

## SEARCH OF POWER IN POWER COMPANIES

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### ABSTRACT

In the present time we cannot even think to survive without power supply, this supply is provided by power companies. But these companies are struggling to survive in the market due to various internal as well as external reasons. We have never thought that if these power companies collapse then what will happen to power supply and our lives. This paper is an attempt to check the financial health of seven power companies, on the basis of five year data provided by the companies in their annual reports, to conclude that are they going to survive in the future? It is done by assessing the overall financial performance of the company, by knowing the efficiency in financial operations, & by predicting the financial health and viability of the company. For this purpose Edward I. Altman Z-score analysis is used, this model predicts the likelihood that a company would go bankrupt.

**Key words:** Power, Financial health, Efficiency, Viability &, Z-score

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## I Introduction

As we know that Finance is the backbone of any business, survival of the business in the modern world is possible, only when, apart from other things, it has sufficient finance. The financial requirements of a business must be sufficient to meet its long-term and short-term commitments. Long term requirements are fulfilled by permanent capital and short-term requirements by working capital. Thus any business without finance is a toothless tiger. Therefore, the financial analyst is responsible to check the financial potency of the business from time to time.

The performance of the company is judged by its financial statements, which throws light on the operational efficiency and financial position of the company. Due to intense competition, among the business community, everyone is doing something better than the other to capture the business, therefore, monitoring the financial health of a company by checking its sales and profit growth is not sufficient today.

It is necessary to benchmark the efficiency of utilization of capital and assets, return to 'shareholders as well as predicting financial distress. The prediction and prevention of financial distress is one of the major factors, which will help to avoid bankruptcy. Several indicators and information sources can help in the prediction and prevention of financial distress. Financial statement analysis is one of the methods that can be used in predicting financial distress, which focuses on financial variables.

To evaluate the financial conditions and performance of a company, the financial analysis needs certain yardsticks. Among the variables, tools are employed in analyzing the financial information contained in the financial statements. Ratio analysis is a widely used tool, which is relevant in assessing the performance of a firm in respect of liquidity position, long term solvency. In addition to this, it helps to predict the financial distress of the business. An attempt has been made in the present study to have an insight into the examination of financial health of the select Power Sector Companies

## II Review of Literature

Indrasena Reddy P and Someswar Rao K (1996) conducted a study in Hindustan Cables Ltd. for the period from 1989-90 to 1993-94. Having studied current ratio, quick ratio, working capital turnover ratio, etc. they concluded that liquidity position of the company was unsatisfactory. However, the study revealed that there was a sign of improvement in the

management of inventory and ineffectiveness in the management of debtors. The study recommended for effective utilization and control of current assets.

Studying the management of working capital in Colgate Palmolive (India) Ltd. Debasish Sur (1997) attempted to assess the efficiency of working capital management in terms of working capital ratio, quick ratio, ratio of current asset to total assets, ratio of current assets to sales and composition of working capital. The study revealed that the working capital management was inefficient during the study period. The study recommended for special attention to the management of inventories, which constituted the highest part of current assets.

In his study on “Working Capital Turnover in Pharmaceutical Companies” Mr.Siddharth G.Das (1994) attempted to ascertain efficient or otherwise use of working capital in selected pharmaceutical firms in India. Having studied the data of ten years, he concluded that the overall working capital turnover ratio was 9.03 times. However, the study also revealed that working capital turnover ratio declined gradually over the period under review.

Prof. K. R. Ramana & Dr. P.Hanumantha Rao (2015) in his study “Examining Working Capital Management Practices of Construction Firms – A Comparative Study of HCC and SIL”, examined the efficiency of Working Capital Management of Hindustan Construction Company and Simplex Infrastructure Ltd on the basis of some efficiency indices like Current ratio, Quick ratio, inventory turnover ratio etc., to identify gap in their practices, to suggest for further improvement in the practices.

Dr. Ashok Kumar Panigrahi (2013) in his study on “Liquidity Management of Indian Cement Companies – A Comparative Study”, attempted to evaluate the liquidity management of five leading Cement companies over a period of 10 years (2000-01 to 2009-10). More specifically the emphasis on to assess the management of working capital and its adequacy, to study and compare the liquidity position of the companies under study, & to find out the areas of weakness in liquidity management and offer suggestions for improvement

First, being either less frequent, or discrete, accounting variables create a major impediment in predicting the probability of default, at a moment of interest prior to imminent financial distress. The frequency of accounting-based variables will be either quarterly or annual because they are obtained exclusively from quarterly- or- annually issued financial statements, i.e. from balance sheets or income statements. Therefore, the default probability of a firm will be unchanged for 12 months when a prediction is based on a certain year's

annual financial statement (Altman and Saunders, 1998). In other words, no matter when we estimate the credit risk of a firm, the probability of bankruptcy is always identical during the given fiscal year because it is based on the same accounting variables, unless new or additional accounting information for the next fiscal year becomes available.

### III Objectives

- To assess the overall financial performance of the company.
- To know the efficiency in financial operations.
- To predict the financial health and viability of the company.

### IV Research Methodology

#### Coverage of the study

The universe of the present study is the Power Sector companies of India, a sample for five year of seven companies have been taken here for analysis. These companies are Suzlon, T.D. Power, SPIC, Honda SIEL, J.P.Power, Indo wind Energy, & MSP Steel & Power company.

#### Data Collection

The data for the selected sample is collected from the secondary sources i.e. annual reports of the companies.

#### Tools & Techniques

'Z' SCORE: About 40 years ago, Edward I. Altman, a financial economist at New York University's Graduate School of Business, developed a model for predicting the likelihood that a company would go bankrupt. This model uses five financial ratios that combine in a specific way to produce a single number, called the Z-score is a general measure of corporate financial health. The most famous failure prediction model is Altman's Z-Score Model Based on Multiple Discriminate Analysis (MDA), the model predicts a company's financial health based on a discriminate function to the firm.

#### Model

$$Z = 1.2 X1 + 1.4 X2 + 3.3 X3 + 0.6 X4 + 1.0 X5$$

Where:

Z = Discriminant function score of a firm

X1 = Working Capital / Total Assets

$X2 = \text{Retained Earnings} / \text{Total Assets}$

$X3 = \text{Earnings before interest and taxes} / \text{Total Assets}$

$X4 = \text{Market Value of Equity} / \text{Book value of Total Liabilities}$  or Reciprocal of Debt-Equity Ratio

$X5 = \text{Sales} / \text{Total Assets}$ .

The Z-score model (developed in 1968) was based on a sample composed of 66 manufacturing companies with 33 companies in each of two matched pair groups. Altman subsequently developed a revised Z-score model (with revised co-efficient and Z-score cut-offs) which dropped variables X4 and X5 (above) and replaced them with a new variable  $X4 = \text{net worth (Book value)} / \text{total liabilities}$ . The X5 variables were allegedly dropped to minimize potential industry effects related to assets turnover.

The Z-score is calculated by multiplying the following accounting ratios, which is efficient in predicting bankruptcy.

**1) X1 (Working Capital/Total Assets):** This ratio expresses the liquidity position of the company towards the total capitalization. Working capital is defined as the difference between current assets and current liabilities. Liquidity and size characteristics are explicitly considered.

**2) X2 (Retained Earnings / Total Sales):** It indicates the amount reinvested, the earnings or losses, which reflects the extent of the company's leverage. In other words, the extent assets, which have paid by company profits. Those firms with high Retained Earnings to Total Assets have financed their assets through retention of profits and have not utilized as much debt. It also highlights either the use of internally generated funds for growth (low risk capital) Vs OPM (other people's money) - high risk capital. This is a measure of cumulative profitability over time and leverage as well.

**3) X3 (Earnings Before Interest And Taxes / Total Assets):** It is the measure of the company's operating performance and it also indicates the earning power of the company. In addition, this is a measure of the productivity of the firm's assets, independent of any tax on advantage factors. Since a firm's ultimate existence is based on the earning power of its assets, this ratio appears to be particularly appropriate for studies dealing with credit risk.

**4) X4 (Market Value of Equity / Book Value of Total liabilities):** It is the measure of the long-term solvency of a company. It is reciprocal of the familiar debt-equity ratio. Equity is measured by the combined market value of all shares. While debt includes both, current and

long-term liabilities, this measure shows how much assets of an enterprise can decline in value before the liabilities exceed the assets and the concern becomes insolvent.

**5) X5 (Sales / Total Assets):** This is a standard turnover measure. Unfortunately, it varies greatly from one industry to another. In addition to this, it will reveal the sales generating capacity of the company's assets and measure of management's capacity to deal with competitive conditions.

## V Analyses

### Guidelines: Altman guidelines for health zone

With the help of Altman guidelines, the overall financial health of the select Power Sector companies is measured during the study period.

Situation	Z-Score	Zones	Remarks
I	Below 1.8	Not Healthy	Its failure is certain and extremely likely and would occur probably within a period of two years.
II	Between 1.8 & 2.99	Healthy	Financial viability is considered healthy. The failure in this situation is uncertain to predict.
III	3.0 and above	Too Healthy	Its financial health is viable and there is no risk of a fall.

Table 1 depicts that the working capital to total assets ratio was highest for 2009-10 (1.745) in respect of Suzlon. The ratio was negative throughout the study period in case of SPIC, it is lowest during 2011-12 (-0.7916). The mean ratio of working capital to total assets was positive for all companies except SPIC i.e. (-0.344).

**Table 1 (X1 working capital/ Total Assets)**

Years	Suzlon	TD power	SPIC	Honda SIEL	JP Power	Indo wind Energy	MSP Steel & power Ltd.
<b>2009-10</b>	1.745	0.449	-0.0955	0.660	0.303	0.3795	0.225
<b>2010-11</b>	-0.014	0.146	-0.6184	0.473	0.093	0.1029	-0.065
<b>2011-12</b>	-0.104	0.346	-0.7916	0.443	-0.055	-0.2588	-0.130
<b>2012-13</b>	-0.152	0.296	-0.1403	0.390	-0.068	0.0277	0.038
<b>2013-14</b>	-0.148	0.222	-0.0720	0.378	-0.107	0.0274	0.040
<b>Mean</b>	0.265	0.292	-0.344	0.469	0.033	0.056	0.021

Table 2 states the retained earnings to total assets ratio, it is lowest in case of SPIC during 2011-12 (-1.5119). The ratio is highest in case of Honda SIEL during 2009-10 (0.950). The average ratio is also highest for Honda SIEL i.e. 0.771 followed by TD Power i.e. 0.553 which shows that they have retained major portion of the profits in most of years & lowest for SPIC i.e. (-0.462).

**Table 2 (X2 Retained Earnings/ Total Assets)**

Years	Suzlon	TD Power	SPIC	Honda SIEL	JP Power	Indo wind Energy	MSP Steel & power Ltd.
2009-10	0.400	0.612	0.0972	0.950	0.143	0.298	0.203
2010-11	0.369	0.333	-0.7747	0.724	0.139	0.270	0.223
2011-12	0.254	0.585	-1.5119	0.705	0.127	0.292	0.198
2012-13	0.109	0.629	-0.1116	0.741	0.130	0.300	0.238
2013-14	0.116	0.607	-0.0086	0.736	0.116	0.251	0.292
Mean	0.249	0.553	-0.462	0.771	0.131	0.282	0.231

Table 3 shows that highest mean ratio of EBIT to Total Assets (0.142) was observed by TD Power, followed by Honda SIEL (0.135). The lowest ratio of (0.0006) by SPIC preceded by Suzlon & Indo wind energy both (0.027). Except SPIC & Suzlon (2009-10 only) all other companies maintained positive ratio throughout the period of the study.

**Table 3 (X3 EBIT/ Total Assets)**

Years	Suzlon	TD Power	SPIC	Honda SIEL	JP Power	Indo wind Energy	MSP Steel & power Ltd.
2009-10	-0.005	0.293	-0.0232	0.1957	0.060	0.052	0.083
2010-11	0.006	0.151	-0.0117	0.1512	0.036	0.028	0.080
2011-12	0.019	0.118	0.0686	0.1453	0.059	0.020	0.063
2012-13	0.084	0.084	-0.0071	0.0858	0.055	0.019	0.062
2013-14	0.031	0.066	0.0015	0.0988	0.050	0.016	0.069
Mean	0.027	0.142	0.006	0.135	0.052	0.027	0.071

As per Table 4, the highest ratio of Market value of equity to Book value was maintained by Honda SIEL in 2009-10, 2010-11 & 2013-14, however during the years of 2011-12 & 2013-13 the highest ratio was maintained by TD power. In case of mean ratio Honda SIEL is leading with (1.368) followed by TD Power (0.740).

**Table 4 (X4 Market value of Eq. Shares/Book Value of Eq Shares)**

Years	Suzlon	TD Power	SPIC	Honda SIEL	JP Power	Indo wind Energy	MSP Steel & power Ltd.
2009-10	0.847	0.033	0.0987	1.759	1.576	0.640	0.318
2010-11	0.454	0.053	0.1679	1.239	0.602	0.284	0.322
2011-12	0.239	1.189	0.3985	1.037	0.478	0.126	0.126
2012-13	0.137	1.233	0.3686	1.106	0.285	0.082	0.093
2013-14	0.136	1.193	0.1777	1.698	0.142	0.098	0.065
Mean	0.363	0.740	0.242	1.368	0.617	0.246	0.185

Table 5 portrays that the Sales to Total Assets Ratio of SPIC was found to be highest during 2011-12 (3.0584) & 2012-13 (2.9834). The most consistent ratio was maintained by Honda SIEL during the period of the study. The highest mean ratio is maintained by SPIC (1.565), JP Power had the lowest mean ratio i.e. (0.076).

**Table 5 (X5 Sales/ Total Assets)**

Years	Suzlon	TD Power	SPIC	Honda SIEL	JP Power	Indo wind Energy	MSP Steel & power Ltd.
2009-10	0.283	2.391	0.1982	1.5679	0.080	0.192	0.562
2010-11	0.250	1.075	0.6342	1.4059	0.046	0.159	0.451
2011-12	0.331	0.937	3.0584	1.4267	0.075	0.075	0.480
2012-13	0.099	0.661	2.9834	1.4346	0.085	0.063	0.476
2013-14	0.165	0.515	0.9530	1.4141	0.093	0.074	0.605
Mean	0.226	1.116	1.565	1.450	0.076	0.113	0.515

Table 6, shows that Suzlon, TD Power, JP Power, Indo wind Energy has nosed down during the period of study, it means that the financial health of these companies moving from safety zone to dangerous zone. In case of Honda SIEL & MSP Steel & Power Ltd. the financial health is declining but not so sharply. However SPIC has shown a little improvement in its financial health.

**Table 6 (Z-Score)**

Years	Suzlon	TD Power	SPIC	Honda SIEL	JP Power	Indo wind Energy	MSP Steel & power Ltd.
2009-10	3.424	4.750	0.200	5.376	1.787	1.619	1.576
2010-11	1.038	2.235	-1.137	4.216	0.831	0.922	1.138
2011-12	0.764	3.262	0.427	4.032	0.668	0.315	0.881
2012-13	0.427	2.907	2.827	3.873	0.536	0.627	1.110
2013-14	0.330	2.560	0.957	4.228	0.376	0.568	1.324



## VI. Findings of the study

A major finding of this study is to get the overall financial performance of sample companies during study period i.e. most of companies are struggling however some companies like Honda SIEL, MSP Steel & Power Ltd & TD Power are showing good fight back.

As far as efficiency in financial operations is concerned the companies showing the signs of comeback are efficient for rest of companies financial operations are seem to be inefficient.

Present study also predicts the financial health & viability of the sample companies in following table.

<b>Company</b>	<b>Financial Health</b>
Suzlon	Not Healthy
TD Power	Healthy
SPIC	Not Healthy
Honda SIEL	Too Healthy
JP Power	Not Healthy
Indo wind Energy	Not Healthy
MSP Steel & Power Ltd.	Not Healthy

## VI Conclusions

From the above study it can be concluded that there is only one company i.e. Honda SIEL which is pink in health, followed by TD Power which is not very good but better than others & other five companies are in very poor condition.

With the help of this study we can safely say that in case of Honda SIEL the financial health is viable and there is no risk of a fall. In case of TD Power financial viability is considered healthy & failure is uncertain to predict. However in case of Suzlon, SPIC, JP Power, Indo wind Energy, & MSP Steel & Power Ltd. failure is certain and extremely likely and would occur probably within a period of two or three years.

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