

Predicting Bankruptcy of Heritage Foods Company by Applying Altman's Z-Score Model

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Abstract- Looking into the Present scenario of business Practices today; the enhancing uncertainty scenario takes away the surety of existence. Financial position analysis provides the basis for understanding and evaluating the results of business operations and explanation how well a business is firm Position, This analysis can help financial longevity of a business is concern to internal and external stakeholders. Edward Altman is development of the Z-score for predicting Bankruptcy with a multivariate formula for a measurement of the financial health of a firm and a powerful diagnostic tool that forecasts the probability of a company entering bankruptcy, it is undertaken with the purpose of extract significant information relating to firm's efficiency and degree of risk position of firm. This study investigated the applicability of the Altman's bankruptcy models to examine the financial soundness of the firms belonging to the manufacturing.

Index Terms- Dairy Industry, financial Statement and Z score Model.

I. INTRODUCTION

The firm real net worth is negative value, its leads to reduced sales, increased cost & losses, ineffective competition etc. This status the firm total liabilities exceed total assets and ultimately firm will be under distress stage. Under these situations it becomes difficult for investors & lenders to analyze the financial performance of the organization.

The basic financial ratios are formulated from details mentioned in published statements like balance sheet, cash flow statements and profit and loss statements. The detection of firm operating with financial difficulties is a subject which has been particularly willing to analysis with financial ratios. Earlier the developments of quantitative measures of company performance, agencies were established to supply a qualitative type of information assessing the credit-

worthiness of particular firm. One of the classic works in the area of financial ratio analysis and bankruptcy classification was performed by Beaver (1967). When utilizing financial ratios in assessing a firm's bankruptcy potential, there is reason to believe that some of the measurements will have a high degree of correlation with each other.

Brief Profile of Heritage Foods Ltd

The Heritage Foods Ltd. is engaged in dairy, retail, Agri, bakery and renewable energy businesses, It is one of the fastest growing Public Listed Companies in India and leading dairy player with strong presence in South Indian market. This company is a strong brand in the high growth pouch milk segment, which is gaining thrust from unorganized to organized players. We believe, improving product mix, expanding Niche Market and enhanced focus on the dairy segment, it is an integrated B2C dairy player with strong presence and leading private dairy player in A.P & Telangana.

Z score Model

The Z-score model was constructed by Edward Altman was Finance Professor of the Leonard N. Stern School of Business in New York University, has developed the Financial Model in 1967 to predict the likelihood of bankruptcy of the company which is named as Altman's Z-Score Model, it is called Original Model. This model uses five variables like financial ratio. The original Z-score formula,

Table-1, Z-Score Estimated Formula

Nature of Firm	Original Components
X1	working capital / total assets
X2	retained earnings / total assets

X3	EBIT / total assets
X4	market value of equity / total liabilities
X5	Sales / total assets.
Z Value	$1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 0.999X5$
Zone of Discriminations	$Z > 2.99$ – “Safe” Zone $1.81 < Z < 2.99$ – “Gray “Zone $Z < 1.81$ – “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.

Today Bankruptcy is a very mutual thing among companies or firms it is a critical matter. The Business bankruptcy for a certain company is an absolute affirmation of its inability to endure current operations and given its current debt obligations. Because firm failing is a major issue for the events engaged and can create price and large failures.

Research Methodology

The issue of the consistency of a firm is the relationship between soundness and financial stability at the aggregate level of continual interest for researchers and participants.

II. OBJECTIVES OF THE STUDY

This study intends to estimate likelihood of Bankruptcy of Heritage Foods Ltd by applying Altman’s Z-Score Model.

Limitations of the study

A limitation of this study is that it focuses on listed manufacturing corporations in India, and not on other industries. This is because we would like to align our approach with the original Altman (1968) Z-Score Model, it focus of this paper is to explore the relationships of financial health and corporate performance in the specific period of India.

Review of Literature

Dr. Bhavik U.Swadia, Shreedha Shah (2016), Studied of Ambuja cements and noted that result to Altman’s Z score shows likelihood not a prediction. This result

may look likely that the company may face bankruptcy, but proper financial decisions may succeed to improving the results by the Managers.

Kumari (2013), found that his analysis 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 coming years and overall financial health of MMTC is good, and it can be quoted as an investor’s friendly company.

Ms.S.Praveena and at all (2012), Study tried to selected seeds Companies; the combination effect of various financial ratios with the help of z score analysis, 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 statement is carefully analyzed in a particular method, Z score Analysis generally used financial ratios and indication of the bankruptcy of the company.

M S Ramaratnam, R jayaraman (2010), Analyzed selected Steel manufacturing Companies and Founded that Altman Z score plays a Vitol role in deciding the financial bankruptcy, this analysis results can judge its financial position and revealed that all the selected manufacturing companies are financially sound during the study period.

Edward Altman (1968), in his Article analyzed the financial position of the firm, through ratio analysis and multiple Discriminant analysis and coefficient was determined. These were formulated to determine the bankruptcy of any company.

Analysis

Table:2 Z score Ratios Value

Year Ratios /	2017	2016	2015	2014	2013
1.2x1	0.00	0.01	0.02	0.01	0.00
1.4X2	0.91	0.55	0.43	0.43	0.46
3.3(x3)	0.83	0.94	0.51	0.75	1.04
0.6(x4)	1.73	0.74	0.47	0.32	0.21
0.999(x5)	5.27	7.08	6.17	5.61	6.66

Source: Money Control.com

From the Tabl:2, 1.2 X₁ value is 0 from the financial year 2017, 1.2 X₁ value is 0.01 from the financial year 2016, 1.2 X₁ value is 0.02 from the financial year 2015, 1.2 X₁ value is 0.01 from the financial

year 2014 and 1.2 X_1 value is 0 from the financial year 2013.

1.4 X_2 value is 0.91 from the financial year 2017, 1.4 X_2 value is 0.55 from the financial year 2016, 1.4 X_2 value is 0.43 from the financial year 2015, 1.4 X_2 value is 0.43 from the financial year 2014 and 1.4 X_2 value is 0.46 from the financial year 2013.

3.3 X_3 value is 0.83 from the financial year 2017, 3.3 X_3 value is 0.94 from the financial year 2016, 3.3 X_3 value is 0.51 from the financial year 2015, 3.3 X_3 value is 0.75 from the financial year 2014 and 3.3 X_3 value is 1.04 from the financial year 2013.

0.6 X_4 value is 1.73 from the financial year 2017, 0.6 X_4 value is 0.74 from the financial year 2016, 0.6 X_4 value is 0.47 from the financial year 2015, 0.6 X_4 value is 0.32 from the financial year 2014 and 0.21 X_4 value is 1.04 from the financial year 2013.

0.999 X_5 value is 5.27 from the financial year 2017, 0.999 X_5 value is 7.08 from the financial year 2016, 0.999 X_5 value is 0.17 from the financial year 2015, 0.999 X_5 value is 5.61 from the financial year 2014 and 0.999 X_5 value is 6.66 from the financial year 2013.

Table:3 Z value Result

Year / Result	2017	2016	2015	2014	2013
Z Value	8.74	9.33	7.60	7.13	8.37
Zone	Safe	Safe	Safe	Safe	Safe

Source: Money Control.com

From the table: 3, Edward Altman model Z score Value is more than 2.99, it indicates that Firm have safe zone. Z Value is 8.74 in the financial year 2017, 9.33 in the financial year, 7.60 in the financial year 2015, 7.13 in the financial year 2014 and 8.37 in the financial year.

III. CONCLUSIONS

Survival models have become gradually more popular over recent years in several fields with bankruptcy prediction, This study aims is to cast light on corporate sector sustainability from the perspective of financial stability and the structure of company. This study investigated the applicability of the Altman's bankruptcy model to examine the financial soundness of the Heritage Foods Ltd belonging to the manufacturing firms. The study covers the 5 years of time frame from 2013-2017. From this analysis Firm has Positive result over all

years, it means all year have safe zone. The firms have High sales value and secondly the firm Market value is maximizing from year by year continuously from this study it influencing Positive results of the study. The firm has positive indications of the overall firm financial performing.

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