A Study of Select Aspects for Power Grid Corporation of India Ltd

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ABSTRACT

Power Grid Corporation of India Limited (PGCIL), is an Indian state-owned electric utilities company headquartered in Gurgaon, India. Power Grid wheels about 50% of the total power generated in India on its transmission network. Power Grid has a pan-India presence with around 95,329 km circuit of transmission network and 156 EHVAC & HVDC sub-stations with a total transformation capacity of 138,673 MVA. The Inter- regional capacity is enhanced to 28,000 MW. Power Grid has also diversified into Telecom business and established a telecom network of more than 25,000 km across the country. Power Grid has consistently maintained the transmission system availability over 99.00% which is at par with the International Utilities. The power sector in India is growing rapidly and the role of PGCIL is significant in this sector. The sound financial health of the company would thus aid in achieving higher growth of the power sector. It is always important to know the financial management practices prevalent in the company. Thus, the present study would help us to know the financial management at PGCIL. Ten year data, i.e., from 2002-12 would be taken for the study. This study would focus on Liquidity analysis.

Keywords: Paired differences, Std. Error, Std. deviation, 95% Confidence Interval of the difference, degree of freedom, two tailed test,t-test.

1. INTRODUCTION

Financial Management means planning, organizing, directing and controlling the financial activities such as procurement and utilization of funds of the enterprise. It means applying general management principles to financial resources of the enterprise. There are three elements of financial management.

a. Investment decisions – They include investment in fixed assets (called as capital budgeting). Investments in current assets are also a part of investment decisions called as working capital decisions.

b. Financial decisions – They relate to the raising of finance from various resources which, in turn, depend upon decision on type of source, period of financing, cost of financing and the returns thereby

c. Dividend decisions – The finance managers are also required to take decision with regard to the net profit distribution. Net profits are generally divided into two:-

  - Dividend for shareholders - Dividend and the rate of it has to be decided by the company.

  - Retained profits - Amount to be retained depend upon expansion and diversification plans of the enterprise.

The financial management is generally concerned with procurement, allocation and control of financial resources of a concern. The objectives are:-

- To ensure regular and adequate supply of funds to the concern.
- To ensure adequate returns to the shareholders. This depends upon the earning capacity, market price of the share and expectations of the shareholders.
- To ensure optimum funds utilization. Once the funds are procured, they should be utilized in maximum possible way at least cost.
- To ensure safety on investment, i.e., funds should be invested in safe ventures so that adequate rate of return can be achieved.
- To plan a sound capital structure. There should be sound and fair composition of capital so that a balance is maintained between debt and equity capital.

2. OBJECTIVE

The objective of the present study is to analyze the financial management of Power Grid Corporation of India Ltd. (PGCIL), a Government of India Enterprise. PGCIL, is the Central Transmission Utility (CTU) of the country under Ministry of Power and is one amongst the largest power transmission utilities in the world. PGCIL is playing a vital role in the growth of Indian power sector by developing a robust Integrated National Grid and associating in the flagship programme of Govt. of India to provide “Power for all”. Innovations in technical and managerial fields have resulted in coordinated development of power transmission network and effective operation and management of regional and national grid. The primary objectives of study are:-

- To study the financial health of PGCIL company.
- To study the impact of recession in 2007-08 on the financial performance of PGCIL.

3. RATIONALE

PGCIL is playing a strategic role in Indian Power Sector development by establishing and maintaining the power transmission infrastructure which carries around 50% of total power generated in the country. PGCIL has been instrumental in providing an efficient, reliable and smooth grid operation and management in the country

The rationale behind the study is to examine the following major parameters:-

- Enough funding is available at the right time to meet the needs of the business. In the short term, funding may be needed to invest in equipment and stocks, pay employees and fund sales made on credit. In the medium and long term, funding may be required for significant additions to the productive capacity of the business or to make acquisitions.
- Whether the business is meeting its objectives? Are assets being used efficiently? Are the businesses assets secure? Does management act in the best interest of shareholders and in accordance with business rules?
- How the financing alternatives are being considered. For example, it is possible to raise finance from selling new shares, borrowing from banks or taking credit from suppliers. Also, whether profits earned by the business are being retained rather than distributed to shareholders via dividends

4. LITERATURE REVIEW

Financial Management means the efficient and effective management of money (funds) in such a manner as to accomplish the objectives of the organization. Financial management is an integral part of overall management. It is concerned with the duties of the financial managers in the business firm. The term financial management has been defined by Solomon, “It is concerned with the efficient use of an important economic resource namely, capital funds”. Howard and Upton define financial management “as an application of general managerial principles to the area of financial decision-making. Weston and Brigham define financial management “is an area of financial decision-making, harmonizing individual motives and enterprise goals”. Joshep and Massie define financial management “is the operational activity of a business that is responsible for obtaining and effectively utilizing the funds necessary for efficient operations. Thus, Financial Management is mainly concerned with the effective funds management in the business.

Financial management provides a conceptual and analytical framework for financial decisions making. The finance function covers both acquisitions of funds as well as their allocations. Thus, apart from the issues involved in acquiring external funds, the main concern of financial management is the efficient and wise allocation of funds to various uses.

Thus, financial management can be broken down into three major decisions as functions of finance:

i. The investment decision,

ii. The financing decision, and

iii. The dividend policy decision.

Baker et.al., (2005) cites that investment decisions involve determining the type and amount of assets that the firm wants to hold. That is, investing concerns allocating or using funds. The financial manager makes investment decisions about all types of assets – items on the left-hand side of the balance sheet. These decisions often involve buying, holding, reducing, replacing, selling and managing assets. The process of planning and managing a firm's long term investments is called capital budgeting

Sheeba (2011) defines the financing decisions. Business activities require funds that are procured from the financial markets from various sources like shareholders, debt-holders, financial institutions and banks. Funds, like the other inputs of the organization, have to be procured at a cost. Funds should be procured at a nominal cost and they should be effectively utilized to yield maximum value. The finance manager is expected to design the best financial mix i.e., chose those sources of finance where the cost of capital is minimal. The different sources of funds form the basis of an organization's capital structure.

Bhat (2009) states that dividend policy refers to the formation of a policy by the company regarding the payment of dividend from profits to ordinary shareholders year to year. It determines the ratio between dividend and retained earnings. The two important dimensions of dividend policy are, what should be the dividend payout ratio? How stable should the dividends be over time? The policy relating to dividend payout ratio and earnings retention varies not only from industry to industry but also among companies within a given industry and within a given company from time to time.

5. LIQUIDITY ANALYSIS

Liquidity analysis measures the ability of a firm to meet its short term maturing obligations (i.e. current liabilities) as and when they fall due for payment. Investors often take a close look at liquidity ratios when performing fundamental analysis on a firm. Since a company that is consistently having trouble meeting its short-term debt is at a higher risk of bankruptcy, liquidity ratios are a good measure of whether a company will be able to comfortably continue as a going concern. In the normal course of business, these liabilities are paid out of current assets. An

important aspect of liquidity analysis is to measure quality of debtors and inventories. This is carried out through the liquidity ratios.

This paper is divided into three sections. Section I discusses about the two liquidity ratios i.e. current ratio and acid test ratio for PGCIL over a period of ten years, 2002-2012. It is also important to examine the quality of debtors and inventories. Turnover ratios help us to judge whether debtors and inventories are slow or fast moving. Section II presents the debtors turnover ratio and inventory turnover ratio of PGCIL over the ten year period. Concluding observations are contained in Section III. It has to be examined whether subprime crisis and subsequent recession in 2007-08 had any impact on the liquidity of PGCIL. Therefore, the data is segregated into two phases, namely 2002-03 to 2007-08 (pre-recession Phase-I) and 2008-09 to 2011-12 (post-recession Phase-II).

Section I

Current and Acid test ratios

Current ratio is a financial ratio that measures whether or not a firm has enough resources to pay its debts over the next 12 months. It compares a firm's current assets to its current liabilities. Current ratio is based on the assumption that all constituent items of current assets are homogeneous in respect of liquidity. However, inventory and pre-paid expenses are least liquid assets and thus current assets exclusive of these two items known as quick assets.

A more stringent liquidity ratio is acid test ratio which compares quick assets to its current liabilities.The objective of this section is to examine the liquidity ratios of PGCIL over the ten year period; i.e. from 2002-12 in terms of employment of current liabilities. The following bases have been used to arrive at the liquidity ratios:-

Current ratio = Current assets / Current liabilities (1)

Acid test ratio = (Current assets – inventory – pre-paid expenses) / Current liabilities (2)

TABLE 1: CURRENT RATIO AND ACID TEST RATIO OF PGCIL, 2002-12

Year	Current ratio	Acid test ratio
2002-03	1.69	1.6
2003-04	1.23	1.14
2004-05	0.93	0.86
2005-06	0.57	0.53
2006-07	0.54	0.52

2007-08	0.75	0.71
2008-09	0.64	0.61
2009-10	0.71	0.69
2010-11	0.77	0.74
2011-12	0.99	0.96
Mean (2002-03 to 2007-08)	0.95	0.89
Mean (2008-09 to 2011-12)	0.78	0.75
Mean (2002-03 to 2011-12)	0.88	0.84
Median (2002-03 to 2007-08)	0.84	0.79
Median (2008-09 to 2011-12)	0.74	0.72
Median (2002-03 to 2011-12)	0.76	0.73

Paired Sample Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pre-Recession – Post-Recession	.15500	.02121	.01500	-.03559	.34559	10.333	1	.061

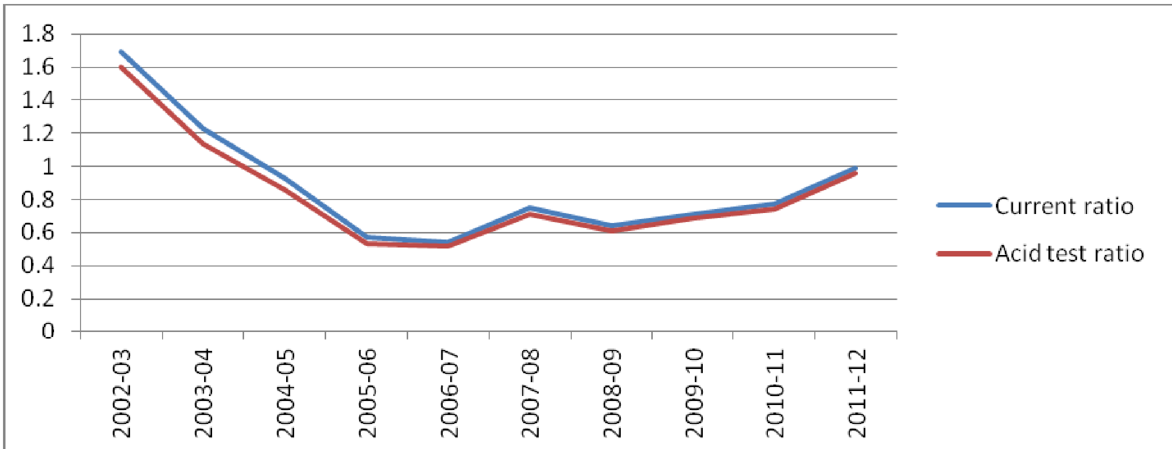

Figure 1: Current Ratio and Acid Test Ratio of PGCIL, 2002-12

From Table 1 and Figure 1, it can be observed that the current ratio during pre-recession phase-I was 0.95, which declined to 0.78 during post-recession phase-II. On similar terms, the acid test

ratio also declined. Current ratio of less than 1 is a serious concern, since it implies there is no safety margin and the firm is not able to meet its short term obligations. However, on a positive note it can be seen from data that the current ratio/acid test ratio has increased to the level of one by year 2011-12. This would have given confidence to the short term lenders and creditors, that there investment are safe and secure.

From Table 1, it can be inferred that there is no statistically significance between the pre-recession phase and post-recession phase on account of current and acid test ratios.

Section II

Turnover ratios The objective of this section is to examine the turnover ratios. These ratios determine how quickly certain assets are converted to cash. A high turnover ratio is a sign that the company is producing and selling its goods or services very quickly. The following bases have been used to arrive at the turnover ratios:-

Debtors turnover ratio = Net credit sales / Average debtors (3)

Inventory turnover ratio = Cost of goods sold / Average finished goods inventory
(4)

TABLE 2: DEBTORS TURNOVER RATIO AND INVENTORY TURNOVER RATIO OF PGCIL, 2002-12

Year	Debtors turnover ratio	Inventory turnover ratio
2002-03	1.29	13.09
2003-04	2.12	13.43
2004-05	5.37	15.43
2005-06	8.10	19.34
2006-07	8.80	21.45
2007-08	5.80	17.24
2008-09	5.32	19.68
2009-10	3.97	20.67
2010-11	3.12	21.99
2011-12	3.66	22.79
Mean (2002-03 to 2007-08)	5.25	16.66
Mean (2008-09 to 2011-12)	4.02	21.28

Mean (2002-03 to 2011-12)	4.76	18.51
Median (2002-03 to 2007-08)	5.59	16.34
Median (2008-09 to 2011-12)	3.82	21.33
Median (2002-03 to 2011-12)	4.65	19.51

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pre-Recession – Post-Recession	-1.69500	4.13657	2.92500	-38.86065	35.47065	-.579	1	.666

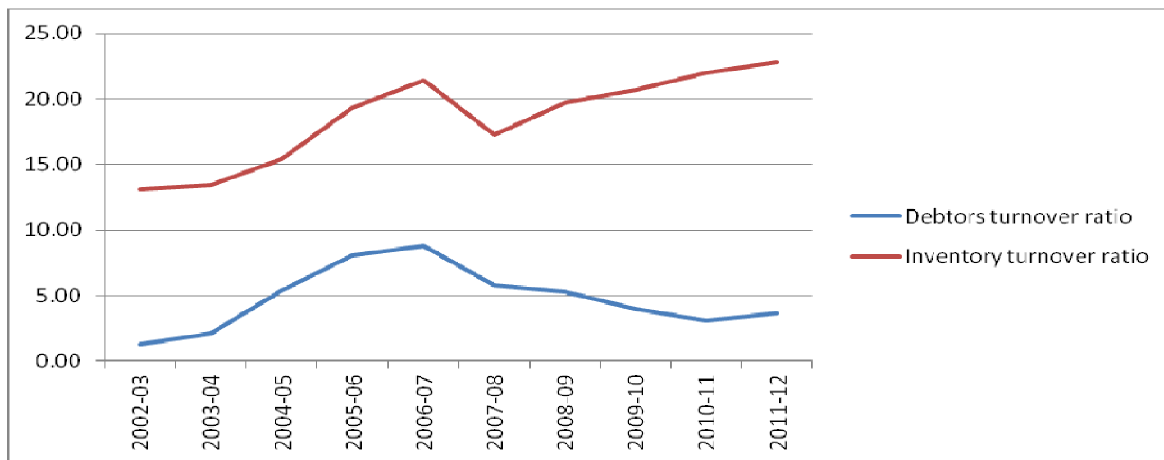

Figure 2: Debtors Turnover Ratio and Inventory Turnover Ratio of PGCIL, 2002-12

The debtors turnover ratio of PGCIL averages 4.76 during the ten year period, 2002-12. This means that the debtors collection period is 77 days (=2.5 months). The inventory holding period averages 20 days for past ten years for PGCIL.

SECTION-III

Concluding Observations

This chapter analyzed the liquidity ratios of PGCIL over the period of ten years, 2002-12. It can be observed from the analysis that the current ratio and the acid test ratios of PGCIL are at alarming level. This situation warrants immediate remedial action for infusing positive sentiments to the short term lenders / creditors. The higher the turnover ratios, the better it is. This can be understood from the fact that companies with low profit margins tend to have high asset turnover, while those with high profit margins have low asset turnover. Recession during 2007-08, had no effect on PGCIL liquidity, as can be seen from the analysis.

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