

# Comparative Study of Moving Trend of Sensex and Nifty in Indian Stock Market

**ARTI PATHANIA,**

Research Scholar,

Dept. of management, Arni University, Kathgarh

(Indora) H.P India,

artipathania444@gmail.com

**DR. RAVIKANT SWAMI,**

Professor,

Dept. of management Arni University, Kathgarh

(Indora) H.P India,

ravikantswami@gmail.com

**ABSTRACT-** The stock market is an important part of the economy of a country. The stock market value or index value of a country is calculated by the generally accepted mathematical formula using on some selected prices of stocks listed and traded specific stock exchange. Both Sensex and Nifty makes the market so volatile and it affects the prices of stocks. The Sensex and Nifty moves up and down their moving trend mostly on the same direction. The moving trend of Sensex and Nifty affects the traders of both BSE and NSE.

The objective of this research paper is to measure the nature of correlation of Sensex and Nifty. This research paper is an attempt to consider the moving trend of Sensex and Nifty are correlated or not. The chart 1 and chart 2 shows movements of Sensex and Nifty in India stock market during a period from 17 September 2007 to 2 January 2015. In this study monthly average data of Sensex and nifty were analyzed with the help of Karl Pearson correlation method. The results were analyzed with the help of Karl Pearson correlation coefficient method. It was identified that there exists high degree of positive correlation between moving the trend of Sensex and Nifty in Indian stock market.

**Keywords:** Indian stock market, Nifty, Sensex, Pearson correlation

## 1. INTRODUCTION

The stock market is important from both the industry point of view as well as investor's point of view. Stock market indices of a country belonging to a close economy indicate industrial growth, economic development, inflation pressure, interest rate and market liquidity and political stability of the country. And in an open economy stock market of a country indicates international industrial growth, sustainable development, inflation, interest, political stability and internal liquidity. Stock market volatility or market sensitivity is reflected on the value of stock market indices.

In India, there are broad two stock exchanges namely, Bombay stock exchange (BSE) at Bombay and National stock exchange (NSE) at Delhi. The Sensex is the index value or sensitivity value of BSE and calculated on the prices of selected 30 stocks from different industrial segment of the India. The Sensex is calculated using free float market capitalization methodology. On the other hand Nifty is the stock market value of NSE. The Nifty is determined on the share prices of fifty stocks listed and traded in NSE. The stocks prices used for calculating Sensex and Nifty are not fixed. The representing stocks are selected based on some performance criteria and vary time to time.

## SENSEX

Bombay stock exchange or BSE is the largest stock exchange in India in terms of number of listed companies in the exchange and the market capitalization of the listed companies. The prime index of the Bombay stock exchange is the BSE30 that is popularly known as the Sensex. The Sensex is made with highly liquid stocks have changed time and again according to the condition of the market capitalization and liquidity of stocks. The BSE index committee decides on which stock to include in the Sensex and which stock should be removed from the Sensex. This committee is made up of highly placed experts and professionals from the field finance and industry who are well aware of the Indian stock market scenario. The Sensex is managed and operated by a panel of experts. The valuation of the Sensex is calculated on the basis of free floating capitalization method that is the best effective way to calculate the value of the stock index.

## NIFTY

The NSE S&P CNX Nifty50 or the Nifty as it is commonly known is the prime index of the National stock exchange. The Nifty index is made up of 50 different stocks from all the listed company at the National stock exchange. The National stock exchange is the largest stock exchange in India in terms of trading volume and daily turnover. The 50 stocks that made up the Nifty index are the prime stocks in terms of market capitalization and daily trading activity.

The stocks that are part of the Nifty index are reviewed and modified from time to time. On the basis of the present market condition and the position of respective companies. On the basis of these factors and the present market capitalization of the companies' prime companies from different sectors are selected for the nifty index. At present the 50 companies in the Nifty represent as much as 21 different sector.

## 2. LITERATURE REVIEW

**Roll (1992)** also studied the US stock prices and exchange rates and found a positive relationship between the two markets.

**Karolyi and Stulz (1996)** study the daily return movements between the Japanese and US stocks from 1988 to 1992 and find evidence that correlations are high when there are significant market movements.

**Chow. Etal (1997)** examined the same market but found no relationship between stock returns and real exchange rate returns. They repeated the exercise with a longer time horizons and found a positive relationship between the two variables.

**Ramchand and Susmel (1998)** find that the correlations between the US and other world markets are on average 2 to 3.5 times higher when the US markets is in a high variance regime. They also find that compared to a GARCH framework, the portfolio choices resulting from their SWARCH model lead to higher Sharpe ratios.

**Yamini Karmarkar and G Kawadia** tried to investigate the relationship between RS/\$ exchange rate and Indian stock markets. Five composite indices and five spectral indices were studied over the period of one year: 2000. The results indicated that exchange rate has high correlation with the movement of stock market.

**Terry, Macy and Abdullat (2010)** found a correlation of stock prices for vertically integrated technology companies in a down market, but bull market share not highly correlated within the industry. Stock market performance of information technology companies reveals the sector has greater volatility than most other economic sectors.

**Mishra and Gupta (2014)** studied the major factors responsible for up-down movement in Indian stock market. The relationship between Sensex and macro economic variables-IIP, WPI, interest rate and Morgan Stanley capital international index of India during the period from 2006 to 2012. Multiple correlations and multiple regressions is used to analyze the relationship among variables. This study shows highly positive correlation of Sensex with Marco economic variables and is significant during the period of study.

## 3. OBJECTIVES

- ❖ Comparative study of moving trend between Sensex and nifty in Indian stock market.

## HYPOTHESIS

**H0:-** There is positive relation of moving trend between Sensex and nifty.

**H1:-** There is negative relation of moving trend between Sensex and nifty.

## 4. PURPOSES OF STUDY

The moving trend of Sensex and nifty affects the stock prices of both exchange i.e. BSE and NSE. The main purpose of this study is correlated or not.

## 5. METHODOLOGY

### RESEARCH DESIGN

The present study has been conducted to find the solution for the problem of estimation of movement in stock prices which play key role to increase or decrease capital formation in the country. Thus an applied-cum-analytical research design has been used in this study.

### SAMPLE DESIGN

Sensex and nifty has been selected non - randomly for the purpose of the study.

## 6. TIME PERIOD

Every research work is always limited by shortage of time and resources. Therefore under the study, a period of 8 years from 17 September to 2 January 2015 has been taken to carry out the study.

## 7. COLLECTION OF DATA

The study is based on secondary data. The data was collected from reputed journals, and BSE and NSE India websites database.

## TOOLS USED

Karl Pearson correlation

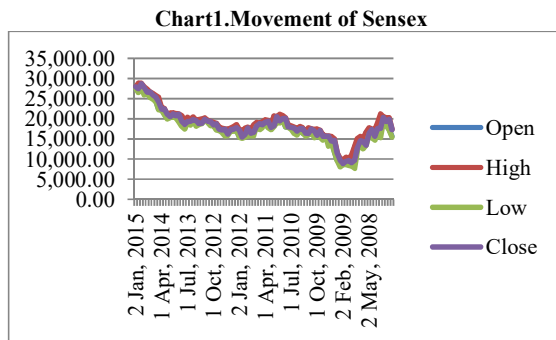
## DATA ANALYSIS AND INTERPRETATION

Table 1 Sensex Correlations

	Open	High	Low	Close
Pearson Correlation	1	.984**	.973**	.958**
Sig. (2-tailed)		.000	.000	.000

N	90	90	90	90
High Pearson Correlation	.984*	1	.977**	.984**
Sig. (2-tailed)	.000		.000	.000
N	90	90	90	90
Low Pearson Correlation	.973*	.977**	1	.986**
Sig. (2-tailed)	.000	.000		.000
N	90	90	90	90
Close Pearson Correlation	.958*	.984**	.986**	1
Sig. (2-tailed)	.000	.000	.000	
N	90	90	90	90

Source: SPSS Output

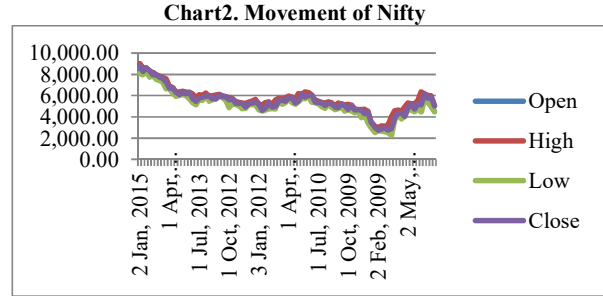


Source: Based on Table 1

Table 2 Nifty Correlations

	Open	High	Low	Close
Open Pearson Correlation	1	.983**	.969**	.954**
Sig. (2-tailed)		.000	.000	.000
N	90	90	90	90
High Pearson Correlation	.983**	1	.973**	.983**
Sig. (2-tailed)	.000		.000	.000
N	90	90	90	90
Low Pearson Correlation	.969**	.973**	1	.984**
Sig. (2-tailed)	.000	.000		.000
N	90	90	90	90
Close Pearson Correlation	.954**	.983**	.984**	1
Sig. (2-tailed)	.000	.000	.000	
N	90	90	90	90

Source: SPSS Output



Source: Based on Table 2

## 8. INTERPRETATION

Bivariate correlation has been applied between the National equity indices of Sensex and Nifty whereas is having highly correlated. Correlation of Indian stock market indices BSE Sensex .984, .977, .986 and Indian stock market indices NSE Nifty .983, .973, .984. In both cases it shows positive correlation. The data analysis proves that there is positive correlation between Sensex and Nifty in Indian stock market during a period from 17 September to 2 January 2015.

The above chart 1 and chart 2 depicts the open, high, low, close prices of Sensex and Nifty in Indian stock market for past 8 years i.e. 17 September to 2 January 2015. It shows a high degree correlation between the two indexes. A positive price of the correlation indicates a positive correlation between BSE and NSE stock index. However the price of BSE index is higher than that of the NSE. Therefore, there is greater possibility of arbitrage of BSE due to difference in the prices at the two exchanges.

## 9. CONCLUSION

The comparative study of moving trend of Sensex and Nifty in Indian stock market during a period from 17 September to 2 January 2015. In this research paper overall there exists high degree of positive correlation inferred that moving trend of Sensex and nifty are same either in bullish or bearish trend this approves null hypothesis. This transcends a warm message to the investors to hold the investment for a longer period of time. The movement of Sensex and Nifty in either bullish trend or bearish trend affects the stock prices of BSE and NSE which is directly or indirectly affects the economic condition of nation. The Sensex and Nifty movements almost show a similar trend. The movement of Sensex and Nifty in Indian stock market shows a positive linear correlation between 17 September to 2 January 2015. This study helps the investors to invest the Indian stock market according to current situation

## REFERENCES

- [1] Gupta24, Nitin Sethi23 Dr Sonia. "Comparative study of moving trend of Nifty and Sensex."
- [2] Ghosh, Bikramaditya, and Padma Srinivasan. "A Statistical Analysis of the Stochastic Drift between Sensex & Nifty-an in Depth Study." *International Journal of Innovative Research and Development* 4.5 (2015).
- [3] Kaur, Harvinder. "Time varying volatility in the Indian stock market." *Vikalpa* 29.4 (2004): 25-42.
- [4] Das, Niladri, and J.F.Pattanayak. "Fundamental factors affecting the Indian stock market-A comparative study of Sensex and Nifty." *Journal of Indian Business Research* (2009): 1-35.
- [5] Shankar, CH, and K. Ramulu. "Volatility and Correlation of Stock indices on Indian stock market."
- [6] Kumar, S. S. S. "The Behaviour of Indian's Volatility Index." ii Editorial Viewpoint 1 Building Institutions: Lessons of Experience Samuel Paul 6 Institution Building 2.2 (2010): 27.
- [7] Ahmed, Shahid. "Aggregate economic variables and stock markets in India." *International Research Journal of Finance and Economics* 14 (2008): 141-164.
- [8] [www.bseindia.com](http://www.bseindia.com)
- [9] [www.nseindia.com](http://www.nseindia.com)
- [10] [www.google.com](http://www.google.com)