IMPACT OF COVID-19 ON THE INDIAN STOCK MARKET WITH SPECIAL REFERENCE TO NIFTY BANKS

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ABSTRACT:

COVID-19 has had a very unusually negative influence on global banking. In the last twenty-four years, India has had its worst financial period. This empirical study focuses on COVID-19's effects on stock markets with a particular focus on NIFTY banks. The research in the paper makes use of secondary data, which was mostly gathered from the NSE and BSE official websites. By dividing the period into pre-COVID-19 and during COVID-19, the closing price of the shares of these banks has been used for the calculation from the period of October 2019 to July 2020, and a comparison study is done to know the impact using Annualized standard deviation measure. The results show the effect on the share prices of Nifty banks.

KEYWORDS: COVID-19, Stock market, Nifty banks, Shares.

INTRODUCTION:

According to the World Health Organization, COVID-19 is a "public health emergency of international concern." On January 30, the first COVID case was discovered in India, and as of this writing, more than 9 million instances have been recorded worldwide. Foreign governments began managing the crisis by enforcing lockdowns, and even the Indian government did so. The Indian Prime Minister announced a 21-day statewide lockdown on March 24. Later, the lockdown was extended till May 31. All of the companies, restaurants, stores, planes, institutions, and colleges were shut down as a result. Because of the virus, there was a significant negative influence on the global economy, and even the Indian economy had to see a sharp

decline in GDP. India's GDP decreased. By 23.9% in the first quarter of the financial year 2020-2021n the lowest GDP rate in the last 24 years.

IMPACT OF COVID-19 ON THE STOCK MARKET:

India's stock market had a sharp rise in volatility; the VIX index increased by approximately three times its usual level, and markets were shut down twice in March 2020 as a result of a lowered circuit filter. The usual average volume of trades and the number of shares traded in the equities cash market segment both notably increased during the nationwide lockdown. The average number of daily derivative contracts traded in March 2020 was significantly lower than it was in the preceding months, according to data from the NSE derivative market. The drop was approximately 20%. The worst month for the Indian Sensex was May when it fell 23%. The direction of the stock market in the foreseeable future is impossible to forecast. The present circumstance is referred to as a "Black Swan" incident by many economists around the world.

The largest-capitalized and most liquid Indian banking stocks make up the Nifty Bank index. Investors can use it as a benchmark to measure how Indian bank stocks have performed in the capital markets.

There are 12 stocks from the banking sector in the index,

1. HDFC.
2. AXIS.
3. BANDHAN BANK.
4. FEDERAL BANK.
5. IDFC.
6. INDUSIND.
7. KOTAK MAHINDRA.
8. PUNJAB NATIONAL BANK.
9. RBL.
10. ICICI.
11. BANK OF BARODA.
12. SBI.

LITERATURE REVIEW:

Daisy Basitha &Debakshi Bora (2020): In their study "The outbreak of COVID-19 pandemic and its impact on stock market volatility," researchers looked at the volatility of the Nifty and Sensex for a year and conducted a comparison of the stock market's return in pre-COVID-19 and during COVID19 situations, using the GARCH model. The results showed that indices were higher in the pre-COVID-19 period than during COVID-19.

Mohammad Noor Alam, Md Shabbir Alam & Kavita Chavali (2020): In their study „stock market response during COVID-19 lockdown period in India" examines the extent of the influence of the lockdown on the Indian stock market and a comparative analysis is made between pre-and post-lockdown. This research paper used the Market Model Event study methodology and analyzed 31 companies listed on BSE. The results of the study indicated the market reacted positively with significantly positive Average Abnormal Official announcement of the lockdown and confirms that the lockdown had a positive impact on the Indian stock market performance.

OBJECTIVES:

1. To understand the impact of COVID-19 on the Indian Stock Market.
2. To do a Comparative analysis of the deviations of stock prices relating to Nifty banks for the pre-COVID-19 and during-COVID-19 period.

RESEARCH METHODOLOGY:

The approach used in this study is secondary research. The study's secondary data came from reviews of published works, including academic papers, electronic journals, news stories, and online pieces. The share prices of Nifty banks were acquired from the official websites of NSE and BSE from the historical database for the conducted research impact of COVID-19 on the stock market. The computation used the daily closing price of the shares of each bank and took into account the monthly volume of shares traded. The annualized standard deviation is compared between the pre-and post-COVID periods. Excel was used to determine the annualized standard deviation of the share prices, and tables and charts were used to analyze the results.

TOOLS USED:

STANDARD DEVIATION:

A statistical measure called standard deviation expresses how far a group's members deviate from the mean value of that group. It reveals the degree to which measurements within a group deviate from the mean value. The better it is, the lower the Standard Deviation should be. Less of a Standard Deviation shows that most of the data are within 1% of the average, while a higher standard deviation indicates that most. The figures are a long distance from the mean.

FORMULA:

$$\sigma = \sqrt{\frac{\sum i=1(xi-x)2}{n-1}}$$

ANNUALISED STANDARD DEVIATION:

It is necessary to determine the standard deviation of a shorter time frame (daily volatility) to calculate the annual standard deviation. The share price's daily volatility is represented by the standard deviation. a pearlized The square root of the number of periods in a year is multiplied by the standard deviation to calculate the standard deviation.

FORMULA:

Annualised standard deviation $= \sqrt{250} * \sigma$

LIMITATIONS:

1. Only 5 months of the COVID-19 scenario were spent doing the study.

2. Other economic sectors were not taken into account in the study, which primarily considers the effect of the banking industry on the stock market.

3. Because just 12 small banks' data were used in the study, the outcome might not be accurate.

4. The study is entirely dependent on secondary data, which is easily manipulable.

ANALYSIS & INTERPRETATION:

Data used for this study was collected from the official website of NSE and BSE from the period of 1st October 2019 to 31st July 2020 from the historic database. The period was divided into two parts:

- From 1st October 2019-29th February 2020-pre-COVID-19 period.
- From 1st March 2020-31st July 2020-During COVID-19 period.

COMPARATIVE ANALYSIS OF THE VOLUME OF SHARES TRADED:

Firstly, the volume of shares of nifty banks traded every month for the entire period was collected and divided into two periods analyzed and interpreted in the form of a bar graph presented below (chart1 & chart2)
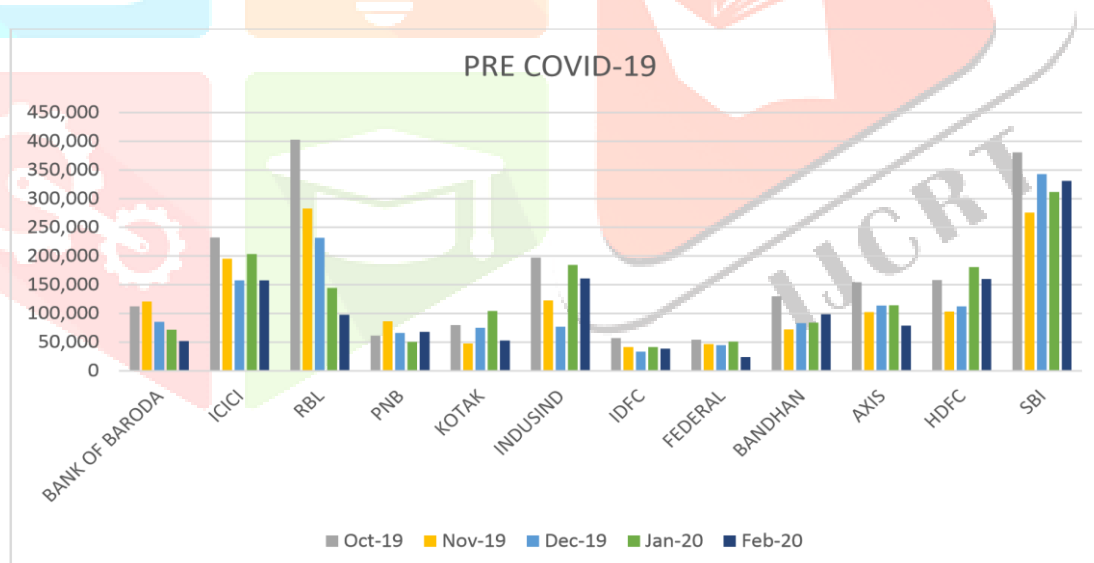
CHART 1: Interpretation of volume of NIFTY bank's shares traded pre-COVID-19
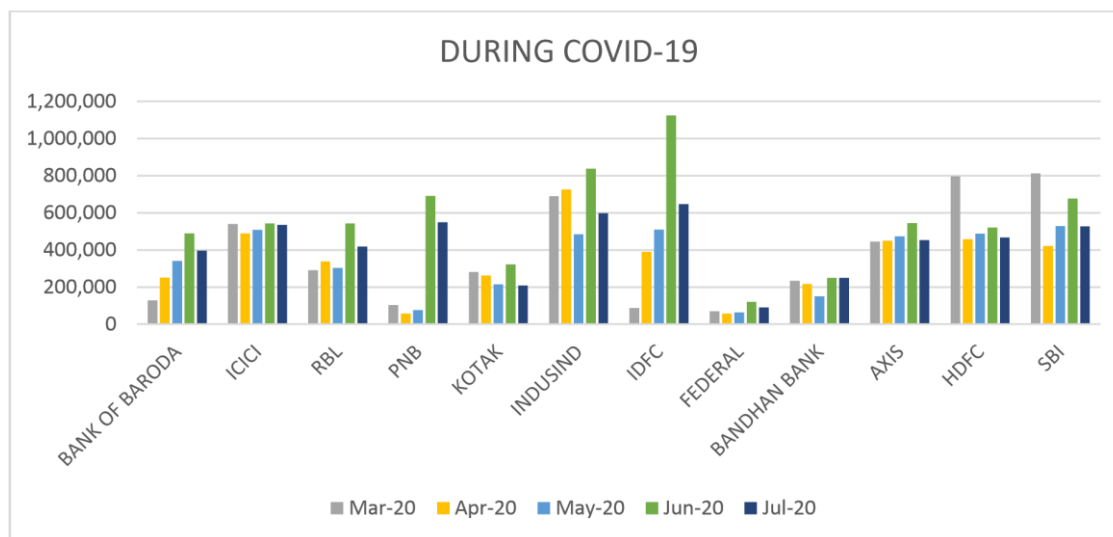
CHART 2: Interpretation of the volume of NIFTY bank's shares traded during COVID-19
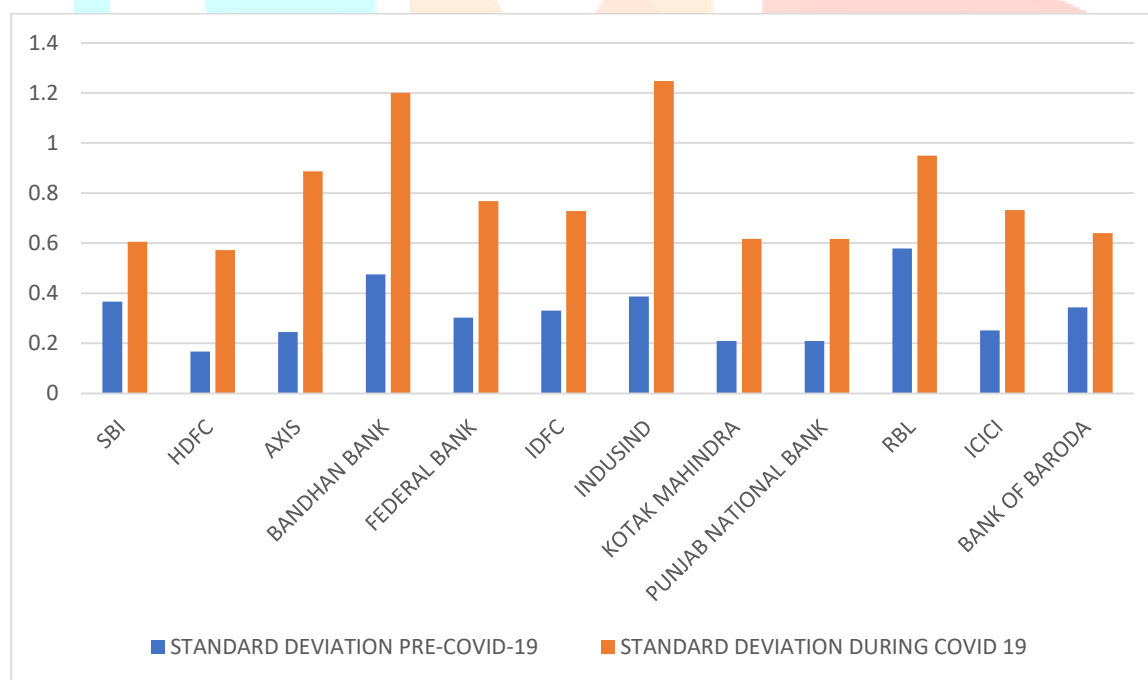
From the above two charts, we can comprehend that the volume of shares traded in the pre-COVID-19 period is very low when compared to the during-COVID-19 period. The during COVID-19 period the volume of shares traded by all banks has almost increased up to three times which is unusual in stock markets. The highest volume of shares traded in the pre-COVID-19 was 4,00,000 of RBL bank in the month of October and whereas during the COVID-19 period, the highest volume of shares traded was 11,24,000 of IDFC in the month of June. But the volume of shares traded by all the banks decreased in the month of July.

COMPARATIVE ANALYSIS OF ANNUALISED STANDARD DEVIATION OF PRE-COVID-19 AND DURING COVID-19 PERIOD:

Comparative analysis of annualized standard deviation was done to understand the volatility level of share prices of nifty banks in the stock market. The calculation of annualized standard deviation was done using Excel. Daily closing prices (from 30th September 2019-31st to July 2020) of shares of these banks were taken and the changing price was calculated and standard deviation for both periods was calculated and the formula of annualized standard deviation was applied to measure risk and volatility.

The results obtained are interpreted in the form of a table and chart below(Table1 & Chart3)

BANKS	STANDARD DEVIATION PRE-COVID -19	STANDARD DEVIATION DURING COVID 19
SBI	0.366005428	0.605878191
HDFC	0.167648968	0.572092472
AXIS	0.244700787	0.886853933
BANDHAN BANK	0.475490282	1.199811873
FEDERAL BANK	0.302387834	0.76775034
IDFC	0.330674461	0.728077119
INDUSIND	0.386822887	1.247717598
KOTAK MAHINDRA	0.209593965	0.616900122
PUNJAB NATIONAL BANK	0.209593965	0.616900122
RBL	0.57938159	0.949989965
ICICI	0.251457096	0.731727532
BANK OF BARODA	0.343966132	0.640577413

CHART 3: Comparison of annualized standard deviation between pre and during-COVID-19 period

From the above-interpreted table and chart, it can be that the annualized standard deviation of pre-COVID-19 is very less when compared to the COVID-19 period. This means that in the pre-COVID-19 period, there was a stable return due to which the standard deviation is quite low and nearing their means, and during the COVID-19 value of the standard deviation of all banks more due to the economic slowdown the returns declined rapidly causing a major deviation or fluctuation.

FINDINGS:

When compared to the time before COVID-19, the volume of shares traded during that time was very high. The months of March and June saw the greatest increases in the volume of shares traded, with IDFC Bank trading three times as many shares as it did before COVID. Kotak Bank's volume of traded shares changed very little over time.

Before COVID-19, all banks' annualized standard deviations were stable, but during COVID-19, all banks' standard deviations increased. Bandhan Bank and IndusInd Bank have standard deviations of more than 1, which denote higher volatility and risk. SBI and Bank of Baroda's standard deviations have risen with a smaller margin of change than other banks', indicating that their shares are more stable.

CONCLUSION:

The unexpected pandemic has already presented the world with numerous obstacles and hurt all industries, bringing the global economy to a complete halt. There isn't a single factor that COVID-19 hasn't had an impact on. The results of this study show that there is a significant impact of COVID-19 on the stock market focus on the banking sector. Stock markets are said to be the future predictor of a country's economy and the impact on the stock market has hugely impacted the financial system of the country. We obtained the results that demonstrated the rising volatility in the stocks of nifty banks by using the straightforward tool of standard deviation. Risk-averse investors might steer clear of investing during this time due to the rising volatility's increased potential for making more money more quickly at a higher risk. The findings of this study can aid investors in better comprehending and assessing the effect of COVID-19 on the stock market.

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