

“INTRODUCTION OF RELIANCE JIO AND ITS IMPACT ON TELECOM STOCKS AT BSE”

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ABSTARCT

The purpose of this study is to identify what happened to the telecom stocks after the introduction of reliance jio. A sample size of 50 is used from investors who have investments in telecom stocks at BSE. The study used quantitative approach and online questionnaire was used to collect data. The objective of the study were the impact of introduction of reliance jio on telecom sector. To analyse the corporate decision taken by competitor's for their survival in telecom industry. To study the variations in profits of other listed telecom companies and To study the investor's attitude towards investing telecom sector after the introduction of reliance jio. Both primary as well as secondary sources are used to collect data. Secondary sources includes journals, magazines, newspaper , and articles. The study was concluded that there is a great impact on telecom stocks after the introduction of reliance jio.

INTRODUCTION

The telecommunication sector is one of the fast developing sector in India. Hence many investors like to invest in telecommunication companies. This sector has been experiencing big events during the current decades such as 2G spectrum auction and scams, 3G and 4G Spectrum allocation, etc. on September 1, 2016, a big business concern, reliance industries ltd. Introduced their new product reliance jio network services through their subsidiary company with attractive offers both for voice call and 4 g internet mobile services. it threatened other mobile service provider who want to retain their market share. The introduction of reliance jio on 1st September 2016 brings a tremendous change in both telecom industry and telecom stock market. According to TRAI ; last month the telecom subscriber base in India cross the 1.2 billion market and jio led the race for most number of new additions. obviously this reflect on the number of other tele communication companies such as airtel ,Vodafone , idea etc., and there is decrease in the share price of such companies. in short the introduction of reliance jio make a big impact on telecom stock.

Unlike its user base and share price airtel , vodafone idea , reliance communication felt the shock of jio's entry in its total revenue. idea reported losses of rupees 385 crore between second and third quarter . in the case of other telecom companies they also face a huge loss after September 1 2016 because of introduction of reliance jio .market share growth of airtel in the financial year 2013-2015 is 30.7% to 20.6% on 2015-2018. Even though the growth of telecommunication sector is fast changing but the number of shares of telecom sector held by the share holders is shows a decreasing trend or the share market of telecom sector is now in a decline stage. This study is humble effort to analyse the introduction of reliance jio and its impact on telecom stocks at BSE.

STATEMENT OF THE PROBLEM

Telecom sector is one of the fastest growing industry in the world. In India the telecom sector is flourishing and growing at the rapid pace from last 5 years. India is currently the largest telecommunication market. But some of the telecommunication companies faced huge losses after September 1st 2016 due to the introduction of reliance jio.

Companies like Vodafone and idea , airtel faces loses and they take various measures to overcome or retain in the market. The reason behind the Merger of vodafone idea is due to the introduction of reliance jio in the telecom industry. The value of share prices of those companies shows a decreasing trend after the introduction of reliance jio. There for the present study is evaluate aimed to study the impact of introduction of reliance jio to telecom industry and those companies' share price movement in BSE.

OBJECTIVE OF THE STUDY

1. To study the impact of introduction of reliance jio on telecom sector.
2. To analyse the corporate decision taken by competitor's for their survival in telecom industry.
3. To study the variations in profits of other listed telecom companies.
4. To study the investor's attitude towards investing telecom sector after the introduction of reliance jio.

HYPOTHESIS

1. There is no impact on the share price of telecom companies by the introduction of jio service.
2. There is no impact on the investment behaviour of investors by the introduction of jio service
3. There is no reduction in the return of investors in the capital market by the introduction of jio service

SIGNIFICANCE OF THE STUDY

The tele communication industry with in the sector of information and communication technology is made up of all telecommunication and internet service providers and plays the crucial role in the evolution of mobile communication and the information society. Around 24800 mergers and aquisition Deals have been conducted in the telecom industry with either the acquirer or the target company coming from the tele communication sector. In total over 5.712 billion USD have been spent on mergers and acquisition between 1985 and 2018 in this industry. India's new telecom market leader Vodafone idea ltd(VIL) Which will present consolidated earning for the first time is report a huge loss in the financial year. in the case other telecom companies such as bharati airtel ,tata communication etc also face losses after 2016.The revenue loss of these companies reflected on share market of telecom sector. The share price of each listed teleom companies is in decreasing trend after 2016 onwards . This is because of new entry of reliance jio in telecom sector. Even if it is not listed in share market other listed companies face a huge losses and number of shareholders of such companies are also in a decline stage. This study is intended to analyse the introduction of reliance jio and its impact on telecom stocks at BSE.

SCOPE OF THE STUDY

Currently India is the second largest telecommunication market and still growing. mobile economy in India is increasing very fast and will add significantly to India's GDP. Reliance jio emerge a new choice and other service providers face a new kind of challenges. These leads to major corporate decisions by companies for their survival. The study aimed to analyse the3 impact of jio on limited number of listed shares in BSE telecom index and also the behaviour of investors after the introduction of jio.

METHODOLOGY

SOURCE OF DATA AND TOOLS FOR COLLECTION

1. **Primary data** : primary data is collected through well structured questionnaire. The sample size selected from 50 respondents. For this purpose convenience sample method is used.\
2. **Secondary data** : secondary data consist of information collected from internet , journals , articles , and other publications.

TOOLS FOR ANALYSIS

Analysis of data is done through graph, diagrams and information table. Data collected have been analyzed with statistical tools such as percentage and average. Tables and graphs were also used for evaluating the data. Hypothesis was tested with the help of chi – square and t test

About tools in brief:

❖ Chi-square test

Chi-square test enables us to explain the association or independency of two attributes. It is a method of evaluating whether or not frequencies, which have been empirically observed, differ significantly from those, which would be expected under a certain set of theoretical assumption.

$$\chi^2 = \sum (\text{O}-\text{E})^2/\text{E}$$

❖ T- TEST

T- test is applied when test statistics follows t – distribution. to test given population mean when sample is small and population S.D is not known.

$$t = \frac{\bar{x} - \mu}{S.E}$$

SAMPLING DESIGN

A sample of 50 selected on the basis of convenience sampling.

LIMITATION OF THE STUDY

1. The study was conducted within a short period of time.
2. Personal bias in answering the question may influence the study.
3. All the limitations of sampling is also applicable to the study

LITERATURE REVIEW

Rajbinder singh (2017) carried out a study on “ Impact of reliance jio on Indian telecom industry : an empirical study” this research paper discuss the features of the jio and also through some light on the competitive edge over other service providers. study stats that India would be a speedily escalating hub for internet users, with market expected to be \$9 billion by 2020 (Deloitte, 2017). Indian telecom sector is becoming backbone for fast growing Indian economic of this decade. Jio came up in Indian telecom sector with a idea to make huge revenue by providing quality service at a very cheaper rate.

L Ganesamoorthy and K . Anbazhagan(December 2016) in their study on “ Introduction of reliance jio and telecom stocks returns: A test of competition hypothesis in the Bombay stock exchange “ The study analyzed the impact of the event on the telecommunication sector in India using standard event study methodology. The study found that the telecommunication sector in India was affected by the introduction of reliance jio service as shown by returns on BSE Telecom index (-5.67%)There was a significant impact on sample companies Among sample companies, idea cellular ltd. Was affected severely by the event followed by reliance communication ltd, but there was sever sustaining effect of the event on the abnormal return of idea cellular ltd. Followed by that of Bharathi airtel ltd.

Thomas joy and sumeet Bahl. (june 2018) in their journal titled “ Disruption by reliance jio in telecom industry “ discuss innovative strategies adopted by reliance jio to capture Indian market and look to understand the overall customer satisfaction level across the consumer base .The result suggest that reliance jio has changed the overall complexion of telecom market, their strategies have made jio the 4th largest telecom service provider with in a short span of less than 2 years and they have built a loyal and satisfied customer base .

TESTING OF HYPOTHESIS

T –TEST

Based on the sample data collected t – test is applied for analyzing whether there is an impact on the share price of telecom company by the introduction of jio service or not. Here , closing share price of 4 different telecom companies during the period before and after the introduction of reliance jio is taken for analysis.

HYPOTHESIS 1 : Ho : There is no impact on the share price of telecom company by the introduction of reliance jio

H1 : There is impact on the share price of telecom company by the introduction of reliance jio

Bharati Airtel

Table 4.18

X	D	D2
281.12	-18.88	356.45
273.89	-26.11	681.73
298.04	-1.96	3.84
281.65	-18.35	336.72
314.98	14.98	224.4
310.57	10.57	111.72
302.35	2.35	5.52
320.85	20.85	434.72
324.71	24.71	610.58
355.85	55.85	3119.22
281.65	-18.35	336.72
368.72	68.72	4722.43
3719.38	114.38	10944.05

A=300

Average closing price of Airtel before 12 months of introduction = 325.55

H0: $\mu=325.55$

H1: $\mu \neq 325.55$

$\bar{X} = \sum X/N = 3719.38/12 = 309.53$

$\mu = 3906.6/12 = 325.55$

$$S.D = \sqrt{\frac{\sum D^2}{N} - \left(\frac{\sum D}{N}\right)^2}$$

$$= \sqrt{\frac{10944.05}{12} - \left(\frac{114.38}{12}\right)^2}$$

$$=28.65$$

$$S.E = SD/\sqrt{n-1}$$

$$=28.65/3.3167=8.638$$

$$T = \bar{X}-\mu/SE$$

$$309.53-325.55/8.638$$

$$=-1.854$$

$$\text{Calculated value} = -1.854$$

$$\text{Table value @ 5\% significance} = 1.796$$

Calculated value is more than table value numerically. therefore null hypothesis is rejected ie, there is an impact on the share price of telecom company by the introduction of jio service

RELIANCE COMMUNICATION

Table No : 4.18(a)

X	D	D2
47.135	7.135	50.908
45.426	5.426	29.441
39.275	-.725	.525
34.826	-5.174	26.770
32.145	-7.855	61.701
34.405	-5.595	31.304
36.85	-3.15	9.922
35.092	-4.908	24.088
29.071	-10.929	119.443
19.902	-20.098	403.929
24.038	-15.962	254.785
23.033	-16.967	254.785
401.198	-78.802	287.879

$$A = 400$$

Average closing price of reliance communication before 12 months of introduction = 709.242

$$H_0: \mu=709.242$$

$$H_1: \mu \neq 709.242$$

$$\bar{X} = \sum X/N = 401.198/12 = 33.43$$

$$\mu = 709.242/12 = 59.10$$

$$S.D = \sqrt{\frac{\sum D^2}{N} - \left(\frac{\sum D}{N}\right)^2}$$

$$= \sqrt{1300.695/12 - (-78.802/12)^2}$$

$$=8.079$$

$$S.E = SD/\sqrt{n-1}$$

$$=8.079/3.3167=2.436$$

$$T = \bar{X}-\mu/SE$$

$$33.43-59.10/2.436=-10.53$$

$$\text{Calculated value} = -10.53$$

$$\text{Table value @ 5\% significance} = 1.796$$

Calculated value is more than table value numerically. therefore null hypothesis is rejected
ie, there is an impact on the share price of telecom company by the introduction of jio service

TATA COMMUNICATION

Table 4.18(b)

X	D	D2
496.8762	-203.1238	41259.278
600.5237	-99.4763	9895.534
597.0818	-102.9182	10592.155
604.2848	-95.7152	9161.399
638.0614	-61.9386	3836.399
709.3625	9.3625	87.656
710.3	10.3	106.09
677.7132	-22.2868	496.701
648.1109	-51.8891	2692.478
704.6	4.6	21.16
641.3273	-58.6727	3442.485
605.3238	-94.6762	8963.582
7633.5656	-766.4344	90554.908

A=700

Average closing price of tata communication before 12 months of introduction = 401.6225

H0: $\mu=401.6225$

H1: $\mu \neq 401.6225$

$$\bar{X} = \sum X/N = 7633.5656/12 = 636.13$$

$$\mu = 4819.4702/12 = 401.6225$$

$$S.D = \sqrt{\frac{\sum D^2}{N} - \left(\frac{\sum D}{N}\right)^2}$$

$$= \sqrt{90554.908/12 - (-766.4344/12)^2}$$

$$= 58.88$$

$$S.E = SD/\sqrt{n-1}$$

$$= 58.88/3.3167 = 17.75$$

$$T = \bar{X} - \mu / SE$$

$$636.130 - 401.6225 / 17.75 = -13.21$$

Calculated value = -13.21

Table value @ 5% significance = 1.796

Calculated value is more than table value numerically. therefore null hypothesis is rejected
ie, there is an impact on the share price of telecom company by the introduction of jio service

IDEA

Table No: 4.18(c)

X	D	D2
48.651	-1.349	1.819
45.385	-4.615	21.298
42.941	-7.059	49.829
43.5375	-6.4625	41.763
44.569	5.431	29.495
64.028	14.028	196.784
58.694	8.694	75.585
50.307	0.307	0.0942
49.799	-0.201	0.0404
47.075	-2.925	8.555
52.332	2.332	5.438
52.539	2.539	6.446
599.857	-0.1425	437.147

A= 50

Average closing price of idea before 12 months of introduction = 49.98

H0: $\mu=49.98$ **H1: $\mu \neq 49.98$** $\bar{X} = \sum X/N = 599.857/12=49.98$ $\mu=837.403/12=69.783$

$$S.D = \sqrt{\frac{\sum D^2}{N} - \left(\frac{\sum D}{N}\right)^2}$$

$$= \sqrt{437.147/12 - (-0.1425/12)^2}$$

=6.034

$$S.E = SD/\sqrt{n-1}$$

$$= 6.034/3.3167 = 1.819$$

$$T = \bar{X} - \mu / SE$$

$$49.98 - 69.783 / 1.819 = -10.88$$

Calculated value = -10.88

Table value @ 5% significance = 1.796

Calculated value is more than table value numerically. therefore null hypothesis is rejected ie, there is an impact on the share price of telecom company by the introduction of jio service

HYOPOTHESIS 2

Based on the sample data collected chi square test is applied for analyzing

H0: There is no impact on the investment behaviour of investors by the introduction of jio service

H 1: There is impact on the investment behaviour of investors by the introduction of jio service

Table4.19

	Investors	not investors	Total
Before	38 (a)	12(b)	50
After	33(c)	17(d)	50
Total	71	21	100

$$\chi^2 = \frac{(ad-bc)^2n}{(a+b)(c+d)(a+c)(b+d)}$$

$$= \frac{6250000}{5147500}$$

$$\chi^2 = 1.2141$$

Table value = 3.84

Calculated value is less than table value there for null hypothesis is accepted

That is there is no impact on the investment behaviour of investors by the introduction of jio service.

HYOPOTHESIS 3

H0:There is no reduction in the return of investors in the capital market by the introduction of jio service

H1: There is reduction in the return of investors in the capital market by the introduction of jio service

Table4.20

	Investors	not investors	Total
Before	43 (a)	7(b)	50
After	45(c)	5(d)	50
Total	88	12	100

$$\chi^2 = \frac{(ad-bc)^2n}{(a+b)(c+d)(a+c)(b+d)}$$

$$\frac{(43*5-45*7)^2*100}{50*88*12}$$

$$\chi^2 = 1000000/2640000 = 0.3787$$

$$\chi^2 = 0.3787$$

Table value = 3.84

Calculated value is less than table value there for null hypothesis is accepted .That is There is no reduction in the return of investors in the capital market by the introduction of jio service

FINDINGS

1. Respondents are investing in telecommunication industry.
2. Introduction of reliance jio in telecom sector highly affected to other telecom companies.
3. Investors incur huge loss from investment before introduction of jio
4. There is a change in share price of telecom companies after the introduction of reliance jio.
5. Investors have investment in telecom shares before the introduction of jio
6. There is a change in portfolio after the introduction of jio.

7. Most of the investors suffer loss due to the crisis of other telecom companies.
8. Investors are expecting profit and survival of other telecommunication companies in future.
9. Investors are expecting to the increasing share price movement of other telecommunication companies in near future.
10. Investors think that there will not a chance of declension of reliance jio in telecom sector
11. Investors are willing to recommend to buy the shares of other tele communication companies to others with the opinion of profitable opportunity
12. Most of the investors are interested to suggest others to purchase telecommunication companies' shares for future benefits.
13. Investors are expecting the primary issue of Jio in IPO market.
14. Investors are interested to purchase Jio share, if it list in BSE. They believe that Jio is fundamentally strong telecommunication company.
15. The reason of merger of idea and Vodafone is due to the introduction of Reliance Jio.
16. Investors are expecting a hike in share price within a short period of time.
17. The introduction of reliance jio leads to an impact on the share price of the competitors, Airtel, Reliance communication, Tata and Idea .
18. There is no change in the investment behaviour of investors due to the introduction of reliance.
19. There no reduction in the return of investors in capital market after the introduction of jio.

SUGGESTIONS

1. Telecom companies should make better corporate strategies for their existence
2. Investors must pay necessary attention to the historical as well as the publically available information to analysis the changes in share price.
3. Investors who want to measure the accurate volatility of the stock market as well as the volatility of individual shares, investors should conduct analysis with the help of various statistical models and methods.

CONCLUSION

Reliance jio is the largest wireless telecom service provider. It got this status within a short life span. Reliance jio entry generates lot of dramatic and unanticipated changes in consumer's behaviour.jio made a big disruption in telecom sector. Increasing mobile usage exponentially to grow the market of jio, squeeze out old school competitors and build tremendous customer satisfaction. Due to the existing barriers the small telecom companies become too difficult to survive. Investors are expecting the IPO issue of reliance jio in stock market. A big corporate merger of Vodafone and idea happened due to the growth of reliance jio. The introduction of jio influenced the investor's investing behaviour also. India may not be the largest economy, but is a shining star among the emerging as well as developed markets across the world. If investors have to create serious wealth, they should make a portfolio investment with quality stocks to manage the risk associated with investment.