

A Study on Relationship between top 3 Industries in BSE Sensex period from 2013 - 2018

A.Lingapoosan¹ and Dr.S.Madhavan²

¹ PhD Research Scholar, Department of Management Studies,
Manonmaniam Sundaranar University, Tirunelveli

² Professor & Head, Department of Management Studies,
Manonmaniam Sundaranar University, Tirunelveli

Abstract

An attempt to study the relationship in top Market capitalization Industries in Sensex 30 and Sensex. The Data collected a period of 5 Years 2013 to 2018. The relationship of share price was analyzed through Correlation and Regression model. It is essential therefore to understand the concept of Trends and relationship in share price movement to make a proper Investment decision. There is high possibility of having problems against theory versus practices. The researcher find the IT sector and Oil & Gas Stocks are closely related to the Sensex movement.

Keywords: *Share price, BSE, SENSEX, Correlation, Regression*

1. Introduction:

Investment process involves a series of activities leading to purchase securities or other investment alternatives. Investment in shares offers the benefit of liquidity as well as the opportunity to beat the market and earn high returns. The Indian stock market plays a pivotal role in the growth of Indian economy. Its every movement puts an impact on the performance of the economy. The stock market is a place at where investors, whether Indians or foreigners can invest or take the funds for capital appreciation.

We have two Exchanges in India. One is the National Stock Exchange (NSE) and another one is BSE Ltd. Stock index forecasting has advantage in

various ways. Investors can decide their trading move according to market flow. Scientists use it to probe their research study. Stocks relationship analysis is an important task for stock traders, applied researchers and stock investors. Various methods have been devised for the same.

2. Review of Literature:

A.Arun Prakash and P.Shanmugha Priya (2016)¹ made a Study on Analysis of Equity Share Price Movements of Selected Banking Scripts. The market price of the shares of a company tends to change according to internal as well as external factors. The stock market indices may have a greater impact on the share prices which determine the volatility or otherwise of the shares. Dhanasekaran M. and Kumar V. Navaneetha (2016)² a Study on Performance Evaluation of Indian Stock Market with special reference to NSE and BSE, found that the

¹ Prakash, A. A., & Priya, P. S. (2016). A Study on Analysis of Equity Share Price Movements of Selected Banking Scrip's. Global Journal For Research Analysis, 4(7).

² Dhanasekaran, M., & Kumar, V. N. (2016). A Study on Performance Evaluation of Indian Stock Market with special reference to NSE and BSE. Asian Journal of Research in Social Sciences and Humanities, 6(5), 1050-1060.

past decade in many ways has been remarkable for securities market in India. It has grown exponentially as measured in terms of amount raised from the market, number of stock exchanges and other intermediaries, the number of listed stocks, market capitalization, trading volumes and turnover on stock exchanges, and investor population. Along with this growth, the profiles of the investors, issuers and intermediaries have changed significantly. Dr. Sanjeet Sharma (2011)³ studied the Determinants of equity share price in India. This study has been undertaken to examine the empirical relationship between equity Share prices and explanatory variables such as: book value per share, dividend per share, earning per share, price earnings ratio, dividend yield, dividend payout, size in terms of sale and net worth for the period 1993-94 to 2008-09.

2.1 Research Gap:

Many of the researchers made the research in Equity share price movement in selected banking scripts, FDI and Macroeconomic indicators, Empirical analysis of Indian stock market, Global stock market trends, Impact of Institutional Investment, Determinants of equity share price in India, Predicting stock prices and stock market, Performance evaluation of Indian stock market, Pattern on stock volatility of Sensex, Sentiment analysis for Indian stock market prediction, Stock Co-movement analysis with two sectors, Co-Integration and causality between macroeconomic variable and stock prices, Stock market comparison seasonal pattern in volatility, Return analysis of Equity market in banking companies, Weak form efficiency in sectoral Indices. Hence the researchers have the identified research gap and taken the research on Relationship between the Sensex and top 3 Industries in BSE Sensex period from 2013 to 2018.

3. Materials and Methods

3.1 Statement of the problem:

Forecasting and studying the relationship between the shares in markets are of great importance

³ Dr Sanjeet Sharma, (2011) Determinants of Equity Share Prices in India. Journal of Arts, Science & Commerce E-ISSN 2229-4686

among investors and analysis of this field. Complexity of stock markets and it being affected by political and economic and social events have made the process of forecasting even more difficult. In Indian stock market, price movements of different sectors are not able to be predicted and we are not able to find the relationship in stock market. A thorough analysis is required to study the relationship in share price movements.

Various researchers have found important internal factors that determine the share prices for different markets, viz., dividend, retained earnings, size, and earnings per share, dividend yield, leverage, payout ratio, and book value per share. Understanding the impact of various fundamental variables on share price is very much helpful to investors as it will help them in taking profitable investment decisions.

3.2 Objectives:

- To analyze the relationship between the BSE Sensex and the top 3 Industries in BSE Sensex.
- To find the impact of those three Industries on the BSE Sensex.

3.3 Research design:

This study is an analytical research. Analytical study is a system of procedures and techniques of analysis applied to quantitative data. It may consist of a system of mathematical models or statistical techniques applicable to numerical data⁴.

3.4 Nature of Data: The researchers used Secondary data for this study.

3.5 Sources of Data:

The researcher collected secondary data as abstracted from various publications and the websites

⁴Krishnaswami.O.R & Renganatham.M, Methodology of Research in Social Sciences. Page-47.

of Reserve Bank of India (RBI) BSE Ltd and Securities Exchange Board of India (SEBI)

Table No: 1. Correlation between SENSEX, Finance, IT & Oil and Gas sectors

3.6 Period of study:

The researcher has made the study for the time period of five years from 2013-14 to 2017-2018

	<i>Finance</i>	<i>IT</i>	<i>Oil & Gas</i>	<i>SENSEX</i>
Finance	1			
IT	0.335	1		
Oil & Gas	0.638	-0.047	1	
SENSEX	0.365	-0.575	0.797	1

3.7 Tools for Data Analysis:

- Correlation
- Regression

Interpretation:

3.8 Limitations of the Study:

1. The data used in this study have been taken from websites only. But the reports may not always correct in nature.
2. The data are analyzed through limited statistical tool; there may be better methods to calculate accurately.

From the above table 1 it is observed that there is very high degree of positive relationship (0.797) between the share prices of Oil & Gas Industries with BSE Sensex, and moderate degree of relationship between Finance Industries with BSE Sensex and Negative relationship between IT Industry and BSE Sensex.

4. Results and Discussion

4.2 Regression:

4.1 Correlation:

Correlation is a statistical technique that can show whether and how strongly pairs of variables are related. In statistics, dependence refers to any statistical relationship between two random variables or two sets of data. Correlation refers to any of a broad class of statistical relationships involving dependence. Correlation can refer to any departure of two or more random variables from independence, but technically it refers to any of several more specialized types of relationship between mean values⁵

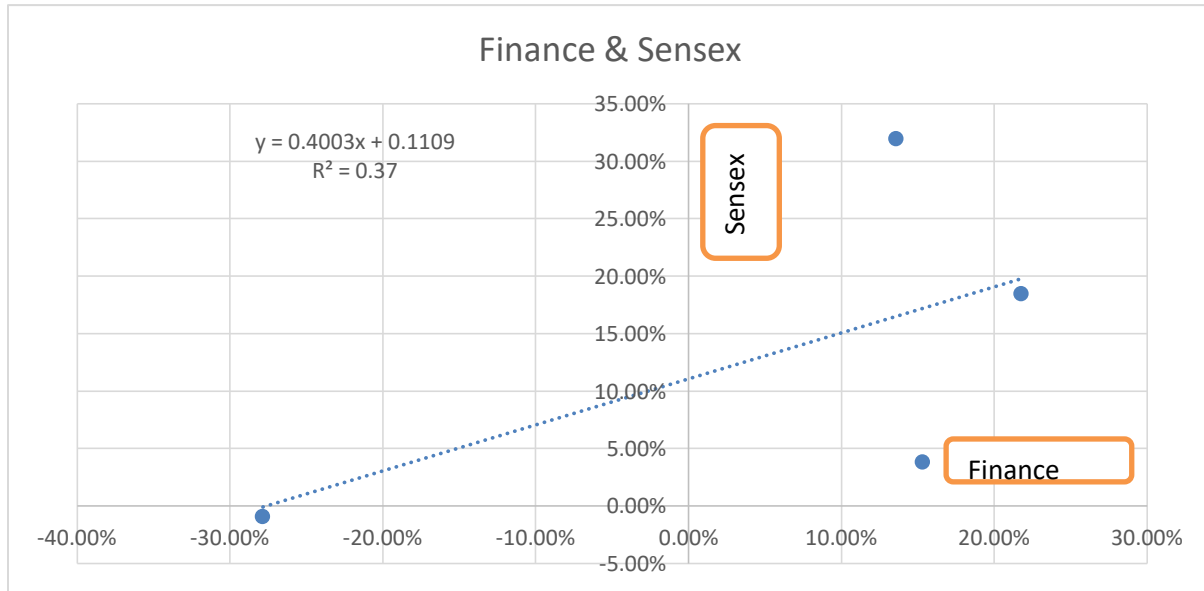
Regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables⁶.

R-squared is a goodness-of-fit measure for linear regression models. This statistic indicates the percentage of the variance in the dependent variable that the independent variables explain collectively. R-squared measures the strength of the relationship between the model and the dependent variable on a convenient 0 – 100% scale.

⁵ Shankar.CH & K.Ramulu, (2014) Volatility and Correlation of Stock Indices on Indian Stock Market. International Journal of Research in Business Management

⁶ Pillai.RS.N & Bagavathi.V, Statistics. Page-425

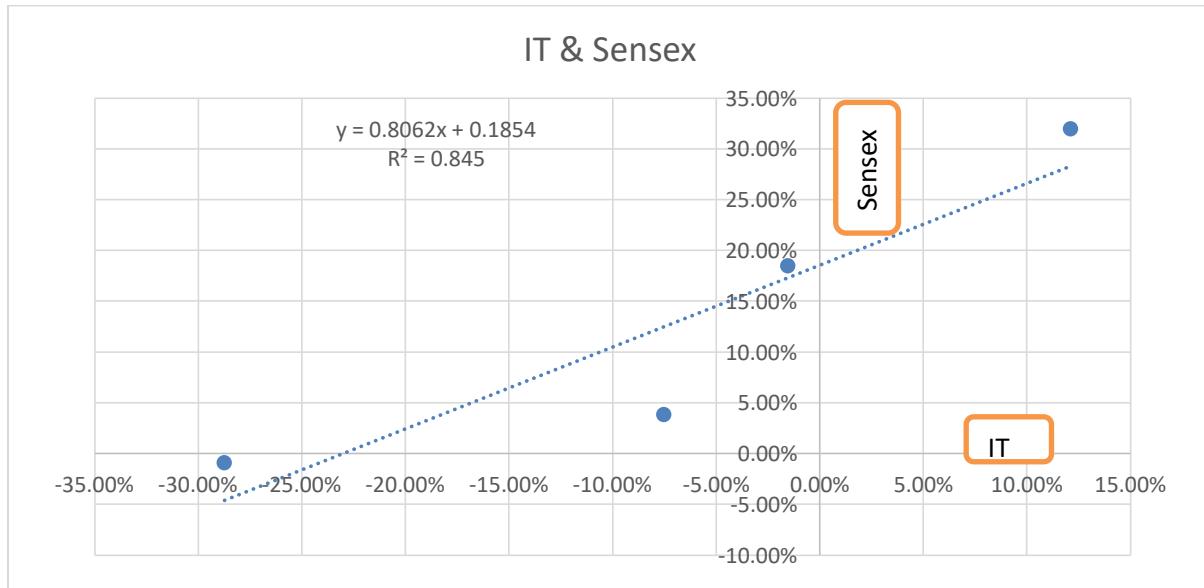
Figure No 1. Relationship between BSE Sensex and Finance Sector



Interpretation:

From the Above table 2 it is observed that there is 37% that is, moderate relationship between Sensex and Finance stocks.

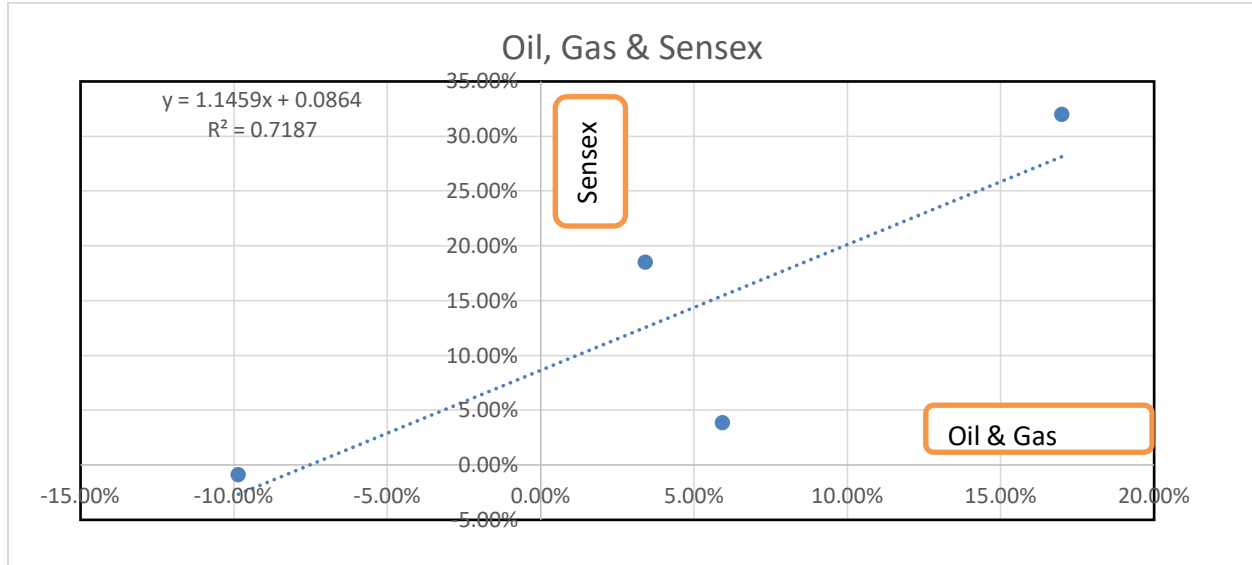
Figure No: 2. Relationship between BSE Sensex and IT Sector



Interpretation:

From the Above table 3 it is observed that there is strong relationship and very closer to the regression line between Sensex and IT stocks.

Figure No: 3. Relationship between BSE Sensex and Oil & Gas Sector



Interpretation:

From the Above table 4 it is observed that there is 72% of relationship between Sensex and Oil & Gas stocks.

5. Conclusions:

This paper helps to understand the relationship between share prices in BSE top Market Capitalization industry stocks and Sensex. In the Correlation analysis there is very high degree of positive relationship (0.797 %) between the share prices of Oil & Gas Industries with Sensex, and moderate degree of relationship between Finance Industries with Sensex and Negative relationship between IT Industry and Sensex. In the Regression analysis there is moderate relationship between Sensex and Finance stocks (37%). There is strong relationship and very closer to the regression line between Sensex and IT stocks (85%) and 72% of relationship between Sensex and Oil & Gas stocks. So the IT sector and Oil & Gas Stocks are closely related to the Sensex movement.

References:

[1] Dhanasekaran, M., & Kumar, V. N. (2016). A Study on Performance Evaluation of

Indian Stock Market with special reference to NSE and BSE. Asian Journal of Research in Social Sciences and Humanities, 6(5), 1050-1060

[2] Krishnaswami.O.R & Renganatham.M, Methodology of Research in Social Sciences. Page-47.

[3] Pillai.RS.N & Bagavathi.V, Statistics. Page-425.

[4] Prakash, A. A., & Priya, P. S. (2016). A Study on Analysis of Equity Share Price Movements of Selected Banking Scrip's. Global Journal For Research Analysis, 4(7).

[5] Dr Sanjeet Sharma, (2011) Determinants of Equity Share Prices in India. Journal of Arts, Science & Commerce E-ISSN 2229-4686.

[6] Shankar.CH & K.Ramulu, (2014) Volatility and Correlation of Stock Indices on Indian Stock Market. International Journal of Research in Business Management.