

A Comparative Study on the Share Price Movement of Public and Private Banking Sector Companies with Reference to Nifty Bank

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ABSTRACT

Investment in securities market is a lucrative opportunity to make best return and to protect our saving from the threat of inflation. Securities market is the one of the most complex avenue of investment which constitutes thousands of securities. NSE was the first exchange in the country to provide a modern, fully automated screen-based electronic trading system which offered easy trading facility to the investors spread across the length and breadth of the country. Currently more than 1300 securities are available for trading on the Exchange. It owns a separate sectoral index for banking companies named as NIFTY Bank Index, which constitutes 12 banks from private and public sector. Selection of securities for investment is a crucial work which requires in depth study and better awareness regarding share price movements. This study intends to conduct a technical analysis on price movement of selected 5 shares of banking companies through which the investors can get better understanding while taking investment decision. As it is an analytical research, secondary data has used for the study. Tools used for this are correlation, Trend lines and Market Indicators. Further the study analyzed the market volatility by using mean, standard deviation and correlation using the opening and closing prices and monthly average prices. Demonetization announced by the central Govt. on 8th Nov 2016 raised a big controversy in the nation regards its impact. A number of scams related to banking sector in the form of non repayment of huge loans by corporate were also come into the news after the date of demonetization. In the light of all these, this study attempts to check and study the performance of stock prices of banking sector companies and its volatility during the period starts from 8th Nov 2016 to 24 Aug 2018.

Keywords: Volatility, NIFTYBANK, Public Sector Banks, Private Sector Banks.

INTRODUCTION:

Banks play a vital role in building the economics of an individual as well as nation. In India banking sector has greater importance as it forms the lifeline of economic activity of both rural and urban areas. The development of a nation mainly depends on the existence of well developed financial sector which supports Industry, Agriculture, education, household etc. by providing loans and advances and other financial assistance. Banks are the credit creators. They support the nation in stabilizing the money supply and channelizing the fund to productive sectors. The Indian Banking industry has contributed to the economic growth of the country. This sector has undergone significant developments and investors believe it as a sector having future prosperity. Reserve Bank of India is the central bank of the country; it regulates the banking industry in India and ensures monetary stability in the economy.

In India Banks are classified into different groups such as scheduled and unscheduled commercial banks, public sector banks, private banks, foreign banks and cooperative banks. RBI recently permitted to start payment

banks too in India. Indian Banking industry is a valuable contributor towards the GDP, which shows a stabilized growth in its performance. In India banks works under a regulated environment and has government support. Banking sector affected tremendously by the Technological advancements and banking has become more simplified and is at the doorstep of every account holder.

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This paper deals with public sector and private sector banks listed in BSE and NSE. This study analyzes the price movement of selected banking company shares which support investors while making investment.

REVIEW OF LITERATURE:

Dr. Virender Koundal (2012) in his paper titled “performance of Indian banks in Indian financial System” concludes that various reforms have produced favorable effects on commercial banks in India, but it is realized that the major benefit is taken by the private sector banks and foreign banks whereas public sector banks are still lagging behind on various financial parameters.

Seema Malik (2014) in a research paper titled “Technological Innovations in Indian Banking Sector: Changed face of Banking” reviewed the effect of technological innovations and benefits and challenges of changing banking sector. Technology and financial innovations led to tremendous improvement in banking services and operations over the past decades. Survival, growth and existence is depends on organisational effectiveness and operational efficiency in the current scenario where customer’s needs are changing every day.

Baggam Seshu Sailendra, T.Subramanian (2015) in a paper titled “A Study on the Technical Analysis of Share Price Movements of Banking Sector with Special Reference to NSE” published in Transactions on Engineering and Sciences, analyzed that share prices of private sector banks shows more fluctuations than public sector banks”.

A. John William, T. Vimala (2015) in a research paper entitled “a study on equity share price volatility of selected Private banks in (NSE) stock exchange” observes that even though the private banking companies adopt different operational strategy the share volatility is similar for all the selected private banks.

Milan B. Undavia (2016) in his paper titled “Fundamental Analysis of Selected Public and Private Sector Banks in India” found that South Indian Bank is the best stock from private sector banks for investment purpose & PNB is the best stock from Public Sector banks for investment purpose.

Amanjot Kaur Sodhi, Simran Waraich (2016) in his study on “Fundamental Analysis of Selected Public and Private Sector Banks in India” observed that SBI scores the highest average in terms earning per share. Bank of Baroda has a positive compound annual growth rate while SBI shows negative. PNB has performed the best in operating profit margin along with positive dividend payout ratio.

Malaya Ranjan Mohapatra, Avizeet Lenka, Subrat Ku-mar Pradhan (2015) in a paper titled “A Study of Operational Efficiency of Commercial Banks in Indian Financial System: At a Glance have analyzed the operational efficiency of commercial banks in India and challenges faced by public sector banks. The parameters considered for study are labour productivity, branch expansion and profitability ratios. The study concluded that internal management and employee efficiency of foreign banks are far better than other sectors of commercial banks. Public sector banks are lagging behind in various financial parameters.

STATEMENT OF THE PROBLEM :

Now days the Indian stock market is gradually gaining its momentum. But most of the retail investors have not much of idea about where and how to invest and also in which sector to invest. Banking sector is considered to be one of the best options to invest in. Major acquisitions and mergers were happening these years. Too many banks were highlighted regards to their increasing rate of NPA.

Demonetization announced by the central Govt. on 8th Nov 2016 raised a big controversy in the nation regards its impact. A number of scams related to banking sector in the form of non repayment of huge loans by corporate were also come into the news after the date of demonetization. In the light of all these, an attempt is made to analyze the share price movements of top five banks in the sector with that of the bank nifty and nifty through technical analysis.

OBJECTIVES OF THE STUDY:

1. To study the share price movements of selected banking companies.
2. To compare the price movements of private bank with public sector banks.
3. To compare the performance of individual shares with Bank Nifty

RESEARCH METHODOLOGY:

Five popular banks were selected from the banks in the Nifty bank Index. Three private sector banks and two public sector banks selected for the study. Purposive sampling technique is used in this study.

The data used in for the study is purely secondary in nature where the daily closing of the NIFTY index and daily closing prices of stock of the banks that appear in the bank index is used. The daily closing prices have been collected from the official website of National stock Exchange (NSE) for the period from Nov 2016 to Aug 2018.

For data analysis here the descriptive statistics with regard to daily closing prices average, high and low are used. Volatility is explained using standard deviation and its coefficient. The NIFTY index returns and each of the bank returns have been correlated to see the relationship.

LIMITATIONS OF THE STUDY:

1. This study is mainly carried out based on the performance 5 selected banks which might be not sufficient to generalize whole banking sector.
2. The study is based on technical analysis and no fundamental factors were considered.
3. The period of study restricted for 1 Nov 2016 to 24th Aug 2018 which might be not sufficient to predict the future trend of market.

Company Profile:

In this study I have selected 6 banks 3 from private sector and 3 from public sector. Banks were selected based on their market capitalization. Below describes the present position of all these 6 selected banks.

Axis Bank Ltd:

Axis Bank is the third largest private sector bank in India. The Bank offers the entire spectrum of financial services to customer segments covering Large and Mid -Corporate, MSME, Agriculture and Retail Businesses. The Bank has a large network of 2904 domestic branches (including extension counters) and 12,743 ATMs spread across the country as on 31st March 2016. The overseas operations of the Bank are spread over nine international offices with branches at Singapore, Hong Kong, Dubai (at the DIFC), Colombo and Shanghai; representative offices at Dhaka, Dubai, Abu Dhabi and an overseas subsidiary at London, UK. The international offices focus on corporate lending, trade finance, syndication, and investment banking and liability businesses. Axis Bank is one of the first new generation private sector banks to have begun operations in 1994. The Bank was promoted in 1993, jointly by Specified Undertaking of Unit Trust of India (SUUTI) (then known as Unit Trust of India), Life Insurance Corporation of India (LIC), General Insurance Corporation of India (GIC), National Insurance Company Ltd., The New India Assurance Company Ltd., The Oriental Insurance Company Ltd. and United India Insurance Company Ltd. The share holding of Unit Trust of India was subsequently transferred to SUUTI, an entity established in 2003.

Kotak Mahindra Bank Ltd:

Since the inception of the erstwhile Kotak Mahindra Finance Limited in 1985, it has been a steady and confident journey leading to growth and success. Kotak Mahindra is one of India's leading banking and financial services group, offering a wide range of financial services that encompass every sphere of life. Kotak Mahindra Bank Ltd is a one stop shop for all banking needs. The bank offers personal finance solutions of every kind from savings accounts to credit cards, distribution of mutual funds to life insurance products. Kotak Mahindra Bank offers transaction banking, operates lending verticals, manages IPOs and provides working capital loans.

ING Vysya Bank has merged with Kotak Mahindra Bank with effect from April 1, 2015, and the combined entity will bear the name Kotak Mahindra Bank.

Kotak Mahindra Bank is an Indian private sector bank headquartered in Mumbai, Maharashtra, India. In February 2003, Reserve Bank of India (RBI) gave the license to Kotak Mahindra Finance Ltd., the group's flagship company, to carry on banking business. It offers a wide range of banking products and financial

services for corporate and retail customers through a variety of delivery channels and specialized subsidiaries in the areas of personal finance, investment banking, life insurance, and wealth management

Kotak Mahindra Bank has a network of 1,348 branches across 675 locations and 2,051 ATMs in the country. In 2016, it is one of the largest private banks in India by market capitalization.

HDFC Bank Ltd:

The Housing Development Finance Corporation Limited (HDFC) was amongst the first to receive an 'in principle' approval from the Reserve Bank of India (RBI) to set up a bank in the private sector, as part of RBI's liberalization of the Indian Banking Industry in 1994. The bank was incorporated in August 1994 in the name of 'HDFC Bank Limited', with its registered office in Mumbai, India. HDFC Bank commenced operations as a Scheduled Commercial Bank in January 1995. The Bank had a nationwide distribution network of 4,787 branches and 12,635 ATM's in 2,691 cities/towns.

The shares are listed on the Bombay Stock Exchange Limited and National Stock Exchange of India Limited. The Bank's American Depository Shares (ADS) are listed on the New York Stock Exchange (NYSE) under the symbol 'HDB' and the Bank's Global Depository Receipts (GDRs) are listed on Luxembourg Stock Exchange under ISIN No US40415F2002.

On May 23, 2008, the amalgamation of Centurion Bank of Punjab with HDFC Bank was formally approved by Reserve Bank of India to complete the statutory and regulatory approval process. As per the scheme of amalgamation, shareholders of CBoP received 1 share of HDFC Bank for every 29 shares of CBoP.

State Bank of India:

The origin of the State Bank of India goes back to the first decade of the nineteenth century with the establishment of the Bank of Calcutta in Calcutta on 2 June 1806. Three years later, the bank received its charter and was re-designed as the Bank of Bengal (2 January 1809). A unique institution, it was the first joint-stock bank of British India sponsored by the Government of Bengal. The Bank of Bombay (15 April 1840) and the Bank of Madras (1 July 1843) followed the Bank of Bengal. These three banks remained at the apex of modern banking in India till their amalgamation as the Imperial Bank of India on 27th January 1921.

The presidency Banks Act, which came into operation on 1 May 1876, brought the three presidency banks under a common statute with similar restrictions on business. The presidency Banks of Bengal, Bombay and Madras with their 70 branches were merged in 1921 to form the Imperial Bank of India. The new bank took on the triple role of a commercial bank, a banker's bank and a banker to the government. The establishment of the Reserve Bank of India as the central bank of the country in 1935 ended the quasi-central banking role of the Imperial Bank.

As per the recommendation of All India Rural Credit Survey Committee to create a state-partnered and state-sponsored bank by taking over the Imperial Bank of India, and integrating with it, the former state-owned or state-associate banks, an act was accordingly passed in Parliament in May 1955 and the State Bank of India was constituted on 1 July 1955. Later, the State Bank of India (Subsidiary Banks) Act was passed in 1959, enabling the State Bank of India to take over eight former State-associated banks as its subsidiaries (later named Associates).

State Bank of India provides a range of products and services to personal, commercial enterprises, large corporate, public bodies and institutional customers. The Company had approximately 22,500 branches and 58,000 ATMs. On 15 February 2017, the Union Cabinet approved the merger of 5 associate banks with SBI. Finally, the five associate banks, along with Bharatiya Mahila Bank, merged with SBI on 31 March 2017.

Bank of Baroda:

On 20th July 1908, under the Companies Act of 1897, and with a paid up capital of Rs 10 Lacs. started the legend that has now translated into a strong, trustworthy financial body, THE BANK OF BARODA. Bank of Baroda (BoB) is an Indian state-owned International banking and financial services company headquartered in Vadodara (earlier known as Baroda) in Gujarat, India. It has a corporate office in Mumbai. It has a nationwide network of 5573 branches including 104 overseas branches. The Bank has transformed into 'India's International Bank.'

Bank of Baroda started its overseas journey by opening its first branch way back in 1953 in Mombassa, Kenya. Now BoB has its presence in Australia, Belgium, Hong Kong, China, Mauritius, Bahrain, Oman, USA, UK, UAE, Singapore, Bahamas, Fiji and Republic of South Africa.

Table 1: Basic Detail of Selected Banks

Symbol	Bank Baroda	SBIN	HDFC Bank	Kotak Bank	Axis bank
Face Value	2.00	1.00	2.00	5.00	2.00
52 week high	206.65	351.30	2220.00	1417.00	644.60
52 week low	109.5	232.35	1738.00	962	447.50

Source: www.nseindia.com

Monthly average prices of selected stocks from 1-Nov-2016 to 1-Aug-2018:

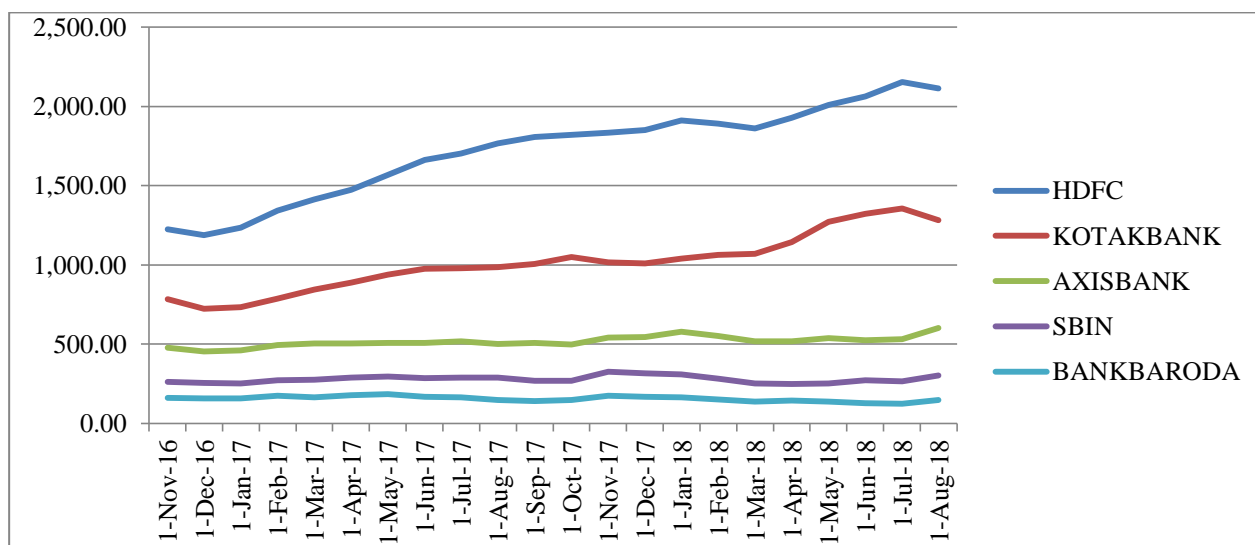
Table -2 shows the closing prices of selected shares on the first trading day of every month from Nov- 2016, the month in which central Govt. declared demonetization to the month of August 2018. This 22 month period will gives trend of share price movement. Average price and variability of share price also can be found through standard deviation.

Table 2

Monthly average prices of selected shares from 1-Nov-2016 to 1-Aug-2018						
SI. NO.	Date	SBIN	Bank Baroda	HDFC	Kotak Bank	Axis Bank
1	1-Nov-16	261.31	160.84	1,226.37	783.10	478.09
2	1-Dec-16	256.34	157.08	1,187.19	724.77	454.01
3	2-Jan-17	252.90	156.96	1,234.81	732.84	462.34
4	1-Feb-17	272.48	173.93	1,341.78	785.79	494.97
5	1-Mar-17	275.25	165.20	1,413.79	845.20	504.42
6	3-Apr-17	288.89	176.52	1,473.79	887.65	504.74
7	2-May-17	295.14	185.40	1,568.77	940.10	507.29
8	1-Jun-17	285.48	168.58	1,664.00	974.04	509.19
9	3-Jul-17	289.35	163.02	1,701.65	978.26	518.89
10	1-Aug-17	288.38	148.49	1,768.29	986.75	500.75
11	1-Sep-17	268.01	141.33	1,808.02	1005.88	506.92
12	3-Oct-17	267.30	148.95	1,821.16	1048.60	496.08
13	1-Nov-17	327.34	173.91	1,833.42	1017.30	542.64
14	1-Dec-17	315.34	166.65	1,850.37	1010.74	544.88
15	1-Jan-18	307.66	163.41	1,911.47	1041.17	579.48
16	1-Feb-18	282.59	151.60	1,889.69	1063.15	550.37
17	1-Mar-18	251.67	137.80	1,862.10	1069.21	518.94
18	2-Apr-18	248.67	145.81	1,928.70	1145.02	517.34
19	2-May-18	252.91	138.81	2,008.35	1271.09	538.82
20	1-Jun-18	270.90	126.80	2,064.49	1322.13	525.93
21	2-Jul-18	266.12	123.76	2,153.67	1355.36	531.80
22	1-Aug-18	301.76	148.25	2,111.93	1281.92	601.69

Source: www.nseindia.com

Figure 1: Monthly Average prices of selected shares from 1-Nov-2016 to 1-Aug-2018



Interpretation:

Figure 1 shows the trend lines of all selected 5 shares. It is clear from the chart that private sector banks shows a clear upward trend and public sector banks keep a static mode.

Mean and Standard Deviation:

The average and standard deviation of the share prices helps to understand the variability of the share price from its mean price. Monthly closing prices of 22 consecutive months from 1 Nov 2016 to 1 Aug 2018 are used to find the average and standard deviation.

Table 3: Average price and coefficient of variation

Name of the Bank	Mean Price	Co-efficient of variation
HDFC	1719.26	17.07
Kotak Bank	1012.28	17.98
Axis Bank	517.71	6.61
SBIN	278.44	7.84
Bank Baroda	155.60	10.34

Interpretation:

Table 2 shows the average price and the dispersion of all the 5 selected shares for the period of Nov 2016 to Aug 2018. As per the figures listed above Kotak Mahindra bank and HDFC bank shows the highest degree of volatility of 17.98% and 17.07% respectively. Axis bank keeps the least volatility among the 5 selected banks.

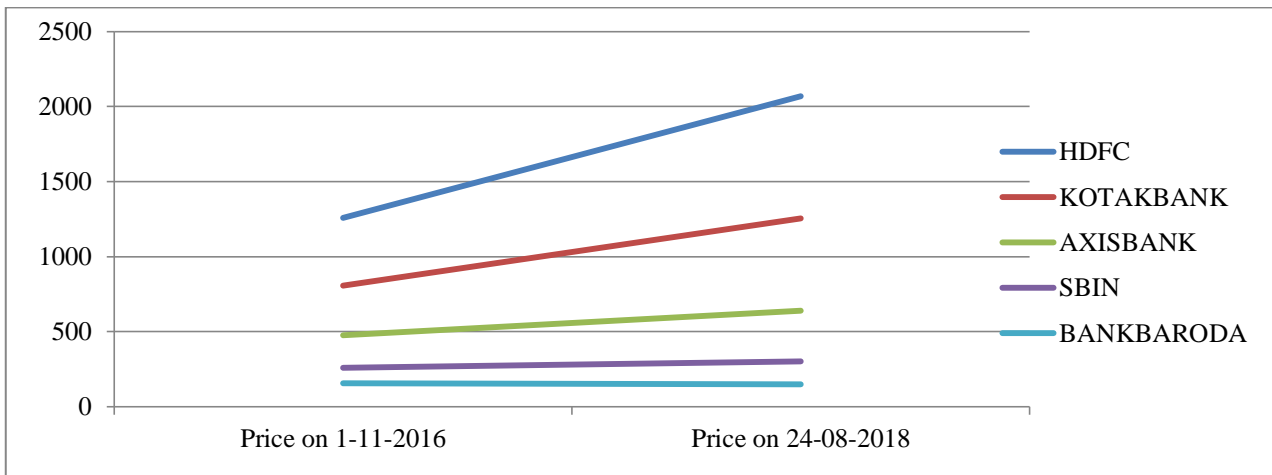
Analysis of changes in the share prices:

The study period ranges from 1 Nov 2016 to 24th Aug 2018. It starts from the Nov 2016 as it is the month in which central Govt. announced demonetization which made greater havoc on banking sector in India. Share prices of selected banks on the first day of Nov 2016 and current price (24th Aug 2018) were taken to find the changes happened.

Table 4: Changes in the price of shares during the study period

Name of the Bank	Price on 1-11-2016	Price on 24-08-2018	Change in value	Change in %
HDFC	1259.8	2070	810.2	64.3118
Kotak Bank	805.55	1253.85	448.3	55.65142
Axis Bank	475.8	638.5	162.7	34.19504
SBIN	258.95	300.6	41.65	16.08419
Bank Baroda	155.30	147.00	-8.3	-5.34449

Figure 2



Interpretation:

From the above table and figure it is clear that HDFC Bank has grown 64% on its share price, closely followed by Kotak Mahindra Bank. Axis bank also shows a significant growth in its share price while Bank of Baroda shows a negative growth.

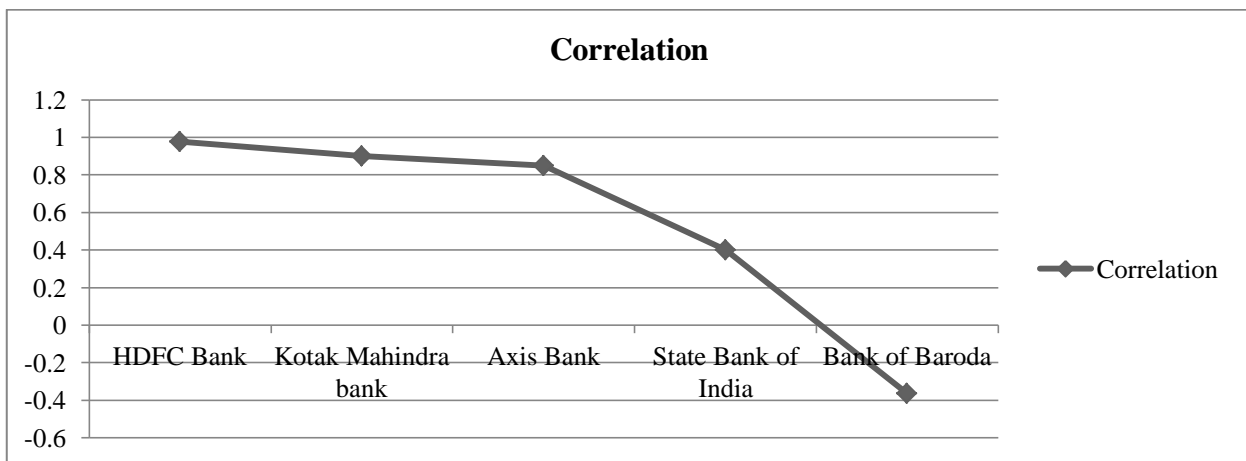
Correlation:

Correlation analysis is used to measure the degree of relationship between two continuous variables. If there is any correlation between two variables that means both the variables moves in a systematic order. Here in this study correlation between selected banking shares with bank nifty is calculated. It support to find the direction of movement of specific share prices.

Table 5: Correlation with Bank Nifty

Name of the Bank	Correlation
HDFC Bank	0.97785432
Kotak Mahindra bank	0.901012314
Axis Bank	0.850095511
State Bank of India	0.400939606
Bank of Baroda	-0.363090922

Figure 3: Correlation with Bank Nifty



Interpretation:

Table 5 and figure 3 shows correlation statistics of the monthly closing price of the individual stocks of banks with Bank Nifty Index. Stocks of HDFC Bank, Kotak Mahindra Bank and Axis Bank were positively correlated to the Bank Nifty Index. From the table it is clear that HDFC Bank has highest correlation (Positive) with Bank

Nifty among selected 5 banks. Other bank such as Kotak Mahindra Bank and Axis bank have higher correlation with a point of +0.901 and +0.850 respectively. Bank of Baroda has a negative correlation with Bank Nifty.

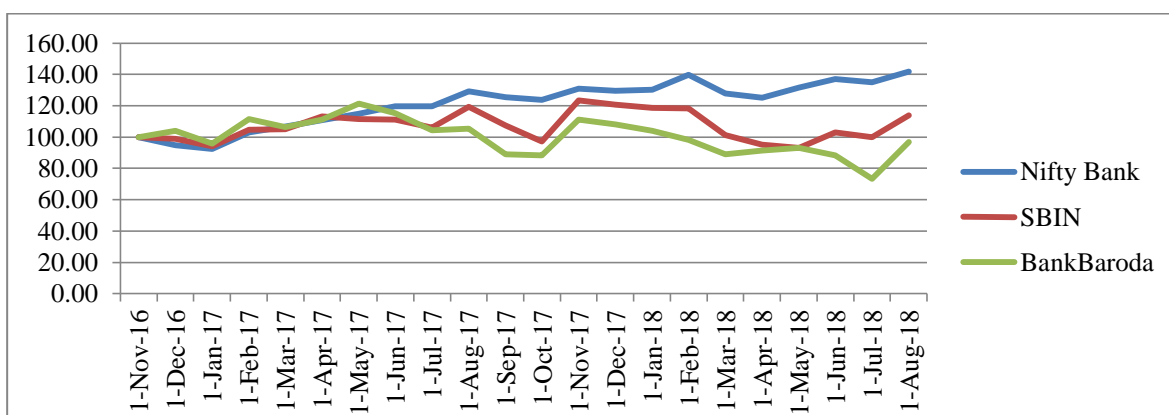
Stock price movement – Sector wise comparison:

Stock prices of 5 selected banks include 3 banks from private sector and 2 from public sector. HDFC Bank, Kotak Mahindra Bank and Axis Bank is private sector banks while State bank of India and Bank of Baroda belongs to Public sector.

Stock price movement of Public Sector Banks with Bank Nifty:

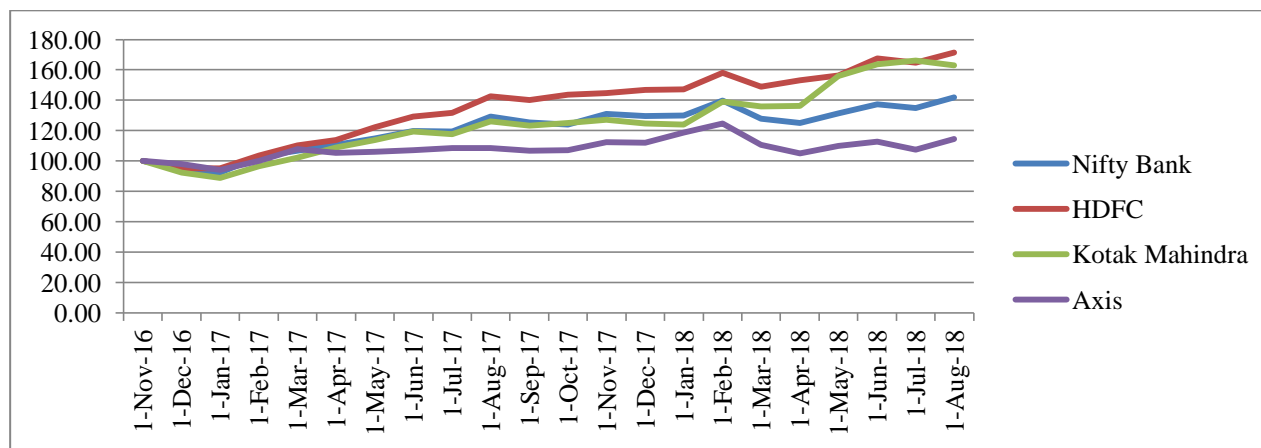
State Bank of India and Bank of Baroda are the public sector banks among the selected 5 banks. Stock price movement during the period from 1 Nov 2016 to 24th Aug 2018 shows that both the public sector banks keeps a low performance when compare to Bank Nifty index. SBIN shows a positive correlation of 0.4 while Bank of Baroda shows a negative correlation. The trend of stock price movement with the Bank Nifty during the period of 22 months exhibited in the Figure No. 4 shown below.

Figure 4: Stock price movement of Public Sector Banks with Bank Nifty



Stock price movement of Public Sector Banks with Bank Nifty:

HDFC Bank, Kotak Mahindra Bank and Axis Bank are the private sector banks among the selected 5 banks. Stock price movement during the period from 1 Nov 2016 to 24th Aug 2018 shows that all the selected private sector banks keep a positive relation with the Nifty Bank Index. HDFC Bank and Kotak Mahindra Bank recorded a higher performance than Bank Nifty index and Axis bank also maintain a positive growth in its share price. The trend of stock price movement private sector banks with the Bank Nifty during the period of 22 months exhibited in the Figure No. 5 shown below.



FINDINGS AND CONCLUSIONS:

Stock market in general considered as highly volatile and its volatility is taken as the key criteria while making investment decisions. In Indian economy, banking sector companies holds a good position in the investors mind

while selecting stock for investment. This study attempted to measure the volatility of selected companies from banking sector. Estimation of volatility helps in pricing of securities and investment decisions.

FINDINGS:

1. HDFC bank shows highest growth rate in the stock price (64.3118%) among the selected stock, closely followed by Kotak Mahindra Bank (55.65142%). Bank of Baroda shows a negative during the study period.
2. Private sector banks shows a high rate of growth (HDFC – 64%, Kotak Mahindra Bank – 56% and Axis Bank 34%) when compares to public sector banks (SBIN – 16% and BANKBARODA - -5%)
3. Stock prices HDFC Bank and Kotak Mahindra Bank shows highly volatile (Coefficient of variation 17) while SBIN and AXIS bank keeps low volatile.
4. HDFC Bank, Kotak Mahindra Bank and Axis bank shows a higher rate of positive correlation (0.97, 0.9 and 0.85 respectively), followed by SBIN a correlation of 0.4%. While Bank of Baroda shows a negative correlation of -0.36 with the index of Nifty Bank.
5. While considering the correlation, percentage of growth and volatility it is clear that all the three private sector banks keep a positive direction than the public sector banks.

CONCLUSION:

Stock market is the one of the investment avenue which offers maximum return with higher rate of risk. Volatility of the stock price decides the degree of risk and return one investor can earn from stock market. So information regards to the stock price volatility helps the investor to make best investment decisions. Here this study attempts to measure the volatility of the 5 selected shares and the level of performance when compared to index Bank Nifty.

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