

Financial Health of Select Indian Pharmaceutical Companies Through Z Score Model

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Abstract

Investors invest in a company after evaluating its financial performances. If the performance is volatiled then it may affect adversely on the decision regarding the investment of the investors. So this evaluation should be done very carefully and rationally. The result of analysis shows the present performances, but it cannot exhibit whether the company will have any chances of bankruptcy in near future or not. Z score is a financial tool which is used for the bankruptcy prediction. It analyses the financial data and the result of analysis categories a company in a zone according to its performances out of three zones; the zones are; bankruptcy, grey and safe / healthy. The study conclude that companies should make a concerted effort in maximizing assets and minimizing liabilities so that overall Pharmaceutical companies financial health position will be good and it can grow in the future in all aspects.

Key Words:Z Score, bankruptcy, financial health, pharmaceutical companies.

1. Introduction

A company can continue its process when it has an adequate amount of funds and such funds can be utilized in an efficient way. The funds are used to meet short term as well as long term obligations. Short term obligation includes payment of creditors, salary, wages, interest, and dividend etc., and the long term requirement includes; acquisition of fixed assets, making investments, acquisition of company etc. Investors afford funds to a company in the way of investment to get some positive return in future. But, if they don't get predictable return then it will be difficult for the company to arrange funds in next time. So it is the duty of the management to ensure the efficient utilization of funds. Different stakeholders (such as- shareholders, creditors, banks, employees, management etc.) analyze the financial information for making various decisions. The result of the analysis shows the present performance and future prospects of the company.

Distressed analysis is a part of financial analysis, which shows whether there is any possibility of bankruptcy of a company in near future or not. Actually bankruptcy refers to the situation when a company is unable to pay its debts. As a result, it reduces employment opportunities, Government earnings, industrial growth etc., and also deeply effects on the surrounding areas where the entity belonged. So it is very clear that the prediction of bankruptcy of business firms' has a great value to the stakeholders. Because, if the result of bankruptcy prediction shows that a firm has the chances of bankruptcy in near future and the investors can be concerned about their investment as well as management can be taken remedial actions to avoid it and lead the firm to a good position.

2. Statement of the Problem

When a company faces financial distress for long period then the company's liquidity position, solvency position become very poor. Revenue collection go as down due to the reduction of sales, as a result, company cannot pay its due and cannot earn profit.

Thus the amount of net worth gradually reduces and all these things adversely affect on company's share price and goodwill. There are different reasons for the distress of a business entity, such are; lack of finance, lack of demand of the product in the market, conflict between management and employees, lack of managerial efficiencies and some other internal and external problems. If these problems persist for a long period of time in a company, then it can be declared as bankrupt and goes into liquidation. The present study aims to analyze the financial health of select pharmaceutical companies in India.

Objectives of the Study

1. To evaluate the financial health of the companies by using Z score.
2. To suggest recommendations for future growth and development of the select pharmaceutical companies in India.

3. Review of Literature

F. Hussain, I. Ali, S. Ullah and M. Ali (2014) they concluded that this analysis can predict the business failure up to four years prior to failure with a higher level of accuracy and this analysis is very much helpful to measure the financial soundness of any business concern in future.

S. Ganguly (2013) he concluded that the overall financial position of the company is not satisfactory during the study period due to some internal and external issues.

S.C. Sheela and Dr. K. Karthikeyan (2012) they found that the Indian pharmaceuticals companies to the healthy zone.

Dr.M.M. Sulphay and Nisa. S (2013) attempted to analysis the solvency position of the companies reached overall performance is satisfactory during the study period.

B. Pardeshi, P.L. Bisoyi and P.C. Patil (2012) concluded that the financial solvency position of Kingfisher Airlines is medium, as it belong to the grey zone, Jet Airways belong to distress zone as because it's solvency position is very much poor and Spice Jet has the sound solvency position.

M. Kannadhasan (2011) attempted to measure the financial health of Wendt (India) Limited by using Altman Z score model and concluded that the financial health of the company was good during the study period.

Johah Aiyabei (2002) used Z score model to analyze the financial performance of small business concerns of Kenya and discussed the theoretical aspects of distressed firms.

4. Research Methodology

This study has been done by using secondary data and it has collected from published financial reports of selected Pharmaceutical companies for the period of 2006-2007 to 2015-2016. The following companies are taken in this study.

1. Sun Pharmaceutical Ltd.
2. Aurobino Pharma.
3. Cipla Ltd.
4. Reddy Laboratories.
5. Cadila Health Care.

Statistical Tools for Analysis

In this study, the Edward I Almant's Z score model is applied to analyze the data.

Model Explanation

$Z = 0.717X_1 + 0.845X_2 + 3.107X_3 + 0.42X_4 + 0.995X_5$ Where,

X_1 = Working capital divided by total assets.

X_2 = Retained earnings divided by total assets.

X_3 = EBIT divided by total assets.

X_4 = Book value of equity divided by book value of total debts.

X_5 = Net sales divided by total assets

Z score is calculated by multiplying the following accounting ratios with their corresponding weights:-

According to this model the following situations arises:-

Situation	Value of Z Score	Zone	Remarks
A	Less than 1.2	Bankruptcy	Company's failure is certain.
B	Between 1.2 to 2.99	Grey	The failure in this situation is uncertain to predict. This is known as grey area.
C	Above 2.99	Safe/healthy	Financial position of a company is good and healthy of a company.

Analysis and Interpretation

Table 1: Altman's Z Score Model for Sun Pharmaceutical Ltd

Year	Working Capital	Retained Earnings	EBIT	Book value	Net sales	Z score
				of Equity		
2015-16	0.44	0.77	0.19	0.02	0.76	2.18
2014-15	0.48	0.62	0.2	0.01	0.61	1.92
2013-14	0.45	0.67	0.26	0.01	0.67	2.06
2012-13	0.44	0.65	0.25	0.01	0.59	1.94
2011-12	0.35	0.59	0.2	0.01	0.54	1.69
2010-11	0.26	0.53	0.17	0.05	0.48	1.49
2009-10	0.23	0.62	0.26	0.05	0.58	1.74
2008-09	0.36	0.65	0.3	0.05	0.63	1.99
2007-08	0.27	0.64	0.22	0.04	0.54	1.71
2006-07	0.18	0.55	0.17	0.02	0.47	1.39

From the above table it is clear that the Altman's Z-Score reveals healthy situation for the year 2015-16, 2013-14, and this falls, in the grey zone. Hence, the Sun Pharmaceutical has the satisfactory level of fixed assets, but its liquidity position is fluctuating. And their assets through retention of profits are not utilized as much debt. The company's assets value is declining and its liabilities exceeds the assets. If this condition prolongs, the company may become

insolvent. The sales generating capacity of the company's assets is increasing and it may improve its market position by which it may increase a competitive condition. The overall financial health from 2006-2015 is good and it has a good growth in the future in all aspects.

Table 2: Altman's Z Score Model for Aurobindo

Year	Working Capital	Retained Earnings	EBIT	Book value of Equity	Net sales	Z score
2015-16	0.44	1.39	0.26	0.02	2.11	4.22
2014-15	0.44	1.11	0.25	0.02	1.09	2.91
2013-14	0.42	1.03	0.11	0.01	0.98	2.55
2012-13	0.33	0.88	0.01	0.02	0.94	2.18
2011-12	0.79	1.54	0.09	0.06	1.48	3.96
2010-11	0.33	0.98	0.21	0.08	0.9	2.5
2009-10	0.35	0.8	0.06	0.06	0.86	2.13
2008-09	0.29	0.87	0.11	0.07	0.82	2.16
2007-08	0.29	0.76	0.06	0.06	0.71	1.88
2006-07	0.35	0.77	0.11	0.07	0.72	2.02

From the above table, it is clear that the Altman's Z-Score reveals healthy situation for in the year 2015-16, 2014-15, 2011-12, and it is a healthy position of a company. 2013-14, 2012-13, 2010-11, 2009-10, 2008-09, 2006-07, this falls, in the grey zone. Hence, that the Aurobindo Pharma has the satisfactory level of fixed assets, but its liquidity position is fluctuating. And their assets through withholding of profits are not utilized as much debt. The company's assets value is declining and its liabilities exceeds the assets. If this condition prolongs, the company may become bankrupt. The sales generating capacity of the company's assets is increasing and it may improve its market position by which it may increase a competitive condition. The overall financial health from 2006-2015 is good and it has a good growth in the upcoming future in all aspects.

Table 3: Altman's Z Score Model for Cipla

Year	Working Capital	Retained Earnings	EBIT	Book value of Equity	Net sales	Z score
2015-16	0.31	0.01	0.06	0.01	0.28	0.67
2014-15	0.26	-0.02	0.02	0.01	0.27	0.54
2013-14	0.28	0.01	0.03	0.01	0.24	0.57
2012-13	0.27	0.01	0.03	0.01	0.28	0.6
2011-12	0.32	0.01	0.02	0.01	0.22	0.58
2010-11	0.88	0.02	0.23	0.01	0.95	2.09
2009-10	0.67	-0.03	0.18	0.01	0.99	1.82
2008-09	0.74	0.03	0.2	0.01	0.97	1.95
2007-08	0.85	0.03	0.24	0.01	1.06	2.19
2006-07	0.88	0.03	0.2	0.02	0.78	1.91

From the above table, it is clear that the Altman’s Z-Score reveals healthy situation for the year. 2010-11, 2009-10 2008-09, 2007-08, 2006-07. This falls, in the grey zone. Apart from these periods, the limits are between the Bankruptcy positions during the entire period. Hence, the Cipla Ltd satisfactory level of fixed assets, but its liquidity position is fluctuating. And their assets through retention of profits are not utilized as much debt. The company’s assets value is declining and its liabilities exceeds the assets. If this condition prolongs the company may become insolvent. The sales generating capacity of the company’s assets is decreasing and it may improve its market position by which it may increase a competitive condition. The overall financial health from 2006-2015 is good and it has good growth in the future in all aspects.

Table 4: Altman’s Z Score Model for Reddy Laboratory

Year	Working Capital	Retained Earnings	EBIT	Book value	Net sales	Z score
				of Equity		
2015-16	0.34	1.14	0.22	0.04	1.12	2.86
2014-15	0.41	1.15	0.23	0.04	1.11	2.94
2013-14	0.43	1.28	0.24	0.04	1.25	3.24
2012-13	0.43	1.21	0.23	0.04	1.19	3.1
2011-12	0.28	1.21	0.19	0.04	1.17	2.89
2010-11	0.21	1.26	0.64	0.04	1.33	3.48
2009-10	0.26	0.99	0.53	0.04	1.25	3.07
2008-09	0.14	0.83	0.37	0.04	0.77	2.15
2007-08	0.13	1.03	0.32	0.04	1.01	2.53
2006-07	0.12	0.48	0.28	0.05	0.46	1.39

From the above table, it is clear that the Altman’s Z-Score reveals healthy situation for the year 2014-15, 2013-14, 2012-13, 2011-12, 2010-11, 2009-10, healthy position of a company. 2015-16, 2011-12, 2008-09, 2007-08. This falls, in the grey zone . Hence, the Reddy laboratory has the satisfactory level of fixed assets, but its liquidity position is fluctuating. And their assets through preservation of profits are not utilized as much debt. The company’s assets value is declining and its liabilities exceeds the assets. If this order prolongs, the company may become insolvent. The sales generating capacity of the company’s assets is decreasing and it may progress its market position by which it may increase a competitive condition. The overall financial health from 2006-2015 is good and it has good growth in the future in all aspects.

5. Findings

The Altman’s Z-Score reveals a healthy situation in the year 2015-16, 2013-14, this falls, in the grey zone. Hence, the Sun Pharmaceutical overall financial health from 2006-2015 is good and it has a good growth in the future in all aspects.

The Altman’s Z-Score reveals a healthy situation in the year 2015-16, 2014-15, 2011-12, healthy position of a company. 2013-14, 2012-13,2010-11 2009-10,

2008-09, 2006-07, This falls, in the grey zone. Hence, the Aurobino Pharma overall financial health from 2006-2015 is good and it has a good growth in the upcoming in all aspects.

The Altman's Z-Score reveals a healthy situation in the year. 2010-11, 2009-10, 2008-09, 2007-08, 2006-07. This falls, in the grey zone Hence, the Cipla Ltd., overall financial health from 2006-2015 is good and it has a good growth in the future in all aspects.

The Altman's Z-Score reveals a healthy situation for the year 2014-15, 2013-14, 2012-13, 2011-12, 2010-11, 2009-10, healthy position of a company. 2015-16, 2011-12, 2008-09, 2007-08. This falls, in the grey zone . Hence, the Reddy laboratory has overall financial health, from 2006-2015 is good and it has a good growth in the future in all aspects.

6. Suggestions

The Pharmaceutical Companies satisfactory level of fixed assets, but its liquidity position is fluctuating. And their assets through retention of profits and has not utilized as much debt. The company's assets value is declining and its liabilities exceeds the assets. If this condition prolongs, the company may become insolvent. The sales generating capacity of the company's assets is increasing and it may improve its market position by which it may increase a competitive condition.

7. Conclusion

An attempt has been made in the present study to have an approaching into the examination of financial health of pharmaceutical companies in India. To assess the financial conditions and performance of a company, this study uses financial health indicators like Z-Score analysis. It uses statistical tools and financial techniques, which capture the predicative viability of a company's financial health performance that ultimately predict a score which can be used to determine the financial health performances of the company. Moreover, companies should make a concerted effort in maximizing the assets and minimizing the liabilities so that the overall financial health position will be good and it will has grow in the future in all aspects.

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