

# A STUDY ON FINANCIAL PERFORMANCE OF SELECT INDIAN LOGISTIC FIRMS USING ALTMAN'S Z SCORE

Dr. Kavitha Lal

Assistant Professor  
Department of Management Studies,  
Bhavan's Vivekananda College of Science, Humanities & Commerce  
Sainikpuri, Secunderabad, Telangana, India - 500094

**Abstract:** Logistics is considered to be the backbone of the economy, providing efficient, cost effective flow of goods on which other commercial sectors depend. The logistics industry in India is evolving rapidly and the key indicators show the future trend of the sector positively. Several factors impacted the growth of the logistics industry in India like – tax structure, growth across major industry segments such as automobile, retail, engineering, pharmaceuticals, food processing and e-commerce. Despite weak economic sentiments, the logistics & warehousing industry continued to witness growth. The Indian Logistics sector has grown at a CAGR of around 16% over past five years and is expected to grow at around 15-20% for the current period. Several global players view Indian logistics market favorably. The present study is about the financial evaluation and performance of five select Indian logistics companies using Altman's Z score. The study covers Five year's i.e., 2010-2014. An attempt is made to know profitability and efficiency of select Indian logistics companies using Altman's Z score

**Keywords:** Altman's Z score, financial performance, Logistics Industry, profitability.

## Introduction:

Logistics Industry is considered as an enabler of economic development of our country. India's Logistics sector is poised for an accelerated growth. Empirical evidence shows that Indian Logistics Sector is growing at 1.5 to 2 times the GDP growth. Logistics spend in Indian is around 13% which is one of the highest in the world. Many key logistic players are performing well. Finance is a very significant facet of a business. The financial requirements of a business must be sufficient enough to meet its long-term as well as short-term commitments. To meet long-term and short term commitments, business needs permanent capital and working capital. Effective utilization of available financial resources is necessary in order to avoid financial distress. Evaluation of several financial indicators derived from financial statements will help the business to avoid bankruptcy. The present study focuses on evaluating the financial performance of select logistic companies in India using Altman's Z score.

## Review of the Literature:

Altman I. Edward (1968) introduced the multiple discriminate analysis technique using five financial ratios. A Z score model was developed in order to find a financial health and bankruptcy prediction model based on 66 manufacturing companies.

Jonah Aiyabei (2002) discussed the theoretical aspect of financially distressed companies which are based on a cyclical concept and examined the financial performance of small business firms based in Kenya using Z score model.

Kannadhasan (2007) studied about the financial health of a company in India. Using Z score model, the performance of a company was evaluated and concluded that overall financial health of a company is good.

Kivuvo, Olweny (2014) conducted financial performance analysis of Kenya's SACCO sector. The data covered eight years from 2008 to 2013. Based on the analysis using Z score, companies are segregated into satisfactory, very satisfactory and not satisfactory.

## Objectives of the Study:

- To assess the overall financial performance and efficiency of select Logistic companies.
- To evaluate the financial health of the companies.

## Research Methodology:

The present study covers Logistic Industry in India and it is confined to five selected companies i.e., Gateway, Gati, All Cargo, TCI and Blue dart. The entire study is based on secondary data collected from the published sources i.e., Annual report for the period of 5 years i.e., 2010 to 2014. The collected data was analyzed using Altman's Z score which is used to monitor the financial performance and to predict the subsequent failure of the company.

Altman's Z score model is based on multi discriminate analysis model, which predicts the viability of a company's financial health by using a combination of financial ratios. Z score is discriminate score of a company which help in determining the financial health of the company.

$$Z = 1.2 T1 + 1.4 T2 + 3.3 T3 + 0.6 T4 + 1.0 T5$$

Z = Discriminant function score of a firm.

T1 = working capital/ Total assets

T2 = Retained earnings/ Total sales

T3 = Earnings before Interest and Taxes/ Total Assets

T4 = Market value of Equity / Book value of total liabilities

T5 = Sales / Total Assets

Altman's Guidelines:

Situation	Zscore	Zone
I	Below 1.8	Not healthy
II	1.8 to 2.99	Healthy
III	More than 3.00	Too Healthy

### Findings & Interpretations:

- T1 ratio (Table no:1) signifies the liquidity position of the company toward the total capitalization. It is clear from the above table 1, working capital of companies was fluctuating during the study period. It was below the conventional norm. Among the selected companies, Blue dart liquidity position is good compared to other firms. The negative value indicates the deterioration in the liquidity position of the company.
- T2 (Table no:2) ratio signifies retained earnings to total assets ratio which indicates the growth of the company has been financed through profits. The analysis shows that the ratio of blue dart and all cargo is nearer to the convention ratio of 1:1 during the years 2011-12 to 2013-14. The ratio reflects that company could able to finance capital expenditure through retain earnings than borrowings.
- T3 (Table no:3) ratio signifies the operational performance as well as earning power of the firm. a The proportion of EBIT and total assets ratio is more in case of Blue dart followed by TCI.
- T4 (Table no:4) ratio signifies the ratio of market value of share to its total liabilities of a firm. The ratio shows the company. Among the selected companies, blue dart is having positive relationship between market value of a share to its total liabilities.
- T5 (Table no:5) ratio signifies the ratio between total sales to its total assets. It shows the capacity of a firm to increase sales over period. TCI ratio is favorable compared to other companies.
- The Z score value (Table no:6) of selected logistic companies suggests the financial health over the study period. TCI, Blue dart and all cargo showed the Z score value more than 3.00 which signifies the companies 'are financially too healthy. Gati and Gateway companies' Z score value ranges below 3.00 which signify companies are financially healthy.

### Conclusion:

Altman's Z score is one of the important tools which are used to find out the financial bankruptcy of a firm. Business decisions of a company are influenced by financial health of a company. The present study revealed that all the selected companies are financially sound and healthy during the study period.

### References:

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Table no: 1 T1= working capital/ total assets

Year	2009-10	2010-11	2011-12	2012-13	2013-14
TCI	-0.06	-0.06	-0.01	-0.06	0.02
Gati	-0.05	-0.02	-0.23	-0.08	-0.03
Gateway	0.04	-0.09	-0.01	-0.02	-0.01
Blue Dart	0.25	0.19	0.15	0.18	0.22
All Cargo	-0.02	0.00	-0.06	0.00	-0.01

Table no: 2 T2= Retained earnings/ Total sales

Year	2009-10	2010-11	2011-12	2012-13	2013-14
TCI	0.49	0.46	0.48	0.51	0.55
Gati	0.36	0.37	0.42	0.55	0.55
Gateway	0.57	0.47	0.49	0.45	0.43
Blue Dart	0.45	0.76	0.61	0.66	0.29
All Cargo	0.47	0.00	0.62	0.63	0.60

Table no: 3 T3 = Earnings before Interest and Taxes/ Total Assets

Year	2009-10	2010-11	2011-12	2012-13	2013-14
TCI	0.13	0.16	0.15	0.16	0.14
Gati	0.07	0.09	0.04	0.04	0.05
Gateway	0.08	0.09	0.14	0.12	0.11
Blue Dart	0.25	0.21	0.26	0.20	0.20
All Cargo	0.09	0.00	0.16	0.09	0.07

Table no: 4 T4 = Market value of Equity / Book value of total liabilities

Year	2009-10	2010-11	2011-12	2012-13	2013-14
TCI	2.80	1.50	1.20	1.20	2.50
Gati	2.10	2.10	1.80	1.60	1.50
Gateway	2.10	2.10	1.80	1.60	1.50
Blue Dart	4.10	5.00	7.30	11.40	42.20
All Cargo	2.00	1.30	1.00	0.80	1.60

Table no: 5 T5 = Sales / Total Assets

Year	2009-10	2010-11	2011-12	2012-13	2013-14
TCI	2.32	2.74	2.59	2.59	2.58
Gati	1.23	1.59	1.27	0.92	0.81
Gateway	0.52	0.49	0.63	0.63	0.60
Blue Dart	2.04	1.77	2.07	2.06	2.30
All Cargo	1.16	0.00	1.80	1.59	1.64

Table no:6 ZSCORE

YEAR	2010	2011	2012	2013	2014
TCI	5.04	4.73	4.49	4.47	5.34
Gati	2.93	3.59	2.39	1.97	2.05
Gateway	2.90	2.59	2.87	2.58	2.45
Blue Dart	6.27	6.76	8.34	10.69	28.93
All Cargo	3.28	0.78	3.73	3.23	3.67