



## INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS AND MANAGEMENT

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**CONTRIBUTIONS TO BOOKS**

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

**JOURNAL AND OTHER ARTICLES**

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

**CONFERENCE PAPERS**

- Garg Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

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- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Economic and Political Weekly, Viewed on July 05, 2011 <http://epw.in/user/viewabstract.jsp>

## FINANCIAL DISTRESS: BANKRUPTCY MEASURES IN ALEMBIC PHARMA Z-SCORE MODEL

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### ABSTRACT

The term Financial Distress is a situation where a firm's operating cash flows are not sufficient to satisfy current obligations and the firm is forced to take corrective action. Financial distress may lead a firm to default on a contract, and it may involve financial restructuring between the firm, its creditors and its equity investors. Sometimes, financial distress leads to bankruptcy. This paper uses Z-score model (Altman's 1968) to predict risk of Financial distress of Alembic Pharma, from the year 2004-2010. It is obvious that the Z-score model of alembic pharma is in the grey zone, indicating poor financial performance. Manages should take immediate actions to turn around the company's results.

### KEYWORDS

Financial distress, Z-score model, Bankruptcy.

### INDUSTRY PERSPECTIVE

The Indian Pharma Industry has been resilient to the economic challenges. Our Country is holding its ground in the midst of the current global financial crisis. The Indian economy is expected to emerge as the fastest growing economy by 2013 and to be the 3rd largest economy by 2050 (Source: BRICs Report, Goldman Sachs). The GDP growth will be driven by both exports and domestic consumption. The current spending on healthcare [public and private] is estimated at 6% of GDP and expected to increase to 10% of GDP by 2016. India is also emerging as a low-cost, high quality option for outsourcing of research, manufacturing and other services. This offers a great opportunity for the Indian pharmaceutical industry and Indian pharma companies.

The Global pharmaceutical Industry is witnessing a growing importance of generics. Global pharmaceutical market intelligence company IMS Health believes the Indian generic manufacturers will grow at a faster clip as drugs worth approximately \$20 billion in annual sales will face patent expiry in 2011. In fact, with nearly \$105 billion worth of patent-protected drugs to go off-patent (including 30 of the best selling US patent-protected drugs) by 2012, Indian generic manufacturers are positioning themselves to offer generic versions of these drugs. With drugs going off patent each year, generics represent a major outsourcing opportunity for pharmaceutical producers in India. The global pharmaceutical outsourcing market is rapidly growing.

### DOMESTIC FORMULATION BUSINESS

Alembic has now made a mark in some specialized therapies such as Diabetology, Cardiology and Gynaecology as well. Alembic undertook a massive restructuring exercise which started in Q1FY09. The market share grew to 1.91% against 1.81%. (March, 2010). However, the Company did not achieve primary sales target due to adjustment in trade inventory. The Company is confident of posting better performance on domestic formulations in the ensuing quarters.

### INTERNATIONAL BUSINESS

Alembic's export recorded a performance during the year to cross Rs. 100 crores and registered 42% growth over last year. The Company has represented to the Government against the dumping of Pen-G being done by China in Indian markets. Anti dumping measures are being considered at the highest level in Government of India. *In the meantime, the Company continued to incur heavy losses on this account.*

### FINANCE

The Company has registered a consolidated total income of Rs.1140.77 Crores for the year under review as compared to Rs. 1120.16 Crores for the previous year ended on 31st March, 2009. The consolidated Profit, before providing for Interest, Depreciation, Non-recurring Income, expenses and Taxes, was Rs.116.88 Crores for the year under review as compared to Rs. 130.38 Crores for the previous year. The Company has made a consolidated profit after tax of Rs.39.54 Crores for the year under review, as compared to Rs. 10.82 Crores for the previous year.

### FINANCIAL DISTRESS LEADING TO BANKRUPTCY

Financial distress is usually associated with some costs to the company known as costs of financial distress. A common example of a cost of financial distress is bankruptcy cost. These direct costs include auditors' fees, legal fees, management fees and other payments. But cost of financial distress can occur even if bankruptcy is avoided.

Financial distress in companies can lead to problems that can reduce the efficiency of management. As maximizing firm value and maximizing shareholder value cease to be equivalent managers who are responsible to shareholders might try to transfer value from creditors to shareholders. As a firm's liquidation value slips below its debt, it is the shareholders' interest for the company to invest in risky projects which increase the probability of the firm's value to rise over debt. Risky projects are not in the interest of creditors as they increase the probability of minimizing the firm's value. Since these projects do not necessarily have a positive net present value costs may rise from lost profits.

Equally management might choose to prolong bankruptcy, which has the same effect on probabilities of a change in the firm's value. Management might also distribute high dividends to "Save" money from the creditors. Another source of indirect costs of financial distress is higher costs of capital; short-term loans by contractors and banks will be expensive and hard, if not impossible to get.

### REVIEW OF LITERATURE

Many research works have been conducted over the period to evaluate the financial distress of the company with the help of the various ratios or by applying the Multiple Discriminant Analysis to predict the corporate fitness, Chen and Shimerda, Dugan and Zavgren (1981), have outlined seven financial factors that can help to predict financial distress: return on investment, financial leverage, capital turnover, short-term liquidity, cash position, inventory turnover and receivables turnover. By using financial ratios, the accuracy of predicting bankruptcy of a firm is greater than 90 per cent. The Altman model uses various ratios to consider the seven factors noted above. Morris (1988) argue that in so far as bankruptcy is due to unforeseeable even and therefore, it cannot be predicted. L. C. Gupta (1999) attempted a refinement of Beaver's method with the objective of predicting the business failure. Whereas Mansur.A.Mulla (2002) made a study in textile mill with the help of Z score model for evaluating the financial health with five weighted financial ratios and followed by Selvam M and thers (2004), this study had revealed about cement industry's financial health with special reference to India Cements Limited. Bagchi S.K (2004) analysed about practical implication of accounting ratios in risk evaluation and concluded that accounting ratios are still dominant factors in the matter of credit risk evaluation. Krishna Chaitanya (2005) used Z model to measure the financial fitness of IDBI and concluded that IDBI is likely to become insolvent in the years to come. Anup Chowdhury and Suborna Barua (2009) investigated the financial attributes of Z category shares companies using Z score analysis and found that 90 per cent of those companies are suffering with financial problem. Rajesh and N.R.V Ramana Reddy (2010) made an attempt to measure the financial distress of chittoor Co-operative sugars Limited along with liquidity, solvency and leverage position with Altman's Z-score model.

**OBJECTIVES**

- To analyze the financial performance of the company through liquidity, working capital investment efficiency and solvency ratios.
- To measure the financial distress of the company with Altman’s Z-score model
- To evaluate the company’s performance to its financial health and the utilization of its assets.

**LIQUIDITY TEST**

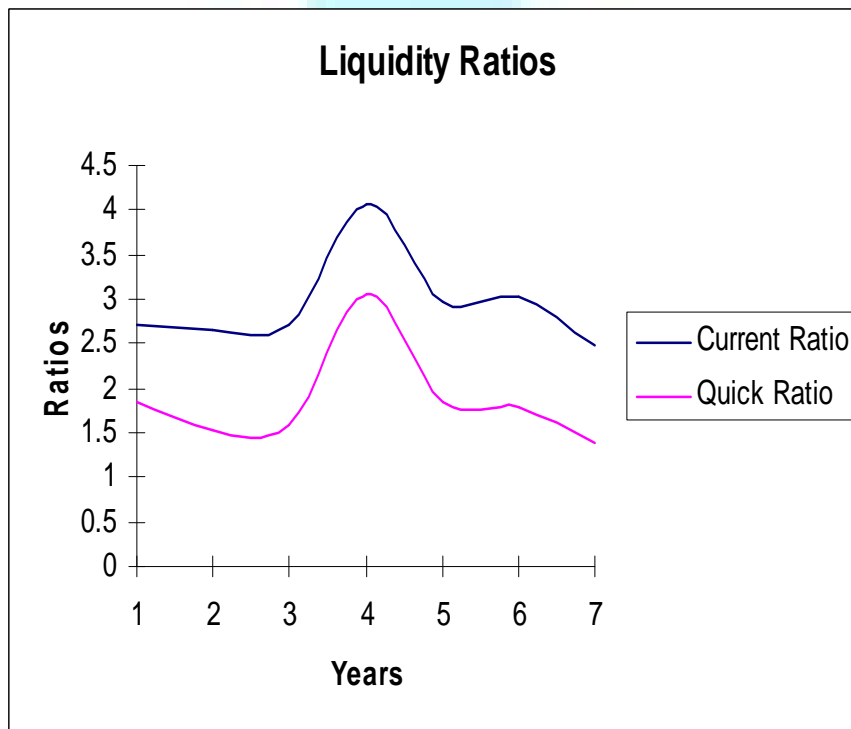
The liquidity ratios are used to measure the short-term solvency and indicate the ability of a firm to meet its debt requirements as and when they become due. Current liabilities are used as the denominators of the ratios because they are considered to represent the most urgent debt, requiring retirement within one year or most preciously, with one operating cycle. The available cash resources to satisfy these obligations must come primarily from cash or the conversion of cash of other current assets.

Current ratios of the company are in the standard norm (2:1) during the study period. Quick ratios are also in the standard norm (1:1)

**TABLE - 1 LIQUIDITY RATIOS**

Year	Current Ratio	Quick Ratio
2004	2.7	1.84
2005	2.66	1.53
2006	2.71	1.6
2007	4.06	3.07
2008	2.97	1.85
2009	3.02	1.78
2010	2.47	1.39

**FIGURE -1 LIQUIDITY RATIOS**



**WORKING CAPITAL INVESTMENT EFFICIENCY TEST**

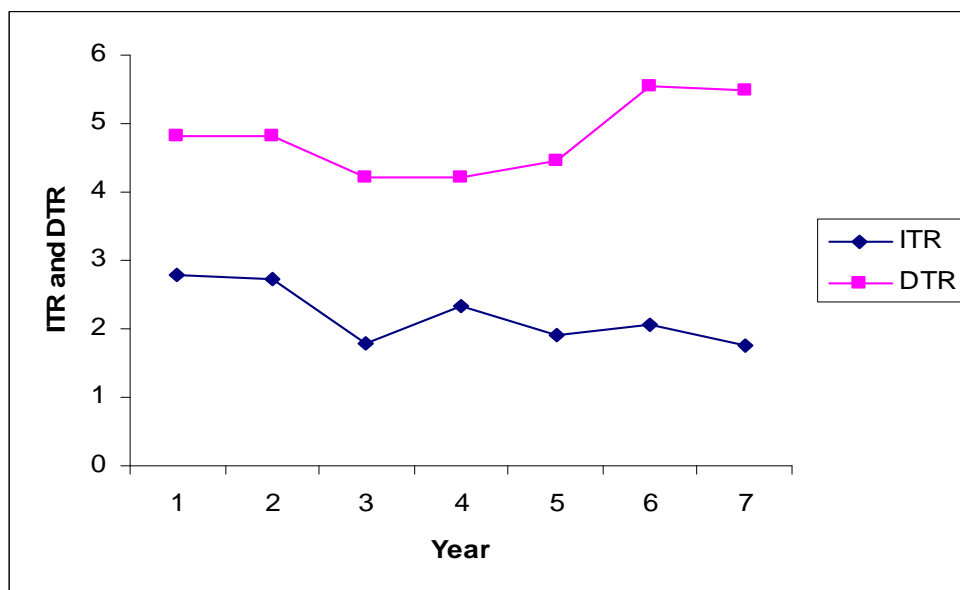
In order to substantiate the liquidity test, it is essential to test the working capital investment efficiency test also, because inventory and accounts receivable, the two important constituents of current assets, may sometimes block the proprietor’s funds. A blockage occurs when money becomes tied up in slow paying debtors, or in slow moving stock. In such a case, the business may appear to have a satisfactory amount of working capital but little or no liquidity. These are the common working capital investment efficiency ratios:

- Inventory turnover ratio (cost of sales / inventory)
- Days inventory outstanding (365/ITR)
- Debtors turnover ratio( credit sales /Average debtors)
- Days sales outstanding (365/DTO)

**TABLE - 2 WORKING CAPITAL INVESTMENT EFFICIENCY RATIOS**

Year	Inventory Turnover ratio	Days stock outstanding	Debtors Turnover ratio	Days sales outstanding
2004	2.79	131	4.81	76
2005	2.72	134	4.83	76
2006	1.79	204	4.21	87
2007	2.34	156	4.22	86
2008	1.91	191	4.45	82
2009	2.05	178	5.54	66
2010	1.77	206	5.49	67

FIGURE – 2: WORKING CAPITAL INVESTMENT EFFICIENCY RATIOS



It is found from table -2 that the inventory turnover ratio is decreasing indicating gradual increase of cost of goods sold. It reflects an additional burden on the part of the working capital of the company. The overall days stock outstanding is more. The debtor’s turnover ratio showing a fluctuation trend, indication the credit sales of the company is increasing year by year. Days sales outstanding ratio is normal compared to the initial years. But the overall working capital efficiency of the company is poor.

**SOLVENCY RATIOS**

**ALTMAN’S Z – SCORE TEST**

Business all across the country has a need to know about the financial health of a company. For this purpose, Edward Altman, using Multiple Discriminant analysis combined set of 5 financial ratios to come up with the Altman Z-score. This score uses statistical techniques to predict a company’s financial health i.e., fiscal fitness using a company’s financial statements.

The Z-score formula is a measurement of the financial health of company and is a powerful diagnostic tool that forecasts the probability of a company entering bankruptcy within a two-year period.

TABLE - 3 SOLVENCY RATIOS

Year	WC/TA	RE/TA	EBIT/TA	EQ/TA	SA/TA
2004	0.31	0.34	0.22	0.39	1.02
2005	0.29	0.41	0.19	0.46	0.88
2006	0.33	0.47	0.23	0.51	0.97
2007	0.47	0.44	0.24	0.47	0.86
2008	0.39	0.35	0.23	0.38	1.13
2009	0.39	0.41	0.13	0.33	1.12
2010	0.35	0.3	0.1	0.33	1.07

It is found from the table 3 that it is showing inefficient mobilization of working capital during the study period. The retained earnings mobilization is low during the study period. The EBIT to total assets also shows that the company is not in a position to meet the financial obligations like interest and tax payments. Equity to total assets is also low, shows the interest of shareholders is low due the financial ill health of the company. The sales of the company is low to compare total asses invested by the company. Overall the solvency position of the company is not good.

**Z-SCORE ESTIMATED FOR PRIVATE FIRMS**

T1 = Working Capital / Total Assets

T2 = Retained Earnings / Total Assets

T3 = Earnings before Interest and Taxes / Total Assets

T4 = Market Value of Equity / Total Liabilities

T5 = Sales/ Total Assets

**Z’ SCORE BANKRUPTCY MODEL**

$$Z' = 0.717T1 + 0.847T2 + 3.107T3 + 0.420T4 + 0.998T5$$

**ZONES OF DISCRIMINATION**

Z' > 2.9 -“Safe” Zone

1.23 < Z' < 2.9 -“Grey” Zone

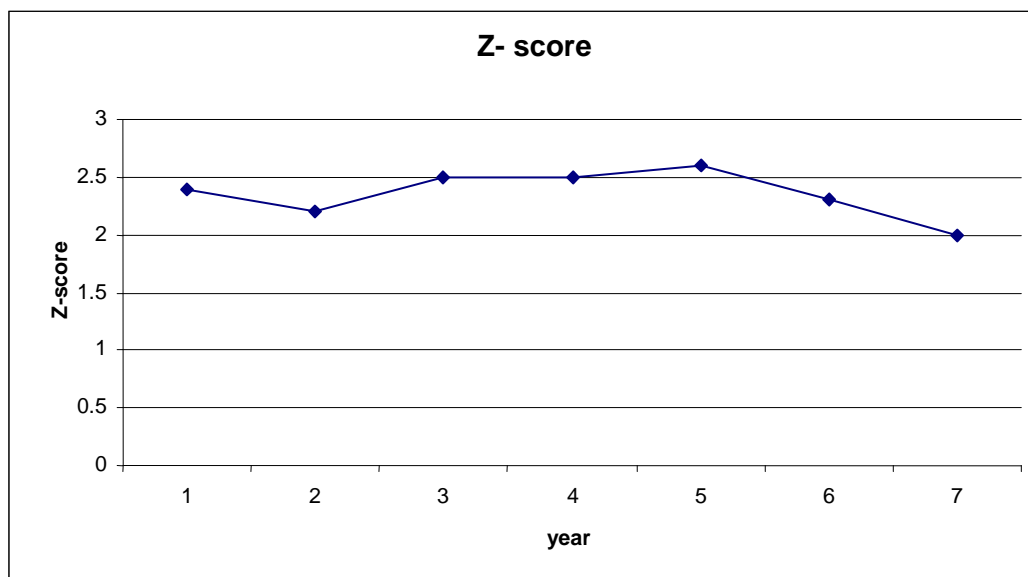
Z' < 1.23 -“Distress” Zone

TABLE - 4: Z-SCORE VALUE

Year	2004(1)	2005(2)	2006(3)	2007(4)	2008(5)	2009(6)	2010(7)
Z-Score	2.4	2.2	2.5	2.5	2.6	2.3	2



FIGURE -3 Z-SCORE



**T1** - Working capital to total assets. This ratio measures the liquid assets of a company in relation to the over all capitalization of the company. Usually, when a company experiences consistent operating losses, it will also experience shrinking current asset in relation to the total asset of the company. This ratio is multiplied by the weighing factor 0.717.

**T2** - This measures the cumulative profits retained in the business over time. It is calculated by dividing total assets into retained earnings. This ratio is very closely related to the age of a company. For example, young companies usually have a low ratio because they have no sufficient time to accumulate profits. Therefore this ratio supports the premise that young companies after having a higher incidence of failure in their earlier years. This is multiplied by weighing factor 0.847.

**T3** - This is calculated by dividing total assets into a company's earnings before interest and taxes. This is a true measure of the productivity of a company's total assets, or the earning power of its assets. A multiplier of 3.107 is used in this ratio.

**T4** - The book value of a company's total liabilities is divided into the market value of its equity. The equity is the combined market value of all shares and types of stock, with liabilities representing both short and long term. When values are not available, book values may be substituted. This ratio reflects between what point a company's assets can decline in value before the liabilities exceed the assets and the company reaches a point of insolvency. The multiplier 0.42 is used.

**T5** - This ratio measures the ability of a company's assets to generate sales. It also reflects how well the management deals with competitive pressures. It is calculated by dividing the total assets into net sales and uses the multiplier 0.998.

It is interesting to note that four of the ratios are total assets as the denominator. This emphasis the importance of total assets in measuring the performance of a company. Also that T3 has the highest weighting (multiplier) factor of 3.107. This indicates how important it is for companies to manage its assets in being able to generate earnings. This is no surprise to most managers, but is clearly emphasized in this ratio.

## FINDINGS

1. Current ratios of the company are in the standard norm(2:1) during the study period. Quick ratios are also in the standard norm(1:1)
2. Inventory turnover ratio is decreasing indicating gradual increase of cost of goods sold. It reflects an additional burden on the part of the working capital of the company.
3. The overall day's stock outstanding is more.
4. The debtor's turnover ratio showing a fluctuation trend, indication the credit sales of the company is increasing year by year.
5. Days sales outstanding ratio is normal compared to the initial years.
6. But the overall working capital efficiency of the company is poor.
7. Solvency ratios infer inefficient mobilization of working capital during the study period.
8. The retained earnings mobilization is low during the study period.
9. The EBIT to total assets also shows that the company is not in a position to meet the financial obligations like interest and tax payments.
10. Equity to total assets is also low, shows the interest of shareholders is low due the financial ill health of the company.
11. The sale of the company is low to compare total asses invested by the company.
12. Overall the solvency position of the company is not good.
13. Z-Score of T1 = Working Capital / Total Assets is 2.4 –grey zone
14. Z-Score of T2 = Retained Earnings / Total Assets is 2.2 – grey zone
15. Z-score of T3 = Earnings Before Interest and Taxes / Total Assets is 2.5 – grey zone
16. Z-score of T4 = Market Value of Equity / Total Liabilities is 2.6 – grey Zone
17. Z-score of T5 = Sales/ Total Assets is 2 – grey zone.

## SUGGESTIONS & CONCLUSION

It is obvious that the Z-score model of alembic pharma is in the grey zone, indicating poor financial performance. May be in another 2 years the company's bad financial position will lead to bankruptcy. The managers should protect their company from failures. They should take immediate actions should be taken by managers to turn around the company's results.

## REFERENCES

1. Dr. N. S Nagarajan and Dr. K. Kaliyaperumal, 2008, Research Methodology, First Edition, SKM Publications
2. Dr. S. shajahan, 2009, Research Methods for Management, Third Edition, JAICO Publishing house.
3. S.N. Murthy U Bhojanna, 2007, Research Methodology, first Edition , EXCEL books
4. P.Mohana Rao & Alok K.Pramanik, 2001, Working capital management, DEEP & DEEP Publications Pvt. Ltd.
5. P.K. Viswanathan, Business Statistics, PEARSON Education.
6. T.S.Reddy & Y.Hari Prasad Reddy, Reprint 2007, Management Accounting, Margham publications.

7. Aruna saini & Ram Dhan Saini, 2010, Journal of Accounting and Finance , Volume 24, No.2
8. Published Annual reports of Dr.Reddy's Laboratories
9. A.Murthy (2010), First Edition, Financial Management, Margham publications.
10. N.P. Srinivasan & M. Sakthivel Murugan, 2006, Financial Management, Vrinda Publications (P) Ltd.
11. M. Rajesh and Dr. NRV Ramana reddy, (2010) ,"An empirical Study on Financial Distress", Journal of Finance.
12. Altman.E.I (1968), Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy". Journal of Finance.
13. Anup Chowdhury & Suborna Barua (2009), "Rationalities of Z-category shares in Dhaka stock Exchange: Are they in Financial Distress Risk?" BRAC University Journal.
14. Bagchi SK (2004)," Accounting Ratios for Risk Evaluation," The Management Accountant, July, Vol 39.
15. Gupta, L.C."Return Indian Equity shares reviewed in ICFAI, "Journal of Applied Finance, Vol 6, and No.4.October 2000.
16. Krishna Chaitnya V,(2005)," Measuring Financial Distress of IDBI using Altman Z-score model",ICFAI University journal of Bank Management.
17. Mansur.a.Mulla,"Use of Z score Analysis for Evaluation of Financial Health of Textile Mills – A case Study" abhigyan, Vol.XIX.
18. McDonald,B.,Morris,M.(1985)," The functional specification of financial ratios: an empirical examination",Accounting & Business Research, Vol.15
19. Selvam, M.Vanitha, S., &Babu (2004),"A study on financial health of cement industry –"Z score analysis", The Management Accountant, July Vol.39.
20. Zavgren, C.V (1985),"Assessing the vulnerability to failure of American industrial firm: A logistic analysis." Journal of Business, Finance and Accounting.

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