FINANCIAL WEALTH HEALTH OF MAWANA SUGAR MILL - A CASE STUDY

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Abstract

Financial health is the Stepping stone for the economic activities in every business Enterprise. Financial health reflects the success of the sugar mills. The scenario circles around diagnosing the wealth health of sugar mill by peeping deep into the annual reports of the concerns. In this paper an attempt has been made to study the degree of financial health of the selected units with the help of Edward Altman's Z-score model and the comparison of wealth health among the selected units with the help of statistical tools i.e. Mean, Standard Deviation and Coefficient of Variation. The study is depicts the issues relating to the financial performance only. Non-Financial aspects like marketing; Personnel, etc. are not taken into consideration. The objective of the study is to ascertain the degree of financial health condition of the selected units and the success thereof.

Introduction

In India, the financial health of sugar mills is severely affected by the number of reasons. One Problem leads to another problem. All the major problems of sugar sector are interlinked. For Example- the low Percentage of sugar in sugarcane leads to low recovery rate; the obsolete technology leads to high production cost; the accumulation of sugar stock leads to high interest burden; the state advised price leads to the additional burden on temporary loan. All these factors ultimately pull down the profit line on performance graph of the sugar mills.

In present time, the financial performance of corporate bodies is generally evaluated with the help of Ratio analysis, which is a universally accepted accounting tool. The major draw back of the traditional financial ratios is that each ratio gives a verdict of one particular area, which can not be consolidated. Therefore, we cannot analyses and compute the consolidated effect of various ratios with the help of the traditional financial ratios.

In this paper an attempt has been made to analyse and compute the consolidated effect of various ratios to ascertain the degree of financial health with the help of a universally accepted hybrid ratio, which is suggested by Edward Altman.

Z Score Model

Professor Edward Altman, Professor of Finance in School of Business in New York University developed a new model of consolidated ratios to predict business failures. Professor Altman observed that a large number of business houses have failed especially in large and medium scale organizations in America. The business failures phenomenon has received a great exposure during 1970s. He also observed that the corporate failure was no longer the exclusive province of the small business houses but occurs increasingly among the large industrial and financial corporations.

Professor Altman came up with a new theory known as Altman's Z score model. The Z score model is a linear analysis. In order to arrive at a final profile of variables, in the formula, the list of 22 potentially helpful variables of traditional ratios have been condensed in to five standard ratios viz., Liquidity, Profitability, Leverage, Solvency and Activity. This Variable further modified and tested with 66 Businesses corporate in which equal number of bankruptcy units was there. Based of the empirical study, Professor Altman Invented the following Formula with Standard Variables and Standard rates.

In case of traditional ratio analysis every ratio gives its own judgment that can not be consolidated to arrive at a final decision, whether the firm is really sick or not but the Z score model gives the final judgment. Hence the academicians all over the world have accepted the Z score model as a credible model. The capital analysts and financial experts prefer to predict the financial health of a business unit through the Z score model, which is superior to traditional ratio analysis.

Methodology

Objectives of the Study:
1- To ascertain the degree of financial health of selected sugar mill.

Description of the selected Units

The Universe of the present study is one private sector sugar mill of Western Uttar Pradesh. Mawana sugar works, Mawana is taken for the purpose of the study.

*Period of Study***:**
The data for the unit is related to the five year periods from 2004-05 to 2008-09. However in 2007-08Mawana Sugar mill Prepared its annual reports for 18 months Period due to change in the accounting Period i.e. Oct to Sep. instead of April to March.

*Source of data***:**
The present study is based on secondary data. The data on working capital and other related variables used in this study have been collected mostly from the annual reports of the selected unit for the relevant periods. The required secondary data have also been gathered from the published manufacturing reports and agricultural reports from the selected sugar factory.

*Analytical Tools Employed***:**
So, in order to ascertain the degree of financial health of the selected units, Edward Altman's Z score model (Z score= $1.2 X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.999X_5$) has been used. The Financial consistency of the selected units has been evaluated with the help of mean, standard deviation and coefficient of variation.

*Keywords Used***:**
Working Capital- The difference between Current assets and Current liabilities
Total Assets- Total fixed assets as given in the Schedules and gross working capital
Net Profit- As given in P & L a/c
Net Sales – As given in P&L a/c
Equity Capital – As given in schedule 1 or 'A' in balance sheet
Total Debts- As Given in schedules of secured loans and unsecured loans
EBDIT- Earning before depreciation, interest & tax as given

Results & Discussion
Variables of ratios of selected unit have been tabulated in table1. Further the arrived ratios (X_1, X_2, X_3, X_4 and X_5) have been multiplied with the standard values given in Z score model. The computed figure for co-operative sector sugar mill has been tabulated in table 2 & 3 .All the products of standard values and ratios have been added to arrive Z score for each year.

Comparative Z Score Analysis of Selected Unit
In order to get a comparative picture, the Z score test of the selected unit have been tabulated in table 4 and the same have been plotted in the chart no.1 as well. In order to analyse the financial soundness & consistency in maintaining its financial soundness, the computed Z score have been analysed.

Consistency in Financial Health
On an average the selected unit falls under good category according to the standard specified by Edward Altman.

Findings
- The decrease in net working capital has been regular throughout the period of study in Mawana sugar mill
- A positive net working capital is found during the period of study
- Z score of Mawana sugar mill indicate that the unit was financially good for two years & sick for three years during the study period
- Net profit to sales relation was very poor.
- The huge capital investment by Mawana sugar mill in modernization which is in the form of fixed assets, reduced the Z score of X1 and X3
- Mawana sugar mill has maintained a high degree of financial consistency.
- On an average the financial health of sugar factory is affected by the similar types of problems vz, low sugar percentage in sugarcane, low recovery rate, age-old technology, accumulated sugar stock, huge interest burden on temporary borrowings and SMP.

Suggestion
- The Mawana sugar mill needs to improve its consistence in financial health.
- The units should improve its net profit to net sales ratios because at present it is very less.
- The units need to create and make use of internal sources of finance as far as possible for payment of its sugarcane bills rather than all the time borrowing from banks.
- Mawana sugar mill should decrease the level of bank borrowings because they experience a good rise in profit before they pay interest but the situation goes opposite once the interest is paid

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Annexure

Table-1
Variables of Mawana Sugar Mill
(Figures **in Lakh Rs.**)

Year	W. Capital	T. Assets	Net Profit	Net sale	Equities	T. Debt	EBDIT
2004-05	2669.54	24082.96	104.25	19618.35	2428.70	5093.19	1572.42
2005-06	2305.44	1914.29	4050.31	21409.70	1831.53	391.43	1593.09
2006-07	2021.84	19128.63	109.25	16134.98	1831.53	216.5	1034.6
2007-08	1991.7	95948.0	-16691.8	101586.8	3057.3	68136.0	212.6
2008-09	1844.90	99367.3	-5721.8	67632.2	3495.7	69955.3	6630.4

Sources: Annual reports of the Mill

Table - 2

Value of X in Z-Scoring of Mawana Sugar Mill

	W. Capital to T. Assets x_1	Net Profit to Net sale x_2	EBDIT to T. Assets x_3	E. Capital to T. Debt x_4	Net sale to T. Assets x_5
2004-05	.111	.005	.065	.477	.815
2005-06	.120	.189	.083	4.68	1.115
2006-07	.106	.007	.054	8.46	.843
2007-08	.02	-.164	.002	.045	1.059
2008-09	.019	-.085	.067	.050	.681

Sources: Computed.

Table-3
Z-Scoring in Mawana Sugar Mill

Year	$1.2x_1$	$1.4x_2$	$3.3x_3$	$.6x_4$	$.99x_5$	Z score
2004-05	.133	.007	.215	.286	.807	1.448
2005-06	.144	.265	.274	2.808	1.104	4.595
2006-07	.127	.010	.178	5.08	.835	6.23
2007-08	.024	-.230	.007	.027	1.048	.876
2008-09	.023	-.119	.221	.03	.674	.829

Sources: Computed.

Table-4
Z-Scoring in Selected Sugar Mill

Year	Z score of Mawana Sugar Mill	Financially Position as per Z score Model
2004-05	1.448	Sick
2005-06	4.595	Good
2006-07	6.23	Good
2007-08	.876	Sick
2008-09	.829	Sick
Mean	**2.798**	Good

Chart-1
Z-Score test in sampled units

Years