An analytical study on financial positions of selected telecom service sectors in India

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Abstract
Indian telecom industry has started growing rapidly since 1990 because of market liberalization. It has become one of the fastest growing telecom markets since then. Operating performance of a firm is depending upon certain key financial factors viz., turnover, profit, asset utilization etc. and the variables which are found in profit and loss account and balance sheet of a firm have a direct or indirect relation with each other. Financial performance of the firms can be analyzed by establishing a close relationship between the variables, in terms of liquidity, profitability, viability and sustainability. By establishing a close relationship between the variables, a firm can analyze its financial performance in terms of liquidity, profitability, viability and sustainability. Ratios and the statistical tool of ANOVA are normally used to identify the financial health of the firms and financial performances of the firms are measured accordingly. So the present study concentrates on empirical approach towards measuring deals with financial performance of the telecommunication companies.

Keywords: Efficiency, F-test, Leverage, Liquidity, Profitability and solvency

1. Introduction
The telecom services have become one of most important tool for socio-economic development for a nation. It is one of the prime support services needed for rapid growth and modernization of various sectors of the economy. India is currently the second-largest telecommunication market and has the third highest number of internet users in the world. In September 2015, total telephone subscription stood at 1,022.61million, while teledensity was at 80.98 per cent according to Compound Annual Growth Rate. Today the telecom industry offers services such as fixed landlines, WLL (wireless local loop), GSM (global system for mobile communications), CDMA (code-division multiple access) and IP (internet protocol) services to customers. Competition has also increased a lot among the Telecom service providers and hence the mobile facility has penetrated even into rural areas deeply. Major players in the sector are Bharti Airtel, Vodafone Essar, BSNL, MTNL, Reliance, BPL, Tata, Idea etc. With the growth of telecom services, telecom equipment and accessories manufacturing has also grown in a big way.

2. Review of literature
"Dr. Sanjay Pandey, Vijay Verma and Vikas Jain "stated in their study 'Measuring financial soundness of Indian Telecom Companies - A comparative Analysis that financial management is of crucial importance in management decision making. By managing the tradeoff between liquidity and solvency management, a company can achieve the optimal of financial soundness. He investigate that the effective liquidity management to support companies while meeting its short term operational or working requirements whereas analysis of solvency, fixed assets and return on equity concentrates on long term performance. A descriptive statistics discloses that liquidity and solvency position in both long and short term is very dissatisfactory and companies soon have to opt for its correction. F-tests confirm a lower degree of association between and within financial variables. Hence for the purpose of creation shareholder wealth, a company manager should concentrate on financial management especially unexplained variables.

Dr. B. Vijayalakshmi and M.N. Sailaja indicated in their study on financial health of selected companies in telecom sector - A comparative study that the financial health of all selected telecom companies in India have been poor. In spite of having a well-established infrastructural capacity, the public sector giant BSNL is still suffering to cope up with competition from private network operators like Airtel, Reliance communication etc. They suggested that all the telecom companies in India should take innovative steps for survival and betterment of financial health.

3. Need of the study
An investor who would like to be rational and scientific in his investment activity has to evaluate a lot of information about past performance and the expected future performance of the companies, industries and the economy as a whole before taking the investment decision and hence, the present study attempts to analyze the profitability and liquidity position of the sample companies.

4. Objectives of the Study
The main object of the present study is to examine the overall financial efficiency of the selected telecom companies. More specifically it seeks to reside upon mainly the following issues:
1. To assess the liquidity management efficiency;
2. To observe the financial performance position and areas of weakness, if any;
3. To investigate the relationships between liquidity and solvency.

5. Hypotheses of the Study
The study has pursued to test the following hypothesis with reference to Telecom Service Companies in India.
Hypothesis –
HO: Current ratio is uniform in the sample units
HO: Fixed Asset ratio is uniform in the sample units
HO: Dept equity ratio is uniform in the sample units
HO: Return on net worth is uniform in the sample units

6. Research methodology
Research design
The study is to bring about the happening in selected telecom companies during the study period. The present study adopts an analytical and descriptive research design.

Sampling procedure
The study is done with special reference to private sector telecommunication companies. The reason being that the data or the financial statements are readily available for them. The technique of 'Convenience Sampling' is being adopted for the study. The data of the sample companies (for a period of 5 years from 2011 to 2015) has been collected from the annual reports of the companies.

Sample size
A finite sample size of 3 companies listed on the National Stock Exchange (NSE) has been selected for the purpose of the study. They are Bharti Airtel, Reliance Communications and Idea Cellular.

Data Collection
Financial statements are the raw data collected from various websites such as www.moneycontrol.com, www.capitaline.com and other company websites.

Period of the Study
The study has been conducted during March 2011 to March 2015.

7. Tools used for Analysis
Ratio Analysis: Ratios have been used in the analysis are Current Ratio, Fixed Asset Ratio, Debt Equity Ratio and Return on net worth Ratio for the past 5 years. Analysis of Variance (ANOVA): The statistical tool that is used for testing hypothesis is one-way Analysis of Variance (ANOVA).

8. Results and discussion
Current Ratio
It is one of the short term solvency ratios. The ratio of current assets to current liabilities is called 'current ratio'. In order to measure the short-term liquidity or solvency of a concern, comparison of current assets and current liabilities is inevitable. Current ratio indicates the ability of a concern to meet its current obligations as and when they are due for payment. Formula:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The term current assets includes debtors, stock, bills receivables, band and cash balances, prepaid expenses, income due and short-term investments. The term current liabilities includes creditors, bank overdraft, bills payable, outstanding expenses, income received in advance, etc.

Table 1: Current Ratio

Year	Bharti Airtel	Reliance Communications	Idea cellular
2011	0.63	0.68	0.49
2012	1.02	0.77	0.53
2013	0.65	0.69	0.52
2014	0.93	0.72	0.42
2015	0.73	1.48	0.39
Mean/Average	0.792	0.868	0.47

Source: www.moneycontrol.com

ANOVA: Single Factor

Table 2: Summary

Groups	Bharti Airtel	Reliance Communications	Idea cellular
Count	5	5	5
Sum	3.96	4.34	2.35
Average	0.792	0.868	0.47
Variance	0.03032	0.11827	0.00385

Source: Computed Data

Table 3: Anova

Source of variation	Sum of squares	Degrees of freedom	Mean Square
Between	0.44644	2	0.22322
Within	0.60976	12	0.0508133

Source: Computed Data

$$F = \frac{\text{Mean square between samples}}{\text{Mean square within samples}}$$

$$= \frac{0.22322}{0.0508133}$$

$$= 4.3929414$$

Since the calculated value of F is 4.3929414 which is greater than the table value of 3.8853 at 5% significance level so the null hypothesis is rejected and hence there is a significant difference between the telecom companies on the basis of Current Ratio.

Fixed Assets Turnover Ratio
This ratio determines efficiency of utilization of fixed assets and profitability of a business concern. Higher the ratio, more is the efficiency in utilization of fixed assets. A lower ratio is the indication of underutilization of fixed assets.
Formula:

$$\text{Fixed assets turnover ratio} = \frac{\text{Cost of sales}}{\text{Net fixed assets}}$$

Table 4: Fixed Assets Turnover Ratio

Year	Bharti Airtel	Reliance Communications	Idea cellular
2011	0.82	0.54	0.70
2012	0.84	0.42	0.73
2013	0.82	0.40	0.74
2014	0.86	0.37	0.78
2015	0.85	0.34	0.85
Mean/Average	0.838	0.414	0.76

Source: www.moneycontrol.com

ANOVA: Single Factor

Table 5: Summary

Groups	Bharti Airtel	Reliance Communications	Idea cellular
Count	5	5	5
Sum	4.19	2.07	3.8
Average	0.838	0.414	0.76
Variance	0.00032	0.00588	0.00335

Source: Computed Data

Table 6: Anova

Source of variation	Sum of squares	Degrees of freedom	Mean Square
Between	0.50929334	2	0.25464667
Within	0.0382	12	0.00318333

Source: Computed Data

$$F = \frac{\text{Mean square between samples}}{\text{Mean square within samples}}$$

$$= \frac{0.25464667}{0.00318333}$$

$$= 79.993718$$

The table value of F for $V_1=2$ and $V_2=12$ at 5% level of significance is 3.8853. The calculated value of F (79.993718) is more than the table value and hence there is a significant difference between the telecom companies on the basis of Fixed Assets turnover ratio.

Debt equity Ratio
This ratio is ascertained to determine long-term solvency position of a company. Debt equity ratio is also called 'external-internal equity ratio'.
Formula:

$$\text{Debt-Equity ratio} = \frac{\text{Total long-term debt}}{\text{Shareholders funds}}$$

Table 7: Debt equity Ratio

Year	Bharti Airtel	Reliance Communications	Idea cellular
2011	0.23	0.48	0.86
2012	0.29	0..62	0.79
2013	0.24	0.92	0.80
2014	0.13	0.96	1.14
2015	0.26	0.76	0.74
Mean/Average	0.23	0.748	0.866

Source: www.moneycontrol.com

ANOVA: Single Factor

Table 8: Summary

Groups	Bharti Airtel	Reliance Communications	Idea cellular
Count	5	5	5
Sum	1.15	3.74	4.33
Average	0.23	0.748	0.866
Variance	0.00365	0.04072	0.02528

Source: Computed Data

Table 9: Anova

Source of variation	Sum of squares	Degrees of freedom	Mean Square
Between	1.144573334	2	0.572286667
Within	0.2786	12	0.023216666

Source: Computed Data

$$F = \frac{\text{Mean square between samples}}{\text{Mean square within samples}}$$

$$= \frac{0.572286667}{0.023216666}$$

$$= 24.64982125$$

The table value of F for $V_1=2$ and $V_2=12$ at 5% level of significance = 3.8853. The calculated value of F (24.64982125) is more than the table value and hence there is a significant difference between the telecom companies on the basis of Debt Equity Ratio.

Return on Net worth (or) Return of Equity (or) Return on equity shareholders' funds
This ratio signifies the return on equity shareholders' funds. The profit considered for computing the ratio is taken after payment of preference dividend. The ratio of return on equity shareholders' funds is calculated as given below.
Formula:

$$\text{Return on equity shareholders' funds} = \frac{\text{Net profit after interest, tax and preference dividend}}{\text{Equity shareholders funds}} \times 100$$

The term Net worth (or) Equity (or) Equity shareholders funds refers to equity share capital + Profits − Accumulated losses

Table 10: Return on Net worth

Year	Bharti Airtel	Reliance Communications	Idea cellular
2011	17.49	-1.57	6.87
2012	11.59	0.34	4.46
2013	9.41	1.88	5.83
2014	9.89	2.32	10.83
2015	16.86	-0.42	12.83
Mean/Average	13.048	0.51	8.164

Source: www.moneycontrol.com

ANOVA: Single Factor

Table 11: Summary

Groups	Bharti Airtel	Reliance Communications	Idea cellular
Count	5	5	5
Sum	65.24	2.55	40.82
Average	13.048	0.51	8.164
Variance	14.89912	2.5933	12.43018

Source: Computed Data

Table 12: Anova

Source of variation	Sum of squares	Degrees of freedom	Mean Square
Between	399.3976933	2	199.6988467
Within	119.6904	12	9.9742

Source: Computed Data

$$F = \frac{\text{Mean square between samples}}{\text{Mean square within samples}}$$

$$= \frac{199.6988467}{9.9742}$$

$$= 20.02154024$$

The table value of F for $V_1=2$ and $V_2=12$ at 5% level of significance = 3.8853. The calculated value of F (20.02154024) is more than the table value and hence there is a significant difference between the telecom companies on the basis of Return on Net worth Ratio.

9. Major Findings of the Study
▪ During the five financial periods of study the mean of Current Ratio in Reliance is higher (0.868) than the others. Hence we can say that Reliance has enough resources to pay its debts over the next 12 months as compared with other sample companies.
▪ During the five financial periods the mean of fixed asset turnover ratio in Bharti Airtel is higher (0.838) than the others. It means that Bharti Airtel has more effectively utilized investment in fixed assets to generate revenue. Reliance Communication has registered the lowest ratio (0.414) as compared with Bharti Airtel (0.838) and Idea Cellular (0.76). It means that Reliance Communication has underutilization of fixed assets to generate revenue.
▪ During the five financial periods Idea Cellular has registered the highest Debt equity ratio of 0.866 as compared with Bharti Airtel (0.23) and Reliance Communications (0.748). It means that Idea Cellular has more debt financing than equity financing and hence we can say that Idea Cellular has high levered firm or company. Aggressive leveraging practices are often associated with high levels of risk. So the Idea cellular has high level of risk and the Bharti Airtel has low level of risk.
▪ The Return on Net worth Ratio is a profitability ratio that measures the ability of a firm to generate profits from its shareholders investments in the company. During the five financial periods Bharti Airtel has the highest mean of Return on Net worth ratio. It means that Bharti Airtel has more efficient management in utilizing its equity base and the better return to its investors as compared with Reliance Communication (0.51) and Idea cellular (8.164).

10. Recommendation to the Telecom Companies
▪ The sample telecom companies should take innovative steps for the survival and betterment of financial health.
▪ The management is able to pinpoint weak spots and take corrective measures to improve more.

11. Conclusion of the Study
Financial management is indeed the key to successful business operations. Without proper administration and effective utilization of finance no business enterprise can utilize its potentials for growth and expansion. The optimal of financial soundness is could be achieve by company that manage the tradeoff between liquidity and solvency management. The purpose of this study is to investigate the effective liquidity management of support companies while meeting its short term operational or working requirements whereas analysis of solvency, fixed assets and return on equity concentrates on long term performance. A descriptive statistics discloses that liquidity and solvency position in both long and short term is very dissatisfactory and companies soon have to opt for its correction. F-tests confirm a lower degree of association between and within financial variables. Thus, company manager should concern on financial management, especially unexplained variables in purpose of creation shareholder's wealth. It is suggested that sample telecom companies should take corrective measures to improve the financial health of the companies.

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