

A FINANCIAL ANALYSIS OF SELECTED TELECOMMUNICATION COMPANIES IN INDIA

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ABSTRACT

The telecommunication plays an important role in today's market dynamic. In the last decade a dramatic change in the ownership structure of telecommunications companies has taken place, from public (state-owned) monopolies to private companies. The rapid development of mobile telephone networks and video and Internet technologies has created enormous competitive pressure on the companies. As new competitors arise, companies need intelligent tools to gain a competitive advantage. Also, stock market expectations are enormous, and investors and financial analysts need tested tools to gain information about how companies perform financially compared to their competitors, what they are good at, who the major competitors are, etc. In other words, the telecom companies need to benchmark their performances against competitors in order to remain important players in this market.

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INTRODUCTION

India operates one of the largest telecom networks in the world adding nearly 200million connections every month. Telephones are an important means of telecommunication. The telecommunication plays an important role in today's market dynamic. In the last decade a dramatic change in the ownership structure of telecommunications companies has taken place, from public (state-owned) monopolies to private companies. The rapid development of mobile telephone networks and video and Internet technologies has created enormous competitive pressure on the companies. As new competitors arise, companies need intelligent tools to gain a competitive advantage. Also, stock market expectations are enormous, and investors and financial analysts need tested tools to gain information about how companies perform financially compared to their competitors, what they are good at, who the major competitors are, etc. In other words, the telecom companies need to benchmark their performances against competitors in order to remain important players in this market.

The telecommunication sector, especially the mobile phone sector, in India is one of the fastest growing business segments of the country which provides a lot of value addition to the society. At present there are fifteen mobile phone operators in the country - Bharti Airtel Limited (Bharti), Reliance Communications Limited (Reliance), Vodafone Essar Limited (Vodafone), Bharat Sanchar Ni-gam Limited (BSNL)- Government of India owned public sector company, Tata Teleservices Limited (Tata), Idea Cellular Limited (IDEA), Aircel Limited (Aircel), Unitech Wireless Limited (Unitech), Mahanagar Telephone Nigam Limited (MTNL), Sistema Shyam TeleServices Limited (Sistema), Loop Mobile (India) Limited - Formerly BPL Mobile (Loop Mobile), Videocon Telecommunications Limited (Videocon), S Tel Private Limited (S Tel), Himachal Futuristic Communications Limited (HFCL) and Etisalat DB Telecom Private Limited (Etisalat). All of them compete with each other to grab customers by providing wide range of services. They not only offer basic services of cell phone but also produce other value added services. Along with the normal services all of the operators are now offer internet facilities which enable the subscribers to reach the whole world through internet easily and their services include prepaid, postpaid, internet, value added services, roaming and devices.

The India telecom market ranks among the fastest growing industries in the country. The improvement in the standard of living and the development of infrastructure and connectivity are some of the main reasons for the significant growth of the telecom industry. The growth is expected to be more over the years.

STATEMENT OF THE PROBLEM

Telephone, the new communication system has altered our patterns of communications and has created economic and social impacts on the lives of the individuals. Now in the present century, a new technological advancement has hit the telecommunications. The telecommunication companies are facing a competition with the entry of many companies. All the companies are constantly engaged in gaining the attention of the customers by introducing new offers, new schemes like price offers, refund offers, etc. In this paper the researcher analyses the financial performance of selected private sector telecommunication companies in India.

OBJECTIVES OF THE STUDY

The present study has been set out to accomplish the following objectives.

- (i) To study the liquidity, profitability and turnover performance of selected private telecommunication companies in India.
- (ii) To study the comparative analysis of private telecommunication companies in India.

HYPOTHESIS OF THE STUDY

The following hypotheses are tested.

- There is no significant difference in the values of current ratio of selected companies and different years.
- There is no significant different in the values of Quick ratio of selected companies and different years.
- There is no significant difference in the values of gross profit margin of selected companies and different years.

- There is no significant difference in the values of net profit margin of selected companies and different years.
- There is no significant difference in the values of operating profit margin of selected companies and different years.
- There is no significant difference in the values of return on equity of selected companies and different years.
- There is no significant difference in the values of earnings per share of selected companies and different years.
- There is no significant difference in the values of return on investment of selected companies and different years.

METHODOLOGY

The study is empirical in nature and executed using the data published by the Indian telecom sector. The research study is based on secondary data. The financial data related to the selected telecom companies were collected from website and Annual report of selected telecommunication companies.

PERIOD OF STUDY

The present study covers a period of five years from March 2005 to March 2010.

SAMPLING

The six selected telecom companies are following:

- ❖ Bharti Airtel
- ❖ Reliance Communication
- ❖ Idea Cellular
- ❖ Tata Communication
- ❖ Tata Teleservices
- ❖ Tata Teleservices Maharashtra Limited (TTML)

LIQUIDITY, PROFITABILITY AND TURNOVER PERFORMANCE

The telecommunication plays an important role in today's market dynamic. In the last decade a dramatic change in the ownership structure of telecommunications companies have taken place, from public (state-owned) monopolies to private companies. The rapid developments of mobile telephone networks and video and Internet technologies have created enormous competitive pressure on the companies. As new competitors arise, companies need intelligent tools to gain a competitive advantage. Also, stock market expectations are enormous, and investors and financial analysts need tested tools to gain information about how companies perform financially compared to their competitors, what they are good at, who the major competitors are, etc. In other words, the telecom companies need to benchmark their performances against competitors in order to remain important players in this market. In this paper the researcher analyze the liquidity, profitability and turnover performance of the selected companies.

LIQUIDITY

Liquidity means a firm's ability to satisfy its short-term obligations as they come due. Liquidity refers to the solvency of the firm's short-term financial position and the ease with which it can pay its bills. Because a common precursor to financial distress and bankruptcy is low or declining liquidity, these ratios are viewed as good leading indicators of cash flow problems generally; the first concern of the financial analyst is liquidity. Liquidity analysis is quick and easy to use measure of liquidity. In liquidity management concerned with how the business manages its short-term funds. These are the funds which are continuously circulating through the business process.

These are few liquidity ratios that help measure liquidity position,

- (i) Current Ratio
- (ii) Quick (Acid-Test) Ratio

QUICK (ACID-TEST) RATIO

The quick (acid-test) ratio is similar to the current ratio except that it excludes inventory, which is generally the least liquid current assets. Low liquidity of inventory results from two primary factors: many types of inventory cannot be easily sold because they are partially completed items, special purpose items, and the like, and inventory is typically sold on credit, which means that it becomes an account receivable before being converted into cash. Prepaid expenses are also excluded.

PROFITABILITY

There are many measures of profitability as a group; these measures enable the analyst to evaluate the firm's profits with respect to a given level of sales, a certain level of assets or the owner's investment. Without profits, a firm could not attract outside capital owners. Creditors and management pay close attention to boosting profits because of the great importance placed on earnings in the market place. The following are the important profitability ratios.

- (i) Gross Profit Margin
- (ii) Net Profit Margin
- (iii) Operating Profit Margin
- (iv) Return On Equity
- (v) Earnings Per Share
- (vi) Return on Investment

CURRENT RATIO OF SELECTED TELECOMMUNICATION COMPANIES IN INDIA

The current ratio is the most commonly used for measures of short-term solvency. Since it indicates the number of times the claims of short-term creditors are covered by assets that are expected to be converted into cash in a period roughly corresponding to the maturity of the claims. The higher the value of current ratio indicates the higher the liquidity of the firm.

Current Ratio = Current Assets/ Current Liabilities

Table -1
Current Ratio of Selected Telecommunication Companies for the year
2005-06 to 2009-10

COMPANY NAME	As on March 2006	As on March 2007	As on March 2008	As on March 2009	As on March 2010	Mean	SD
Bharti Airtel	0.44	0.47	0.57	0.69	0.68	0.57	0.09
Reliance	2.81	1.77	0.95	1.45	1.37	1.67	0.63
Idea Cellular	0.74	0.87	0.43	0.98	0.96	0.80	0.41
Tata Communications	1.19	1.08	1.44	1.31	2.01	1.41	0.32
Tata Teleservices	1.44	1.75	3.97	1.41	1.67	2.05	0.97
TTML	0.15	0.24	0.19	0.18	0.14	0.18	0.03

Source: www.moneycontrol.com

The data presented in the table.1 reveal that the current ratio of the Bharti Airtel was 0.44 in 2005-06. After that the current ratio figures year after year have increased continuously till the year 2008-09. In the last year current ratio of the Bharti Airtel was 0.68.

During the year 2005-06 the current ratio of the Reliance Communications was 2.81. Reliance Communications had fluctuating current ratio. Last year current ratio was 0.68.

In the case of Idea Cellular the current ratio in 2006 was 0.74. In the next year 2007 the current ratio increased to 0.87. Idea Cellular had fluctuating current ratio.

In the initial year 2006 the Tata Communications had the current ratio of 1.19, much lower than industry or general norm. Tata Communications had fluctuating current ratio.

The current ratio of Tata Teleservices in the year 2006 was 1.44. After that the current ratio figures year after year have increased continuously till the year 2008. In the last year current ratio of the Tata Teleservices was 1.6

In the case of Tata Teleservices Maharashtra Limited (TTML) the current ratio in 2006 was 0.15. In the next year 2007 the current ratio increased to 0.24. TTML had fluctuating current ratio.

TEST FOR SIGNIFICANCE OF CURRENT RATIO

Table .2 give the relevant details whether the current ratio of the six companies different significantly and whether the ratio differed across the five years, two way ANOVA was used.

Two sets of Null Hypothesis

Set – 1: HO: There is no significant difference in the values of current ratio of the selected companies.

Set – 2: HO: There is no significant difference in the values of current ratio during the different years.

Table -2

ANOVA – Current Ratio

	Sum of Degrees of Square	Degrees of Freedom	Mean Square	F-Ratio
Between Colum	0.25	4	0.063	0.176
Within Row	12.66	5	2.532	7.092
Residual	7.13	20	0.357	
Total	20.04	29		

Source: computed

RESULT

Set – 1: HO: The table value of 'F' at 5% for $V_1 = 4$, $V_2 = 20$ is 2.87. Since the calculated value is less than the table value the null hypothesis is accepted. There is no longitudinal difference is the current ratios.

Set – 2: HO: The table value of ‘F’ at 5% for V1 = 5, V2 = 20 is 2.71. Since the calculated value is more than the table value the null hypothesis is rejected. Hence the value of current ratios of the five companies differs significantly.

QUICK RATIO OF SELECTED TELECOMMUNICATION COMPANIES IN INDIA

This is a more stringent test of liquidity than the current ratio. It is (the acid test) of liquidity and compares the firm’s quick assets to its current liabilities. By stripping the stock figures out of the equation, it is suggested that this ratio gives a more immediate indication of the firm’s ability to settle its current debts. It is difficult to give a norm for what this ratio should be, but a 1:1 ratio is commonly considered desirable. It depends on the characteristics and circumstances of the individual firm. The quick ratio is calculated as follows.

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Prepaid Expenses} - \text{Inventory}}{\text{Current Liabilities}}$$

Table - 3

Quick Ratio of Selected Telecommunication Companies in the Years 2005-06 to 2009-10

COMPANY NAME	As on March 2006	As on March 2007	As on March 2008	As on March 2009	As on March 2010	Mean	SD
Bharti Airtel	0.45	0.47	0.55	0.65	0.72	0.57	0.10
Reliance Communication	2.81	1.86	1.63	2.70	2.14	2.23	0.21
Idea Cellular	2.11	1.10	0.55	1.31	0.86	1.19	0.52
Tata Communication	1.20	1.12	1.64	1.52	2.08	1.51	0.34
Tata Teleservices	1.22	2.85	4.45	1.33	1.35	2.24	1.26
TTML	0.29	0.37	0.45	0.56	0.40	0.41	0.10

Source: www.moneycontrol.com

The data presented in the table 3. reveal that the quick ratio of the Bharti Airtel was 0.45 in 2006. After that the quick ratio figures have increased continuously till the years 2010. In the last year quick ratio of the Bharti Airtel was 0.72.

For the Reliance Communication Company quick ratio in the year 2005-06 was 2.81. Reliance Communications had fluctuating quick ratio. Last year quick ratio was 2.14.

As on 31st December quick ratio of the Idea Cellular Company was 2.11. In the next 3 year quick ratio decreased 0.55. Next year the ratio increased and then decreased to the quick ratio of the Idea Cellular last year was 0.86.

For the Tata Communications quick ratio in the year 2006 was 1.20. In the next year 2007 the quick ratio decreased to 1.12. Next year the quick ratio increased to the last year was 2.08.

The quick ratio of the Tata Teleservices Limited Company is continuously increased in 3 years was 4.45. In the next year the ratio increased and then decreased to the quick ratio of the Tata Teleservices Limited last year was 1.35.

In the case of Tata Teleservices Maharashtra Limited (TTML) the quick ratio in 2006 was 0.29. In the 4 next years the quick ratio increased to 0.56. The last year quick ratio of the Tata Teleservices Maharashtra Limited (TTML) was 0.40.

TEST FOR SIGNIFICANCE OF QUICK RATIO

Table. 4 gives the relevant details whether the quick ratio was the 6 companies different significantly and whether the ratio differed across the five years, two way ANOVA was used.

Two sets of Null Hypothesis

Set – 1: HO: There is no significant difference in the values of quick ratio of the selected companies.

Set – 2: HO: There is no significant difference in the values of quick ratio during the different years.

Table - 4

ANOVA – Quick Ratio

	Sum of Degrees of Square	Degrees of Freedom	Mean Square	F-Ratio
Between Column	0.29	4	0.073	0.126
Within Row	14.66	5	2.932	5.046
Residual	11.61	20	0.581	
Total	26.56	29		

Source: Computed

RESULT

Set – 1: HO: The table value of 'F' at 5% for V1 = 4, V2 = 20 is 2.87. Since the calculated value is less than the table value the null hypothesis is accepted. There is no longitudinal difference in the quick ratios.

Set – 2: HO: The table value of 'F' at 5% for V1 = 5, V2 = 20 is 2.71. Since the calculated value is more than the table value the null hypothesis is rejected. Hence the value of quick ratios of the five companies differs significantly.

GROSS PROFIT MARGIN OF SELECTED TELECOMMUNICATION COMPANIES IN INDIA

The gross profit margin is calculated.

Gross Profit Margin (in Per cent) = Sales – Cost Of Goods Sold / Sales x 100= (Gross Profit / Sales) x 100

Gross profit is simply the excess of the sales value over the cost to the firm. The gross profit is the profit earned before deduction of operating expenses such as administration and selling expenses. It represents the mark-up on goods and products sold and are thus a reflection of price setting policies.

The gross profit margin is a very important profitability measure for any business. It essentially measures the trading effectiveness and basic profit earning potential of a firm. The gross profit ratio is conventionally in percentage.

The gross profit ratio will be affected by factors such as the following.

- Change in selling price
- Change in buying policies and practices
- Change in sales mix, that is, the respective proportion of the range of products sold
- Stock valuation methods

Table 5 gives the gross profit margin ratio for the Six companies for the five years period.

Table -5

Gross Profit Margin Ratio of Selected Telecommunication Companies in the Years 2005-06 to 2009-10

COMPANY NAME	As on March 2006	As on March 2007	As on March 2008	As on March 2009	As on March 2010	Mean	SD
Bharti Airtel	23.14	27.47	29.08	29.33	28.15	27.43	2.25
Reliance Communication	-	40.43	29.26	21.84	5.03	24.13	11.69
Idea Cellular	26.64	29.91	25.81	20.51	15.84	23.74	4.97
Tata Communication	26.95	25.44	10.14	11.36	5.46	74.98	8.67
Tata Teleservices	4.44	1.74	2.67	2.11	2.51	2.69	0.93
TTML	0.58	10.61	-1.98	6.32	-1.28	2.85	5.22

Source: www.moneycontrol.com

The data presented in the table. 5 reveal that the gross profit margin ratio of the Bharti Airtel Company was 23.14 in 2005-06. After that the gross profit margin ratio figures year after year has increased continuously, till the year 2008-09. In the last year gross profit margin ratio of the Bharti Airtel was 28.15.

During the year 2006-07 the gross profit margin ratio of Reliance Communications Limited Company was 40.43. In the year 3 years the gross profit margin ratio decreased continuously up to 2009-10.

In the case of Idea Cellular the gross profit margin in 2005-06 was 26.64. In the next year increased 29.91. After that the gross profit margin figures year after year has decreased continuously, till the year 2009-10.

During the year 2005-06 the gross profit margin ratio of Tata Communication Limited Company was 26.95. In the year 2 years the gross profit margin ratio decreased continuously up to 2007-08. In the next year will be increased it was in 11.36. In the last year gross profit margin ratio of the Tata Communication was 5.46.

In the case of Tata Teleservices the gross profit margin ratio in 2005-06 was 4.44. In the next year 2006-07 the gross profit margin decreased to 1.74. Tata Teleservices had fluctuating gross profit margin.

The gross profit margin ratio of Tata Teleservices Maharashtra Limited (TTML) in the year 2005-06 was 0.58. In the next year 2006-07 the gross profit margin increased to 10.61. TTML had fluctuating gross profit margin.

TEST FOR SIGNIFICANCE OF GROSS PROFIT MARGIN

Table 6 gives the relevant details whether the gross profit margin ratio of the 6 companies differed significantly and whether the ratio differed across the 5 years. Two way ANOVA was used.

Two sets of Null Hypothesis

Set – 1: HO: There is no significant difference in the values of gross profit margin ratio of the selected companies.

Set – 2: HO: There is no significant difference in the values of gross profit margin ratio during the different years.

Table - 6

ANOVA – Gross Profit Margin Ratio

	Sum of Square	Degrees of Freedom	Mean Square	F- Ratio
Between Column	2501.47	4	625.37	8.125

Within Row	312.65	5	62.53	0.812
Residual	1462.46	19	76.97	
Total	4276.58	28		

Source: Computed

RESULT

Set – 1: HO: The table value of 'F' at 5% for $V_1 = 4$, $V_2 = 19$ is 2.90. Since the calculated value is more than the table the null hypothesis is rejected. Hence the value of gross profit margin ratio of the six companies differs significantly.

Set – 2: HO: The calculated value of 'F' is less than the table value. Hence the HO is accepted. There is no longitudinal difference in the gross profit margin ratio.

NET PROFIT MARGIN RATIO OF SELECTED TELECOMMUNICATION COMPANIES IN INDIA

Net profit is gross profit minus operating costs. It is the profit remaining after all the firm's administration, marketing, distribution and other operating costs have been deducted from gross profit. It should be noted that 'net profit' in financial management is also frequently referred to as earnings. There are several ways of calculating this ratio, depending on how we wish to define net profit or earnings depending on whether, "Operating Profit before interest and tax", or profit after interest and tax or profit after interest but before tax is considered. Several possibility of net profit margin emerges. Here are a few net profit or earnings measures which are commonly applied. They are conventionally calculated as

Profit before interest and tax / sales x 100 = %

Profit after interest and tax / sales x 100 = %

Table gives the net profit margin ratio of the selected companies for five years.

Table - 7

Net Profit Margin Ratio of Selected Telecommunication Companies

For the year 2005-06 to 2009-10

COMPANY NAME	As on March 2006	As on March 2007	As on March 2008	As on March 2009	As on March 2010	Mean	SD
Bharti Airtel	17.80	22.46	23.99	22.58	26.36	22.64	2.80
Reliance Communication	42.64	18.63	17.45	30.47	3.33	22.50	13.24
Idea Cellular	6.24	11.44	15.33	9.91	8.71	10.33	3.17
Tata Communication	12.10	11.25	8.87	13.25	14.47	11.99	1.90
Tata Teleservices	21.57	0.37	0.96	1.14	1.36	5.08	8.21
TTML	-49.31	-21.81	-7.07	-7.80	-13.44	-19.89	15.63

Source: moneycontrol.com

The data presented in the table 7 reveal that the net profit margin ratio of the Bharti Airtel Company was 17.80 in 2005-06. After that the net profit margin ratio figures have increased continuously till the year 2007-08. Next year the ratio decreased the year 2008-09 was 22.58. In the last year net gross profit ratio of Bharti Airtel was 26.36.

During the year 2005-06 the net profit margin ratio of Reliance Communication was 42.64. In the next year 2 years the net profit margin ratio decreased continuously up to 2007-08. In the next year net profit margin was 30.47. In the last year net profit margin ratio of the Reliance Communication was 3.33.

During the year 2005-06 the net profit margin ratio of Idea Cellular was 6.24. In the next year 2 years the net profit margin ratio increased continuously up to 2007-08. In the next year net profit margin was 9.91. In the last year net profit margin ratio of the Idea Cellular was 8.71.

In the case of Tata Communication the net profit margin in 2005-06 was 12.10. In the next 2 years the net profit margin ratio decreased to 2007-08. After that the next year net profit margin ratio was substantially increased up to 2009-10.

In the initial year 2005-06 the Tata Teleservices Limited had the net profit margin ratio of 21.57. In the next year the net profit margin ratio decreased to 0.37. Next 3 years increased up to 2009-10.

The net profit margin ratio of Tata Teleservices Maharashtra Limited (TTML) in the year 2005-06 was -49.31. But the negative net profit margin is shown by the TTML.

TEST FOR SIGNIFICANCE OF NET PROFIT MARGIN

Table 8 gives the relevant details whether the net profit margin ratio of the 6 companies differed significantly and whether the ratio differed across the 5 years. Two ways ANOVA was used.

Two sets of Null Hypothesis

Set – 1: HO: There is no significant difference in the values of net profit margin ratio of the selected companies.

Set – 2: HO: There is no significant difference in the values of net profit margin ratio during the different years.

Table - 8
ANOVA – Net Profit Margin Ratio

	Sum of Square	Degrees of Freedom	Mean Square	F – Ratio
Between Column	6142	4	1535.5	6.458
Within Row	97	5	19.4	0.082
Residual	4755	20	237.75	
Total	109994	29		

Source: Computed

RESULT

Set – 1: HO: The table value of 'F' at 5% for $V_1 = 4$, $V_2 = 20$ is 2.87. Since the calculated value is more than the table the null hypothesis is rejected. Hence the value of gross profit margin ratio of the six companies differs significantly.

Set – 2: HO: The table value of 'F' at 5% for $V_1 = 5$, $V_2 = 20$ is 2.71. Since the calculated value is less than the table the null hypothesis is accepted. Hence the value of net profit margin ratio of the six companies differs significantly.

OPERATING PROFIT MARGIN RATIO OF SELECTED TELECOMMUNICATION COMPANIES IN INDIA

The operating profit margin measures the percentage of each sales dollar remaining after all costs and expenses other than interest, taxes and preferred stock dividends are deducted. It represents the “pure profits” earned on each sales dollar, operating profits are “pure” because they measure only the profits earned on operations and ignore interest taxes and preferred stock dividends. A high operating profit margin is preferred, the operating profit margin is calculated as

Operating Profit Margin – Operating Profit / Sales x 100

This ratio is a complementary of net profit ratio. In case the n/p ratio is 20% operating ratio will be 80% operating cost includes direct materials, direct labour and other overheads.

Table -9

Operating Profit Margin Ratio of Selected Telecommunication Companies in the Years 2005-06 to 2009-10

COMPANY NAME	As on March 2006	As on March 2007	As on March 2008	As on March 2009	As on March 2010	Mean	SD
Bharti Airtel	35.86	40.65	41.37	38.74	30.98	37.52	3.785
Reliance Communication	-	43.21	41.73	34.66	16.18	33.95	10.11
Idea Cellular	38.38	36.96	37.07	31.63	27.37	162.80	4.160
Tata Communication	23.53	23.39	19.32	22.70	23.32	22.452	1.592
Tata Teleservices	5.08	3.61	3.83	2.86	2.99	3.674	0.792
TTML	11.23	20.54	23.75	28.27	22.27	21.212	5.612

Source: www.Moneycontrol.com

The data presented in the table 9 reveals that the operating profit margin ratio of the Bharti Airtel Company was 35.86 in 2005-06. After that the operating profit margin ratio figures year after year has increased continuously till the year 2007-08. The last year operating profit margin ratio of the Bharti Airtel was 30.98.

During the year 2006-07 the operating profit margin ratio Reliance Communication Limited Company was 43.21. After that in the last 3 years operating profit margin ratio decreased continuously up to 2009-10, the amount was 16.18.

In the case of Idea Cellular Company the operating profit margin ratio in 2005-06 was 38.38. In the next year 2006-07 the operating profit margin ratio decreased to 36.96. Idea Cellular Company had fluctuating operating profit margin ratio.

In the initial year 2005-06 the Tata Communication Limited had the operating profit margin ratio of 23.53. In the next 2 years 2007-08 the operating profit margin ratio decreased to 19.32. Last 2 years the operating profit margin ratio increased to 23.32.

The Tata Teleservices Limited in the year 2005-06 was 5.08. In the next year 2006-07 the operating profit margin ratio decreased to 3.61. Tata Teleservices Limited had fluctuating operating profit margin ratio.

In the case of Tata Teleservices Maharashtra Limited (TTML) the operating profit margin ratio in 2005-06 was 11.23. In next 3 years 2008-09 the operating profit margin ratio increased to 28.27. In the last year operating profit margin ratio was 22.27.

TEST FOR SIGNIFICANCE OF OPERATING PROFIT MARGIN

Table 10 gives the relevant details whether the operating profit margin ratio of the six companies differed significantly and whether the ratio differed across the five years. Two way ANOVA was used.

Two sets of Null Hypothesis

Set – 1: HO: There is no significant difference in the values of operating profit margin ratio of the selected companies.

Set – 2: HO: There is no significant difference in the values of operating profit margin ratio during the different years.

Table 10

ANOVA – Operating Profit Margin Ratio

	Sum of Square	Degrees of Freedom	Mean Square	F-Ratio
Between Column	173.08	4	43.27	0.540
Within Row	3012.48	5	602.50	7.532
Residual	1519.74	19	79.99	
Total	3012.48	28		

Source: computed

RESULT

Set - 1: HO: The table value of 'F' at 5% for V1 = 4, V2 = 19 is 2.90. Since the calculated value is less than the table the null hypothesis is accepted. Hence the value of operating profit margin ratio of the six companies differs significantly.

Set - 2: HO: The table value of 'F' at 5% for V1 = 5, V2 = 19 is 2.74. Since the calculated value is more than the table the null hypothesis is rejected. Hence the value of operating profit margin ratio of the six companies differs significantly.

RETURN ON EQUITY OF SELECTED TELECOMMUNICATION COMPANIES

The return on equity measures the return earned on the stock holder's investment in the firm. Generally the higher this return, the better for the owner's.

Formula for calculations

Profit after Interest and Taxes / Ordinary Share holders funds x 100%

The profitability from the point of view of the equity share holders will be judged after taking into account the amount of dividend payable to the preference share holders.

Return on Investment = Net Income / Share holders equity

Table -11

Return on Equity of Selected Telecommunication Companies in the Year 2005-06 to 2009-10

COMPANY NAME	AS on	As on	As on	As on	As on	Mean	SD
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	March 2006	March 2007	March 2008	March 2009	March 2010		
Bharti Airtel	20.74	29.06	27.95	28.40	23.86	26.00	3.20
Reliance Communication	-	10.96	9.65	4.80	1.97	6.85	3.44
Idea Cellular	10.44	14.96	16.92	11.20	10.73	12.85	2.61
Tata Communication	11.52	10.28	6.53	6.23	2.98	7.51	3.04
Tata Teleservices	2.87	2.04	0.89	6.28	5.74	3.56	2.10
TTML	-21.48	-8.21	1.44	5.09	-0.73	-4.8	9.61

Source: www.moneycontrol.com

The data presented in the table 11 reveal that the return on equity of the Bharti Airtel Company was 20.74. After that the return on equity was increased 29.06. Bharti Airtel had fluctuating return on equity.

During the year 2006-07 the return on equity Reliance Communication Limited was 10.96. In the next 2 years return on equity decreased to 4.80. In the last years was increased to 1.97.

In the case of Idea Cellular Company the return on equity in 2005-06 was 10.44. In the next 2 years the return on equity increased continuously up to 2007-08. In next 2 years the return on equity decreased continuously up to 2009-10.

In the initial year 2005-06 the Tata Communication Company had the return on equity was 11.52. In the next 4 years the return on equity decreased continuously up to 2009-10.

During the year 2005-06 the return on equity Tata Teleservices Limited was 2.87. In the next 2 years the return on equity to decrease was 0.89. Tata Teleservices Limited had fluctuating return on equity.

The return on equity of Tata Teleservices Maharashtra Limited (TTML) in the year 2005-06 was -21.48. In the next year the return on equity negative value -8.21. Tata Teleservices Maharashtra Limited (TTML) had fluctuating return on equity.

TEST FOR SIGNIFICANCE OF RETURN ON EQUITY

Table 12 given the relevant details whether the return on equity ratio of the six companies differed significantly and whether the ratio differed across the five years, two way ANOVA was used.

Two sets of Null Hypothesis

Set – 1: HO: There is no significant difference in the values of return on equity of the selected companies.

Set – 2: HO: There is no significant difference in the values of return on equity during the different years.

Table -12

ANOVA – Return on Equity

	Sum of Square	Degrees of Freedom	Mean Square	F – Ratio
Between Column	129.83	4	32.46	0.198
Within Row	50.78	5	10.16	0.062
Residual	3113.36	19	163.86	
Total	3293.97	28		

Source: computed

RESULT

Set – 1: HO: The table value of 'F' at 5% for $V_1 = 4$, $V_2 = 19$ is 2.90. Since the calculated value is less than the table the null hypothesis is accepted. Hence the value of return on equity of the six companies differs significantly.

Set – 2: HO: The table value of 'F' at 5% for $V_1 = 5$, $V_2 = 19$ is 2.74. Since the calculated value is less than the table the null hypothesis is accepted. Hence the value of return on equity of the six companies differs significantly.

EARNINGS PER SHARE OF SELECTED TELECOMMUNICATION COMPANIES IN INDIA

Earnings per share (EPS) are based on approaches to valuation from a financial analysis view point. The EPS is widely used by investment analysts, managers and share holders (both present and potential) to evaluate how profitably the company is using investor's money. It specifically reveals how much money the company is earning for every share invested.

Earnings per share(EPS) should be reported in the annual accounts of all stock market listed companies in accordance with Financial Reporting Standard (FRS) 14 earnings per share issued by the Account Standard Board(ASB).

A company's basic earnings per share (EPS) is, according to Financial Reporting Standard (FRS) 14, calculated by dividing the net profit or loss attributable to ordinary shareholders by weighted average number of ordinary shares outstanding during the period, net profit (or loss) is essentially the net profit (or loss) for the period after deduction of tax, exceptional and extraordinary items, minority interests and any preference dividends. The weighted average number of ordinary shares reflects the fact that a number of shares in issue may have varied during the relevant period, for example, as a result of new shares issues or buy backs. However, for our practical purposes, we will largely ignore this (weighted average) complication.

Essentially EPS is calculated as follows:

Net Income – Dividends on Preferred Stock / Average out Standing Shares

Table 13 gives the earnings per share of selected companies for the five years period.

Table -13

**Earnings per Share of Selected Telecommunication Companies in the
Years 2005-06 to 2009-10**

COMPANY NAME	As on March 2006	As on March 2007	As on March 2008	As on March 2009	As on March 2010	Mean	SD

Bharti Airtel	10.62	21.27	32.90	40.79	24.82	26.08	10.263
Reliance Communication	3.56	11.78	12.53	23.27	2.32	10.69	7.533
Idea Cellular	0.56	1.94	3.96	3.23	3.19	2.58	1.199
Tata Communication	16.83	16.44	10.68	18.10	16.95	15.80	2.619
Tata Teleservices	4.10	0.10	0.26	0.03	0.06	0.91	1.597
TTML	-3.56	-1.72	-0.66	-0.84	-1.57	-1.67	1.029

Source: www.moneycontrol.com

The data presented in the table 13.reveal that the earnings per share of the Bharti Airtel were 10.62 in 2005-06. After that the earnings per share figures year after have increased continuously, till the year 2008-09. In the last year earnings per share of the Bharti Airtel were 24.82.

During the year 2005-06 the earnings per share of Reliance Communication Limited Company were 3.56. In the next 3 years the earnings per share increased continuously up to 2008-09. In the last year earnings per share of the Reliance Communication were 2.32.

In case of Idea Cellular Company to earnings per share in 2005-06 was 0.56. In the next 2 years the earnings per share increased continuously up to 2007-08. In the next 2 years earnings per share decreased continuously up to 2009-10 were 3.19.

In the initial year 2005-06 the Tata Communication Company to earnings per share in 2005-06 was 16.83. In the next year 2006-07 the earnings per share decreased to 16.44. Tata Communication had fluctuating earnings per share.

The earnings per share of Tata Teleservices Company in the year 2005-06 were 4.10. In the next year 2006-07 the earnings per share decreased to 0.10. Tata Communication had fluctuating earnings per share.

In the initial year 2005-06 the Tata Teleservices Maharashtra Limited (TTML) had the earnings per share of -3.56. After that the Tata Teleservices Maharashtra Limited (TTML) earnings per share was totally negative.

TEST FOR SIGNIFICANCE OF EARNINGS PER SHARE

Table 14 given the relevant details whether the earnings per share of the 6 companies differed significantly and whether the ratio differed across the 5 years, two way ANOVA was used.

Two sets of Null Hypothesis

Set -1: HO: There is no significant difference in the values of earnings per share of the selected companies.

Set -2: HO: There is no significant difference in the values of earnings per share during the different years.

Table 14
ANOVA – Earnings per Share

	Sum of Square	Degrees of Freedom	Mean Square	F- Ratio
Between column	255.17	4	63.793	2.076
Within Row	280.84	5	56.168	1.827
Residual	614.70	20	30.735	
Total	3676.71	29		

Source: computed

RESULT

Set – 1: HO: The table value of 'F' at 5% for $V_1 = 4$, $V_2 = 20$ is 2.87. Since the calculated value is less than the table the null hypothesis is accepted. Hence the value of earning per share of the six companies differs significantly.

Set – 2: HO: The table value of 'F' at 5% for $V_1 = 5$, $V_2 = 20$ is 2.71. Since the calculated value is less than the table the null hypothesis is accepted. Hence the value of earning per share of the six companies differs significantly.

RETURN ON INVESTMENT OF SELECTED TELECOMMUNICATION COMPANIES IN INDIA

This is also known as the “Primary Ratio”. It is also sometimes referred to as Return on Assets (ROA) or Return on Capital Employed (ROCE). However expressed, the ratio is attempting to measure the overall return of the firm is generating on the amount of money invested in its assets. Return on investment there are many ways of calculating return on investment and the common one is

Profit Before Interest and Tax / Net Investment (i.e.) Total Assets – Liabilities x 100

This method, by using a profit before interest and tax figure tends to avoid distortions due to different financing policies, as interest and tax charge are depending on the financing structure of the firm. The more money a firm borrows, the greater will be the interest charge in the profit and loss account. Taxation charges will be affected by the degree of tax relief granted on qualifying loan interest, as well as the tax rates and rules currently in operation. This method also facilitates comparisons between the firms with differing capital structures.

The Return on Assets (ROA) is often called the return on investment measures and the overall effectiveness of management in generating profits with its available assets.

Table 15 gives the return on investment of selected companies for the five year period.

Table -15

Return on Investment of Selected Telecommunication Companies in the Years 2005-06 to 2009-10

COMPANY NAME	As on March 2006	As on March 2007	As on March 2008	As on March 2009	As on March 2010	Mean	SD
Bharti Airtel	0.04	0.07	0.06	0.05	0.02	0.05	0.01

Reliance Communication	-	25.41	29.21	20.91	0.12	15.13	10.09
Idea Cellular	0.11	0.10	0.11	0.09	0.06	0.09	0.02
Tata Communication	0.01	0.01	0.02	10.94	0.02	2.20	4.37
Tata Teleservices	0.47	0.22	0.44	0.40	0.39	0.38	12.70
TTML	-31.79	-0.02	-0.02	0.01	0.01	6.36	12.71

Source: www.moneycontrol.com

The data presented in the table 15 reveal that the return on investment of the Bharti Airtel Company was 0.04 in 2005-06. In the next year return on investment increased 0.07. Bharti Airtel had fluctuating return on investment.

During the year 2006-07 the return on investment of Reliance Communication Limited was 25.41. In the next year return on investment increased was 29.21. Last 2 years return on investment was decreased 0.12.

In the case of Idea Cellular Company the return on investment in 2005-06 was 0.11. In the next year 2006-07 return on investment was 0.10. Idea Cellular had fluctuating return on investment.

In the initial year 2005-06 the Tata Communication Company had the return on investment was 0.01. In the next year same value of return on investment. Tata Communication had fluctuating return on investment.

The return on investment of Tata Teleservices Limited in the year 2005-06 was 0.47. In the next year return on investment decreased was 0.22. Tata Teleservices had fluctuating return on investment.

In case of Tata Teleservices Limited the return on investment in 2005-06 was 0.47. In the next year 2006-07 decreased was 0.22. Next year return on investment increased was 0.44. Last 2 years return on investment decreased 0.39.

In the case of Tata Teleservices Maharashtra Limited (TTML) the return on investment in 2005-06 was -31.79. Next 2 years continuously negative value. Next 2 years continuously same value up to 2009-10 was 0.01.

TEST FOR SIGNIFICANCE OF RETURN ON INVESTMENT

Table 16 gives the relevant details whether the return on investment of the six companies differed significantly and whether the ratio differed across the 5 years. Two way ANOVA was used.

Two sets of Null Hypothesis

Set – 1: HO: There is no significant difference in the values of return on investment of the selected companies.

Set – 2: HO: There is no significant difference in the values of return on investment during the different years.

Table -16
ANOVA – Return on Investment

	Sum of Square	Degrees of Freedom	Mean Square	F – Ratio
Between Column	514.38	4	128.60	2.731
Within Row	1544.25	5	308.85	6.559
Residual	894.75	19	47.09	
Total	2953.15	28		

Source: computed

RESULT

Set – 1: HO: The table value of 'F' at 5% for $V_1 = 4$, $V_2 = 19$ is 2.90. Since the calculated value is less than the table the null hypothesis is accepted. Hence the value of return on investment of the six companies differs significantly.

Set – 2: HO: The table value of 'F' at 5% for $V_1 = 5$, $V_2 = 19$ is 2.74. Since the calculated value is more than the table the null hypothesis is rejected. Hence the value of return on investment of the six companies differs significantly.

OPERATING PROFIT OF THE TELECOMMUNICATION COMPANIES

The following table17 gives the particulars of private telecommunication operating profit during the period of 2005-2006 to 2009-2010.

Table- 17

Operating Profit of the Telecommunication Companies(Rs. Crores)

Year	Bharti Airtel	Reliance Communication	Idea Cellular	Tata Communication	Tata Teleservices	TTML
2005- 2006	4038.57	4058.57	770.47	950.95	121.14	123.05
2006- 2007	7260.54	5513.01	1613.97	953.73	291.08	289.07
2007- 2008	10662.41	6173.29	2491.32	645.55	321.23	405.48
2008- 2009	13215.68	5229.93	3118.59	851.28	450.97	576.58
2009- 2010	13966.34	2193.43	3244.09	750.61	571.66	493.00
Mean	9228.71	4633.64	2247.69	830.42	351.22	377.44
SD	3725.80	1398.91	2964.60	118.92	152.31	158.95
CV	40.37	30.19	131.90	14.32	43.37	42.11

Source: www.moneycontrol.com

Among the six telecommunication companies, the operating profit of Tata Communication is more consistent as the Co-efficient of variance is less. Bharti Airtel is having better operation profit as the average is higher.

INCOME EARNED BY THE TELECOMMUNICATION COMPANIES

The following table 18 gives the particulars of telecommunication companies income earned during the period of 2005-2006 to 2009-2010.

Table- 18

Income Earned by the Telecommunication Companies(Rs.Crores)

Year	Bharti Airtel	Reliance Communication	Idea Cellular	Tata Communication	Tata Teleservices	TTML
2005- 2006	11272.22	133.26	2012.26	3905.57	227.38	1045.79
2006- 2007	17987.30	231.89	4392.84	4147.66	430.26	1431.28
2007- 2008	25874.20	520.53	6904.16	3456.55	133.78	1785.59
2008- 2009	32791.86	4148.13	10258.83	4223.01	336.73	2007.90
2009- 2010	36693.09	2455.17	12234.07	3577.99	257.85	2252.06
Mean	24923.73	1497.80	7160.43	3862.16	277.20	1704.52
SD	6650.08	1518.91	3730.17	1590.86	100.40	425.91
CV	26.68	101.41	52.09	39.09	36.22	24.99

Source: www.moneycontrol.com

Among the six telecommunication companies, the Income of Tata Teleservices Maharashtra Limited is more consistent as the Co-efficient of variation is less. Bharti Airtel having better other income as the average is higher.

CONCLUSION

Indian telecom market is one of the fastest growing markets in the world as a result of its high population and development potential. Some of the telecommunication companies in

India are Bharti Airtel, Reliance Communication, Idea Cellular Tata Communication Tata Teleservices Tata Teleservices Maharashtra limited (TTML) and other major operators in India. In is the backbone of industrial and economic development. The industry has been aiding delivery of voice and data services at rapidly increasing speeds, and thus has been revolutionizing human communication.

Financial Performance of six companies for five years periods is analyzed for the study by using the techniques as follows: liquidity, profitability, turnover, and comparative analysis calculating Equity share capital, Reserve, co-efficient of variation in operating profit, interest earned, and income earned, employee expenses, expenditure and market performance of selected telecommunication sector in India.

Telecommunication is played a vital role in our economy. The booming telecom industry has been attracting large amount of investments in the country. Private telecommunication is more telecom operator sector in India. Bharti Airtel emerges as India's top mobile phone operator in 2009-10. Other operator is important place of telecommunication in India. In the present ear people cannot ignore telecommunication services in communicating each other.

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