

Financial Strength Analysis of Unitech Company Using Altman’s Z score Model

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Abstracts - Firms are Looking Growth by year by year but some Failure of this objective. Predication of Bankruptcy is critical task, in the early stage of identification of likelihood of solvency may avoid evils in the near future & may shelter the firm from Bankruptcy situation. The bankruptcy of organizations can be predicated by using Altman’s Z-Score Model, this model to examine the financial soundness of the firms belonging to the manufacturing & non-manufacturing and Privet and Public limited firms have Separate Calculations. This study uses Edward Altman financial distress prediction model to assess financial situation to understand the likelihood of Bankruptcy of Unitech for past 10 years, which is listed in Indian Stock Exchange. The secondary data for assessment were obtained from financial Statement of these companies; the financial statement is sufficient to be used as a discriminating function for business organization.

Key words: Financial Statement, Altman’s Z-Score Model and Bankruptcy

Introduction Financial Statement

Most of the organizations functioning with an objective of profit maximization and Stability of Growth; to achieving these objectives the firm need strong Operational Support and Financial Health. The operational failure (internal support system such as effective utilization of funds, labor,

material etc & external support system such as economic, political & socio-cultural) conditions results in Bankruptcy of the organization, these failure leads to heavy losses whether financial and non-financial concerns, thus the importance to expect business failure accurately on timely, it is useful to Financial Manager to take the necessary step to avoid a possibilities of financial failure.

Altman Z score Model

Altman Z-Score was developed to Z-Score estimated for Non-Manufacturing and emerging Markets Model like below given Model. Altman applied the statistical method of Discriminant analysis to a dataset of publicly held manufacturers, the estimation was originally based on these data, but has since been re-estimated based on other datasets for private manufacturing, non-manufacturing and services companies. The Altman Z-score is a linear combination of Ratios; four ratios are using Service Firms and five are using Manufacturing firms. The business ratios are weighted by coefficients; the coefficients were estimated by identifying a set of firms which had declared bankruptcy and then collecting a matched sample of firms which had survived, with matching by industry and approximate size (assets). Researchers and analyst being to focus their attention to uses financial Concepts for evaluate corporate financial conditions and performance. These are best useful indicators of a firm’s financial situation.

Table – 1, Z - Score Estimated Formula

Nature of Firm	Manufacturing Firms	Private Firm	Non-Manufacturing	Non-Manufacturing & Emerging Markets
X1	working capital / total assets			
X2	retained earnings / total assets			
X3	EBIT / total assets			

X4	market value of equity / book value of total liabilities	book value of equity / total liabilities	book value of equity / total liabilities	book value of equity / total liabilities
X5	Sales / total assets.	sales / total assets	-	-
Z Value	$1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 1.0X5$	$0.717X1 + 0.847X2 + 3.107X3 + 0.420X4 + 0.998X5$	$6.56X1 + 3.26X2 + 6.72X3 + 1.05X4$	$3.25 + 6.56X1 + 3.26X2 + 6.72X3 + 1.05X4$
Zone of Discriminations	$Z > 2.99$ – “Safe” Zone $1.81 < Z < 2.99$ – “Gray” Zone $Z < 1.81$ – “Distress” Zone	$Z' > 2.9$ – “Safe” Zone $1.23 < Z' < 2.9$ – “Grey” Zone $Z' < 1.23$ – “Distress” Zone	$Z > 2.6$ – “Safe” Zone $1.1 < Z < 2.6$ – “Grey” Zone $Z < 1.1$ – “Distress” Zone	$Z > 2.6$ – “Safe” Zone $1.1 < Z < 2.6$ – “Grey” Zone $Z < 1.1$ – “Distress” Zone

Note 1: The symbol “/” means Mathematical Symbol Representing Division Like “÷”.

Note 2: EBIT Means Earnings before interest and Taxes.

Source: Wikipedia.org/wiki/Altman-Z score.

Review of Literature

MSRamaratnam, R jayaraman (2010), Analyzed Steel Companies and Founded that Altman Z score plays a vital role in deciding the financial bankruptcy of a firm and thee by a firm can judge its financial position and revealed that all the selected manufacturing companies are financially sound during the study period.

Dr. Bhavik U.Swadia, Shreedha Shah (2016), noted that Altman’s Z score shows likelihood not a prediction. From financials of Ambuja Cement, it may look likely that the company may face bankruptcy, but proper managerial decisions, the managers may succeed in improving the results.

Ms.S.Praveena and at all(2012), Study tried to demined the combination effect of various financial ratios with the help of z score analysis seeds companies, they found these firms have good financial health.

Prihadi (2011), bankruptcy, Preliminary indications from the company that usually can be recognized early that the financial statements are carefully analyzed in a particular way; financial ratios can be used as an indication of the bankruptcy of the company.

Kumari (2013), found that Z score is much higher than 3.00. So, it can be predicted that bankruptcy is unlikely to occur for MMTC in the next two years and overall financial health

of MMTC is good, and it can be quoted as an investor friendly company.

Edward Altman (1968), in his Article analyzed the financial position with the help of ratio analysis and multiple Discriminant analysis and coefficient was determined. The mo was formulated to determine the bankruptcy of any company.

Research Methodology

The study is being done with the follow

- To investigate the overall financial soundness of Unitech Limited using Altman Z score model.
- To predict the possibility of bankruptcy of Unitech Limited using the Altman Z score model.
- To provide suitable suggestions for Unitech Limited to avoid bankruptcy.

Net Working Capital to Total Assets Ratio of net working capital to total assets shows the liquidity position of the Firm, it having a high net working capital to total asset ratio shows the company’s ability to match its account payable obligations on time. Generally Suppliers prefer to strike relationships with such firms, who would make payments on time and a low working capital to total assets ratio management. Usually indicates serious cash flow difficulties of the firm and Firm unable to make payments to its

suppliers and creditors. When it makes profit and has assets to cover its liabilities, it could be a predictor for an imminent bankruptcy or disaster.

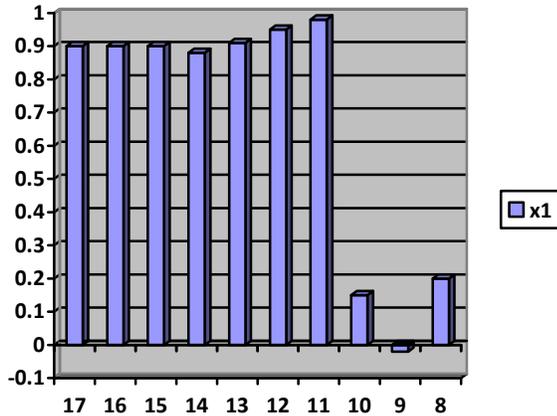


Fig: 1, Net Working Capital to Total Asset Ratio

From the Fig: 1 Shows the Result of Net working Capital to Total Asset (X_1) Ratio is 0.20 in financial year 2008, Negative Result Shoes to the value is -0.02 in the financial year 2009, Immediately Increases to the value is 0.15 in the financial year 2010, Highly Changing to to the value is 0.98 in the financial year 2011, slightly fall down to the value is 0.95 in the financial year 2012, slightly fall down to the value is 0.91 in the year of 2013, slightly fall down to the X_1 value is 0.88 in the year 2014, slightly increasing to the value is 0.90 in the financial year 2015 and same value representing same value from 2016 and 17.

Retained Earnings to Total Assets ratio indicates that the proportion of fixed assets is financed by the retained earnings i.e. reserves. Retained earnings are the free reserves and cheaper source of finance than debt. This Ratio having low ratio value in the analysis, it indicates that growth is not a real growth, because the company is financed other sources and increasing debt, rather than of reinvesting profits, where a high ratio indicates that assets are funded from internal resources rather than from external injected equity capital or debt. This Ratio is used as an indicator of the age of a business (older businesses tend to have higher accumulated retained earnings and therefore a higher ratio), and as a measure of leverage. The Analysis Result of the retained earnings total assets ratio is 0.5 or 50%, it means that the assets are 50% funded by retained earnings and 50% funded by liabilities and capital injected by equity holders. A falling ratio might indicate that the business is unable to generate sufficient profit from its operations or that it is paying too much of those profits out by way of dividends to equity holders.

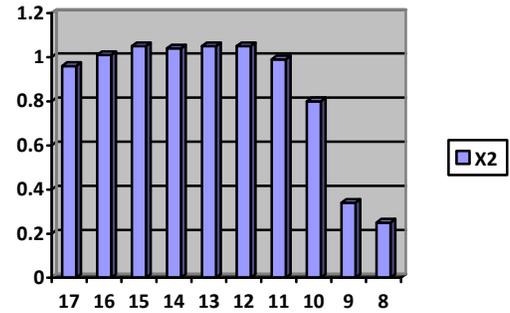


Fig: 2, Retained Earning to Total Asset Ratio

From the Fig: 2 Shows the Result of Retained Earning to Total Asset (X_2) Ratio is 0.25 in the financial year 2008, slightly increase to the value is 0.34 in the financial year 2009, Immediately Increases to the value is 0.80 in the financial year 2010, increasing to the value is 0.99 in the financial year 2011, slightly increasing to the value is 1.05 in the financial year of 2012 and same value following to the 2013, slightly fall down to the value is 1.04 in the financial year of 2014, slightly increasing to the value is 1.05 in the financial year 2015, slightly fall down to the value is 1.01 in the year 2016 and slightly fall down to the value is 0.96 in the year 2017.

Earnings before Interest and Tax to Total Assets Ratio shows the operating performance and productivity capacity of the firm assets. This Ratio is the most significant factor in the Altman score Analysis, it measures the true productivity of the firm assets and independent of any tax or leverage factors, he found that this measure continually outperforms other profitability measures in assessing the risk of corporate failure, including cash flow. This ratio increase in the Return on Total Assets means better use of assets to generate returns for the firm and decrease in the Return on Total Assets means that the firm has an opportunity for improvement, may be the firm needs to reduce few operating expenses.

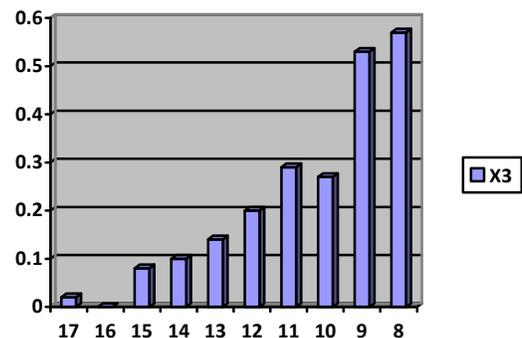


Fig: 3, E B I T to Total Assets Ratio

From the Fig: 3 Shows the Earning Before Interest And Tax To Total Asset (X_3) Ratio is 0.57 in the financial year 2008, slightly decreases to the value is 0.53 in the financial year 2009, Immediately highly fall down to the value is 0.27 in the financial year 2010, increasing to the value is 0.29 in the financial year of 2011, slightly decreasing to the value is 0.20 in the finance year of 2012, slightly fall down to the value 0.14 in the year 2013, the valu is 0.10 in the financial year e financial year of 2014, slightly fall down to the value is 0.08 in the financial year 2015, the value is 0 in the year 2016 and slightly increasing the value is 0.02 in the financial year 2017.

Market Value of Equity to Total Liabilities Ratio is a common indicator of bankruptcy. It indicates how much the Firm's assets can decline in value, before the liabilities exceed the assets and to become insolvent. Altman explains that this ratio "shows how much the firm's assets can decline in value (measured by market value of equity plus debt) before the liabilities exceed the assets and the firm becomes insolvent. This ratio is important for the company's owners and investors; it shows market's reaction to company's financial position.

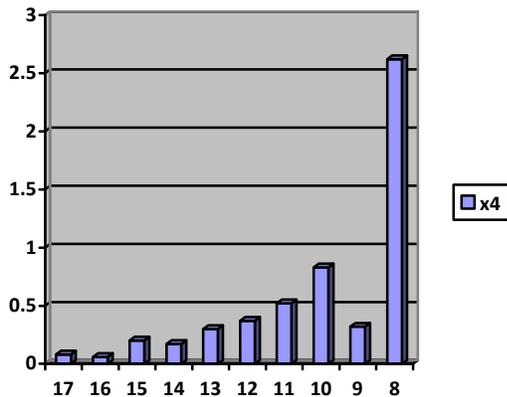


Fig: 4, Market Value of Equity to Total Liabilities Ratio

From the Fig: 4 Shows the Result of Market Value of Equity to Total Liabilities ratio (X_4) Ratio is 2.62 in the financial year 2008, slightly decreases to the value is 0.32 in the financial year 2009, Immediately increasing to the value is 0.83 in the financial year 2010, slightly fall down to the value is 0.52 in the financial year of 2011, slightly decreasing to the value is 0.37 in the finance year of 2012, slightly fall down to the value 0.30 in the financial year 2013, the value is 0.17 in the financial year 2014, slightly increasing to the value is 0.20 in the financial year 2015, slightly fall down the value is 0.06 in the financial year 2016 and slightly increasing the value is 0.08 in the financial year 2017.

Net Sales to Total Assets Ratio measures how efficiently a firm uses its assets to generate sales. The sales are very important in measuring the overall performance of the firm since all the activities are directly or indirectly depends on the sales revenue. The higher ratio is always more favorable and higher turnover ratios mean the company is using its assets more efficiently; Lower ratios mean that the company isn't using its assets efficiently. This gives investors and creditors an idea of how a company is managed and uses its assets to produce products and sales.

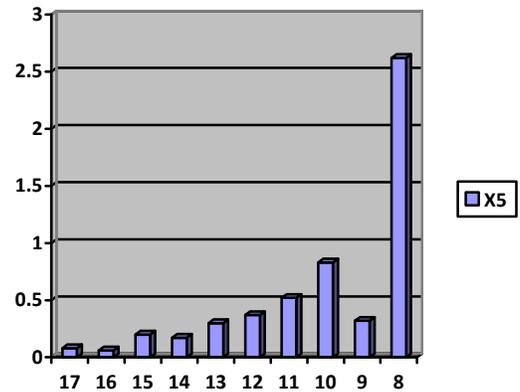


Fig: 5, Net Sales to Total Assets Ratio

From the Fig: 5 Shows the Result of Net Sales to Total Asset Ratio (X_5) Ratio is 0.24 in the financial year 2008, slightly fall down to the value is 0.17 in the financial year 2009, Slightly fall down to the value is 0.14 in the financial year 2010, Slightly increase to the value is 0.16 in the financial year of 2011, slightly Fall down to the value is 0.11 in the financial year of 2012, Slightly fall down to the value 0.09 in the financial year 2-13, slightly increase to the value is 0.13 in the financial year of 2014, slightly fall down value to 0.08 in the financial year 2015, slightly increase to the value is 0.09 in the financial year of 2016 and slightly fall down to the value is 0.08 in the financial year 2017.

Table 2 above presents the findings of Z-score of Unitech Limited as were analyzed using the model: $Z = 0.72X_1 + 0.85X_2 + 3.11X_3 + 0.42X_4 + 1.00X_5$. The rule of the thumb of this version of Altman's model is that when the score value is $Z > 2.99$ and Above "Safe" Zone, Z value is between 1.81 to 2.99 "Gray" Zone, and Z value Less than 1.81 is "Distress" Zone. The Unitech analysis Represented Discrimination Results is Safe Zone from 2008 (Z value is 3.87 it indicate more than 2.79), Z value indicates that a distressed area in 2009 (z Value is Less than 1.81), and the reaming Period Firm have Grey Zone from the financial years 2010 to 2017 (z value in between the 1.81 and 2.99) this paper found that the Altman's model would have been accurate.

Conclusion and Recommendations

The purpose of this paper was to investigate the accuracy of Altman's models in predicting corporate financial distress. It has been established that the original Altman's model can be used in Unitech Limited to forecast the possibility of financial distress and bankruptcy in manufacturing

companies. This firm z score result in the year 2008 have safe zone, regarding a high market value of the firm. it impact on z score for securing to safe zone. The market value of the firm significant in z score model. The firm needs to plan for Sales Maximization, Operating Income Maximization, maximizing the market value and Manage Sufficient Working Capital For Making Better Z score Value.

Table 2: Value of coefficients and Z score

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
X1(1.2)	0.90	0.90	0.90	0.88	0.91	0.95	0.98	0.15	-0.02	0.20
X2(1.4)	0.96	1.01	1.05	1.04	1.05	1.05	0.99	0.80	0.34	0.25
X3(3.3)	0.02	0.00	0.08	0.10	0.14	0.20	0.29	0.27	0.53	0.57
X4(0.6)	0.08	0.06	0.20	0.17	0.30	0.37	0.52	0.83	0.32	2.62
X5(1.00)	0.08	0.09	0.08	0.13	0.09	0.11	0.16	0.14	0.17	0.24
z- score	2.03	2.06	2.31	2.33	2.49	2.68	2.94	2.18	1.33	3.87
Discriminations	Grey	Distress	Safe							

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