

A Comparative Analysis of Financial Performance of Selected Telecom Companies Using Z Score Model

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Abstract

Financial Distress can be described as company's inability to meet its current needs with its operating cash flows thereby alarming the firm to take immediate corrective actions to prevent the situation of bankruptcy. The Altman Z score model can be used to appraise the projecting feasibility of a firm's financial soundness by using a blend of five financial ratios which finally presents a score. This score can be taken as a base to assess the financial health and the ability of a company to meet its current requirements. This paper focuses on assessing the financial health of selected Telecom units i.e BSNL ,Bharti Airtel , Vodafone and Idea from 2013-14 to 2017-18.The study reveals that Vodafone needs to take corrective actions immediately as Z score is warning its bankruptcy in near future.Moreover,Airtel has also to be serious to improve its performance.

Keywords: Financial distress, Telecom Companies, Altman Z-score model, Bankruptcy

1. Introduction

Telecom Industry influences our lives in a number of aspects i.e. from facilitating Telephonic Contact between people in various locations to facilitating supply chains to operate flawlessly across continents to create product and meet the demands. There was full control of Government in Indian telecom sector until 1984. The real growth of Telecom Industry began in 1985 when Government separated the department of Post and Telegraph in 1985 by establishing two separate departments (i) Department of Post and (ii) Department of Telecommunication (DOT).

In 1990, government liberalized Telecom sector and the entry of private players to ensure better services to consumers. The operation wing of Department of Telecom was Corporatized by Government of India in the year 2000 and Department of Telecom was renamed as Bharat Sanchar Nigam Limited (BSNL). At present, there is dominance of private operators in Indian telecom sector and government has no monopoly in telecom sector. It has to provide services at par with private operators and even the private operators have to face stiff competition from each other. Such competition affects the financial position of these Telecom service providers. In our present study the main focus is to compare the performance of BSNL (PSU) ,Airtel ,Vodafone and Idea.

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2. Review of Literature

A number of studies have been conducted using Altman model to assess the financial distress and bankruptcy of different companies which has further helped the companies to take remedial actions immediately to improve their financial health.

Vijayalakshmi, D. B., & Sailaja, M. N. (2013) conclude that the financial performance of all selected Telecom companies in India is not good. They used the Z score model to assess the financial soundness of BSNL and other telecom service providers in private sector by applying a blend of five financial ratios (2007-08 to 2011-12) having a resultant score. They suggest all the companies in Indian Telecom sector to take innovative steps to improve their financial health to survive. Stepanyan A (2014) focuses on the study of probable bankruptcy of seven leading U.S airlines with the help of Altman's bankruptcy prediction model (Z-score) for six years (2007-2012) and finds that all of the U.S airlines selected for study except American Airlines which had already declared for bankruptcy remain probable bankruptcy airlines even after taking steps for improvement. Sasikala D. (2011) uses Z-score model (Altman's 1968) to envisage possibility of Financial distress of Alembic Pharma, from the year 2004-2010 and concludes that the Z-score model of alembic pharma falls in the grey zone, depicting poor financial performance. Reddy C.V. (2012) attempts to study the correlation between liquidity, profitability and risk factor and employs the Altman's Z-score model to assess the signs of financial distress of Dr. Reddy's Laboratories Limited, from the year 2005-2011. The Z-score analysis reveals that the company is not suffering from financial distress and it is an indication that the company has already undertaken turnaround activities .

3. Objectives of the Study

The objectives of the study are:

- To study the financial soundness of BSNL, Bharti Airtel, Vodafone and Idea.
- To study the financial distress of BSNL , Bharti Airtel, Vodafone and Idea by calculating various ratios and by applying Altman Z Score model.

4. Research Methodology

4.1 Data Collection

To determine the financial soundness of Selected Telecom Companies , secondary data in form of published annual reports of these companies has been used .

4.2 Selected Telecom Companies for the study:

The selected Telecom Companies are BSNL ,Bharti Airtel,Vodafone and Idea.

4.3 Time Period of the study:

Period of study to evaluate the financial performance of Selected Telecom Companies is 5 Financial years i.e. 2013-14 to 2017-18 as already one of such study has been already conducted for financial years 2007-08 to 2011-12 which has depicted the financial distress of BSNL. The purpose for selecting this time period of present study is to determine whether BSNL has shown signs of improvement or not. However ,For Idea the data upto 2016-17 has been used as in 2018 it was merged with Vodafone.

4.4 Analytical Tools:

Altman's Z Score:

Altman model is extensively used to predict the financial distress of firms. Instead of using financial ratios separately, Altman used a combination of financial ratios to assess the nearby possibility of bankruptcy of organizations. The Z scores formula to assess the financial health of a company is stated below:

$$Z = 1.2 A + 1.4 B + 3.3 C + 0.6 D + 0.999 E$$

Where Z is the overall index

A = Working Capital / Total Assets

B = Retained Earnings / Total Assets

C = EBIT / Total Assets

D = Market value of equity / Book value

E = Sales / Total Assets.

On the basis of Z score, the company is put in its respective category after taking into consideration the following criteria:-

- 1) If Z-Score value is less than 1.8, It is an indication of greater possibility for bankruptcy in the next few years.
- 2) If a Z-Score value is between 1.8 to 3, the company is said to be in "gray area". i.e., financial viability of the company is considered as healthy.
- 3) If a Z-Score value is above 3.0, the financial performance of the company is considered very healthy.

For the purpose of study, Instead of Market Value of Equity, Book Value of Equity has been used because the shares of BSNL have not been listed on Stock Exchange.

5. Empirical Results and Discussion

The various ratios for Z score value, Z score for BSNL and Bharti Airtel and comparative study of Z score for 5 years from 2013-14 to 2017-18 of telecom companies under study are presented in Annexures in form of figures and tables. Fig 1(Annex.) shows that working capital to total assets ratio of BSNL ranges between -0.05 to 0.01, of Bharti Airtel between -0.13 to -0.07, of Vodafone between -0.07 to 0 and of Idea between -0.14 to -0.03. It means that BSNL, Bharti Airtel, Vodafone and Idea have low investment in current assets which shows poor working capital management of these companies. Fig 2(Annex.) depicts that during the study period BSNL, Bharti Airtel, Vodafone and Idea have retained earnings to total assets ratio ranging from 0.50 to 0.71, 0.49 to 0.66, -0.54 to -0.35 and 0.22 to 0.32 respectively. It means that except Vodafone, all other selected telecom companies use their retained earnings to finance their assets. However this ratio in Idea is comparatively less. Fig 3(Annex.) makes it clear that EBIT to Total assets ratio of BSNL ranges between -0.08 to -0.03 during the study period and exhibits that BSNL is unable to operate its fixed assets properly. Similarly, EBIT to Total assets ratio of Bharti Airtel varies from 0.03 to 0.13 during the study period and depicts the operating efficiency of Bharti Airtel. On the other hand, this ratio ranges between -0.03 to 0.03 of Vodafone and 0.02 to 0.09 of Idea and thus showing better performance of these companies as compared to BSNL on this parameter. Fig 4(Annex.) makes it clear that Market value to Book value of Debt ratio of BSNL, Bharti Airtel, Vodafone and Idea varies between 1.80 to 3.01, 1.01 to 2.12, 0.89 to 1.43 and 0.34 to 0.61 respectively in the five years under study. It indicates that BSNL and Airtel rely more on their own funds which is good for them. This ratio is constantly decreasing in Vodafone and Idea depicting more reliance on outside debts and showing inability to satisfy the requirement of ideal equity debt mix of 1:1. Interest on Debt is a curse for Idea and Vodafone as it affects the profits. Fig 5(Annex.) shows that Sales to total assets ratio of BSNL, Bharti Airtel, Vodafone and Idea varies between 0.17 to 0.29, 0.26 to 0.44, 0.31 to 0.34 and 0.37 to 0.59 respectively. However the ratio is showing a declining trend for Idea in all these years.

Altman Z scores of BSNL from the year 2013-14 to 2017-18 are shown in Table 1(Annex.). In all the years Z-Scores of BSNL are more than 1.8 but less than 3 and are varying from minimum of 1.82 in the year 2013-14 to maximum of 2.82 in the year 2015-16. The table shows that the BSNL is in Gray Area showing healthy financial viability of the company. Table 2 (Annex.) shows Z Scores of Bharti Airtel from the year 2013-14 to 2017-18. In all the years except 2017-18, Z scores are above 1.8 ranging from 1.83 to 2.68. However in the year 2017-18 the Z Score is 1.53 signaling the possibility of bankruptcy in near future. Immediate necessary actions and strategies are needed to revive the company and to prevent its collapse in near future. Table 3(annex) shows that in all the five years the Z Score of Vodafone is below 1.8 ranging between 0.15 to 0.64 signalling bankruptcy of the company. Similarly , in the four year period the Z Score of Idea varies between 0.82 to 1.62 which is less than 1.8 alarming bankruptcy. Perhaps it is the reason that Vodafone and Idea have merged into Vodafone Idea Ltd.

6. Limitation of the Study

The study has not included Jio because it has recently come in existence and hence the data of five years is not available of this company for the purpose of the study.

7. Conclusion

Periodical evaluation of the financial health of a company is very important. But in a developing country like India, such evaluation is not given importance. The present study shows Public Sector Unit BSNL is competing private players in telecom sector e.g. Airtel, Vodafone and Idea.. Altman Z score model portrays that instead of stiff competition from private Telecom Companies, Financial viability of BSNL is healthy. Nodoubt Airtel's Z Score is better than Vodafone and Idea, but it has deteriorated in 2017-18 signalling bankruptcy. It is suggested that Airtel and Vodafone(now Vodafone Idea Limited) should use some turnaround strategy and take some innovative steps to survive and increase market share in near future.

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- l) Annual report of Vodafone from 2013-14 to 2017-18
- m) Annual report of Idea from 2013-14 to 2016-17

Annexure

Fig 1: Working Capital to Total Asset Ratio of Selected Telecom Companies From 2013-14 to 2017-18

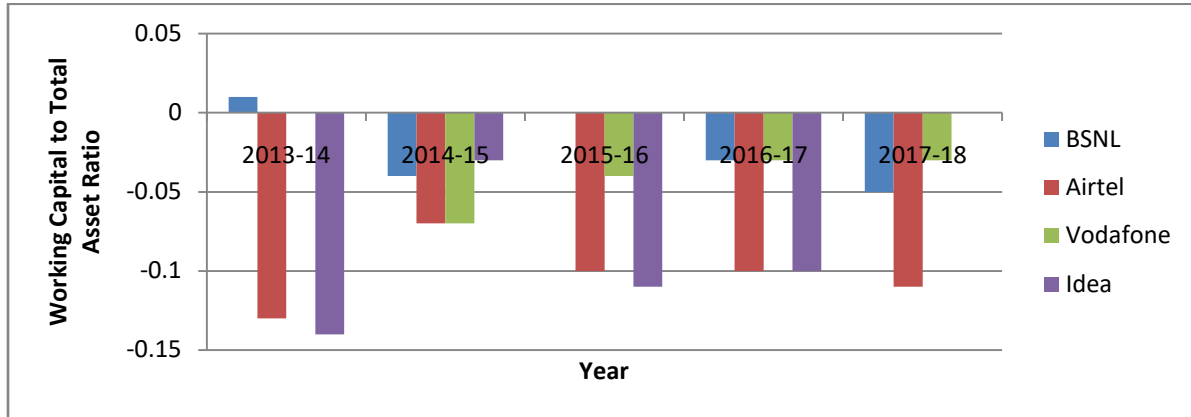


Fig 2: Retained Earnings to Total Asset Ratio of Selected Telecom Companies From 2013-14 to 2017-18

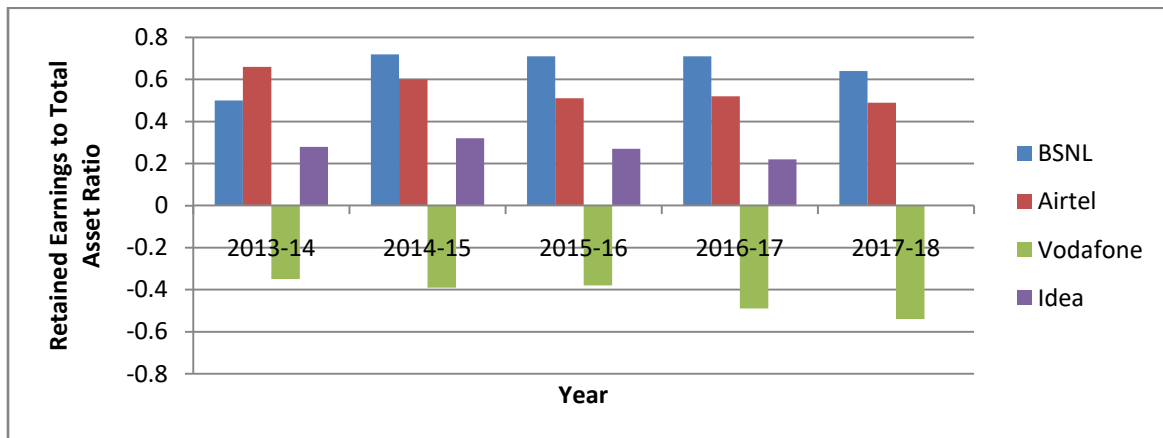


Fig 3: EBIT to Total Asset Ratio of Selected Telecom Companies From 2013-14 to 2017-18

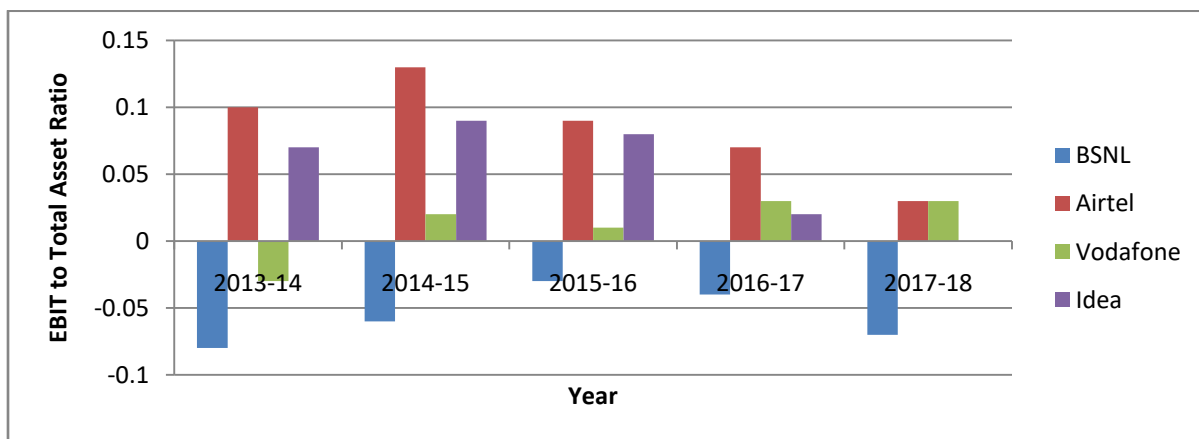
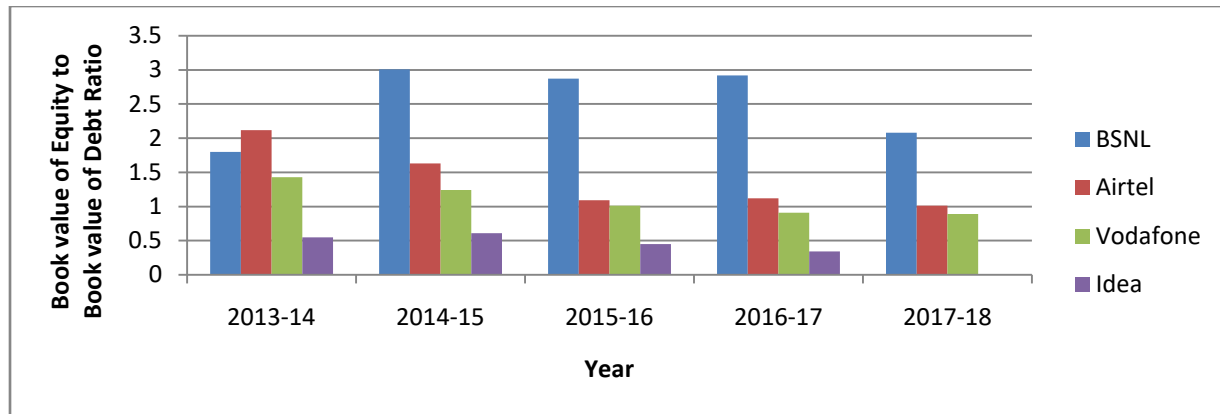
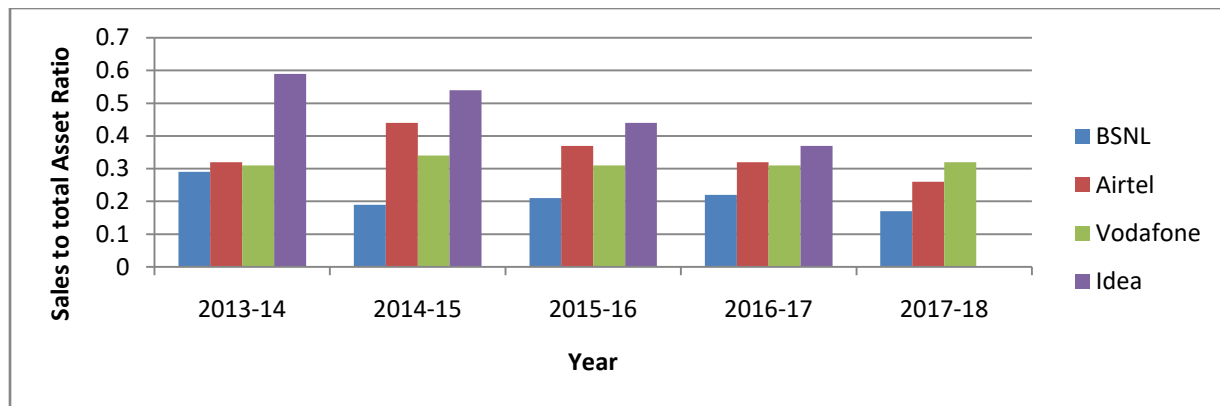


Fig 4: Book Value of equity to Book Value of Debt Ratio of Selected Telecom Companies From 2013-14 to 2017-18**Fig 5: Sales to Total Asset Ratio of Selected Telecom Companies From 2013-14 to 2017-18****Table 1: Statement Showing Z score of BSNL using Altman Model**

YEAR	1.2*A	1.4*B	3.3*C	0.6*D	0.999*E	Z-Score
2013-14	0.01	0.7	-0.26	1.08	0.29	1.82
2014-15	-0.05	1.01	-0.20	1.81	0.19	2.76
2015-16	0	0.99	-0.10	1.72	0.21	2.82
2016-17	-0.04	0.99	-0.13	1.75	0.22	2.79
2017-18	-0.06	0.90	-0.23	1.24	0.17	2.02

Table 2 : Statement showing Z score of Bharti Airtel using Altman Model

YEAR	1.2*A	1.4*B	3.3*C	0.6*D	0.999*E	Z-Score
2013-14	-0.16	0.92	0.33	1.27	0.32	2.68
2014-15	-0.08	0.84	0.43	0.98	0.44	2.61
2015-16	-0.12	0.71	0.30	0.65	0.37	1.91
2016-17	-0.12	0.73	0.23	0.67	0.32	1.83
2017-18	-0.13	0.69	0.10	0.61	0.26	1.53

Table 3 : Statement showing Z score of Vodafone using Altman Model

YEAR	1.2*A	1.4*B	3.3*C	0.6*D	0.999*E	Z-Score
2013-14	0	-0.49	-0.10	0.86	0.37	0.64
2014-15	-0.08	-0.55	0.07	0.74	0.34	0.52
2015-16	-0.05	-0.53	0.07	0.61	0.31	0.41
2016-17	-0.04	-0.69	0.10	0.55	0.31	0.23
2017-18	-0.04	-0.76	0.10	0.53	0.32	0.15

Table 4 : Statement showing Z score of Idea using Altman Model

YEAR	1.2*A	1.4*B	3.3*C	0.6*D	0.999*E	Z-Score
2013-14	-0.17	0.39	0.23	0.33	0.59	1.37
2014-15	-0.04	0.45	0.30	0.37	0.54	1.62
2015-16	-0.13	0.38	0.26	0.27	0.44	1.22
2016-17	-0.12	0.31	0.07	0.20	0.37	0.83