A Critical Analysis on Monetary Potency with special reference to ELGI Equipments ltd, Coimbatore.

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Abstract:

Financial strength of any organization leads to various development opportunities in the business field. The agro-equipment industry gains lots of momentum after the proclamation from the International Monetary Fund and World Trading Organizations, stating that food scarcity is the core problem for many countries in due course of time. The compressor manufacturing industry had a derived demand from food industry and need to be stronger to meet the challenges ahead. Hence the present study is to analyze the monetary potency of Elgi equipments with some significant models deployed i.e. Altman Z-Score (Multiple Discriminant Model).Based on the outcomes necessary suggestions were given to improve the standard of the organization.

Keywords: *Financial strength, Agro-equipment, Altman Z score*

1. Introduction

Compressor manufacturing industry is one of the basic industries that gains economic importance as it belongs to the sector of agro-equipment manufacturing industry. Elgi equipments ltd was one of such compressor manufacturer incorporated in 1960 as a private limited company at Coimbatore. And Elgi Equipments was converted into a public limited company in 1975 and came out with a public issue of 75,000 shares. It was promoted by L G Balakrishnan, his brothers and associates.

Hailing from the Elgi stable, EEL manufactures reciprocating, borewell and screw compressors. It also makes and sells garage equipment, mobile utility systems, bottling equipment and automobile accessories such as power brakes, pneumatic horns and wipers. It has two manufacturing units at Coimbatore. As part of its modernizations plans, the company invested Rs: 40 crores in the upgradation and expansion of the manufacturing facilities, especially of compressors. The company's shares are listed in BSE, NSE and CSE.

Statement of the Problem:

Compressor manufacturing industry is one of the important segments of Indian economy. The compressor manufacturing industry is basically agro-based industry but it also serves to need of households also. Elgi equipments ltd is one of such compressor manufacturer that faces many problems including stiff competition from the peers and pressers due to reduced sales backed by Mansoon failures or delays. So, it is becoming necessary to study the financial health of the ELGI Equipments Ltd.

Scope of the Study

The study pertains to the financial health of ELGI Equipments Ltd., Coimbatore. The study is made by making a comparison of 10 years of its liquidity, turnover, profitability and leverage position and an effective use of assets. This study also helps the company as well as the investors to understand its financial health.

Objectives of the Study

- To assess financial healthiness of the study unit by using Altman Z-Score (Multiple Discriminant Model)
- To understand the absolute fact and figures of the company
- To suggest ways and means for improving the financial health of the company.

Source of Data

The study is mainly based on secondary data collected from ELGI Equipments Ltd for the period of ten years from 2000 - 01 to 2009 -10. The data were obtained from the annual reports which were published by ELGI Equipments Ltd. The ratios have been calculated and interpreted from the figures of profit and loss account and balance sheet of the company.

A Z-SCORE ANALYSIS

Application of Z – score

"Z" score analysis, multi discriminant analysis has been introduced Edward I. Altman in 1968 to evaluate the general trend in the financial health of an enterprises over a period. Using of many accounting ratios to assess the performance may sometimes fails to predict the bankruptcy of the companies, so, he wanted to design a multiple discriminant model to predict the bankruptcy at least sometime before. At last he identifies a combination of five ratios and developed a model to predict the healthiness at least before two years than the year of bankruptcy.

Meaning of Financial Distress

Financial distress may be defined as a situation where a firm is not able to meet its maturing obligations on time. A high degree of financial leverage increases the risk of financial distress and ultimately leads to liquidation result, both the equity and debt-holders are adversely affected.

Indicators of Financial Distress

The ratios used for prediction the financial distress include liquidity ratios, solvency ratios and activity ratios.

Liquidity ratios

Liquidity ratios measure the firm's ability to meet its obligations in the short run.

Solvency Ratios

Solvency ratios measure the Firm's ability to meet the debt long run

Activity ratios

Activity ratio measure the firm's ability to utilize its assets in an efficient manner.

Components of Z-Score Model

Z-Score applied to historic performance. The model uses common financial information such as 'sales revenue' and 'total assets' to derive five basic financial ratios.
Each ratio is assigned a weight and summed together to produce the Z-Score. The five ratios used in the model are as follows:

Variables (Ratios) Used in Z score Analysis.

The following accounting ratios are used as variables to combine them into a single measure (index), which is efficient in predicting bankruptcy.

X1- The ratio is working capital to total assets (WC/TA). It is the measure of the net liquid assets of a concern to the total capitalization.

X2- The ratio of net operating profit to net sales (NOP/S). It indicates the efficiency of the management in manufacturing, sales, administration and other activities.

X3- The ratio of earnings before interest and taxes to total assets (EBIT/TA). It is a measure of productivity of asset employed in an enterprise is based on the earning power (profitability).

X4- The ratio of market value of equity to book value of debt (MVE/BVD). It is reciprocal of the familiar debt-equity ratio 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 the enterprise can decline in value before the liabilities exceed the assets and the concern becomes insolvent.

X5- The ratio of sales to total assets (S/TA).the capital turnover ratio is a standard financial measure for illustrating the sales generating capacity of the assets.

Z-SCORE (ARRIVED AT USING THE WEIGHTAGE FACTORS)

For the purpose of predicting the financial health and capability of ELGI Equipments Ltd., the z-score method has been applied. The data has been obtained from the company's financial statements. The z-score of the company has been computed for the last ten years.

The criteria for judging the Z-Score for different types of companies are explained below:

Z-Score (for public manufacturer)

If the score is 3.0 or above, bankruptcy is not likely to occur. It the score is 1.8 or less-bankruptcy is likely to occur. A score between 1.8 and 3.0 is the gray area.

Z-Score (for private manufacturer)

A score of 2.90 or above can be an indicator that bankruptcy is not likely to occur. A score of 1.23 or below is a strong indicator that bankruptcy is likely to occur. A score between 1.23 and 2.90 is the gray area. The above z-score formula has been applied and the following values of z-score have been derived as seen in table.

Since ELGI Equipments Ltd manufacturing firm applied z-score as accordingly

Formula:

$$Z=0.012(x1) +0.014(x2) +0.033(x3) +0.006(x4) +0.999(x5)$$

(i) Working Capital To Total Assets (X1)

This is a measure of the net liquid assets of firm in relation to total assets. Net liquid assets relative to total capitalization or otherwise,current assets relative to total assets. Negative ratio / Result- Negative networking capital. It is a serious problem. This ratio is computed with the help of the following formula.

Formula:

$$\text{Working capital to total assets} = \frac{\text{Working capital}}{\text{Total assets}}$$

Table No: 1
Working Capital To Total Assets Ratio (X1)

Year	Working Capital	Total Assets	W .C. to T. A Ratio	Score (X1)
2000-01	63.76	112.6	0.56625222	0.006795
2001-02	57.71	118.87	0.485488349	0.005826
2002-03	46.16	88.44	0.521935776	0.006263
2003-04	38.13	83.92	0.454361296	0.005452
2004-05	45.69	99.96	0.457082833	0.005485
2005-06	59.32	119.76	0.495323981	0.005944
2006-07	73.14	125.99	0.580522264	0.006966
2007-08	79.17	136.35	0.580638064	0.006968
2008-09	79.78	166.89	0.478039427	0.005736
2009-10	93.57	196.81	0.475433159	0.005705

Source: Annual Reports of Elgi Equipments Ltd.,

Interpretation:

The table no: 1 shows Working capital to total assets ratio which shows a fluctuating trend during the period of study. It highest ratio of 0.006968 times registers in 2007-08 and lowest ratio of 0.005705 registers in 2009-10. The ratio fluctuates because of the fluctuations in working capital and the total assets shows increasing trend.

(Ii) Retained Earning To Total Assets Ratio (X2)

This is a more significant ratio to study the age of a firm. New firms generally registered low figures, because they have no time to build up their cumulative profits.

Formula:

$$\text{Retained earnings to total assets} = \frac{\text{Retained earning}}{\text{Total assets}}$$

Table No: 2
Retained Earning To Total Assets Ratio (X2)
(Rs in crores)

Year	Reserves & Surplus	Total Assets	R.S to T.A. Ratio	Score (X2)
2000-01	71.85	112.6	0.638099467	0.00938
2001-02	72.88	118.87	0.613106755	0.008583
2002-03	71.84	88.44	0.812302126	0.011372
2003-04	77.4	83.92	0.922306959	0.012912
2004-05	89.23	99.96	0.892657063	0.012497
2005-06	104.61	119.76	0.873496994	0.012229
2006-07	115.09	125.99	0.913485197	0.012789
2007-08	129.9	136.35	0.95269527	0.013338
2008-09	160.62	166.89	0.962430343	0.013474
2009-10	190.54	196.81	0.968141863	0.013554

Source: Annual Reports of ELGI Equipments Ltd.,

Interpretation

The table no: 2 shows the ratio of reserves and surplus to the total asset ratio and the lowest ratio of 0.008583 in the 2001-02, the highest ratio registers as 0.013554 in the year 2009-10. The ratio shows an increasing trend because of increasing reserves and surplus. So the ratio indicates accumulation of reserves. So, the healthiness of the company increases.

(Iii) EBIT To Total Assets Ratio (X3) :

This ratio is a measure of the true productivity of the firm's assets EBIT=Earnings before Interest and Tax. Total assets include both fixed assets and current assets.

Formula:

$$\text{EBIT to total assets} = \frac{\text{EBIT}}{\text{Total assets.}}$$

EBIT=Sales – (Variable cost + Fixed cost)

Table No: 3
EBIT To Total Assets Ratio (X3)
(Rs in crores)

Year	EBIT	Total Assets	EBIT to T.A. Ratio	Score (X3)
2000-01	14.29	112.60	0.126909414	0.004188
2001-02	10.69	118.87	0.089930176	0.002968
2002-03	19.13	88.44	0.216304839	0.007138
2003-04	19.33	83.92	0.230338418	0.007601
2004-05	30.18	99.96	0.301920768	0.009963
2005-06	31.84	119.76	0.265865063	0.008774
2006-07	28.06	125.99	0.222716089	0.00735
2007-08	35.93	136.35	0.263513018	0.008696
2008-09	57.06	166.89	0.341901852	0.011283
2009-10	64.70	196.81	0.328743458	0.010849

Source: Annual Reports of ELGI Equipments Ltd.,

Interpretation:
The table no :3 shows the ratio of EBIT to total assets, the highest ratio registers as 0.011283 in the year 2008-09 and the lowest ratio registers of 0.002968 in the 2001-02. In general, it shows an increasing trend due to the increasing trend of EBIT.

(iv) Market Value Of Equity / Book Value Of Liabilities (X4)

This ratio measures the market perception of the firm's performance which is reflected in market value of shares.

Formula:

$$\text{Equity to liabilities} = \frac{\text{Market value of equity}}{\text{Book value of liabilities}}$$

Table No: 4
Market Value Of Equity / Book Value Of Liabilities Ratio (X4)
(Rs in crores)

Year	Equity capital	Debt	Equity to Debt Ratio	Score (X4)
2000-01	89.15	37.75	2.3616	0.01417
2001-02	147.02	39.99	3.6764	0.02206
2002-03	508.3	10.51	48.3635	0.29018
2003-04	424.24	0.43	986.6047	5.91963
2004-05	481.32	4.55	105.7846	0.63471
2005-06	465.29	8.88	52.3975	0.31439
2006-07	657.66	4.63	142.0432	0.85226
2007-08	232.65	0.18	1292.5000	7.75500
2008-09	677.99	0.18	3766.6111	22.59967
2009-10	713.97	0.18	3966.5000	23.79900

Source: Annual Reports of Elgi Equipments Ltd.,

Interpretation

The table no 4 shows the ratio of Market value of equity to book value of debt. The ratio registers 23.799 times as ever high in 2009-10 and the lowest ratio registers as 0.0142 in 2000-01. The ratio shows a decreasing trend because of increasing market value of equities and redemption of book debts. The redemption of debt and increased market value of equity backed by accumulated reserves .The increasing trend of ratio indicates increased healthiness of the company.

Source: Annual Reports of Elgi Equipments Ltd.,

Interpretation

The table no 4 shows the ratio of Market value of equity to book value of debt. The ratio registers 23.799 times as ever high in 2009-10 and the lowest ratio registers as 0.0142 in 2000-01. The ratio shows a decreasing trend because of increasing market value of equities and redemption of book debts. The redemption of debt and increased market value of equity backed by accumulated reserves .The increasing trend of ratio indicates increased healthiness of the company.

(V) Sales To Total Assets (X5)

This ratio measures the firm's ability in utilizing its assets. Higher the ratio betters the performance. The poor ratio indicates the underutilization of assets.

Formula:

$$\text{Sales to total assets} = \frac{\text{Sales}}{\text{Total assets}}$$

Table No: 5
Sales To Total Assets Ratio (X5)
(Rs in crores)

Year	Sales	Total Assets	Sales to T. A. ratio	Score (X5)
2000-01	143.37	112.6	1.273268206	1.270722
2001-02	159.49	118.87	1.341717843	1.339034
2002-03	194.27	88.44	2.196630484	2.192237
2003-04	221.39	83.92	2.638107722	2.632832
2004-05	290.51	99.96	2.906262505	2.90045
2005-06	285.27	119.76	2.382014028	2.37725
2006-07	312.07	125.99	2.476942614	2.471989
2007-08	378.58	136.35	2.776530986	2.770978
2008-09	451.29	166.89	2.704116484	2.698708
2009-10	479.42	196.81	2.435953458	2.431082

Source: Annual Reports of ElGI Equipments Ltd.,

Interpretation:

The table no 5 shows the relationship between sales and total assets. The lowest ratio of 1.270 registers in the year 2000-01 and the highest ratio of 2.90045 are registered in the year 2004-05. The ratio shows on increasing trend with fluctuations due to increased sales. It shows efficiency of the firm increases year after year by increased sales.

Table No: 6
ALTMAN Complete Z-Score
Source: Annual Reports of Elgi Equipments Ltd.,

Year	X1	X2	X3	X4	X5	Total Score (X1+X2+X3+X4+x5)
2000-01	0.006795027	0.009380062	0.000309542	0.01417	1.270722	1.3014
2001-02	0.00582586	0.008583495	0.000283255	0.02206	1.339034	1.3758
2002-03	0.006263229	0.01137223	0.000375284	0.29018	2.192237	2.5004
2003-04	0.005452336	0.012912297	0.000426106	5.91963	2.632832	8.5713
2004-05	0.005484994	0.012497199	0.000412408	0.63471	2.90045	3.5536
2005-06	0.005943888	0.012228958	0.000403556	0.31439	2.37725	2.7102
2006-07	0.006966267	0.012788793	0.00042203	0.85226	2.471989	3.3444
2007-08	0.006967657	0.013337734	0.000440145	7.75500	2.770978	10.5467
2008-09	0.005736473	0.013474025	0.000444643	22.59967	2.698708	25.318
2009-10	0.005705198	0.013553986	0.000447282	23.79900	2.431082	26.2498

Interpretation:

The table no: 6 show complete scores of z-score. The complete score registers an increasing trend during the study period. The lowest score registers as 1.3014 in 2000-01 and the highest ratio registers 26.2498 in 2009-10. In general, the score shows an increasing trend with fluctuations due to increased reserves & surpluses, increased market value of equities and redemption of debt. In the entire study period shows the total score increases year after year is a strong sign that the company is moving from ranges of bankruptcy to financial healthiness.

Findings:

(I) Working Capital To Total Assets (X1) :
The ratio fluctuates because of the fluctuations in working capital and the total assets shows increasing trend.

(Ii) Retained Earning To Total Assets Ratio (X2):

The ratio indicates accumulation of reserves. So, the healthiness of the company increases year after year.

(Iii) EBIT To Total Assets Ratio (X3) : It shows an increasing trend due to the increasing trend of EBIT.

(Iv) Market Value Of Equity / Book Value Of Liabilities (X4):

The redemption of debt and increased market value of equity backed by accumulated reserves increases the ratio. It indicates increased healthiness of the company.

(V) Sales To Total Assets (X5):

The ratio shows on increasing trend with fluctuations due to increased sales. It shows efficiency of the firm increases year after year by increased sales.

Altman Complete Z-Score (Health Analysis):

The score shows an increasing trend with fluctuations due to increased reserves & surpluses, increased market value of equities and redemption of debt. In the entire study period shows the total score increases year after year is a strong sign that the company is moving from ranges of bankruptcy to financial healthiness.

Suggestions:

- The company should give necessary attention to keep the level of working capital at adequate level so that the score can be maintained at high level.
- The avoidance of excess working capital may help to improve operating profit of the company
- Necessary arrangements should be taken to improve the managerial competence of ELGI Equipments Ltd.

Conclusion:

The financial health plays a significant role in the successful functioning of the firm. Poor financial health threatens the survival and leads business failure. Most of the companies are facing the problem of financed viability today. In light of the above situation the study made an attempt to investigate the financial health of the company by using MDA with the help of financial ratios. This study would also to useful to all companies, and researchers for appraising the financial health of corporate sector.

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