Original Research Paper

Commerce

A REPORT ON VOLATILITY ANALYSIS OF TELECOM SECTOR

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ABSTRACT The investors should take an investment decision very carefully after doing thorough research. Stock market research is essential for making good financial and investment decisions.Every investor expects more return ratio with less risk ratio. According to the risk-return tradeoff, invested money will render higher profits only if the investor is ready to accept a higher possibility of losses.The investor can select a right securities or portfolio after calculating the risk return ratio.The Indian telecom sector underwent major changes or variations through noteworthy policy reforms.The mobile services are acting as a spine of the economy on which the important sectors of economy like banking, health and education are riding.The volatility of equity shares of telecommunication explains the relationship between risk and returns by using some statistical methods like standard deviation, beta, correlation and variance.

KEYWORDS : Volatility, Telecommunication, Reliance

OBJECTIVES :
• To gain a practical knowledge by understanding the concept of volatility analysis.
• To know the present scenarios of telecom sector
• To give suggestions to the investors whether to choose the telecom sector to invest to earn appropriate profits.

RESEARCH METHODOLGY
Primary data: This study do not include the primary data as there is no need for primary data in this project.

Secondary data: The study is based on secondary data completely. The secondary data has been collected for this projectfrom the following sources:

1. Published sources such as books and journals.
2. Research papers published/unpublished.
3. Websites and search engines on the internet.

Period Of Study : The current study is to analyze the volatility of equity share price of selected telecommunication companies for the period of 2014-2018 of yearly closing prices.

Methods Of Sampling : Top three private telecommunications companies measured by total revenues like Airtel, Vodafone-Idea and Reliance communication are selected for the study.

UNIT PROFILE
India is currently the world's second-largest telecommunications market with a subscriber base of 1.17 billion and has registered strong growth in the past decade and half.

Bharti Airtel Limited is an Indian global telecommunications services company based in New Delhi, India. It operates in 16 countries across South Asia and Africa. Airtel provides GSM, 3G, 4G LTE and VoLTE mobile services, fixed line broadband and voice services depending upon the country of operation. Airtel had also rolled out itsvoice over Long Term Evolution technology across seven telecom circles namely Mumbai, Maharashtra and Goa, Madhya Pradesh, Chhattisgarh, Gujarat, Andhra Pradesh & Telangana, Karnataka, Chennai and Kolkata in India and should roll out the technology in rest circles by end of August 2018. It is the second largest mobile network operator in India and the third largest in the world with over 429 million subscribers. Airtel has got 278.6m subscribers in India with a market share of 23.59%. This top 10 telecom companies in India was estimated to have a revenue of around $15 billion in 2017 with more than 25,000 employing serving this biggest telecom company in India. Revenue: $15 Billion Ownership: Bharti Enterprises (64%) and Sing Tel (36%) Market Share: 24.85% Customer Base: 303 Million.

Idea Cellular Ltd. – Idea Cellular is an Aditya Birla Group Company, India's first truly multinational corporation. This top 10 mobile networks in India was established in 1995 by Kumar Mangalam Birla at Mumbai, India and has wide network coverage across the country. Idea is a pan-India integrated wireless broadband operator offering 2G, 3G and 4G services, and has its own National Long Distance and International Long Distance operations, and ISP license. Idea is one of the top three mobile operators in India if taken independently, with an annual revenue in excess of USD 5 billion and a revenue market share of 19%. Using the latest in technology, Idea provides world-class service delivery through the most extensive network of customer touch points, comprising of Idea outlets, call centre, Digital app (My Idea App.) and social media. With nearly 200 million subscribers, and a market share of 16.62% Idea ranks sixth in the global rankings of operators in subscriber terms, for single country operations.

This best telecom company in India has a national subscriber base of around 200 million which accounts for roughly 18% of the total market share of telecom companies in India. This top telecom companies in India has the highest share of MNP for the telecommunication industry in India. Revenue: $5.5 Billion Ownership: Aditya Birla Group and Axiata Market Share: 16.83% Customer Base: 200 Million

Reliance Communications Ltd. (stylised as RCom) is a telecommunications company having its head quarter in Navi Mumbai, India. It was founded in 2002 by Anil Ambani. It is a subsidiary of Reliance Anil Dhirubhai Ambani Group. The services it provides include GSM (Voice; 2G, 3G, 4G), fixed line broadband and voice, and Direct-To-Home (DTH), depending upon its areas of operation in India. The company had to shut down its 2G and 3Gservices including all voice services and only offer 4G data services from December 29, 2017, as a result of debt and a failed merger with Aircel. As of December 2017, This leading telecom sector company has more than 7,000 employees with network base in all the 22 mobile circles in the country. Revenue: $3.5 Billion Ownership: Reliance ADAG (90%) and SSTL (10%) Market Share: 0.06% Customer Base: 12 Million

TOOLS OFANALYSIS
Mean
Mean is the average of the number.It is the most common and best general purpose for the midpoint of a set ofvalues.

Mean is calculated by using following formula
$$\overline{X} = \sum x/N$$
Where,
X = mean
$\sum x$= symbol for summation scores.
N = number of scores.

Standard deviation
It is a statistical tool. It is applied to the annual rate of returns of an investment so that it reveals the historicalvolatility of that investment. The greater the standard deviation of a security, the greater the variance betweeneach price and mean. Standard deviation can be calculated by using the following formula

$$\sigma = \mathrm{sqrt}\,[\Sigma(Xi - \mu)2/\,N]$$

Where :
σ = Standard deviation, X = each value in population, μ =mean, N = Number of values

HYPOTHESES
H0: There is no impact of market returns on the returns of telecommunication sector.
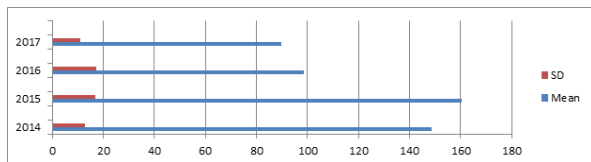H1: There is a positive impact of market returns on the returns of telecommunication sector.

MARKET RETURNS

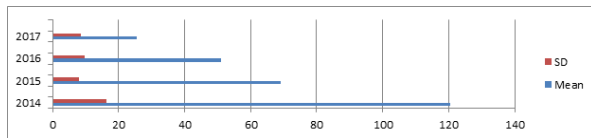| Company	2014		2015		2016		2017	
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
Bhartiairtel	348.81	36.42	375.08	34.40	333.86	22.66	400.75	62.58
Idea	148.69	12.92	160.43	16.74	98.76	17.29	89.63	10.99
R. Com	120.56	16.44	69.07	7.96	50.90	9.85	25.40	8.49

Bharti Airtel
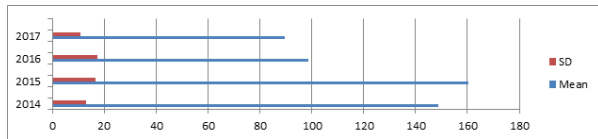
Idea

Reliance Communications

INTERPRETATION
Above table shows that the highest mean of BHARTIAIRTEL is 400.75 in the year 2017, lowest mean value is 333.86 in the year 2016. The highest standard deviation is62.58 in the year 2017which denotes greater volatility, while lowest standard deviation is 22.66 in the year 2016 denoting stability.

The highest mean value and the standard deviation of IDEA is 160.43 and 16.74 in the year 2015 showing more volatility and the lowest value is 89.63 for mean and the standard deviation is 10.99 in the year 2017 showcasing stability of the stock.

The data shows that RELIANCE COMMUNICATIONS have the highest mean value of 120.56,and the standard deviation of 16.44 The company had lowest mean value of 25.40 in the year 2017 and the lowest standard deviation in the year 2015.

FINDINGS
From the above study it was found that the returns of above selected companies started declining from the year 2015-16 and it continued for 2016-17 due to fall in the market price of shares. Reliance Jio's entry has shaked the telecom sector from top to bottom but this giant company is not yet listed on any of the stock exchanges. Jio shook up the market and sparked a price war by offering free voice calls for life and drastically reduced tariffs putting pressure on R. Com and other operators.

CONCLUSION
From the above study we can conclude that equity analysis is an correct method to measure the relationship between market returns and telecom sector returns. This study shows the stability and volatility of the stock which helps the investors to ascertain the risk involved with each selected company and market returns. Although this study can be the support system for decision making but one should not rely completely only on these factors as some internal forces of companies also impact positively or negatively on share prices.

REFERENCES :
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