



### **Financial Performance Measurement of Indian telecom Sector**

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**Abstract:** The financial performance measurement is a vital part of every business. And the telecom sector is not apart from it. The telecomm companies needs to observe their competitive financial health along with their customer base. The future of the existence of any company depends upon the present financial position. In this article the financial health of major telecom service providers in India has been evaluated by using ratios.

**Introduction:** In the telecom sector, where the main motive is to earn high profits the financial performance of the organization is most important indicator to evaluate the overall health of the organization. In the current research to examine the financial performance of the companies the ratios has been calculated for each of the selected telecom companies. The first ratio is the return on assets which is the one of the profitability ratio. The firm is expected to be in profits if the return on assets is higher than the cost of borrowing. So the return on assets ( ROA) will help us to examine whether the telecom companies are earning enough profit or not. The second ratio included to examine the financial performance of the telecom companies is the debt equity ratio, which shows out of the total fund how much is raised through issues of shares and how much have been borrowed. High debt equity ratio shows that the company has been raising fund through debt where the firm has to pay fixed interest rate irrespective of the profits, which is not consider to be appropriate.

**Literature Review:** During the mid-1990s as identified in a study by Souter et al. (2005) basic telephones in India were considered to be a luxury and were available only with the affluent. Presence of these telecommunication services in rural areas was sparse mainly as it was mostly used only by educated people.

In a new study by Sridhar & Sridhar (2007) in which associations amid telephone infiltration and economic development in developing countries like India was analyzed, it was averred that customary telecommunication systems were highly prevalent in India. It was mainly due to their cost effectiveness when compared to mobile phones. It was further determined that until 2001, demand for major telephones were approximately 1.649 million irrespective of private service providers offering quality services at highly competitive rates. The study further brought to the lime light that regardless of introduction of mobile services in the nation in 1995, the demand for major telephones escalated to 2.706 million in 1997 from 2.277 million in 1995. The study concluded provision of telecommunication services at lower prices would foster widespread usage and penetration of telecommunications in developing countries like India.

Sinha & Sinha (2007) avowed that in order to acknowledge change and support growth of telecommunication sector in India, the government overhauled its policies related to the same in 1994 which supported its liberalization. It was then that private players were allowed active participation within this sector and by 1999 the government postulated the New Telecom policy. This led to a complete change within the sector and paved way for burgeon of many industries like Information Technology Enabled Service (ITES) / Business Processing Organizations (BPO). This industry since then has expanded beyond leaps and bounds employing larger sects of Indian population along with active contribution to Indian GDP thus vehemently supporting growth of this economy. Singh (2008) in a study on dispersal of mobile phones in India it was affirmed that within a span of 10 years of introduction of mobile phones in India, the same emerged as one of the prevailing communication modes within the country. By 2005-2006 it was found that mobile phones subscribers were approximately 90 million whereas that of landlines was only 50 million. In this paper a strong trend of mobile phone usage was concluded with anticipated usage of the same in 2015-2016 by 900 million subscribers. In addition to the above Arasu (2008) confirmed that competitive pressures were intensifying

in India due to active government moves of lowering tariffs for differing calling (local, state, national and international).

In a report by ICRA Limited (2012) it was clearly specified that mobile subscription in India has been increasing at an accelerating rate with a CAGR of around 50%. The trend within telecommunication industry in India is completely driven by competition which is evident from the fact that around 7 to 12 telcos within a circle compete with each other for gaining market allotment. It was also recognized that introduction of 2G services was a major factor responsible for makeover of this industry. However it was specified that due to regulatory issues backed by bureaucracy and corruption along with lack of appropriate infrastructural facilities the telecommunication industry has been failing to perform optimally.

In lieu of estimating future of Indian telecommunication sector, PriceWaterhouseCoopers Private Limited. (2014) identified 4 major trends presently active within this industry in India. They are listed below:

- Increasing usage of data from corner to corner covering 2G, 3G, permanent broadband and 4G.
- Extensive support for SMAC (social media, mobility, analytics and cloud) which implies Indians being the 2<sup>nd</sup> largest user after USA of Facebook, Whatsapp and Twitter through their mobile phones.
- Huge investments by telecommunication service providers for infrastructural developments thereby improving even the abandoned telecom networks
- Slow paced regulatory changes when compared to dynamic changes within industry both at national and international levels is considered to be a deterring factors adversely affecting sectorial growth.

## **Hypothesis:**

*Null Hypothesis (H<sub>10</sub>): There is no significant difference in the mean score of financial performance of major Indian telecomm service providers in India.*

*Alternative hypothesis (H<sub>11</sub>): There is no significant difference in the mean score of financial performance of major Indian telecomm service providers in India.*

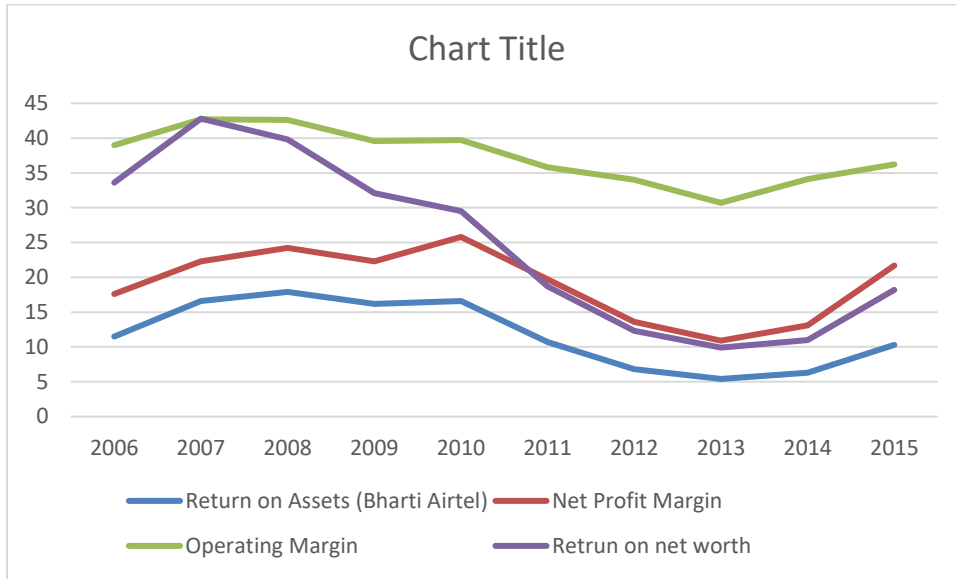
## **Ratio Analysis of Major Telecom service Providers in India**

### **1. Bharti Airtel**

Bharti Airtel is the largest telecom operator in India, which operates in more than 20 countries in South Asian and African region. To examine the financial performance of Bharti Airtel the profitability and the liquidity ratios has been calculated.

The Return on Assets was calculated for the time period of 10 years starting from 2006. As shown in the figure below the return on assets of Bharti Airtel in during 2006- 2008 was increasing which fell after 2008. The fall in the return on assets of the Bharti Airtel can be attributed to the global financial crisis of 2007-08. However the Return on Assets of the company fell sharply after 2010 and continues to fell till 2013. High competition in the telecom market and the high spectrum price may have led to fall in the return on assets of the company. Apart from the return on assets other profitability ratio such as the net profit margin also shows the similar pattern for the study time period. However the return on net worth declines sharply after 2006 till 2013 after which it start recovering, but still lower than the 2006 level. On the other hand the operating profit margin has been more or less stable as compared to other ratio.

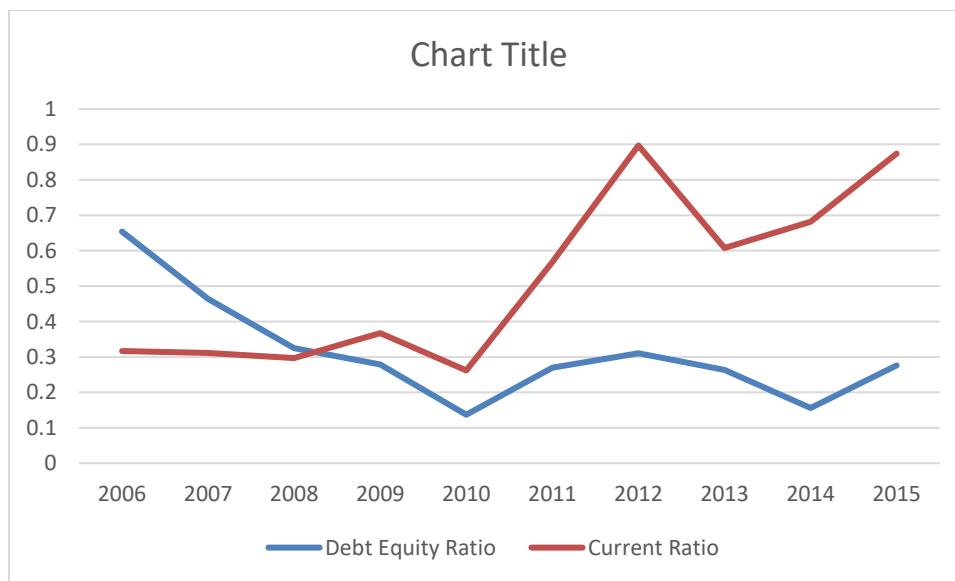
## Profitability Ratio



**Figure 1 : Profitability ratio of Bharti Airtel (2006-2015)**

## Liquidity Ratio

To measure the financial performance of the telecom companies the liquidity ratio of the companies has been examined. The debt equity ratio and the current ratio has been calculated to examine for last ten years has been shown in the figure below.



## **Figure 2: Liquidity Ratio of Bharti Airtel (2006-2015)**

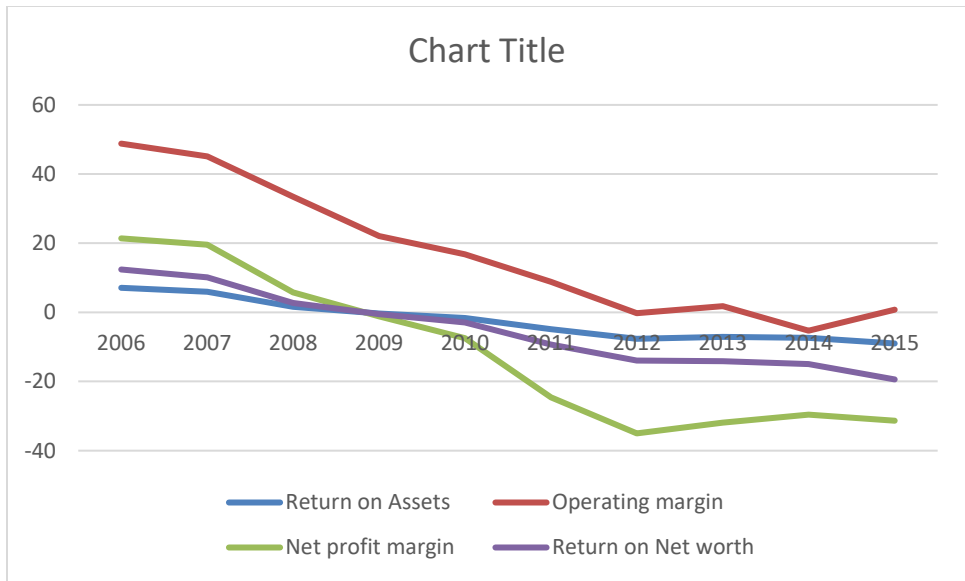
As shown in the figure above debt equity ratio for the company has been falling sharply since 2006 and continue to fall till 2010 which shows that Bharti Airtel has been reducing its dependence on debt and insists more on raising fund through equity. From the results it can be said that the company is performing well in terms of liquidity. Even though the debt equity ratio starts rising after 2010, it was still at the acceptable range. Similarly the profit before tax continues to increase for Airtel at least for the study period. On the basis of the results it can be concluded that the Bharti Airtel has performed well in financial terms.

On the other hand the current ratio of Bharti Airtel has been well below during 2006 which has shown upward trend and there has been significant increase in the current ratio after 2010 however the current ratio is still below 1 which indicates that the current assets of the company are not able to pay off the current liabilities. The current ratio in 2015 is close to 0.9 which means that the gap between the current assets and current liabilities is narrowing which indicates that the Bharti Airtel is performing well in the financial terms.

## **2. BSNL**

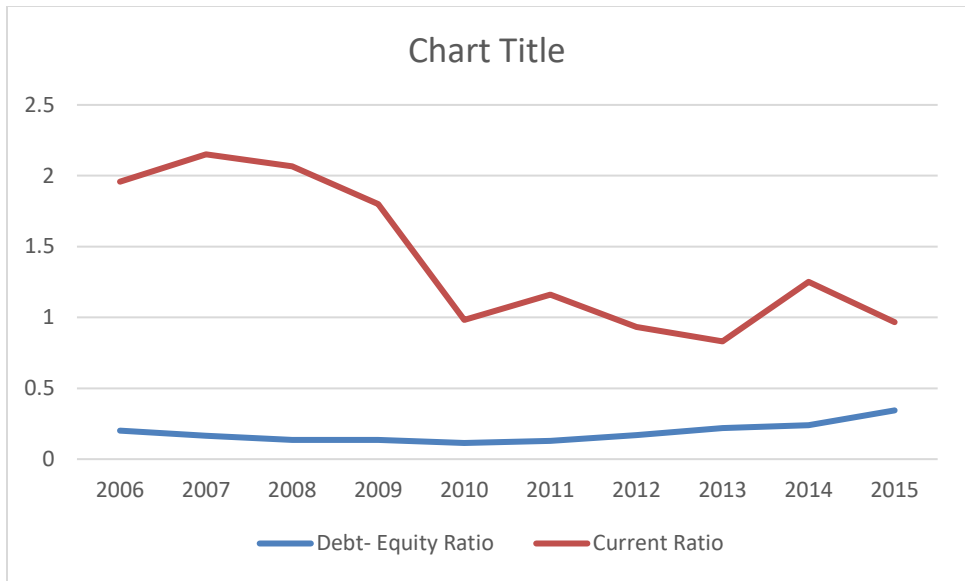
The second telecom company which has been included in the current research is the Bharat Sanchar Nigam Limited which is state owned Telecom Company based in New Delhi. Currently BSNL has around 43.74 million telephone capacity out of which 72.60 million are GSM and 8.83 million are WLL. Even with its large capacity BSNL has not performed well in the financial term.

Profitability ratio of BSNL for last years has been shown in the figure below and it shows that the return on assets has been declining continuous since 2006. Till 2010 the returns on assets were declining but were still positive, however after 2010 the ratio has fell to negative and it continue to fall. The return on assets which was around 6 % in 2006 falls to – 9 % in 2015. This shows that the BSNL is not able to generate return on its assets and not able to earn enough profit.



**Figure 3 : Profitability Ratio of of BSNL**

Among other profitability ratio the net profit margin has been declining significantly as compared to other ratios which shows that there has been continues decline in the net profit margin and after 2010 the ratio becomes negative indicating that BSNL was running in losses. The operating profit margin is also downward sloping further conforming the poor financial performance of BSNL. Return on net worth also shows similar pattern as the other profitability ratios. The poor financial performance of the BSNL can also be predicted from continuous increase in the debt equity ratio since 2010 which indicates that the company is taking more debt as compared to issuing shares to raise the fund.



**Figure 4: Liquidity Ratio of BSNL**

The liquidity ratio of the BSNL has been shown in the above figure and above the debt equity ratio which was around 0.2 during 2006 increased to around 0.35 in 2015. Similarly the current ratio slopes downward indicating that there has been increasing gap between the current assets and current liabilities in BSNL. The current ratio which was well above 2 in 2007 fell to less than 1 in 2015.

The main reason behind the poor financial performance of the BSNL is that the company is not able to compete with the private telecom operators who are offering better service. Also BSNL do not involve in aggressive advertisement of its service and the company is not focusing on using the latest technology and service offers. In the financial year 2014-15 BSNL reported net loss of Rs 8324 crore whereas the net loss in the previous year was Rs 7020 crore. Due to the heavy loss and the poor financial performance in the

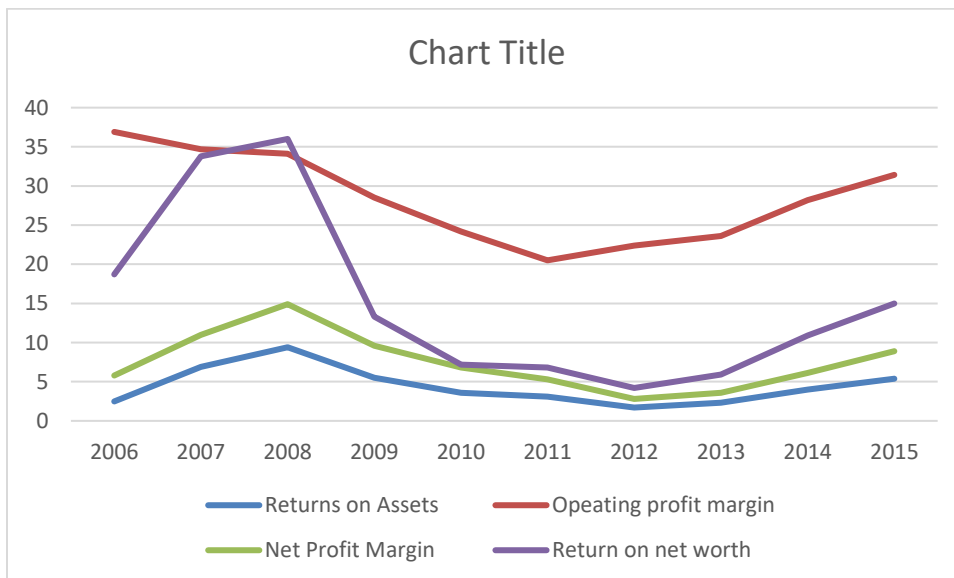
last few years BSNL has planned to expand its network coverage and invest Rs 7700 crore in the current financial year.



### 3. Idea Cellular

Idea Cellular is the third largest telecom operator in India in terms of subscriber base. The total number of subscribers was around 182 million in 2015. Idea cellular is owned by Aditya Birla Group Company and with total \$ 5 billion in the revenue excess it has the market share of around 18.2 %. The financial performance of the Idea cellular has also be done on the basis of the profitability ratio and the liquidity ratio.

Profitability Ratios: Various profitability ratios has been used to measure the financial performance of Idea Cellular and the results are shown in the figure below the return on assets in idea cellular do not show any particular pattern. From the starting of the study period i.e. 2006 till 2008 the return on assets were rapidly increasing and reach its peak of over 9 %. However after mid 2007 the return on assets continues to decline at a faster rate and the main reason behind this fall may be due to the global financial crisis of 2007. The fall down continue till 2012, after which the ratio started to increase again.

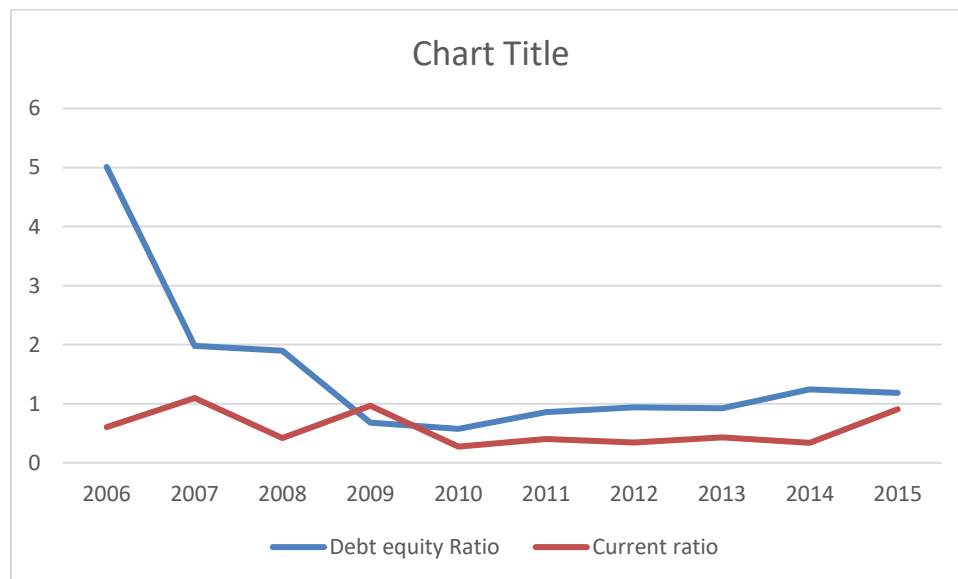


**Figure 5: Returns on Assets for Idea Cellular**

Among other ratios Net profit margin was also shows the similar pattern as the return on assets. However the return on net worth shows downfall. Return on net worth which was above 15 % increase to more than 35 % in 2007-08. However there was sharp decline in the ratio and reaches as low as 5 % in 2012. The operating profit margin is also downward sloping even though the fall is not significant. It start recovering after 2011 and show upward trend thereafter.

### Liquidity Ratio

The liquidity of the idea cellular has been measured in terms of debt equity ratio and the current ratio and the results show that the ratio has been continuously declining. This suggests that the idea cellular has raised more fund through issue of shares rather than borrowing which indicates that the company is able to attract investors to invest in its shares.



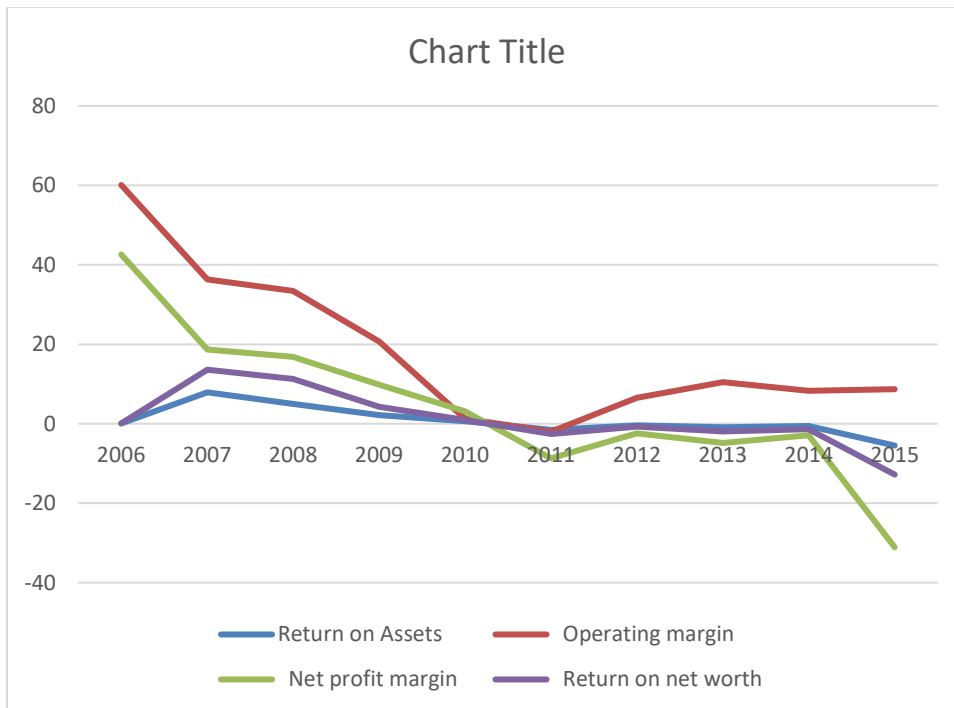
**Figure 6: Liquidity Ratio of Idea cellular**

The current ratio of Idea cellular shows fluctuation however most time period the ratio has been below 1 indicating that the current liabilities of the company are higher than the current assets of the company. After 2014 the ratio start increasing and the gap between the current assets and current liabilities is narrowing down. Similarly, the profits (before interest and tax) have also been continuously increasing. The PBITDA for idea cellular was around Rs 7545 million in 2006 which has increased to Rs 102,721 million in 2015. On the basis of the financial results it can be

concluded that idea cellular has shown impressive financial performance at least for the study period.

#### 4. Reliance Communication

Reliance communication is the fourth largest telecom operator in India which is primarily base in Mumbai. Reliance communication is the part of the Reliance Group owned by Anil Dhirubhai Ambani. The financial performance of the reliance communication do not show any impressive results.



**Figure 7: Profitability ratios of Reliance Communication**

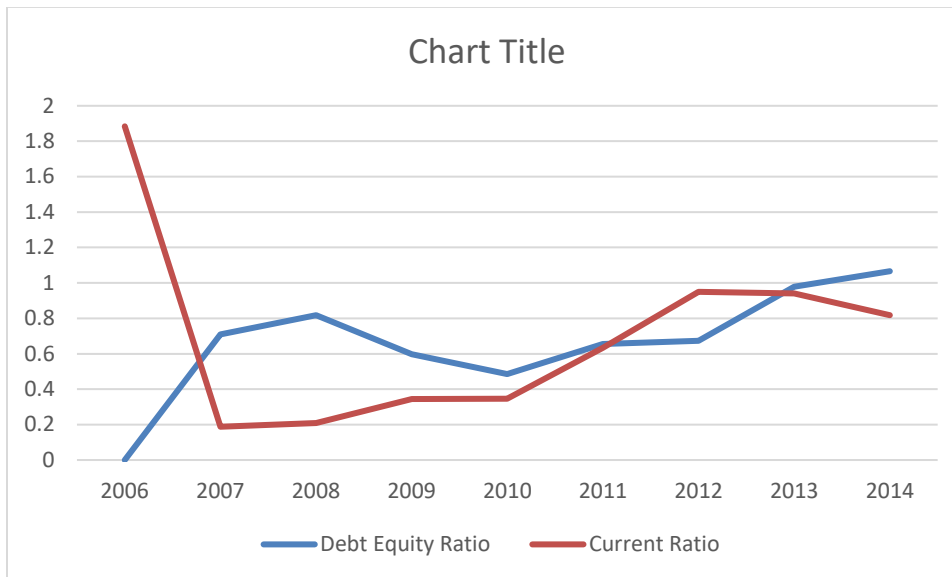
#### Profitability ratios

The profitability ratio for the reliance communication is shown in the above figure reflecting that return on assets is continuously declining since 2007 and continues to fall. The bad performance of the reliance continuous and the ratio become negative in 2014. Negative return on investment indicates that either the company is not able to get enough return on their investments or the firms are investing much higher amount in the initial period in the expectation of higher return in

the long run. In case of the reliance communication the negative ROA is mostly because of the bad performance of its assets.

Other profitability ratio such as the net profit margin, operating margin and return on net worth also shows similar pattern as the return on assets. The operating profit margin which was close to 60 % in 2006 decline significantly and reach to almost 0 during 2010-11. It recovers after the sharp fall however it was much lower than 2006 level.

### Liquidity Ratio



**Figure 8: Debt equity ratio of reliance communication**

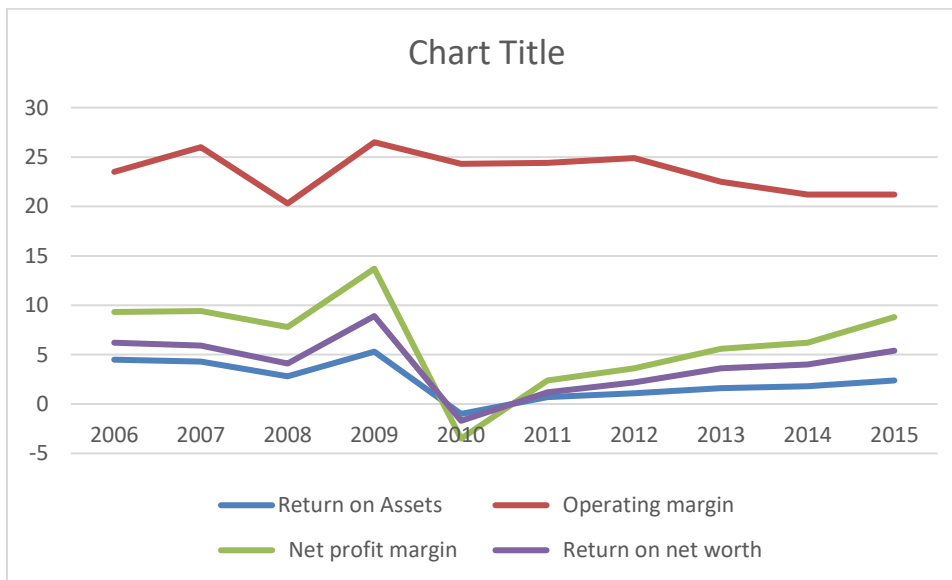
The debt equity ratio of reliance communication also indicates the poor performance as the debt equity ratio is constantly increasing since 2006. The higher dependence on debt is not considered to be the good indicator of the company's financial performance, especially when the returns on assets are negative. Similarly, the current ratio shows that the ratio was below 1 till 2011- 2012 which shows that the current assets of the company were not able to pay off the current liabilities of the company. However the current ratio reflects that it continues increase till 2012 before falling again.

Increasing competition from other operators and not being able to transform its services according to the customer demand may be the main reason behind the downfall of reliance communication.

## 5. Tata Communication

Tata Communication is the telecom company owned by the Tata Group which is based on Mumbai. The total worth of Tata communication is around \$ 3.2 Billion and is currently operating in more than 38 countries all around the world. To measure the financial performance of the Tata Communication the return on assets and debt equity ratio has been calculated.

### Profitability Ratios

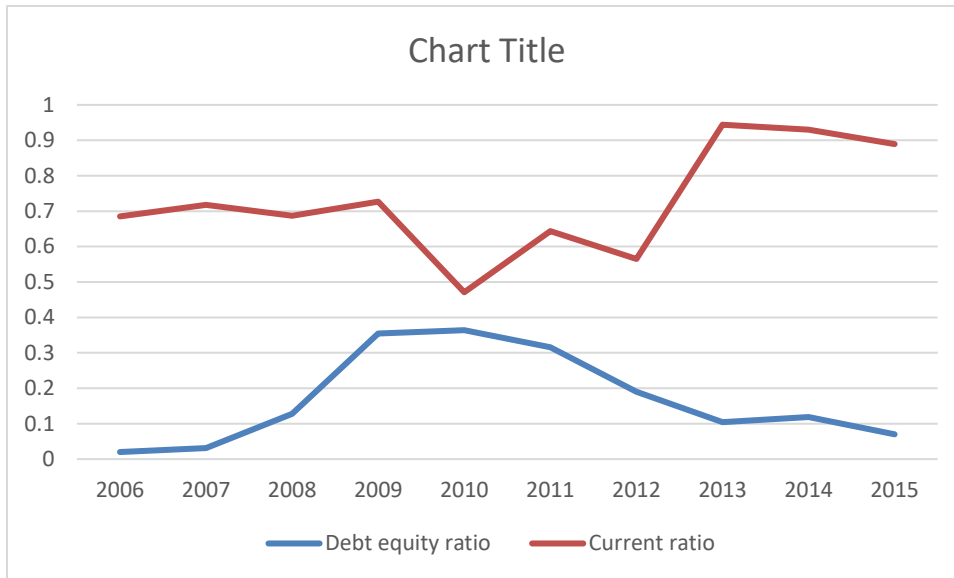


**Figure 9: Profitability ratio of Tata communication**

The figure reflects the profitability ratio for a time period 2006- 2015 reflecting that the return on asset shows huge fluctuations. In the initial period the ratio was well above 4 % which increase to above 5 % in early 2009. However after 2009 the ratio continues to fall and in 2010 there were negative returns. However after 2010 the ratio recovered and continues to increase and in 2015 the return on assets was above 2 %. Other profitability ratio which were included in the study to examine the financial performance of the company such as the return on net worth, net profit margin also shows the similar pattern as the return on assets. On the other hand the operation

profit margin do not show significant decline during the same period. Since the operating profit margin measures the total revenue left with the company after the payment of the variable cost, it can be said that tata communication has been able to pay off its variable cost with its revenue.

### Liquidity Ratio



**Figure 10: Liquidity Ratio of TATA communication**

The liquidity ratio of the Tata communication also shows the results which are in line with the return on assets. The debt equity ratio continue to increase when the return on assets were decreasing and once the return start recovering the debt equity ratio also start falling. This is because when the returns are higher investors do not hesitate to invest and firm can easily raise fund through issues of shares so the firm do not have raise fund through debt. However if the returns are lower or decreasing investors are no more interested in investing so firm has to take more debt.

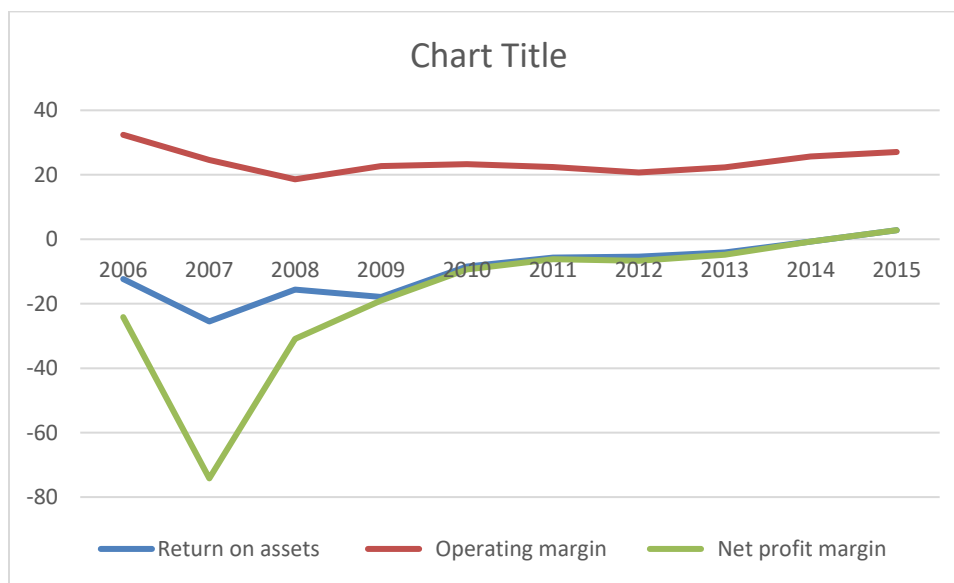
On the other hand the current ratio shows that Tata Communication was not able to pay off its current liabilities with its current assets as the current ratio is below 1 for the entire study period. There has been upward trend in the current ratio 2010 with some fluctuation however it has been below 1.

## 6. Vodafone Cellular

Vodafone Cellular is the second largest telecom operator in India in terms of number of subscriber which has total market share of around 18.42 %. Currently the Vodafone Cellular has around 194 million subscribers only in India.

Vodafone Cellular financial performance shows that the company has been continuously improving its performance. The return on assets which (shown in the figure below) shows that the return on assets for Vodafone Cellular was very low. In fact there was negative return on assets till 2014.

### Profitability Ratio

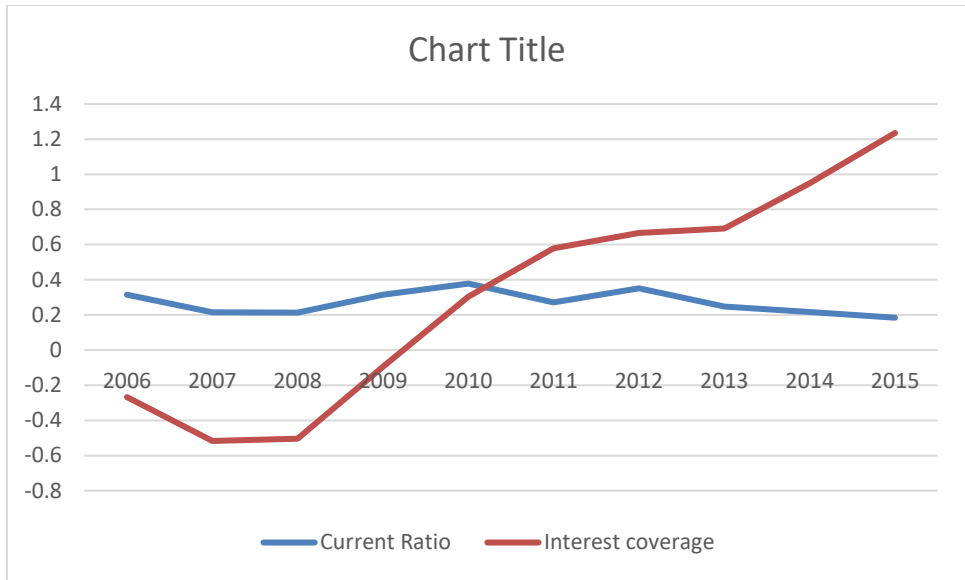


**Figure 11 : Profitability of Vodafone cellular**

The returns on assets were as low as -25 % during 2007-08, however after 2008 the return start to increase and in 2015 the return on assets was around 3 %. Profit before interest and tax has also increased over the period of time. The PBITDA of Vodafone Cellular was around Rs 1877 million in 2006 has increased to Rs 20493 million in 2015. Similarly the net profit margin was negative till 2012- 2013. However the net

profit margin has shown upward trend after 2007 when the net profit margin was near to – 80 has increased to above 0 after 2014. Even though the return on assets and net profit margin were negative for most of the time period the operating profit was positive and it remains stable between 20 – 30 % for most the time period. This shows that Vodafone was able to generate enough revenue to pay its variables costs.

**Liquidity ratio**



**Figure 12: Liquidity Ratio of Vodafone cellular**

To examine the liquidity of the Vodafone Cellular the current ratio and the interest coverage ratio has been used. The current ratio is calculated as current assets over current liabilities and the ratio shows whether the company is able to meet its current liabilities with its current available assets. As shown in the figure above the current ratio of Vodafone was around 0.3 which declined during 2007-08. However the ratio increased after 2008 before falling in 2011. Even though the current ratio show fluctuating results the ratio was never above 1 which is the desired level. However the interest coverage ratio for



Vodafone shows upward trend. During 2006- 07 the Vodafone was not able to pay of its interest with its profit as the interest coverage ratio was negative. However over the period of time the interest coverage ratio has increased and after 2009-10 it was in positive area. However the interest coverage ratio of Vodafone is lower as compared to other telecom companies such as Bharti Airtel which has much higher interest coverage ratio.

On the basis of the financial results it can be said that Vodafone cellular performance is not impressive as compared to its competitors however the company is continuously improving its performance in the last few years.

**Hypothesis testing and Conclusion:**

The hypothesis was proposed to examine whether there is significant difference in the financial performance of the major telecom service providers in India or not. To measure the financial performance of the telecom companies three parameters were taken into consideration namely the Net profit margin, return on assets and the interest coverage ratio. The mean score for each ratio has been taken for the time period 2005- 2014. To examine whether there is significant difference the F statistic in the one way has been used as there are more than two companies included in the study.

**ANOVA**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2281.821	5	456.364	3.572	.033
Within Groups	1533.176	12	127.765		
Total	3814.997	17			

Table 1: One way ANOVA results for the difference in the financial performance of the telecom companies

As the ANOVA table shows the F value is 3.572 which is significant at 5 % significance level which suggest that there is significant difference in the mean score of the financial performance of the telecom companies. Results from the post hoc test shows that among the six companies included BSNL has the lowest mean (in fact the mean is in negative) which indicates that the BSNL has been performing badly in terms of finance. On the other hand Bharti Airtel has the highest mean score (18.92) indicating that Bharti Airtel has been performing well during the study period.

On the basis of the ANOVA table and F test we reject the null hypothesis and accept the alternative hypothesis.

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