial statements reflected in the economic performance or opportunism.

Gaur Jighyasu (2010) focuses on the measurement of financial performance of business group companies of non-metallic mineral products industries of India. This study uses the 57 business group companies' financial data of non-metallic mineral products industries of India such as glass, cement, jewellery and gems, ceramic tiles, refractories etc.

Amalendu Bhunia (2010) took the analysis of pharmaceutical company's financial performance to understand how the management of finance playing a crucial role in the growth. For a period of twelve years the study has undertaken from 1997-98 to 2008-09.

Ghosh Santanu Kumar and Mondal Amitava (2009) study on the relationship of intellectual capital and finance performances for a period of 10 years from 1999 to 2008 of 70 Indian banks. The measurement of financial performance used in this analysis were return on equity, return on assets and assets turnover ratio of Indian Banks.

Burange and Shruti Yamini (2008) analyzed the performance of Indian Cement Industry – The competitive landscape. The experience of the boom on the account of overall growth of Indian Economy by the cement industry is because of the expanding of investment and industrial activity in the cement sector.

Noel Capon et al (1994) published a meta-analysis on the impact of the strategic planning on financial performance which has omitted a major study on corporate planning in the fortune five hundred manufacturing firms. Finally, the conclusions were that there is a small but positive relationship between the strategic planning and the performance existed.

Robert O.Edmister (2009) An Empirical Test of Financial Ratio analysis for Small Business Failure. This study developed and empirically tested a number of methods for analyzing financial ratios to predict the failure of small business.

Edward I. Altman (1968) Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. This study used to analyze the performance of the business enterprise by using ratio analysis as the analytical technique.

R.J.Taffler (1982) Forecasting company failure in the UK using discriminant analysis and financial ratio data. This paper reported on the discriminant model of operational for the purpose of identification of the british companies which was under the risk of failure and discussed the results from their application since from their development.

M Kumbirai, R Webb (2010) A financial ratio analysis of commercial bank performance in South Africa. This paper investigated the South Africa's performance of commercial banking sector period for 2005-2009.this financial ratio is used to measure the liquidity, profitability and credit quality performance of large five commercial banks of South Africa.

Query-Jen Yeh (1996) The application of Data Envelopment analysis in conjunction with financial ratios for bank performance evaluation. This paper demonstrated the application of DEA in respect to the conjunction with financial ratios to help the bank regulators in Taiwan to gain the insight of various financial dimensions which is link to the financial operational decisions of banks.

Thomas L Zeller et al (1997) A new perspective on hospital financial ratio analysis. The financial factor analysis is used to define the concise set of measurements of critical financial describing the characteristics of hospitals major financial instruments.

James A.Largay et al (1980) Cash flows, Ratio analysis and the W.T. grant company bankruptcy. The W.T Grant company problems such as bankruptcy, liquidation was not raised at overnight. The traditional analysis which is the ratio analysis only cannot reveal the company problems whereas cash flow analysis reveal most of the problems of the company.

Frederick D.S. Choi et al (1983) Analyzing foreign financial statements: The use and misuse of International ratio analysis. The foreign companies are often misused the measurement of financial risk and return. This paper used to explain the differences in the international accounting principles.

Toshiyuki Sueyoshi (2005) Financial ratio analysis of the electric power industry. This approach compares 147 non-default firms with 24 default firms of US power/energy market in terms of the financial performance and this is a type of non-parametric discriminant analysis which provides the weights of linear discriminant function.

Zhu Wuxiang and Song Yong (2001) Equity structure and firm value: An empirical analysis of listed companies of household electric appliances industry. Based on the sample of 20 number of listed companies in the household electric appliances the relationship between firm value and equity structure is examined.

G.E. Halkos (2004) Efficiency measurement of the Greek commercial banks with the use of financial ratios: a data envelopment analysis approach. This paper studied about the application of the non-parametric analytic technique in respect of the DEA (Data Envelopment Analysis) to measure the performance of Greek banking sector.

Keith A Houghton, David R Woodliff (1987) Financial Ratios: The Prediction of corporate success and failure. This paper investigated about the financial ratios to predict the business failure. This has done from both the Human Information Processing (HIP) and from the prediction from environmental predictability.

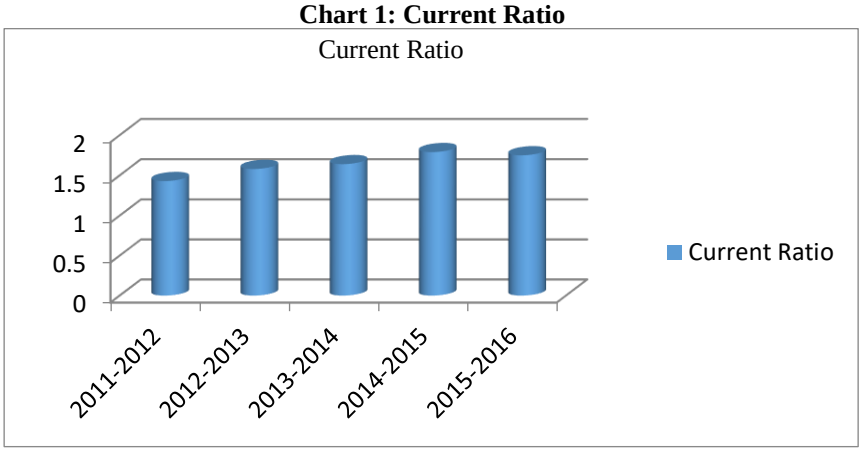
DATA ANALYSIS& INTERPRETATION

Table 1: Current Ratio

Financial year	*Total current assets (in crore)*	*Total current liabilities (in crore)*	*Current ratio*
2011-2012	59123.69	41212.13	1.43
2012-2013	62518.51	39472.99	1.58
2013-2014	65066.99	39566.19	1.64
2014-2015	61170.41	34260.54	1.79
2015-2016	58613.32	33428.88	1.75

Source: Audited Annual Report

Chart 1: Current Ratio



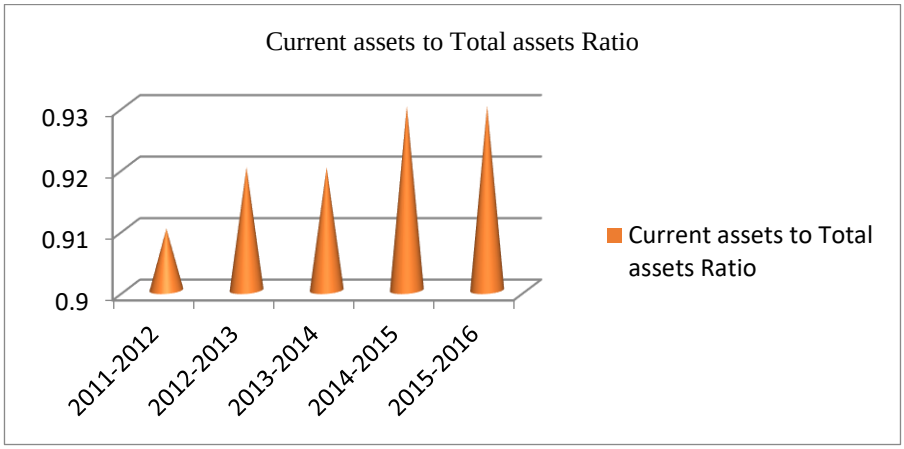
The above chart shows that the current ratio for five years of BHEL is increasing in the range of 1.43-1.7. This indicates the short-term liquidity of the company because the higher current ratio indicates the good quality and also the satisfactory debt repayment capacity of the firm. It also ensures the safety of the investments made by the creditors.

Table 2: Liquid Ratio

Financial year	*Liquid assets (in crore)*	*Liquid liabilities (in crore)*	*Liquid ratio*
2011-2012	45574.96	41212.13	1.11
2012-2013	50754.96	39472.99	1.29
2013-2014	55269.44	39566.19	1.40
2014-2015	51065.31	34260.54	1.49
2015-2016	48975.93	33428.88	1.47

Source: Audited Annual Report

Chart 2: Liquid Ratio

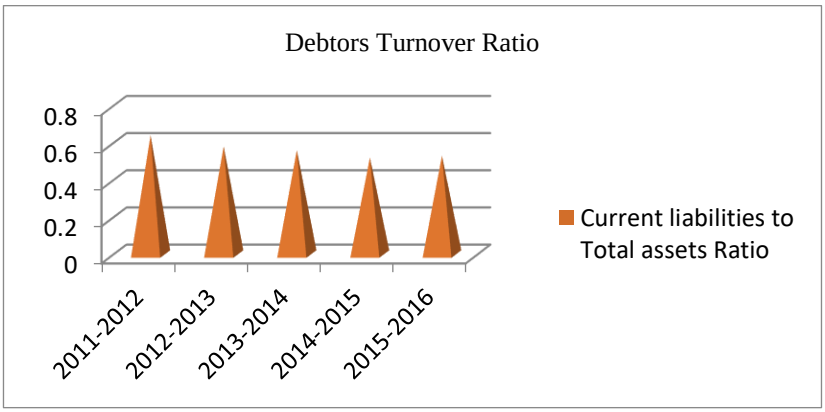


The above chart describes that liquid ratio is increasing in BHEL which is in the range of 1.11 to 1.47 for the past five years. This indicates that there is a good short term solvency for the company. Because higher liquid ratio means the company has a better financial position in short term. Even if the current ratio is high and the liquid ratio is low it indicates a good repayment capacity of the firm. This ratio result to the indication of ability of the business to pay its current liabilities in real.

Table 3: Debtors Turnover Ratio

Financial year	*Sales (in crore)*	*Sundry Debtors (in crore)*	*Debtors Turnover Ratio*
2011-2012	33570.76	64768.11	0.64
2012-2013	30530.86	68148.59	0.58
2013-2014	29240.17	70402.05	0.56
2014-2015	23220.10	65828.73	0.52
2015-2016	21988.09	62891.87	0.53

Chart 3: Debtors Turnover Ratio

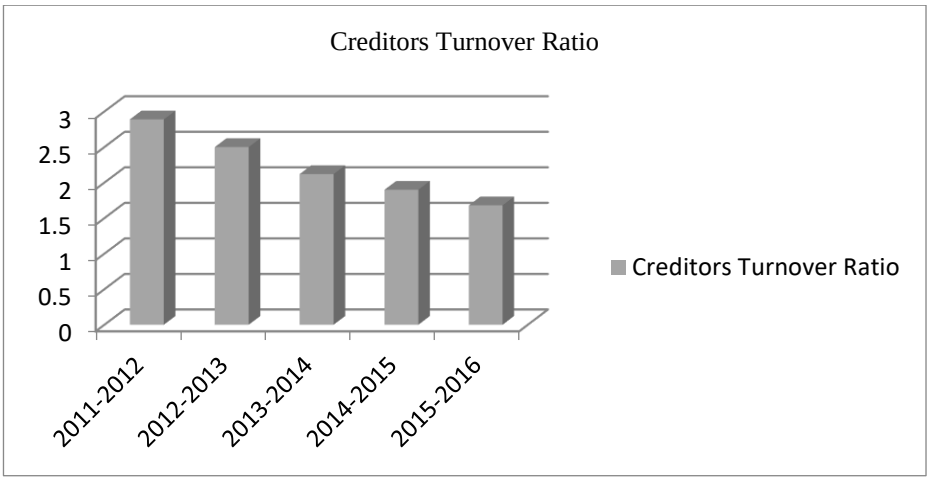


The above chart shows that debtors turnover ratio of BHEL for the five years is decreasing which implies that recovery of debtors is slow due to the change in composition of customer base. Because a low ratio implies that it considered congenial for the business as it implies better cash flow.

Table 4: Creditors Turnover Ratio

Financial year	*Purchases (in crore)*	*Sundry Creditors (in crore)*	*Creditors Turnover Ratio*
2011-2012	31493.43	10889.07	2.89
2012-2013	26114.46	10431.28	2.50
2013-2014	20136.56	9483.93	2.12
2014-2015	18365.87	9500.60	1.90
2015-2016	15930.27	9488.98	1.68

CHART 4: CREDITORS TURNOVER RATIO



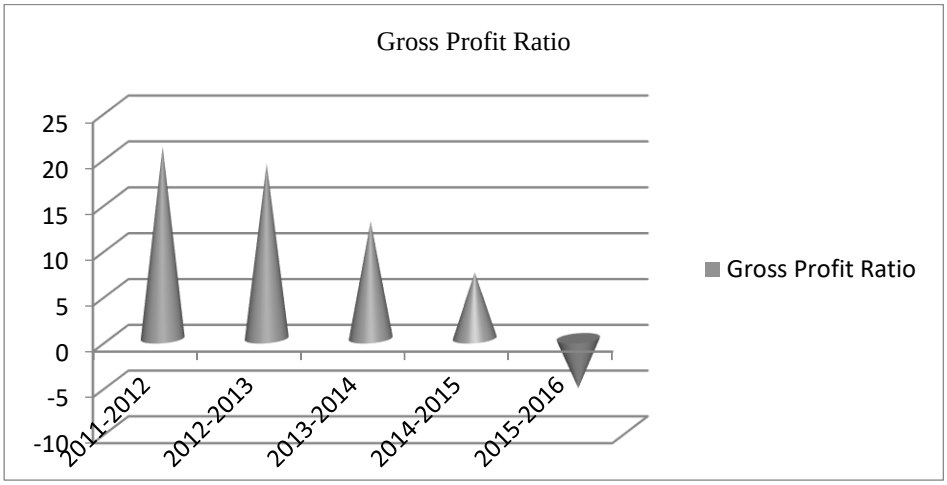
The creditors turnover ratio reveals the ability of the firm to avail the creditors from suppliers throughout the year. A low creditors turnover ratio implies favourable since the firm enjoys lengthy credit period. The above chart shows that for the last five years of BHEL the creditors turnover ratio is almost less than 3 times and this shows that is has a favourable position.

Table 5: Gross Profit Ratio

Financial year	*Gross Profit (in crore)*	*Sales (in crore)*	*Gross Profit Ratio*
2011-2012	10353.54	49509.78	20.91
2012-2013	9557.71	50156.48	19.06
2013-2014	5146.93	40337.92	12.76
2014-2015	2231.66	30947.04	7.21
2015-2016	(1449.89)	26586.51	(5.45)

Source: Audited Annual Report

Chart 5: Gross Profit Ratio



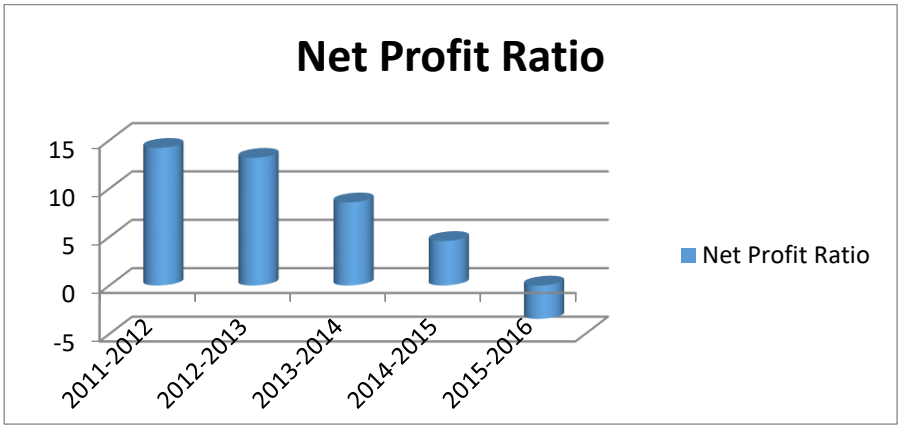
The above table shows that the gross profit ratio in 2011-2012 was 20.91 and after that the BHEL's margin on turnover is coming down continuously from 2012-2013 onwards. And in the year of 2015-2016 the gross profit ratio become negative. This shows the poor financial position of the firm.

Table 6: Net Profit Ratio

Financial year	*Profit After Tax (in crore)*	*Sales (in crore)*	*Net Profit Ratio*
2011-2012	7039.96	49509.78	14.22
2012-2013	6614.73	50156.48	13.19
2013-2014	3460.78	40337.92	8.58
2014-2015	1419.29	30947.04	4.59
2015-2016	(913.42)	26586.51	(3.44)

Source: Audited Annual Report

Chart 6: Gross Profit Ratio



The above table of BHEL for the past five years shows that the net profit ratio was 14.22 to (3.44) from 2011-2016 this shows the continuous decrease in sales. A low net profit ratio indicates the inefficient management of the business and also decrease in profit.

FINDINGS, RECOMMENDATIONS & CONCLUSION

From the study, it is found that the management must improve the current ratio by lowering the current liabilities. The gross profit ratios and net profit ratios calculated shows the profit margin earned on its manufacturing and trading activities. The net profit ratio indicates to leave a margin of reasonable compensation to the owners for providing their capital at risk. The debtor's turnover ratio is not satisfactory. Over the past five years the ratio has declined. The low ratio indicates how slowly money is collected from the debtors. Therefore, BHEL should improve the ratio by collecting deferred dues well in time by satisfying the customer in terms of performance of the sets supplied by BHEL. The creditors turnover ratio calculated for the last five years proves satisfactory and the amount payable is decreasing every year which means the number of creditors have been decreased.

To increase the margin of safety it is suggested that the borrowed fund must maintained at a low level. Over the last 5 years BHEL is a debt free company which must be maintained throughout. To increase the gross profit margin the cost of production must be decreased by purchasing good quality materials at less price, worker's efficiency can be improved and scraps can be decreased. The current ratio is nearer to the ideal current ratio of 2:1 which can be maintained. To increase the debtor's turnover ratio the deferred dues must be collected well in time to satisfy the customers. It is observed that the profitability and capital employees is not satisfactory. It is suggested to reduce the costs and other operating expenses to increase the profits.

Finally, after analysing all ratios, it is clear that the decrease in profits for the company is due to the decreasing profitability during the period of five years. Increasing costs and decreasing sales have resulted in the decline of gross profits and the net profits. Therefore, the company should try to increase the sales volume by reducing the costs to increase the profits and improve the profitability position.

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