

Financial Resources Management: A Comparative Study of Indian Telecommunication Sector

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Abstract-

As we all know that in the present time of technology peoples of whole world are directly or indirectly connected each other and telecommunication sector plays a significant role in this connectivity. India's telecommunication network is the second largest network in the world based on the total number of telephone users (both fixed and mobile phone) and it has the world's third-largest Internet user-base. According to the Internet and Mobile Association of India, the Internet user base in the country stood at 190 million at the end of June, 2013. The performance of any organization depends upon the proper and efficient management of financial resources. The better management of financial resources positively affects the solvency, turnover and earning capacity. Under this research paper four major Indian telecommunication companies are selected and various ratios as current ratio, debt-equity ratio, assets turnover ratio and net profit ratio have been calculated for the purpose of comparison of the solvency, turnover and earning capacity in respect of financial resources management.

Key Words- Telecommunication Sector, Financial Resources, Management, Ratio Analysis, Anova.

I. INTRODUCTION

India's telecommunication network is the second largest network in the world based on the total number of telephone users (both fixed and mobile phone). It has one of the lowest call tariffs in the world enabled by the mega telephone networks and hyper-competition among them. It has the world's third-largest Internet user-base. According to the Internet and Mobile Association of India (IAMAI), the Internet user base in the country stood at 190 million at the end of June, 2013 hence there a need is realized to examine performance of management and comparison of the financial statement of selected telecommunication companies for which ratio analysis technique has been applied. Ratio analysis is a powerful tool of financial analysis. A ratio is defined as "the indicated quotient of two mathematical expressions" and "the relationship between two or more things". In financial analysis, a ratio is used as a benchmark for evaluation the financial position and performance of a firm. The absolute accounting figures reported in the financial statements do not provide a meaningful understanding of the performance and financial position of a firm. Under this research study various ratio as current ratio, debt to equity ratio, assets turnover ratio and net profit ratio are determined and their averages is also calculated to compare the liquidity, availability of fund for outsider's liabilities, rotation of assets for sale purpose and earning capacity of the such companies. Furthermore statistical test anova is also used to check the significance of changes in various ratios in comparison of previous year.

II. TELECOMMUNICATION SECTOR

As it has already discussed that Indian telecommunication sector is the second largest telecommunication sector of the world and it plays an important role towards the Indian economy. The major sectors of the Indian telecommunication industry are telephony, internet and television broadcast Industry in the country which is in an ongoing process of transforming into next generation network, employs an extensive system of modern network elements such as digital telephone exchanges, mobile switching centers, media gateways and signaling at the core, interconnected by a wide variety of transmission systems using fiber-optics or Microwave radio relay networks. The access network, which connects the subscriber to the core, is highly diversified with different copper-pair, optic-fiber and wireless technologies. DTH, a relatively new broadcasting technology has attained significant popularity in the Television segment. The introduction of private FM has given a fillip to the radio broadcasting in India. Telecommunication in India has greatly been supported by the INSAT system of the country, one of the largest domestic satellite systems in the world. India possesses a diversified communications system, which links all parts of the country by telephone, Internet, radio, television and satellite. Under this research study four major telecommunication companies are selected of which profile has been discussed as under-

Bharti Airtel

Bharti Airtel, formerly known as Bharti Tele-Ventures Limited (BTVL) is India's largest cellular service provider with more than 75 million subscribers as of August 2008. It also offers fixed line services and broadband services. It offers its TELECOM services under the Airtel brand and is headed by Sunil Mittal. The company also provides telephone services and Internet access over DSL in 14 circles.

Tata Communication

Tata Teleservices Limited (TTSL) is a part of the Tata Group of companies, an Indian conglomerate. It runs under the brand name Tata Communication in India, in various telecom circles of India. The company forms part of the Tata Group's presence in the Telecommunication Industry in India, along with Tata Teleservices (Maharashtra) Limited (TTML) and Tata Communications Ltd.

Idea Cellular

Idea Cellular is a wireless telephony company operating in various states in India. It initially started in 1995 as a joint venture between the Tata, Aditya Birla Group and AT&T by merging "Wings Cellular" operating in Madhya Pradesh, UP West, Rajasthan and Tata Cellular as well as Birla AT&T Communications. Initially having a very limited footprint in the GSM, the acquisition of Escotel in 2004 gave Idea a truly pan-India presence covering Maharashtra, Goa, Gujarat, Andhra Pradesh, Madhya Pradesh, Chhattisgarh, Uttar Pradesh (East and West), Haryana, Kerala, Rajasthan and Delhi (inclusive of NCR)

Reliance Communications

Reliance Communications (formerly Reliance Infocomm) along with Reliance Telecom and Flag Telecom, is part of Reliance Communications Ventures. According to National Stock Exchange data, Anil Ambani controls Telecommunications Company. It is the flagship company of the Reliance-Anil Dhirubhai Ambani Group, comprising of power (Reliance Energy), financial services (Reliance Capital) and telecom initiatives of the Reliance ADA Group.

III. REVIEW OF LITERATURE

Gopinathan Thachappilly (2009), discussed in his article about the financial ratio analysis for performance evaluation. He also stressed that financial ratio analysis is typically done to make sense of the massive amount of numbers presented in company financial statements. It helps evaluate the performance of a company, so that investors can decide whether to invest in that company.

James Clausen (2009), expressed in his article about the liquidity ratio. He pronounced that an analysis of the financial statements is used to measure the performance of company. It also analyses of the income statement and balance sheet. According to James Clausen the investors and lending institutions will often use ratio analyses of the financial statements to determine company's profitability and liquidity. If the ratios indicate poor performance, investors may be reluctant to invest. Therefore, the current ratio or working capital ratio, measures current assets against current liabilities. The current ratio measures the company's ability to pay back its short-term debt obligations with its current assets. He thinks a higher ratio indicates the company is better equipped to pay off short-term debt with current assets.

James Hutchinson (2010), realized about the long term debt to equity ratio of a Business. The ratio of these numbers tells a lot about the business. It is calculated by taking the debt owed by the company and divided by the owner's equity, also known as capital. The debt number may include all liabilities, or just long term debt.

Maria Zain (2008), stated in his articles that the return on assets is an important percentage which shows the company's ability to use its assets to generate income. He said that a high percentage indicates that company is doing a good utilizing the assets to generate income.

James Clausen (2009), denoted about the total asset ratio that the calculation of this ratio uses two factors, total revenue and average assets to determine the turnover ratio. When calculating for a particular year, the total revenue for that year is used. Instead of using the year ending asset total from the balance sheet, a more accurate picture would be to use the total average assets for the year.

Munya Mtetwa (2010), discussed in his article about the fixed asset. He defined that fixed assets are assets that are used in production or supply of goods or services and they are to be used within the business for more than one financial year. Consequently, fixed assets represent the company's long term income generating assets and they can either be tangible or non-tangible.

Vanitha. S and Selvam. M (2007) stated that financial performance of an organization can be analysed by using the technique of ratio analysis, mean, standard deviation and 't' test. They found in their study "Financial Performance of Indian Manufacturing Companies during Pre and Post Merger" that the overall financial performance of merged companies in respect of various variables were not significantly different from the expectations.

IV. RESEARCH METHODOLOGY

This research has been conducted on the basis of following points-

A. Objectives of the study

1. To compare the financial performance through Ratio analysis.
2. To analysis the profitability of the selected companies.
3. To study the financial performance of selected companies.
4. To compare the financial performance of selected companies.
5. To analyses and evaluate the trends in financial performance of these selected units.

B. Hypothesis of study

This research study has been conducted on the basis of following hypothesis-

- H0¹**All sample means are equal in respect of percentage changes in current ratios of above companies.
Ha¹All sample means are not equal in respect of percentage changes in current ratios of above companies.
H0²All sample means are equal in respect of percentage changes in debt-equity ratios of above companies.
Ha²All sample means are not equal in respect of percentage changes in debt-equity ratios of above companies.
H0³All sample means are equal in respect of percentage changes in assets turnover ratios of above companies.
Ha³All sample means are not equal in respect of percentage changes in assets turnover ratios of above companies.
H0⁴All sample means are equal in respect of percentage changes in net profit ratios of above companies.
Ha⁴All sample means are not equal in respect of percentage changes in net profit ratios of above companies.

C. Data Collection

Under this research study the telecommunication sector has been considered and for this purpose three major companies have been selected which are Bharti Airtel, Idea Cellular and Tata Communication. This study is based on secondary data and for data have been collected for the period from 2007 to 2016 available by annual report of such companies.

D. Tools and technique

For analytical study of the telecommunication sector data have been presented through tables and various ratios like current ratio, quick ratio, debt equity ratio, inventory turnover ratio, asset turnover ratio and net profit ratios have been calculated with statistical test including averages and anova test.

V. DATA ANALYSIS AND DISCUSSION

In financial analysis, a ratio is used as a benchmark for evaluation the financial position and performance of a firm. The absolute accounting figures reported in the financial statements do not provide a meaningful understanding of the performance and financial position of a firm. An accounting figure conveys meaning when it is related to some other relevant information.

Under this research study for comparative analysis of financial management of telecommunication sector various ratios have been discussed which are as under-

A. Current Ratio-

The current ratio is a measure of firm's short-term solvency and it indicates the availability of current assets in rupees for every one rupee of current liability. This ratio is calculated by dividing current assets by current liabilities. The data in respect of current ratio are presented in the following table no. 01.

Table 1: Current Ratio of selected Telecommunication Companies

Year	Bharti Airtel	(%) Change	Tata Comm.	% Change	Idea Cellular	% Change	Reliance Comm.	% Change
2007	0.48	---	1.13	---	0.86	---	1.77	---
2008	0.56	16.67	1.50	32.74	0.43	-50.00	0.95	-46.33
2009	0.66	17.86	1.38	-8.00	1.01	134.88	1.45	52.63
2010	0.68	3.03	2.23	61.59	1.02	0.99	1.37	-5.52
2011	0.31	-54.41	0.61	-72.65	0.36	-64.71	0.61	-55.47
2012	0.73	135.48	0.53	-13.11	0.29	-19.44	0.88	44.26
2013	0.32	-56.16	0.96	81.13	0.39	34.48	0.89	1.14
2014	0.35	9.37	1.06	10.42	0.26	-33.33	0.76	-14.61
2015	0.64	82.86	0.79	-25.47	0.89	242.31	1.26	65.79
2016	0.41	-35.94	0.80	1.27	0.30	-66.29	0.51	-59.52
Average	0.514		1.099		0.581		1.045	

Source- moneycontrol.com

Above table shows the current ratios of telecommunication companies from which it is cleared that on the basis of average current ratio the highest average is scored by Tata Communication which is 1.099 thereafter this average is scored by Reliance Communication, Idea Cellular and Bharti Airtel respectively: 1.045, 0.581 and 0.514. By viewing this table it is also cleared that the changes in current ratio is of fluctuating nature and showing the increase as well as decrease in such ratio in comparison of previous year. For studying the significant differences among the percentage changes of above companies the anova test has been applied on the basis of the following hypothesis.

- H0¹**All sample means are equal in respect of percentage changes in current ratios of above companies.
Ha¹All sample means are not equal in respect of percentage changes in current ratios of above companies.

Table 02: Anova Result

Source of variance	Sum of Squares	d.f.	Mean Square	F	P-value	F crit.
Between Groups	2307.106	3	769.0353	0.159689	0.922644	2.90112
Within Groups	154106.3	32	4815.821			
Total	156413.4	35				

Results- According to the above table, the variance ratio is 0.159689 and P value is 0.922644 which is more than 0.05, hence the null hypothesis is rejected which means all the sample group means are not equal in respect of percentage changes in current ratios of above companies in other words there is significant difference among the increase or decrease of current ratio of selected companies.

B. Debt to Equity Ratio-

The debt-equity ratio presents the capital structure of the company it indicates the amount of debt against the equity fund. This ratio is calculated by dividing total debt by total equity fund. The data in respect of debt-equity ratio are presented in the following table 03.

Table 3: Debt to Equity Ratio of selected Telecommunication Companies

Year	Bharti Airtel	(%) Change	Tata Comm.	% Change	Idea Cellular	% Change	Reliance Comm.	% Change
2007	0.47	---	0.03	---	1.95	---	0.71	---
2008	0.33	-29.79	0.12	300.00	1.84	-5.64	0.82	15.49
2009	0.28	-15.15	0.34	183.33	0.67	-63.59	0.60	-26.83
2010	0.14	-50.00	0.36	5.88	0.57	-14.93	0.48	-20.00
2011	0.23	64.29	0.20	-44.44	0.75	31.58	0.48	0.00
2012	0.29	26.09	0.13	-35.00	0.78	4.00	0.62	29.17
2013	0.24	-17.24	0.10	-23.08	0.80	2.56	0.92	48.39
2014	0.13	-45.83	0.12	20.00	1.14	42.50	0.96	4.35
2015	0.26	100.00	0.06	-50.00	0.74	-35.09	0.76	-20.83
2016	0.50	92.31	0.08	33.33	1.56	110.81	0.87	14.47
Average	0.287		0.154		1.08		0.722	

Source- moneycontrol.com

Above table shows the debt-equity ratios of telecommunication companies from which it is cleared that on the basis of average debt-equity ratio the highest average is scored by Idea Cellular which is 1.08 thereafter this average is scored by Reliance Communication, Bharti Airtel and Tata Communication respectively: 0.722, 0.287 and 0.154. By viewing this table it is also cleared that the changes in debt-equity ratio is of fluctuating nature and this ratio has increased by 300% for Tata Communication during the year 2008 in comparison of the previous year. For studying the significant differences among the percentage changes of above companies the anova test has been applied on the basis of the following hypothesis.

H₀² All sample means are equal in respect of percentage changes in debt-equity ratios of above companies.

H_a² All sample means are not equal in respect of percentage changes in debt-equity ratios of above companies.

Table 04: Anova Result

Source of variance	Sum of Squares	d.f.	Mean Square	F	P-value	F crit.
Between Groups	8361.457	3	2787.152	0.53355	0.662592	2.90112
Within Groups	167161.3	32	5223.792			
Total	175522.8	35				

Results- According to the above table, the variance ratio is 0.436916 and P value is 0.728098 which is more than 0.05, hence the null hypothesis is rejected which means all the sample group means are not equal in respect of percentage changes in net profit ratios of above companies in other words there is significant difference among the increase or decrease of net profit ratio of selected companies.

C. Assets Turnover Ratio-

The assets turnover ratio presents the number of times the total assets rotated in the process of business operation. This ratio is calculated by dividing net turnover by total assets. The data in respect of assets turnover ratio are presented in the following table no. 05.

Table 05: Assets Turnover Ratio of selected Telecommunication Companies

Year	Bharti Airtel	(%) Change	Tata Comm.	% Change	Idea Cellular	% Change	Reliance Comm.	% Change
2007	64.22	---	46.91	---	50.39	---	27.83	---
2008	62.56	-2.58	35.58	-28.42	52.28	3.75	26.24	-5.71
2009	68.33	9.22	30.52	-9.11	43.87	-16.09	16.40	-37.50
2010	64.26	-5.96	26.42	-13.43	52.81	20.38	16.09	-1.89
2011	53.11	-17.35	31.53	19.34	53.55	1.40	13.47	-16.28
2012	51.79	-2.49	37.69	19.54	62.21	16.17	12.96	-3.79
2013	51.60	-0.37	41.26	9.47	64.03	2.93	14.83	14.43
2014	50.83	-1.49	38.32	-7.13	59.35	-7.31	14.53	-2.02
2015	43.89	-13.65	36.81	-3.94	54.23	-8.63	14.33	-1.38
2016	37.23	-15.17	39.75	7.99	44.87	-17.26	12.63	-11.86
Average	54.78		36.28		53.76		16.93	

Source- moneycontrol.com

Above table shows the net profit ratios of telecommunication companies from which it is cleared that Bharti Airtel has highest score on the basis of average of assets turnover ratio which is 54.78 thereafter this average is scored by Idea Cellular, Tata Communication and Reliance Communication respectively: 53.76, 36.28 and 16.93. For studying the significant differences among the percentage changes of above companies the anova test has been applied on the basis of the following hypothesis.

H₀³ All sample means are equal in respect of percentage changes in assets turnover ratios of above companies.

H_a³ All sample means are not equal in respect of percentage changes in assets turnover ratios of above companies.

Table 06: Anova Result

Source of variance	Sum of Squares	d.f.	Mean Square	F	P-value	F crit.
Between Groups	323.682	3	107.894	0.616888	0.609132	2.90112
Within Groups	5596.814	32	174.9004			
Total	5920.496	35				

Results- According to the above table, the variance ratio is 0.616888 and P value is 0.609132 which is more than 0.05, hence the null hypothesis is rejected which means all the sample group means are not equal in respect of percentage changes in assets turnover ratios of above companies in other words there is significant difference among the increase or decrease of assets turnover ratio of selected companies.

D. Net Profit Ratio-

Net profit is the excess of revenue over expenses during a particular period. This ratio presents the relationship between net profit and sales. The net profit ratio is calculated by dividing the net profit by net sales. The data in respect of assets turnover ratio are presented in the following table no. 07.

Table 07: Net Profit Ratio of selected Telecommunication Companies

Year	Bharti Airtel	(%) Change	Tata Comm.	% Change	Idea Cellular	% Change	Reliance Comm.	% Change
2007	22.59	---	11.59	---	11.21	---	18.88	---
2008	24.23	7.26	10.13	-12.60	15.54	38.63	17.48	-7.42
2009	22.74	-6.15	13.63	34.55	10.15	-34.68	31.83	82.09
2010	26.47	16.40	15.01	10.12	9.03	-11.03	3.53	-88.91
2011	20.29	-23.35	4.50	-70.02	5.50	-39.09	-6.24	-276.77
2012	13.77	-32.13	4.18	-7.11	2.99	-45.64	1.40	-122.44
2013	11.23	-18.45	10.76	157.42	3.71	24.08	5.53	295.00
2014	13.22	17.72	12.39	15.15	6.46	74.12	6.53	18.08
2015	23.78	79.88	15.61	25.99	8.98	39.01	-1.42	-121.75
2016	12.51	-47.39	2.36	-84.88	7.30	-18.71	-16.28	1046.48
Average	19.08		10.02		8.09		6.12	

Source- moneycontrol.com

Above table shows the net profit ratios of telecommunication companies from which it is cleared that Bharti Airtel has earned more profit than other companies during the past years. On the basis of average net profit ratio highest average is scored by Bharti Airtel which is 19.08 thereafter this average is scored by Tata Communication, Idea Cellular and Reliance Communication respectively: 10.02, 8.09 and 6.12. By viewing this it is also cleared that Reliance Communication has negative net profit ratio during the year 2011, 2015 and 2016 which is sign of loss. For studying the significant differences among the percentage changes of above companies the anova test has been applied on the basis of the following hypothesis.

H₀⁴All sample means are equal in respect of percentage changes in net profit ratios of above companies.

H_a⁴All sample means are not equal in respect of percentage changes in net profit ratios of above companies.

Table 08: Anova Result

Source of variance	Sum of Squares	d.f.	Mean Square	F	P-value	F crit.
Between Groups	52936.3	3	17645.43	0.436916	0.728098	2.90112
Within Groups	1292363	32	40386.35			
Total	1345299	35				

Results- According to the above table, the variance ratio is 0.436916 and P value is 0.728098 which is more than 0.05, hence the null hypothesis is rejected which means all the sample group means are not equal in respect of percentage changes in net profit ratios of above companies in other words there is significant difference among the increase or decrease of net profit ratio of selected companies.

VI. FINDING AND CONCLUSION

On the basis of above study we can conclude that Bharti Airtel is performing better than other telecommunication companies in respect of earning capacity, the average of net profit ratio of Bharti Airtel Company is scored 19.08 thereafter this average is scored as 10.02, 8.09 and 6.12 by Tata Communication, Idea Cellular and Reliance Communication respectively. Bharti Airtel also has the highest score as 54.78 on the basis of average of assets turnover ratio which is indication of efficient management of financial resources. On the basis of average debt-equity ratio we find that the highest average is scored by Idea Cellular which is 1.08 thereafter this average is scored by Reliance Communication, Bharti Airtel and Tata Communication respectively: 0.722, 0.287 and 0.154 so there is a need to improve this ratio. The current ratio of any organization presents the short term solvency hence under this research study the current ratio of selected companies is also determined and on the basis of average current ratio it is cleared that the highest average is scored by Tata Communication which is 1.099 thereafter this average is scored as 1.045, 0.581 and 0.514 respectively by Reliance Communication, Idea Cellular and Bharti Airtel it means the short term solvency of Tata Communication is better than other companies but it is not ideal which should be in ratio of 2:1. Hence it can be suggested that all the selected companies should focus on management of current assets as well as current liabilities to improve short term solvency.

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