

“A Study on the performance of BELLWETHER STOCKS with the benchmark index in Indian context”

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Abstract

A stock that is believed to be a leading indicator of the direction of a sector, industry or market as a whole. Bellwether stocks are often used to determine the direction in which an industry or market is headed in the short term. Bellwether stocks are typically large-cap equities that when performing well signal a bullish market but when performing poorly may signal a bearish market. The difference in performance between the portfolio style and the growth stock portfolio style appears to be due in part to forecasters placing too much importance on trends in the recent past. Value stocks have tended to outperform growth stocks over a 3-year period on both a total return basis and a risk-adjusted basis. The difference in performance between value stocks and growth stocks, as defined by the price/earnings ratio and the price-to-cash flow per share ratio, appears to be strongly associated with their respective earnings surprises, in which analysts generally underestimate the EPS of value stocks and overestimate the EPS of growth stocks. This result reflects the tendency for investors and analysts to extrapolate the trend of past EPS into the future, yet the pattern of annual changes in EPS resembles a random walk or a mean reversion tendency. In addition, value stocks, regardless of their capitalization, generally outperformed comparable-size growth stocks. In this paper the study has been done on four industries namely Banking, Telecom, Infrastructure and Cement. The Sample of four stocks has been taken i.e. Bharti Airtel (Telecom), State Bank of India (Banking). Larsen & Turbo (Infrastructure) and Associate Cement Company (Cement). The problem undertaken to study there is a lack of information in the benchmark index affected by the performance of bellwether stock. The scope of the study is confined to 50 Companies (Nifty).

Keywords: Bellwether stocks, Benchmark Index, India, Nifty, Value Stocks.

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1. Introduction:

“Stock exchange means any body or individuals whether incorporated or not, constituted for the purpose of assisting, regulating or controlling the business of buying, selling or dealing in securities.”

1.1 Meaning of Benchmark Index (NIFTY):

The NIFTY is an "index". An index is basically an indicator. It gives you a general idea about whether most of the stocks have gone up or most of the stocks have gone down.

"Nifty" means "National Index for Fifty Stocks"

The NSE – 50 indexes called NIFTY was launched by the National Stock Exchange of India Limited (NSE) in April 1996, taking as base the closing prices of November 3, 1995 when one year of operations of its capital market segment was completed. The base value of the index has been set to 1000. NSE is situated in Mumbai. Nifty is varied 50 Stock Index constructions for various sectors of the economy.

1.2. Definition of 'BELLWETHER STOCK'

A stock that is believed to be a leading indicator of the direction of a sector, industry or market as a whole. Bellwether stocks are often used to determine the direction in which an industry or market is headed in the short term. Bellwether stocks are typically large-cap equities that when performing well signal a bullish market but when performing poorly may signal a bearish market.

1.3. Companies whose share price movements are being studied:

Tata Consultancy Service (Software):

Tata Consultancy Services Limited is an Indian multinational information technology (IT)-related products and services including application development, business process outsourcing, capacity planning, consulting, enterprise software, hardware sizing, payment processing, software management, and technology education services.

Bharti Airtel (Telecom):

Bharti Airtel Limited is a provider of telecommunication services. The company also offers an integrated suite of telecom solutions to its enterprise customers. It also offers digital television and internet protocol television services in India. It operates in primary business segments Mobile Services, and Telemedia Services.

State Bank of India (Banking):

State Bank of India is an India-based bank. It provides a range of financial services, which include life insurance, merchant banking, mutual funds, credit card, factoring, securities trading, pension fund management, custodial services, general insurance (non-life insurance) and primary dealership in the money market.

Larsen & Turbo (Infrastructure):

L & T offers a range of financial products and services across the corporate, retail and infrastructure finance sectors through its wholly owned subsidiaries. It operates primarily in the business segment of investment activity. It includes retail finance, which includes construction equipment finance, transportation equipment finance, rural products finance, rural enterprise finance, micro finance, and financial product distribution.

Associate Cement Company (Cement):

ACC Ltd is India's foremost manufacturer of cement and concrete. The company is engaged in the manufacture of cement and ready-mixed concrete. ACC is planning exclusive retail outlets in all major towns. These exclusive retail outlets will provide information on best construction practices, professionals, and building material supplier.

2. Literature Survey

Chen *et al.* (2004, 2006) studied the price effects of changes to the S & P 500 Index and witnessed an asymmetric price response. Consistent with prior work, they found a permanent price increase for firms added to the S & P 500 Index. However, they found that firms deleted from the index do not experience a permanent negative price effect. They argue that a possible reason for asymmetric price response effects arises from changes in investor awareness.¹

Jung (2012), states that the Tokyo Stock Exchange is the largest stock exchange in South East Asia and the third largest in the world by market capitalization. However, little attention has focused on changes in the composition of the most broadly quoted Japanese stock index, the Nikkei 225 Index. The stock prices are depends on the performance of stock market.

Many financial advisors support trading the market index (West, D., 2008). Every trader should closely watch market indices which reflect both the state of the market and the sentiment of investors. For example, if a market index is going down due to negative economic growth, we can expect that its constituent stocks also go down. In this case, trading the index seems simpler as we need only to forecast the trend of the market. Furthermore, a major market index often contains broad-based asset equities and represents more than about 60% of the capitalization of the market; investors are less risky as they do not put all our eggs in one basket.

3. Research Methodology

3.1. Statement of the Problem:

The problem undertaken to study is a lack of information with the benchmark index caused by the performance of bellwether stock. It consists of 5 company stocks from different sectors as Software, Telecom, Banking, Infrastructure, and Cement. The scope of the study is confined to 50 Companies (Nifty). In the current market share prices are fluctuating in the stock market has put the investor in confusion. Investor finds it difficult to take decision on investment. This is primarily, investments are risky in nature and investors have to consider various factors before investing in shares. Calculate returns and risk associated with different stocks listed on the National Stock Exchange. Return and Risk are calculated to study the price movements in the stock market. Therefore the study aims to compare with bellwether and benchmark index also creating awareness about the investment and performance of company.

3.2 Objectives:

- The main objective of the research is to study the effect of major company shares and also compared with the benchmark index. It also includes the study on the extent to which major factors affect the market movers and the index.
- To study the rate of risk and return of the Bellwether Stock. To compute risk and return of the Benchmark index.
- To determine the relationship between Bellwether stock and Benchmark index.

Factors Affecting the Share Price and Index:

- Inflation
- Dividend
- Stock splits
- Insider trading
- Govt. Stabilities
- Share buy-back
- Impact of NEWS
- Earnings per Share
- Demand and Supply
- Take-over or Merger
- Market Capitalization
- Performance of the industry
- Analyst upgrade/downgrades
- Earning results and Earning guidance
- Addition/Removal to/from Stock Index
- Investment Gurus/Hedge Funds trading
- New major contracts or major Government Orders
- New product introduction to markets or introduction of an existing product to new markets.

3.3 Scope of the Study:

- This study aids an investor to know the effect of company performance & share prices.
- Research on effect of share price will help investor to build and plan his investment portfolio by considering the uncontrollable factors which would lead to fluctuations in the stock market by an individual investor.
- Since there are problems associated with volatile stock markets, the study can help the investors to take informed decisions regarding buying or selling of stock.
- The study will also help the companies to know their share price variability in relation to performance.

3.4 Research Methodology:

Primary Data: Personal discussion was made by the unit manager and interaction with other personnel in the organization for this purpose. There is no formal design of the questionnaire used in this study.

Secondary Data: As the data relating to the share prices of companies and NIFTY are from previous years, secondary data are collected. Data is collected for the period from January 2010 to December 2012 on a monthly basis. The data is mainly collected from websites, journals, dailies etc. Textbook were used to understand the concepts of various formula i.e. Standard Deviation, Covariance, Coefficient of Correlation and Beta.

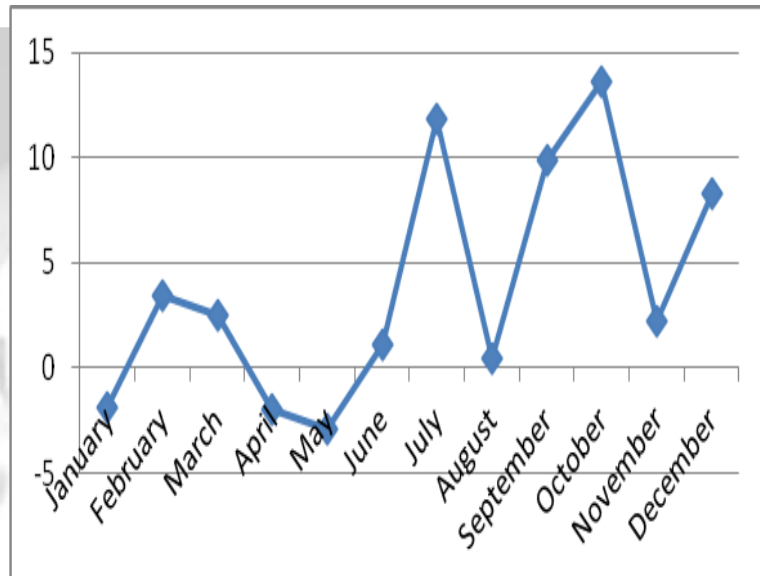
3.4 Limitations of the Study:

- Since the paperwork is carried out for a very short period exhaustive findings could not be made.
- The study has been conducted only five companies pertaining to the different industries.
- The study has only three years of duration.

4. Data Analysis and Interpretation for the Year 2010 – 2012

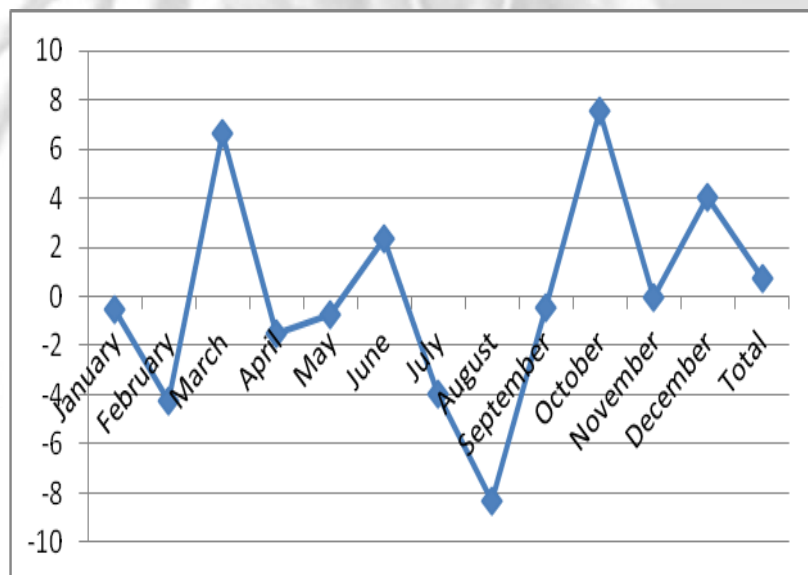
Table No 4.1: Tata Consultancy Service

2010	SOFTWARE	TCS
	Month	R_i
	January	-1.87
	February	3.48
	March	2.47
	April	-1.95
	May	-2.92
	June	1.07
	July	11.82
	August	0.47
	September	9.86
	October	13.59
	November	2.19
December	8.33	
Total	44.54	



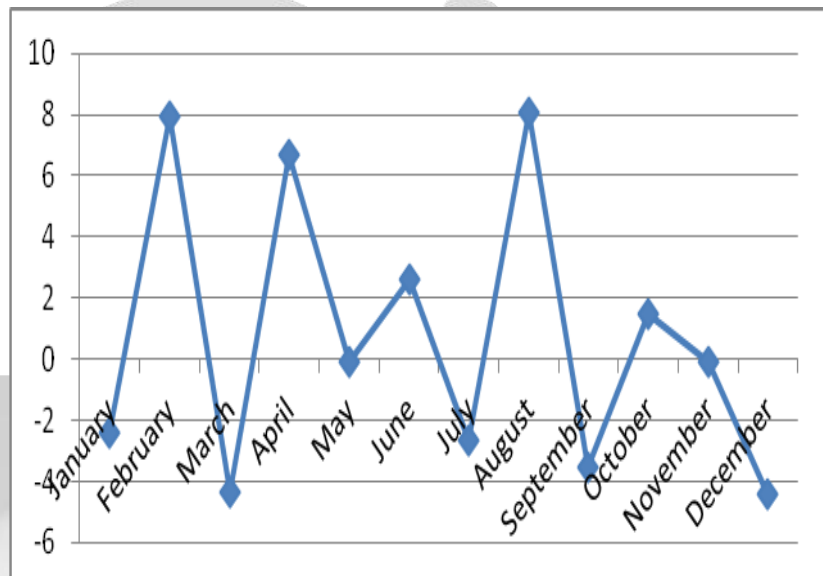
Source: Primary data

2011	SOFTWARE	TCS
	Month	R_i
	January	-0.53
	February	-4.25
	March	6.63
	April	-1.54
	May	-0.73
	June	2.34
	July	-3.99
	August	-8.32
	September	-0.49
	October	7.57
	November	-0.02
December	4.04	
Total	0.72	



Source: Primary data

2012	SOFTWARE	TCS
	Month	R_i
	January	-2.43
	February	7.91
	March	-4.35
	April	6.66
	May	-0.10
	June	2.58
	July	-2.65
	August	8.05
	September	-3.56
	October	1.51
	November	-0.11
	December	-4.43
Total	9.07	



Source: Primary data

Analysis:

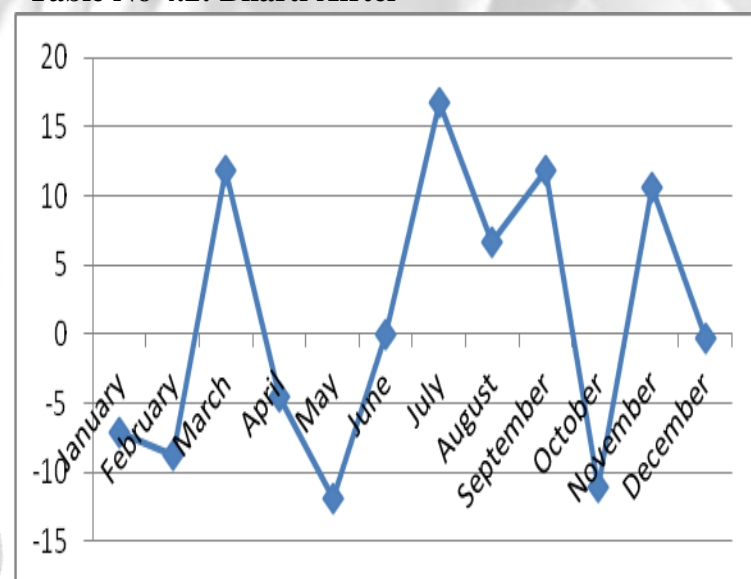
From the above table it is observed that there is more fluctuation in the prices. This shows that the return on investment in 2010 was 46.54 but there was a huge decrease in return on investment by 0.72 in 2011 and again there was an increase in returns in 2012 by 9.07 of TCS Company Stock.

Interpretation:

From the above graph, we can say that in the year 2012 the rate of return of Tata Consulting Services has come down compare to 2011 and 2010. The return on investment is decreased from 2010 to 2012.

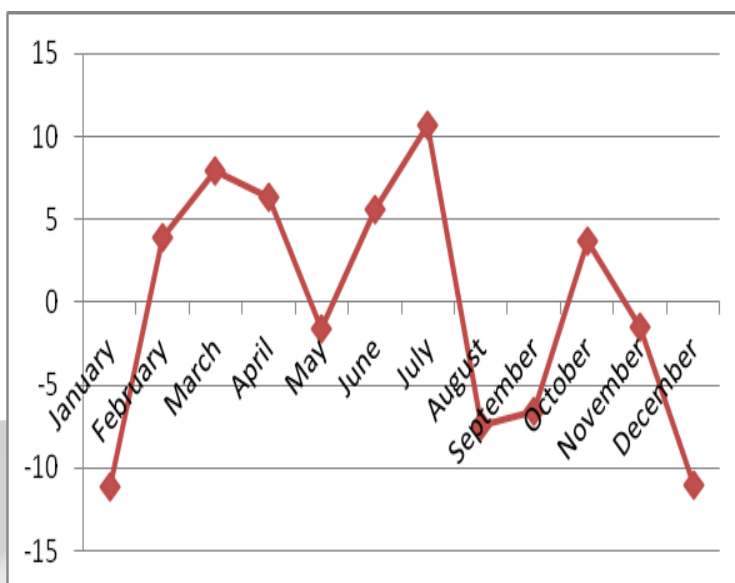
Table No 4.2: Bharti Airtel

2010	TELECOM	BA
	Month	R_i
	January	-7.08
	February	-8.83
	March	11.88
	April	-4.48
	May	-11.94
	June	-0.04
	July	16.74
	August	6.70
	September	11.90
	October	-11.10
	November	10.59
	December	-0.37
Total	13.98	



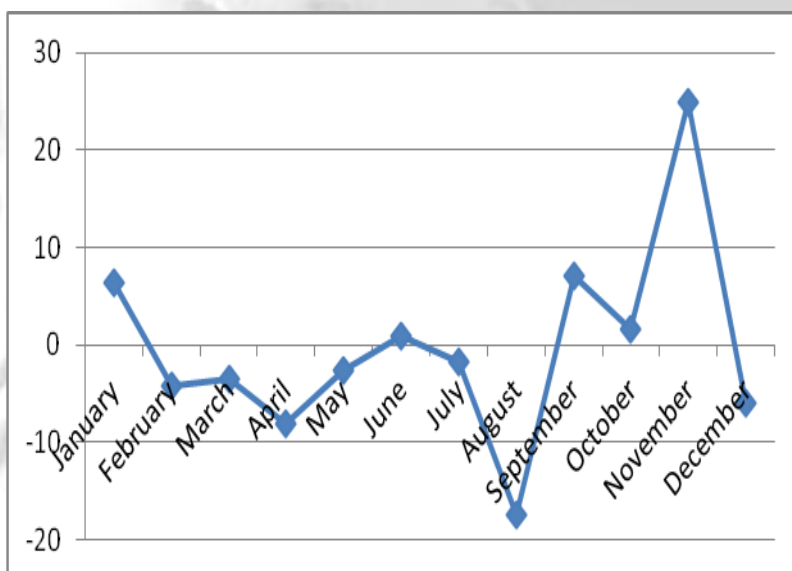
Source: Primary data

2011	TELECOM	BA
	Month	R _i
	January	-11.09
	February	3.86
	March	7.88
	April	6.34
	May	-1.55
	June	5.55
	July	10.72
	August	-7.46
	September	-6.59
	October	3.65
	November	-1.45
December	-11.03	
Total	-1.18	



Source: Primary data

2012	TELECOM	BA
	Month	R _i
	January	6.46
	February	-4.24
	March	-3.51
	April	-8.11
	May	-2.56
	June	0.83
	July	-1.64
	August	-17.41
	September	7.12
	October	1.58
	November	24.98
December	-5.91	
Total	-2.41	



Source: Primary data

Analysis:

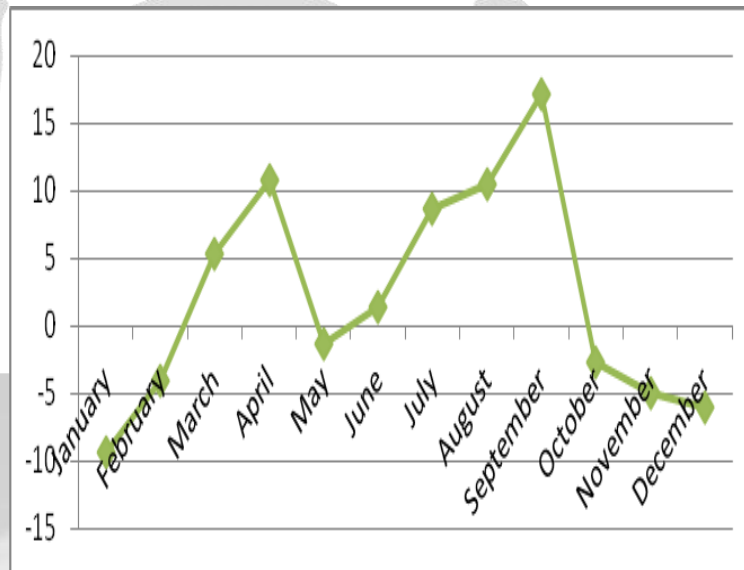
From the above table it is observed that there is more fluctuation in the prices. This shows that the return on investment in 2010 was 13.98 but there was a huge decrease in return on investment of -1.18 in 2011 and again there was a decrease in returns in 2012 by -2.47 of Bharthi Airtel Stock.

Interpretation:

From the above graph, we can say that in the year 2012 the rate of return of Bharathi Airtel has come down compare to 2011 and 2010. Its not much vary, the return on investment on Bharti Airtel is constant for the 3 years.

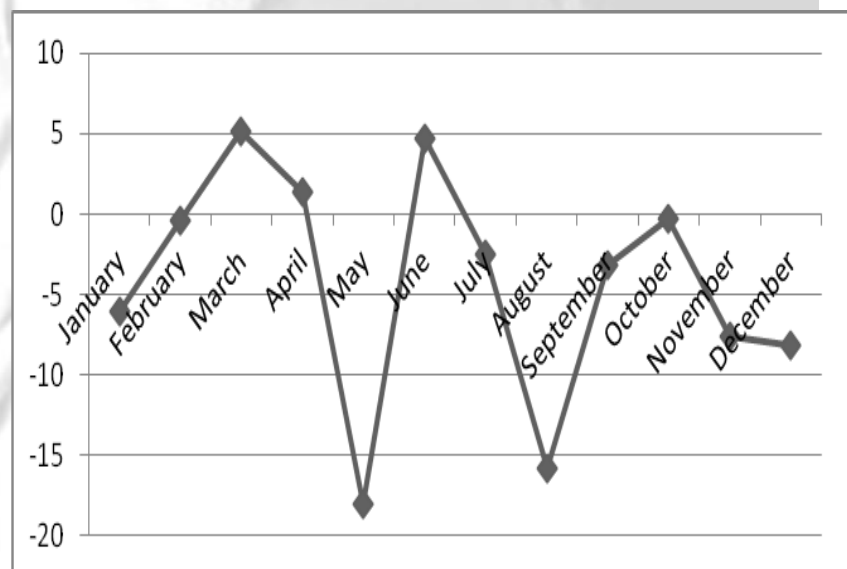
Table No 4.3: State Bank of India

2010	BANKING	SBI
	Month	R_i
	January	-9.36
	February	-4.00
	March	5.26
	April	10.71
	May	-1.39
	June	1.46
	July	8.73
	August	10.53
	September	17.14
	October	-2.77
	November	-5.03
December	-6.03	
Total	25.25	



Source: Primary data

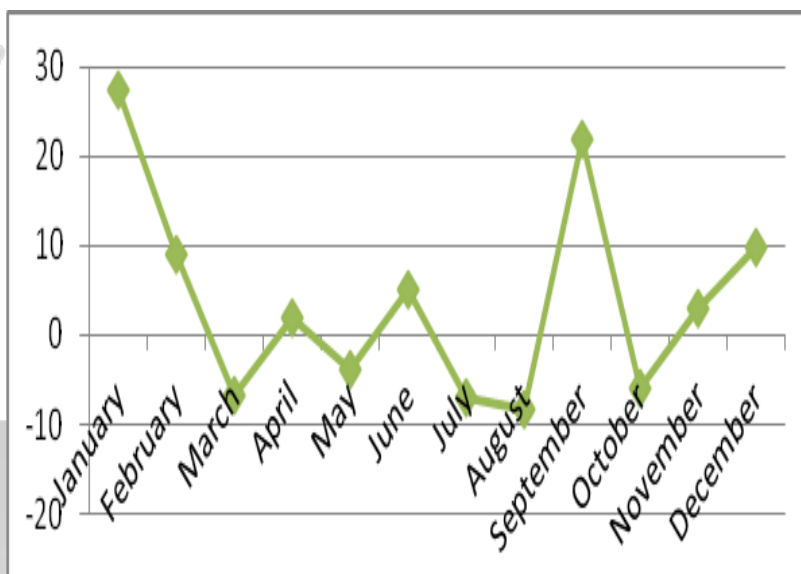
2011	BANKING	SBI
	Month	R_i
	January	-6.03
	February	-0.45
	March	5.13
	April	1.42
	May	-18.06
	June	4.64
	July	-2.49
	August	-15.82
	September	-3.18
	October	-0.25
	November	-7.55
December	-8.14	
Total	-50.78	



Source: Primary data

Acme Intellects

2012	BANKING	SBI
	Month	R_i
	January	27.33
	February	9.02
	March	-6.73
	April	1.99
	May	-3.84
	June	5.01
	July	-7.13
	August	-8.37
	September	21.95
	October	-5.82
	November	2.85
	December	9.92
Total	46.18	



Source: Primary data

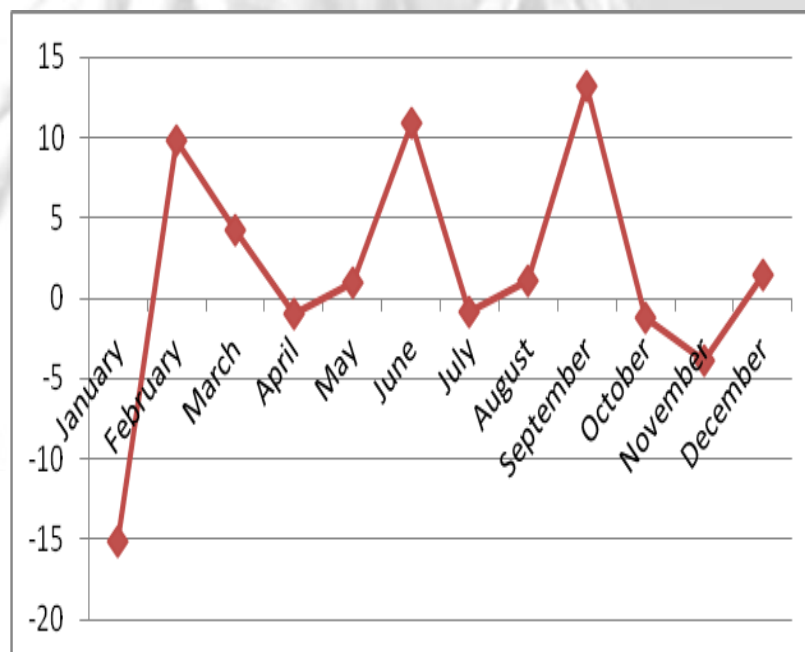
Analysis: From the above table it is observed that there is more fluctuation in the prices. This shows that the return on investment in 2010 was 25.25 but there was a huge decrease in return on investment by -50.78 in 2011 and again there was an increase in returns in 2012 by 46.18 of State bank of India.

Interpretation:

From the above graph, we can say that in the year 2012 the rate of return of State Bank of India has been increased compare to 2011 and 2010. The return on capital of SBI is increased from year to year.

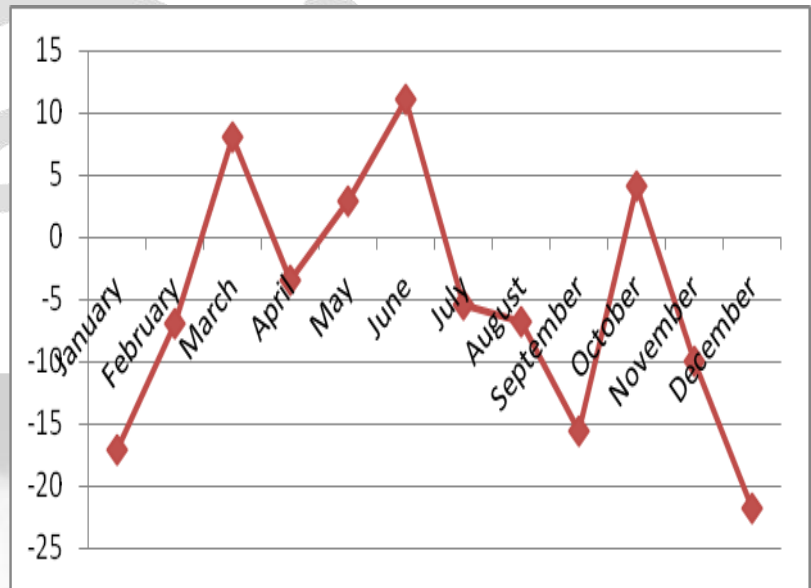
Table No 4.4: Larsen & Turbo

2010	INFRASTRUCTURE	L & T
	Month	R_i
	January	-15.13
	February	9.86
	March	4.25
	April	-0.97
	May	1.01
	June	10.89
	July	-0.81
	August	1.08
	September	13.21
	October	-1.23
	November	-3.83
	December	1.50
Total	19.82	



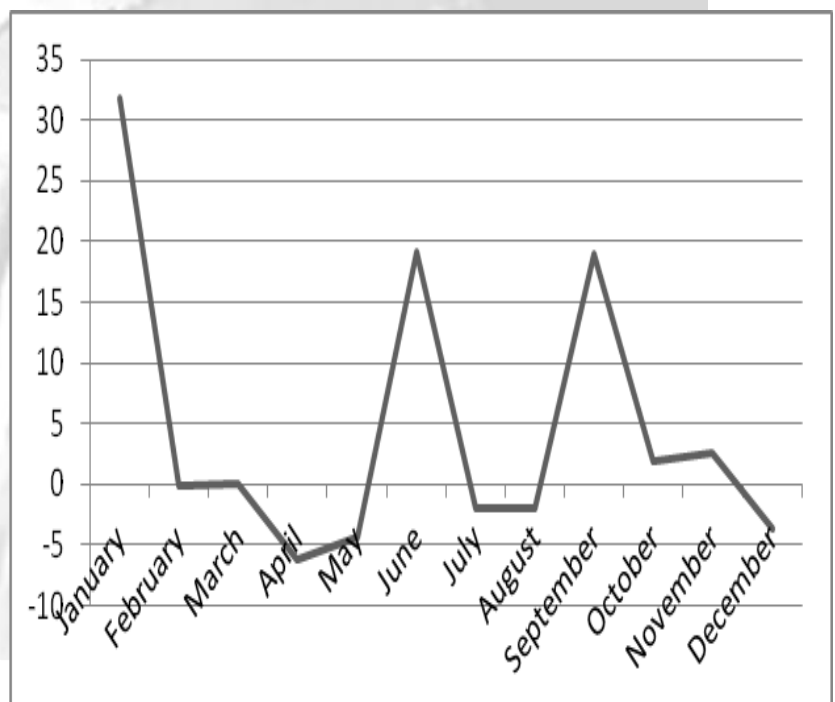
Source: Primary data

2011	INFRASTRUCTURE	L & T
	Month	R_i
	January	-17.08
	February	-6.89
	March	8.11
	April	-3.41
	May	2.93
	June	11.05
	July	-5.38
	August	-6.76
	September	-15.62
	October	4.09
	November	-9.98
December	-21.81	
Total	-60.76	



Source: Primary data

2012	INFRASTRUCTURE	L & T
	Month	R_i
	January	31.79
	February	-0.21
	March	0.07
	April	-6.28
	May	-4.42
	June	19.21
	July	-2.03
	August	-1.94
	September	18.91
	October	1.88
	November	2.52
December	-3.64	
Total	55.86	



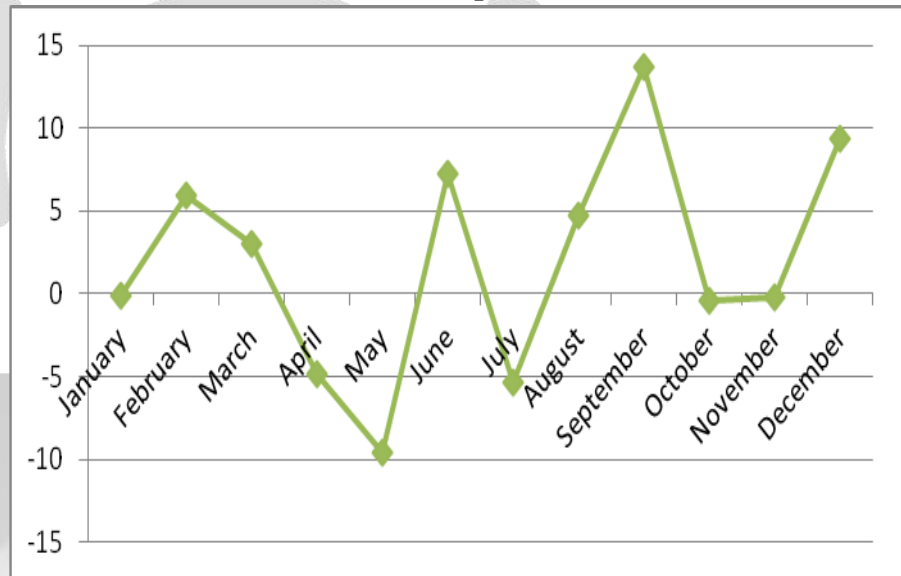
Source: Primary data

Analysis: From the above table it is observed that there is more fluctuation in the prices. This shows that the return on investment in 2010 was 19.82 but there was a huge decrease in return on investment by -60.76 in 2011 and again there was a huge increase in returns in 2012 by 55.86 of Larsen and Turbo Stock.

Interpretation: From the above graph, the return on investment of L & T is increasing year after year because of Indian infrastructure industry is growing fast.

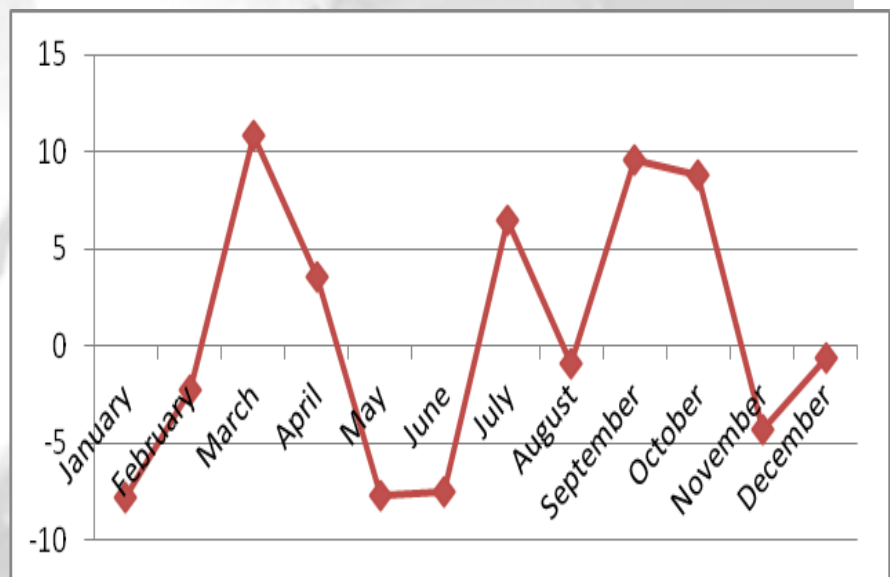
Table No 4.5: Associated Cement Companies

2010	CEMENT	ACC
	Month	R_i
	January	-0.09
	February	5.90
	March	3.03
	April	-4.84
	May	-9.56
	June	7.28
	July	-5.36
	August	4.74
	September	13.73
	October	-0.45
	November	-0.16
December	9.33	
Total	23.54	



Source: Primary data

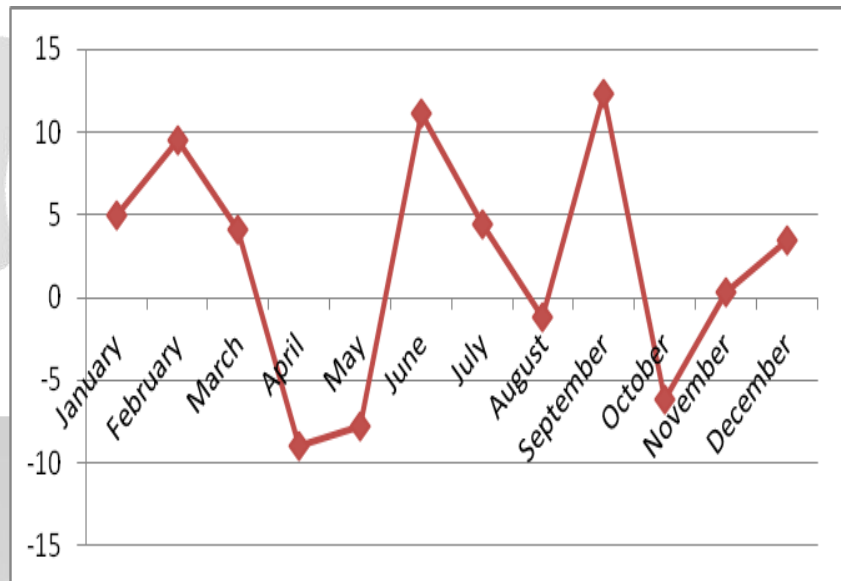
2011	CEMENT	ACC
	Month	R_i
	January	-7.80
	February	-2.25
	March	10.85
	April	3.56
	May	-7.69
	June	-7.48
	July	6.43
	August	-0.87
	September	9.55
	October	8.78
	November	-4.25
December	-0.65	
Total	8.20	



Source: Primary data

Acme Intellects

2012	CEMENT	ACC
	Month	R _i
	January	4.95
	February	9.46
	March	4.09
	April	-9.00
	May	-7.78
	June	11.14
	July	4.43
	August	-1.19
	September	12.35
	October	-6.19
	November	0.35
	December	3.49
Total	26.11	



Source: Primary data

Analysis:

From the above table it is observed that there is more fluctuation in the prices. This shows that the return on investment in 2010 was 23.54 but there was a decrease in return on investment by 8.20 in 2011 and again there was an increase in returns in 2012 by 26.11 of Associated Cement Companies.

Interpretation:

From the above graph, we can say that in the year 2012 the rate of return of Associated Cement Companies has been increased compare to 2011 and 2010. The return on investment of ACC is increased from 2010 to 2012.

Table No 4.6: Performance Analysis

Years	2010					2011				2012			
	σ	Cov	r	β	Σ	Cov	r	β	Σ	Cov	r	B	
Tata Consultancy Service	5.65	7.67	0.36	0.48	4.57	18.13	0.71	0.52	4.65	-2.42	-	-	
Bharti Airtel	10.08	17.44	0.45	1.09	7.53	25.71	0.60	0.74	10.28	22.34	0.45	0.89	
Larsen & Turbo	7.55	16.20	0.56	1.01	10.23	38.81	0.67	1.12	11.93	50.99	0.89	2.04	
State Bank of India	8.24	15.63	0.50	0.98	7.31	26.63	0.65	0.77	11.61	46.19	0.83	1.84	
ACC	6.70	20.08	0.78	1.26	6.97	25.26	0.64	0.73	7.16	23.31	0.68	0.93	

- σ - Standard Deviation
- Cov - Covariance
- r - Coefficient of Correlation
- β - Beta

Company	3 years		Average	
	r	β	r	B
Tata Consultancy Service	0.95	0.91	0.32	0.30
Bharti Airtel	1.51	2.73	0.50	0.91
Larsen & Turbo	2.13	4.18	0.71	1.39
State Bank Of India	1.97	3.59	0.66	1.20
ACC	2.11	2.92	0.70	0.97

5. Findings and Discussions:

1. Table 4.1. the return on share of TCS declining year to year.
2. Table 4.2 the risk and return of the Bharti Airtel is almost constant for 3 years.
3. Table 4.3 the return on investment of SBI is increasing year to year.
4. Table 4.4 the return of the L & T is increasing year after year.
5. Table 4.5 the risk and return of ACC is constant for 3 years

6. Suggestions:

The investors must analyze the market before investing. Take a experts advise before investing in the stock. The prospective investors do the good portfolio for better return on investment. The investors must look the both the sides of risk and return of the securities, then a better portfolio may be created.

7. Conclusion:

As a whole the stock market (Nifty) is highly volatile. The investor should be in a position to track the performance of each sector it is whether one stock or various stocks in which investor have been made invested and will take periodical data. So that investor might gain the knowledge about the stock market trend and performing of the companies thus minimize the risk and maximize the returns. The investor should analyze the market on a continuous basis which will help them to pick the right companies to invest their funds. The beta value, standard deviation and variance help the investors in arriving at a decision. The investors should be in a position to interpret the data in the right manner to arrive at important conclusion and investment decision. The Nifty compensation companies like Bharti Airtel, Larsen & Turbo has given very good return in the past few years with less risk, so investment in these stocks will be more beneficial for long time investments.

8. References:

- 1) Chen, H., Noronha, G. & Singal, V. (2004), The Price Response to S&P 500 Index Additions and Deletions: Evidence of Asymmetry and A New Explanation, Journal of Finance, 59(4), 1901-1929.
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