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She has received "Prof. T. Jha Achal Young Geographers" award for best paper presentation in National Seminar organized by B.R.B College (samastipur) Bihar, India. She has completed a project on "Monitoring and Evaluation of ICDS Schemes" funded by Govt. of India (NIPCCD New Delhi). Her area of interest is to develop intervention packages for school dropouts, stress management of adolescents and children with developmental challenges, early childhood care, education and development. Books and various research papers in journals of National and International repute are also in her credit. She had organized National Seminars on Social Security of Women in India and Youth Empowerment: Issues, Challenges & Concerns. She combines a focus on student achievement with a passion for scholarly work presenting and publishing at conferences. She has deeply invested in earning tenure through administrative services, committee contributions and an achievement-oriented approach to teaching.

### 3

## **Economic Stagnation during Covid19 : Empirical Evidence from India**

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**Abstract :** The outbreak of COVID-19 is penetrating the global economy. The spread of the virus in the economy has symptoms similar to those in the human body. The financial system of the economy is a respiratory system, and the fluency of its manipulation is treated in the same way as humans do with the system's X-ray spectrum. This study investigated the Economic congestions due to the spread of viral information of Covid-19. This Information has gone through the economics in a similar fashion as two packed veins in the human body. The first vein is a direct signal containing information on the number of cases and total deaths in a single day by Covid with in India and the other one is an indirect signal of information injected from overseas economics. Empirical results show that during the covid19 period India's economics was met with congestion as the covid19 fever surged. The world's developed economics are screaming and the matter is at its peak during this period. Congestions in Indian economics were caused by an indirect signal rather than a direct signal. Indirect amplified signals have proven the onset threatens to the Indian Economy.

### **Introduction :**

The world is facing the threat of covid19 in forms of biological viruses. The spread of the virus has begun in China. At the end of March 2020 W.H.O. declared it as Pandemic. The whole world became the culprit of this virus attack. The number of daily case, reported deaths was increasing day by day. Economies all around the world have to bend their operation (WHO, 2020). Covid 19 has hacked the

control of economic activities from them. The spread of the virus in the global economy has the same symptoms as the human body. The financial system of the economy is the respiratory system. Operations of financial market are the breaths of that system, and the movements of financial market are dealt with in the X-ray spectrum of that system. As time passes on the total number of deaths and the number of infected people has increased exponentially. The closure of these economies hampered the global economy. With rising infection rates, developing countries also had to shut down. Shrinking the economic activity has affected human life. The economics plummeted. Pictures originated from developed nations are embarrassing to human being of other nations. People are scolded and worried about their survival. Many people have lost their jobs and life also.

During this period, the flow of funds in the capital market was hampered. The flow of information in developed market poses a bit of difficulty in emerging economies like India. The spread of Corona 19 can be faster than the flow of information between markets. Investors in these economies are withdrawing from their investments from the economics, and the economics becomes just a silent viewer. The situation with covid 19 is putting a sharp break in India, affecting investor sentiment. The Indian stock market reacted to it with a swing oscillator, reaching its historical low, falling more than 13% on March 23rd and reaching a 10-year high again within two days on March 25<sup>th</sup> **Poddar & Yadav (2020)**. The epidemic society is a severe situation all over the world, and it is a cause of economic and financial crises. As this epidemic spreads, soon the world's economic indicators and global financial market begin to collapse. Most of the industry leaders in India are facing a recession. Taking over the business for the country's lockdown serves as a catalyst for economics and Investors are loosening their hopes from the economics **Laing T (2020)**.

From the beginning of the pandemic, researchers from various fields have been tracking the situation and predicting the different economic estimates. Majority of economic institutions of the world are continuously forecasting economic downturn rates and reconciling pandemic positive and negative information. Economics analysts were predicting the downsides of financial market. The government's phased

lockdown from late March to July is creating a dilemma for investors' thinking not only about corporate earnings, but also unemployment and national income. Companies under lockdown situation have experiences difficulties in their earnings, many of the companies has pursue the layoffs strategy and their employees have to lose their jobs. Consequentially individuals had to withdraw all of their savings from the economics to survive. Income goes downturn whereas, their expenses cannot be reduced as the use of detergent powders and disinfectants has been increased to combat this flu by this pandemic. This route began as a lifelong devil, and a pandemic deeply rooted in the health care system dramatically changed the face of the global economy and brought it to the financial market. Eventually, it will be a financial crisis. Investors have no projections whether the economy will achieve its equilibrium by the government intervention and individual reactions or it will heal the economic ulcer. **Rameli & Wanguer (2020)**. Indian society has experienced a struggle for survival. Daily information on national infectious diseases and closures has forced large-scale labour migrations nationwide. Create a life-threatening and atrophied situation of investing in the stock economics. The spread of the virus took advantage of the economic downturn and uncertainty. In the field of information technology, all market are also connected globally. The signal is transmitted like high-speed broadband data. The economics continuously processes these signals and reflects them in the price.

In this study, we discuss the influences of covid-19 on Indian Economy. Stock market of the country has been used as the barometer of the Indian economics. The market of the country has traced out as the true spectrum of the economy in a similar fashion of X-ray beam. The motion of the index prices reflects the breaths of the economy. Everyone has keep eyes on the deadly information on covid-19 and economics movements also. This information is blinks as signal. These incoming signals from the domestic and international economics are amplified by investors. These signals have been clubbed into two group first one is direct signal of domestic covid-19 diffusion with in the country and second one is indirect signal that comes from the foreign economics of highly covid-19 infected economies.

### Literature Review :

The stock market of any country is true representative of the economic condition of the country. The economic activity of the country is measured with the help of total available produces of the services as well as tangible products. This leads to the total national income of the countries. This income is heavily depends on the income of the different industry engaged in productions. The income of these economic activities is evaluated by the different economist and individual of the interest.

The capital for the supporting these activities within the country has been supplied by the individuals as the investment in the capital market. The stock market is a place to look forward. Investors are always committed to predicting what will happen to the economics in the near future. Investors are losing opportunities; the assets in the economics are valued according to the defined discount principle.

It is quite difficult to make any inferences about investors' behaviour in the economics. The uncertainty of the future has a profound impact on investors' current investment decisions. The covid19 outbreak deactivated the traditional psychological theory of investor behaviour. It unleashed a triple psychological process and began to take the form of a pandemic declared by the World Health Organization. Then after the second phase began, when the world began to discuss communication and future results, economic lockdowns were implemented one after another *Wagner (2020)*.

The economics has experienced several slowdowns in the past. Even if a financial scandal occurs, the economics cannot absorb the impact of economic events. The Indian stock economics has close ties with other developed market such as Australia, Canada, France, Germany, the United Kingdom, and the United States. Information processing in these market has a positive impact on the Indian economics, which shows opportunities to reduce investment risks in the short term, but in the long term, those opportunities will disappear from the economics *Samadder & Bhunia (2018), Kumar. S (2021)*. The pandemic has enlarged the financial risks in global market. The number of economics fluctuations increases the capacity for

unsustainable growth. It is the informational efficiency of the economics that motivates to disseminate the future severity of the outbreak. Ultimately the result of these reactions led to a economics recession *Zhang Dayong & Qiang, (2020)*. Market with high-risk scenarios provides investors with negative returns. Emerging market is seeing the negative impact of the epidemic on stock returns. This yield trend continued from March to April 2020, but since then, the impact has gradually weakened and persisted, leaving the economics on a bearish side *Topcu & Gulal (2020)*. The economics reacts to this information's and it will become unstable. Day after day, more and more casualties worldwide are screaming at major economies in the United States, China, Italy, Spain, the United Kingdom, Iran and France. Significantly hinder Stock prices reflect the sensitivity of information. *Onali (2020)*.

The Indian stock economics has also felt the tremendous pressure of the lockdown. Economics prices continued to fall and investor confidence in the economics declined. These falls of the economics may not be due to the spread of the virus, but rather because investors are caught in a syndrome where the company may not be able to grow due to the lockdown. The emergence of covid19 has leads the Indian Economy towards the recession. *Garg.et.al.(2021)*. Investors' hope of closing the business activities is a measure of fear of uncertainty. Another factor crippling their income has put pressure on investors to withdraw their investment from the economics. Compared with other indexes in the economics, the profitability of financial indexes has fallen the most. The sudden closing of the many of the economic operations put pressure on financial services *Rajamohan et al. (2021)*.

The financial system is the core of any economy, but the outbreak of covid19 bypassed the root cause of the system. Banks are undoubtedly the root of the entire financial infrastructure. Business downturns, layoffs, and increased demand for available cash by investors, customers have a major impact on the inflow of funds into the economy. *Asif Perwej (2020)*. Insufficient digital maturity and the existence of the company Infrastructure put pressure on the financial service sector of the system for racing to cope with the impact of COVID19. *Poddar & Yadav (2020)*. Indian economy has a special

character that it has high savings, domestic consumption and geographic diversity. All of these serve as the backbone of the economy and serve as an antibody to the Indian economy against the fight with covid. The basic quality of this economic infrastructure has nothing to do with the flaws of political instability and epidemics. It opens a window of opportunity for growth in the recent future, looking back at the unfavourable pandemic wave *Sonkhaskar (2020)*.

Previously researchers have focused their researches on the efficiency of economics information. The speed at which the economics adjusts to global economic signals related to the corporate and economic news. The reflections of information's on different sectors of the economy, the severity of the signals originated due to Covid. The major crux of this study is lies behind that the present study has encountered the economics reactions by measuring the sensitivity of changes in the index prices caused by these processed pandemic signals of domestic as well as foreign economics.

#### **Data and Methodology :**

Among the information about the transmission of viruses as two tangled vines, the first vine is a direct signal containing Covid-19 of the number of daily cases and the total number of deaths, and the other is an indirect information signal injected by S&P 500 US, and FTSE Italia, China, to the Indian market. To study market congestion, this study assumes a linear regression model.

The performance of the Indian stock market is a function of information from certified sources related to Covid19 and the returns of the stock market in the United States, Italy and China, as shown below.

Return of the index was calculated using the formula

$$R(t) = \ln(P_t / P_{t-1}) \quad (1)$$

$$\text{BSE}(R_t) = \alpha_0 + \text{Direct signal} [ \beta_1 \text{CMD}(\text{covid-19}) + \beta_2 \text{DNC}(\text{covid-19}) ] + \text{Indirect signal} [ \beta_3 \text{S\&P}(R_t) + \beta_4 \text{FTSE}(R_t) + \beta_5 \text{SSEC}(R_t) ] + \epsilon_t \quad (2)$$

Where  $\alpha_0$  is a constant term, subscript t is the period ranging from January-September 2020. Two important information daily new cases (DNC) of the infected person and cumulative death (CMD) in

India related to the covid -19 have been used as a proxy to gauge the quantum of crises in the market. Standard and Poor index of US, FTSE is the stock market of Italy, SSE is the stock market of China. The  $\hat{\alpha}$  is the regression coefficient for the corresponding stock market returns and  $\hat{\epsilon}_t$  is the residual or error term used in the model.

Using the regression Analysis we test the significance of influences of both types of signals.

The null hypothesis was formulated as

**H01:** There is no significant influence of direct signals on Indian Market

**H02:** There is no significant influence of indirect signal on Indian Market

To capture the influences of factors on stock return, first, investigate the presence of unit root in the data. The data has been tested for stationary with the help of the Augmented Dickey-Fuller test. The Augmented Dickey-Fuller (ADF) test is based on the estimate of the following regression:

$$Y_t = \dots \quad (3)$$

Here,  $\Delta$  represents 1st difference operator,  $\alpha_0$  represents constant,  $\beta_1, \dots, \beta_k$  are parameters, and  $\epsilon_t$  denotes the error term. If  $\beta_1 = 0$ , then the series is said that it is a unit root and non-stationary.

To study the influences, equation-2 was estimated using a pooled Ordinary Least Squares (OLS) regression method with robust standard errors.

### Conceptual Frame Work



## Results and Discussion:

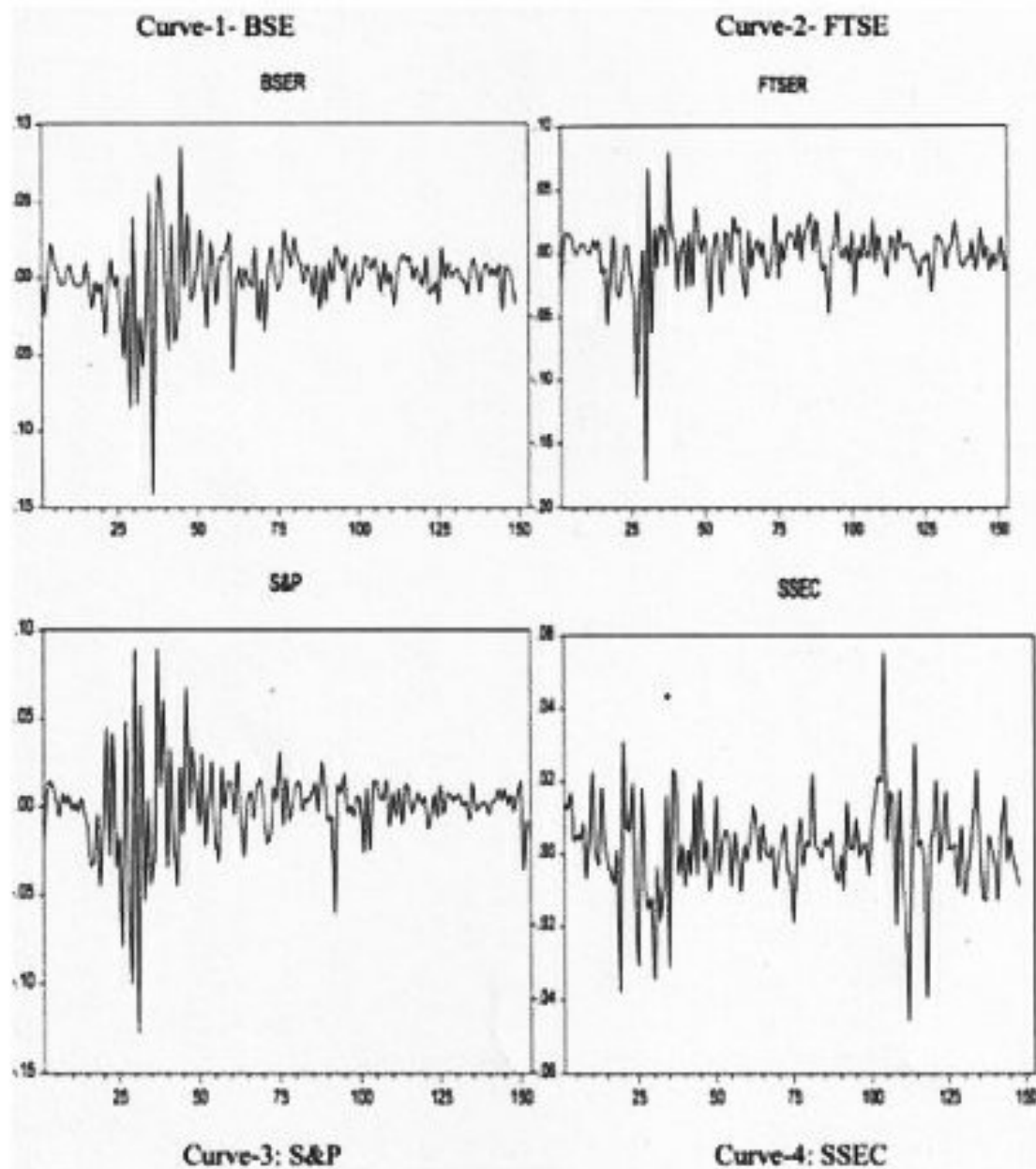
Table No.1 - Descriptive Statistic

Return	BSE	S_P	SSEC	FTSE MIB
<b>Mean</b>	-0.00043	0.000281	0.001353	-0.0013
<b>Median</b>	0.001590	0.003237	0.001771	0.001831
<b>Maximum</b>	0.085947	0.089683	0.055543	0.079994
<b>Minimum</b>	-0.14102	-0.12765	-0.046026	-0.1791
<b>Std. Dev.</b>	0.025247	0.026918	0.013568	0.025955
<b>Skewness</b>	-1.36772	-0.72008	-0.205909	-2.5249
<b>Kurtosis</b>	10.75685	8.267497	5.597407	18.67308
<b>Jarque-Bera</b>	420.0022	188.8638	42.64940	1728.556
<b>P</b>	0.000000	0.000000	0.000000	0.000000
<b>Observations</b>	149	152	148	153

From the return table, it is clear that the stock market of India (BSE) and FTSE MIB-Italy are offering negative returns. While this shows that these markets have seen their share price decline during this period, both the Chinese and U.S market are showing positive returns during the covid19 period, demonstrating that stock prices have risen in these two market. The surprising result comes from the vast amount of negative information floating around at the international level about China during this period, while China shows the smallest change in earnings (SD 0.013) compared to other companies.

A negative skewness of all market indicates that one of the days is more likely to yield a higher return compared to the average return. All market kurtosis measurement is greater than the standard value of 3 indicate a platycurtick distribution of return. Investors sometimes received extremely negative returns as compared to their average income. It shows that investors are facing kurtosis risk. The additional Jarque-Bera test having p values (0.0000) significantly confirms that rates of return in all market do not normally spreads.

## Daily Returns Curve



From the curve, we can see that the rate of return on the Indian stock market has been very volatile since March and April and has reached an equilibrium point. If you look at the graph, you can see that the fluctuation of the market rate of return was very large from the end of February to the end of March. In other words, the market rate of return on another day behaves in a normal atmosphere. The US stock market is volatile during March and will be balanced for the rest of the year. China's stock market, which shows high volatility over various periods, tries to maintain balance after showing high volatility for the first time in March, but another big volatility between mid-June and

mid-July. Show you. During this period, it indicates that the market has reached the minimum level second.

**Table No-2: Augmented Dickey fuller test for the first difference**

<b>Variables</b>	<b>t-Value</b>	<b>p-value</b>
Indian (BSE)	-14.136	0.000**
Total Deaths	-3.969	0.002*
Total New Cases	-5.337	0.000**
Italy (FTSE MIB)	-7.055	0.000**
US (S & P)	-18.043	0.000**
China (SSEC)	-11.362	0.000**

The above table reveals that, the p values resulted by unit root test for all the market are smaller than 0.05. It indicates that there is no unit root present in the all the data set at first order of differences. This results leads to basis for the estimation of the linear relationship among all the stock market.

**Table No-3: OLS output for the estimation of the equation.**

<b>Variables</b>	<b>Coefficient</b>	<b>t-Value</b>	<b>p-value</b>
Constant	-0.035	-1.897	0.060
Total Deaths	-0.012	-1.737	0.085
Total New Cases	0.015	1.825	0.070
Italy (FTSE MIB)	0.226	2.219	0.028*
US (S&P)	0.257	3.093	0.002*
China (SSEC)	0.012	0.079	0.936
R-Square	0.151	F-Value 3.975	P-value 0.002*
Durbin Watsons	2.079		

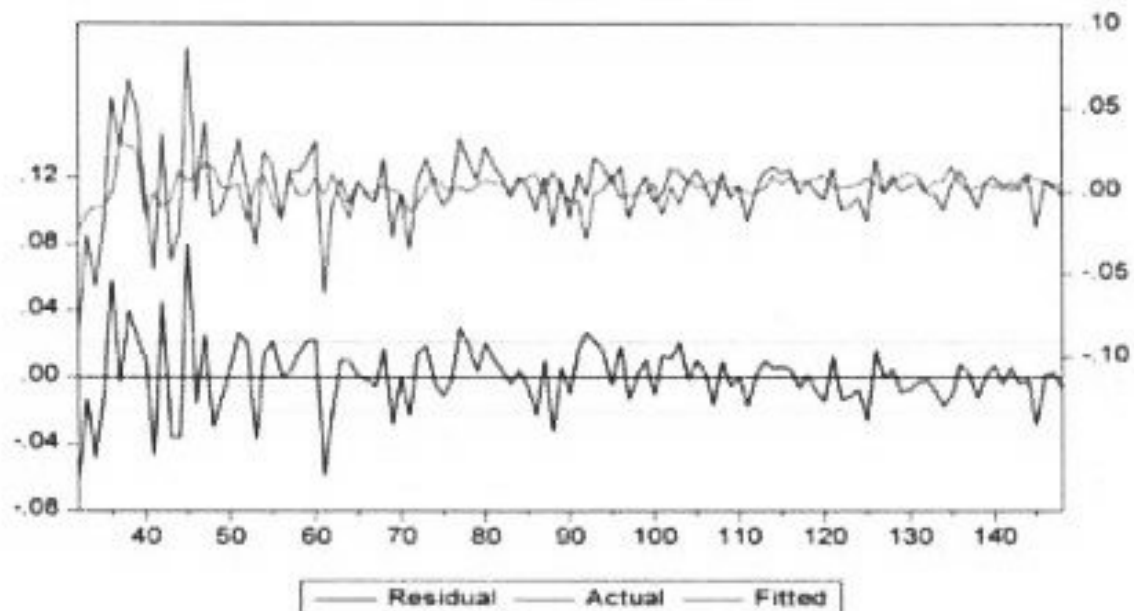
The R-square value of the estimation formula is 0.15. This means explaining only 15% of the total rate of return fluctuation with the help of key influential factors. The remaining variability contributes to other factors not included in the model. The output table of the regression model reveals that the daily t-statistic value of the information factor for newly infected individuals is 1.825, which reflects a significant level (0.07). This means that this information is useless to the Indian stock market. The t-value for cumulative deaths

due to Covid19 was 1.737, insignificant having value (0.08) and unimportant to the market. This clears the pictures that there are no sufficient signs to reject the null hypothesis, hence it is concluded that direct signal have no influences.

The t-values of FTSE and S&P are significant (0.02,0.00), and as a result, these two market, Italy and the US, have influence on the Indian market, while the Chinese SSEC market does not have a significant (0.9) impact on earnings. the results shows a sufficient evidences for the rejection of the null hypothesis and making inferences that Indian stock market was highly influenced by these two market.

### Validation of the Results: Volatility clustering and ARCH effect

The residual curve of the estimated model does not show any kind of volatility clustering. This indicates that the predicted model is effective and there is no need for further investigation of the ARCH effect. Table no.3 indicated that the Durbin Watson value was 2.07. This shows that the returned series does not pass the problem of autocorrelation. In light these results the present study proven that the validity of the model estimated, and methods used for the purpose is sufficient to explain the influences of the direct and indirect information of virus spreads on the Indian stock market.



### Conclusion :

The aim of this study is to examine the impact of COVID-19 on Indian economy channelize through Indian Stock Market. The result

reveals that the market is offering the negative return and swings in preview of uncertainty during the sampled period. Overall the results reveals that in spite of the negative return the direct signals contain the information of daily infected and deaths in the India becomes useless for the purpose of estimating the market movements. On the other hand the indirect signal contains the information about the conditions of the foreign market have some influential power. The Indian stock market has greater importance for the forging in comparison to the domestic market. This shows that the economic condition in India does not stagnate due to the fear of covid-19 among the Indians. The association of the Indian economy with the other developed economies is the basic causes of the total stagnation in the Indian economy.

**Future Directions:** Present study has been conducted on the limited variables. Some other important variables of the market will be included in future for the purpose of studying the influences. One another important aspect of this study will be need to be address by the researcher in future. The informational asymmetry will play a significant role for the study of health of the economy during this pandemic, as present study has considered the number of daily cases, deaths and on the other hands index data of the foreign stock market.

### References :

1. Brahmairene, T., & Jiranyakul, K. (2007). Cointegration and causality between stock index and macroeconomic variables in an emerging market. *Academy of accounting and financial studies Journal*, 11(3), 17-30.
2. Garg, K. D., Gupta, M., & Kumar, M. (2021). The Impact of COVID-19 Epidemic on Indian Economy Unleashed By Machine Learning. *IOP Conference Series: Materials Science and Engineering*, 1022 (1), 012085.
3. <https://covid19.who.int/table/> assessed on 23/01/2022
4. <https://www.investing.com/indices/sensex-historical-data/> assessed on 23/01/2022
5. Laing, T. (2020) The Economic Impact of The Coronavirus 2019 (Covid-2019): Implications ForThe Mining Industry. *Extractive Industries and Society*, 7(2), 80-582.
6. Onali, E. (2020). Covid-19 and stock market volatility. Available at SSRN 3571453. <https://www.researchgate.net/publication/340609711>.
7. Perwej, A. (2020). The impact of pandemic COVID-19 on the Indian Banking System. *International Journal of Recent Scientific Research*, 11(10), 39873-39883.

8. Poddar, A. K. (2020). Impact of COVID-19 on Indian Economy-A Review Horizon, 2, 15-22.
9. Rajamohan, S., Ellikkal, A., & Sathish, A. (2021). COVID-19: Impact on the Financial Services Sector Index. AJR Preprints, 299.
10. Ramelli, S., & Wagner, A. F. (2020). Feverish stock price reactions to COVID-19. *The Review of Corporate Finance Studies*, 9(3), 622-655.
11. Samadder, S., & Bhunia, A. (2018). Integration between Indian Stock Market and Developed Stock Market. *Journal of Commerce and Accounting Research*, 7(1), 13.
12. Sonkhaskar, D. J. (2020). Impact Of Covid-19 On Indian Economy, *International Journal of Advanced Science and Technology*, 29(12), 432-439.
13. Topcu, M., & Gulal, O. S. (2020). The impact of COVID-19 on emerging stock markets. *Finance Research Letters*, 36, 101691. <https://doi.org/10.1016>
14. Wagner, A. F. (2020). What the stock market tells us about the post-COVID-19 world. *Nature Human Behaviour*, 4(5), 440-440.
15. Yahoo finance/<https://in.finance.yahoo.com/q/hp?s=^BSESN/> assessed on 23/01/2022
16. Yahoo finance/[https://in.finance.yahoo.com/q?s=^FTSE /](https://in.finance.yahoo.com/q?s=^FTSE/) assessed on 23/01/2022
17. Yahoo finance/<https://in.finance.yahoo.com/q?s=^S&P500/> assessed on 23/01/2022
18. Yahoo finance/<https://in.finance.yahoo.com/q?s=^SSEC/> assessed on 23/01/2022
19. Zhang, D., Hu, M., & Ji, Q. (2020). Financial markets under the global pandemic of COVID-19. *Finance research letters*, 36, 101528. <https://doi.org/10.1016/j.frl.2020.101528>.

