Prediction Power of HRITHIK Stocks in the Movement of Stocks On or Before Pandemic

Dr. Aanchal
Skill Assistant Professor, Shri Vishwakarma Skill University, Haryana, India

Abstract
Where ‘HRITHIK’ stocks stands for HDFC Bank, Reliance Industries, Infosys, TCS, HDFC, ITC and Kotak Mahindra Bank. HRITHIK companies are those companies that are highly popular amongst investors for making their investment decisions for the very basic reason that they are one of the leading companies in their respective industries. It is also rumoured that the stocks of these companies carry some influencing power on the movement of the overall stock market in India. So the present study aims to answer the phenomenon of whether the stocks of these seven companies have some effects on the movement of the stock market or not. The study further focuses to answer the prediction of these stocks during and before pandemic. Pandemics have hit the world economies many a times in the past which have drained the economic growth almost every time. COVID-19 is yet another pandemic which has hit the world economies very badly for almost a year and even till date, one is not free from the harm caused by this virus despite the fact the government has taken multiple steps to control it. Therefore, the present study attempts to find out whether stocks of these seven companies has any predicting power on the overall movement of the stock market w.r.t. India or not, before and during COVID-19 pandemic. The objective of the research is to help investors to enable them to take their investment decisions in these seven companies. For the purpose of analysis, data for two financial years have been taken and is segregated into two different period viz. pre pandemic and during pandemic. Data from 2019 to 2021 is taken from yahoo finance and official website of NSE which is further divided into two time frames i.e. before pandemic, from April 2019 to March 2020 and during pandemic i.e. April 2020 to March 2021. Multiple regression is applied with the help of EViews and the comments are being made on the finding. It is observed that even though these seven companies are faddy amongst investors in taking their investment decisions but the returns of these companies have not significant explanatory power on the movement of stock market or overall stock market performance before and during pandemic.

Keywords: Pandemic, COVID-19, Stock Market, HRITHIK Companies, Government

1. Introduction
The 2020 global pandemic has hit the world very badly, it has impacted the population, in many ways, threatened the life of a common man, start-ups failures, loss to the investors, and even the leading industries were not spared by the brutality of the virus. Numerous people have lost their jobs, various people have lost the access to their livelihood. In a situation when the entire world was striving for their lives and were ensuring to fulfill at least the basic necessities of life, how can one expect that the investment will continue in full swing? For sure, the situation has also affected the investments in a
negative way. Numerous researches have proved how badly the virus has hit almost all of the sectors. Leading sectors have lost their market, which is proved by various researches so far.

The virus was a double edged sword for almost all of the economies of the world. At one side, it took the lives of so many innocent people, and on the other side of it, it was devastating the industrial as well as growth in service sectors. When the economy was suffering, for sure investors were also hesitant for making their investment decisions for two basic reasons, first, they are now left with less income for investing it as their sources of incomes also suffered; and second, since the industries were showing a downfall, therefore very less investors want to take further risk of losing their hard earned money. Therefore, the present study aims to advise investors with regards to their investment decisions in ‘HRITHIK’ companies. ‘HRITHIK’ companies stands for:

H: HDFC Bank
R: Reliance Industries
I: Infosys
T: TCS
H: HDFC
I: ITC
K: Kotak Mahindra Bank

Focus is made on analysing the performance of ‘HRITHIK’ companies. The seven companies are very popular amongst investor as they are the leading companies of their respective industries in terms of market capitalization, customer satisfaction, offering new and innovative products, and serving customers in the best possible way. And talking from investors’ perspective, all of the seven companies enjoy greater amounts of trust and confidence from investors in terms of giving financial benefits, be it in the form of dividend distribution or capital appreciation. Therefore, in taking their investment decisions, investors give due importance to these companies or generally invest a major part of their portfolio of investments in one or many of these companies.

But again it has also been observed that these companies are also hit by the present pandemic. So efforts are made in the present research to find out how the performance of these seven companies have affected the performance of the Indian stock market over a period of time with special focus on how their performance has hit the stock market in the pandemic situation.

2. Review of Literature
Soni (2021) strived to find out that whether there is any impact of ‘COVID-19 Pandemic’ on Indian stock market or not. For the purpose of the same, they have chosen some sectors viz. pharma, metal, automobile, finance, banking, reality, information technology and FMCG. They attempt to analyse the risk return performance during and post COVID period, so they have done the analysis, 10 months before and 10 months after the crunch. And the results of their study reveals that there is no significantly affected the risk return preference on these eight sectors before and after the emergency. The present crunch have not that much affected the stock market given the time and sample studied.
Bora and Basistha (2020) analysed the effect of 2020 pandemic on Indian stock market for a period of 10 months, segregated as 5 months before pandemic and 5 months during pandemic, using closing monthly indices and it was found that volatility of the stock market is increased during the pandemic.

Muthukrishnan (2020) analysed the effect of lockdown in the situation of present pandemic, the sales and profitability of companies from various sectors. The researcher studied four companies from each of the mentioned sectors and concluded that there are some industries which are not that much affected by the present pandemic situation, they are banking and financial institutions, FMCG sector and agriculture & fertilizers sector companies. Whereas there are sectors which are moderately affected by the pandemic, they are media and telecommunications, IT, plastic sector, cement industry, power sector. And then there are sectors which are hit so badly by the pandemic, they are steel and electrical machinery, automobile, and rubber industry. Then it further analysed whether or not there is a recovery going on in these sectors with the relaxations in lockdown, which reveals that there are positive marks of recovery in these sectors and concludes by commenting that they will further improve in the next financial year.

Jaiswal and Arora (2020) analysed the impact of the outbreak of coronavirus on the Indian stock narket with special emphasis on the banking sector. For the purpose of the same, the researchers have analysed the data for 12 banks listed on NSE and BSE for the period April 2019 to March 2020 and arrived at the conclusion that overall the banking sector is facing down because of the outbreak of the virus.

Alam, Alam and Chavli (2020) studied the effect of lockdown on the performance of Indian stock market by studying random 31 companies which are listed on Bombay Stock Exchange (BSE) for different lockdown periods, and the research concluded that stock market responds negatively in terms of its average abnormal returns when government announced first lockdown because the investors panicked and their behaviour reflected in the stock performances but lockdown afterwards had a positive outlook with average abnormal returns of stocks performances of those 31 companies from BSE depicting some positive anticipation in the minds of the investors regarding performance of the stock market.

Koley (2019) aimed to analyse the comparability of two leading banks, one is public sector bank i.e. SBI and the other one is a private sector bank i.e. HDFC. The analysis was done for a period of 2013 to 2018 using the CAMEL model and concluded that based on the 16 ratios given by CAMEL model, HDFC is prime in 14 situations out of that, therefore the research concluded that HDFC’s performance and position is far better than that of SBI.

Jeyanthi and Mareeswari (2014) studied the impact of the global crisis during 2007-08 on some of the leading Indian banks. Research was carried on in three phases, before the crisis, during crisis and after the crisis and the results of their study concluded that public sector banks are comparatively less volatile than the private sector banks.
**Objectives of the Study**
To study the performance of ‘HRITHIK’ companies and to test whether the stock of ‘HRITHIK’ companies holds any explanatory power in the movement of stock market before and during the 2020-21 pandemic.

**Research Methodology**
The data used in the present study is gathered from yahoo finance and the official website of NSE (National Stock Exchange) for the period of two years from April 2019 to March 2021 which was segregated into two periods viz. Pre-pandemic and during pandemic for the purpose of analysis. Multiple regression was applied on both the datasets separately and comments are made on the results.

**Data Collection and Analysis**
In order to find out the impact of performance of ‘HRITHIK’ companies on Indian stock market before and during pandemic, data was collected for a period of two years i.e. 2019 and 2020 for both the seven companies along with ‘NIFTY 50’ which was taken as a base for measuring the performance of stock market. Data was collected from yahoo finance and the official website of National Stock Exchange.

Multiple regression was applied in order to find out the relationship between the variables. Indices of ‘HRITHIK’ companies were taken as dependent variables and NIFTY 50 was taken as an independent variable for the purpose of analysis.

**Interpretation of Results**

**2019**
The data was analysed using multiple regression analysis with the help of EViews. The following table shows the summary for some of the variables:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of R-square</td>
<td>0.890856</td>
</tr>
<tr>
<td>Adjusted R-square</td>
<td>0.699853</td>
</tr>
<tr>
<td>Value of Durbin-Watson Statistic (DWS)</td>
<td>2.341658</td>
</tr>
<tr>
<td>Value of Jarque-Bera Test (JBT)</td>
<td>1.345678</td>
</tr>
<tr>
<td>P-value for Jarque-Bera Test</td>
<td>0.510258</td>
</tr>
<tr>
<td>P-value for Breusch-Pagan-Godfrey Test (BPGT)</td>
<td>0.6246</td>
</tr>
</tbody>
</table>

When multiple regression analysis was applied, indices of seven companies were taken as dependent variables and NIFTY 50 as a measure of stock market performance was taken as an independent variable. Further indices were first of all transformed into log values to simplify for the purposes of analysis.

For interpreting the results, p-values were observed and it was seen that for a period of one year with the seven companies studies, there is no relationship or impact of performance of indices of ‘HRITHIK’ companies on the performance of stock market, which was also proved by the coefficient values. All of them are having negligible effect on stock markets’ performances.
The residuals of the results were also analysed in order to see if the series are normally distributed and the datasets are free from the problem of Heteroscedasticity and the test results shows that the p-value of Jarque-Bera test of the residuals was greater than 0.05 which depicts that the residuals are normally distributed as well as it is free from heteroscedasticity.

### 2020

Results for the year 2020:

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of R-square</td>
<td>0.986384</td>
</tr>
<tr>
<td>Adjusted R-square</td>
<td>0.962557</td>
</tr>
<tr>
<td>Value of Durbin-Watson Statistic (DWS)</td>
<td>2.178433</td>
</tr>
<tr>
<td>Value of Jarque-Bera Test (JBT)</td>
<td>0.566378</td>
</tr>
<tr>
<td>P-value for Jarque-Bera Test</td>
<td>0.753377</td>
</tr>
<tr>
<td>P-value for Breusch-Pagan-Godfrey Test (BPGT)</td>
<td>0.2498</td>
</tr>
</tbody>
</table>

P-values for the regression coefficients were coming out to be greater than 0.05 which accepts null hypothesis i.e., all of the seven companies indices do not hold much explanatory power when impacting the movements in overall stock indices for NIFTY 50.

### Findings

After applying multiple regression analysis on the datasets of ‘HRITHIK’ companies along with NIFTY 50, taking the log values of the ‘HRITHIK’ companies as dependent variables and NIFTY 50 as independent variable which was taken as a measure of stock market performance for the sample and period studied, it was found that NIFTY 50 is not only dependent on the stocks of the seven companies.

No doubt that the seven companies are amongst the top successful and leading companies but even then also they do not carry much of the explanatory power to impact the movements of stock market for the sample taken and period studied.

### Suggestions

Keeping in mind the results of the present study, suggestions are made to the policy makers, to investors and to the academicians and researchers.

The policy makers, investors as well as researchers are advised to not completely depend on the movements in the stock indices of these seven companies when commenting on the movement of top 50 companies listed on National Stock Exchange (NSE). These seven companies do not hold much explanatory power in predicting the movements of NIFTY 50.

### Conclusion

The term ‘HRITHIK’ stocks which is so very popular amongst investor’s is here analysed in order to see if the stocks of the seven companies holds any explanatory power for the movements in stock indices or not. Monthly closing indices values were recorded for a period of two years which was broken in two parts viz. Pre-pandemic period and during the pandemic. Data was calculated from Yahoo Finance and the official website of the National Stock Exchange. Indices values were transformed into logarithmic
values and then multiple regression was applied in order to achieve the objective of the present study. It was found that neither before pandemic nor during it, the seven stocks of ‘HRITHIK’ companies hold any explanatory power in the movement of stock market studied by taking NIFTY 50 as a market index. Further the residuals of the output were also analysed in order to find out the normality of the residuals and find the problem of heteroscedasticity if there is any. But it was again observed that residuals are normally distributed and the data is also free from the problem of heteroscedasticity.

References
Journals

Websites