

The Indian Scientific Community and the Stock Market : Impact of the COVID-19 Lockdown

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Abstract

Purpose : The present study presented a detailed analysis of the growing interest of the scientific community in Indian share market trading. The work also highlighted the key role played by the COVID-19 lockdown in the growth of the share market trading and investments.

Methodology : A total of 250 participants were involved in carrying out the survey required for this article with due consent. All procedures performed in studies involving human participants were in accordance with the ethical standards of our institute and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Findings : From the survey, it was found that the total active traders from the science background had increased significantly from 11.5% to 34% since the COVID-19 lockdown, which could be viewed as a positive change. Most of the traders from the scientific community still preferred mutual funds or long-term investments over short-term trading strategies.

Practical Implications : It was recommended time and again that most Indians should invest in the share market (through proper knowledge) and make the most of it. The COVID-19 lockdown proved to be a blessing in disguise for the Indian scientific community, who have gathered knowledge and started the investment in the share market. This study showed the behavior and pattern of investments of the scientific forum in our country. Our study was not free from limitations and allowed scope for future researchers to delve more into the area.

Originality : Unlike prior research on the various aspects of the share market, the current work presented the behavioral pattern of the scientific community toward share market trading and investments. Moreover, this study highlighted the impact of the COVID-19 lockdown on the investment pattern of the above-stated group/community.

Keywords : scientific community, lockdown, trading, investments, perception, SENSEX

JEL Classification Codes : I25, N25, O16, P43

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Economics and science are interrelated, and both go hand-in-hand. A country can only be developed when the scientific and commercial sectors of the nation proceed simultaneously. Certain basic terms of economics and commerce, such as gross domestic product (GDP), tax deduction at source (TDS), supply and demand, equity, commodity, etc., should be known by every common citizen, irrespective of their educational background and qualifications. Many people worldwide are slowly fascinated by the world of the stock market, although this population is negligibly small. However, with the increase in digital platforms and awareness, the coming days will continuously see a growth in the number of active traders.

India is one of the fastest-growing economies in the world, and the world economy highly depends on the Indian economy. A nation with the second largest population globally, the growth in the Indian economy depends majorly on the involvement of its citizens in the stock market. However, only a tiny population of India is

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currently involved in share market trading and investment, the reason being the lack of awareness and proper education of the citizens toward the share market. As per the latest estimates, only 3.7% of Indians trade in the equity market, which is very little compared to China (12.7%) and the United States (30%). Nevertheless, there has been tremendous growth of the Indian population toward the equity market in the last few years, especially during the COVID-19 lockdowns.

Although Indian society has become much more advanced now, the old perception persists that an individual from a scientific background can only perform laboratory experiments and calculations. Moreover, the lack of basic training and positive approaches further hinder the involvement of scientists and science graduates in the share market trading. However, there has been a growth in the percentage of traders from a science background, with the increase in the concept of digital exploration. In addition, in the last few years, the news regarding the market and the economy has been over the top in India. The recent news regarding the new economic reforms, like demonetization, the inclusion of the goods and service tax (GST), the introduction of the insolvency and bankruptcy code of 2016 (IBC-2016), labor reforms, farm reforms, and foreign direct investment (FDI) liberalization have certainly caught the news headlines, making the scientific forum more interested toward the market. With the growth in digitalization and the ease of starting trading via mobile applications, there has been a tremendous rise in the percentage of traders in India over the last few years. The major role of influencing the people from the scientific community toward the share market trading was played during the period of lockdown due to the surge in COVID-19. Today a large section of the people belonging to the field of science and technology have started trading and investments in Indian share markets, which can undoubtedly be seen as a positive change. Herein, a detailed analysis of the growing interest of the scientific community in Indian share market trading has been presented. The work also highlights the key role played by the COVID-19 lockdown in the growth of the share market trading and investments.

The Indian Share Market : A Brief Introduction

India is one of the most prominent market champions and one of the fastest-growing economies in the current world. With every passing year, high growth in the total number of investors and traders can be seen. The stock market in India is continuously blooming and is probably in its golden period. Bombay Stock Exchange (BSE) is considered to be the first stock exchange in Asia, which began with 318 members with a fee of ₹ 1 (Dutta, 2008). The National Stock Exchange (NSE) covers 67.01%, and the BSE occupies 32.94%. NSE is one of the few exchanges in the world that provides all types of securities under a single platform. NSE is the world's ninth-largest market exchange, with a total market capitalization of US\$3.1 trillion as of May 2021. In January 2021, there were 51.5 million active Demat accounts in India (Sultana, 2021). In March 2023, the number reached 114.5 million, and as of June 2024, there are 151 million Demat account holders in India. We can clearly see the exponential rise in the number.

COVID-19 and Its Impact on the Indian Stock Market

The World Health Organization (WHO) was informed of a new virus originating in Wuhan city of China on December 31, 2019. The virus was named coronavirus (SARS-Cov-2), and the disease was known as COVID-19. The first case in India was reported on January 30, 2020, in the state of Kerala (Andrews et al., 2020) and was spreading rapidly. The risk factors and the uncertainty caused by the pandemic led to the global economic downfall, especially affecting the nations with the fastest-growing economies, like India (Alam et al., 2020). To curb the spread of the virus and further planning and upgradation of medical facilities, the government of India declared a complete nationwide lockdown on March 24, 2020, initially for 21 days. The government released standard operation procedure (SOP) for healthcare and safety. With the rise in cases throughout the country, the

lockdown was further extended. Many companies, businesses, and services were at a loss. Many people lost their jobs and had a tough time. Except for a few employees of government agencies and multinational companies, most people had to compromise with their daily income sources (Joshi et al., 2020). Small-time vendors and minor business holders were having a hard time earning their two-time meals. The crisis was so pathetic that even many highly educated people lost their jobs due to the overall loss incurred by various companies (Bannerjee, 2023). The GDP growth rate of India had fallen from 8.7% in January to 3.1% by the end of March 2020. By the end of June 2020, the GDP growth rate had fallen to -23.9%, the worst ever in the history of India (Express Web Desk, 2020); several companies and agencies supported the policy of working from home, which was a relief for the employees working in those agencies, but this was only a handful section of the society. The pandemic not only proved to be fatal, but it also devastated the Indian Economy (Dev & Sengupta, 2020; Veeravel et al., 2021).

The Growth in Share-Market Trading During the COVID-19 Lockdown-2020

Most people used to regularly watch television, where the news about the rising COVID-19 and the economic downfall was regularly telecast. The news debate panels were used to discuss the impact of the lockdown on the Indian share market, SENSEX, and the NIFTY. A large section of people started to develop an interest in share-market trading and investments during this period. Social media platforms like YouTube, Twitter, and various blogs further helped people learn the tactics and strategies for trading (Agarwal et al., 2021).

The scientific community was no different from it. Due to the closure of laboratories and scientific institutions throughout the country, many scientists, faculties, and students from scientific backgrounds started to develop an interest in trading and investments. Although a handful of the scientific community started trading before 2020, many scientists and researchers in India were largely fascinated by the markets during the lockdown period. The people who used to do laboratory experiments started carrying out trading experiments. Scientists started to shift their focus from spectroscopic analysis to market analysis. The budding researchers, who used to deal with mysterious equations and chemical reactions, began to analyze moving averages, support/resistance, and price action patterns. People also started to follow many techniques and strategies to delve into the sea of the stock market (Saud et al., 2022). Also, people started the capital management strategy to maximize their profits through investments during the market downfall (Sutradhar, 2021). Overall, the scientific community finally saw a much-needed positive change that let them constructively utilize their leisure time.

After successfully combating the first wave of COVID-19, the lockdown was relaxed slowly, based on priorities. Interestingly, during this period, the scientific community started to discuss the market and economy. People fascinated by the share markets began sharing their views and ideas about trading. Thus, this period could be termed the transition period, where the scientific forums started to take an interest in the market. I was one among the many who began to develop a keen interest in share markets. We started following the market trends by watching various interesting videos, following blogs, and learning about the various terminologies of the market. The time was overall a favorable period in terms of scientific as well as market enhancements in India.

The Second Wave of COVID-19 and the Lockdown-2021 : Boost in Share Market Trading

The year 2021 started positively, with almost negligible fresh cases of COVID-19. India's healthcare sector was stable, and it even started to send vaccines and medicines to other countries in need. Everything started to seem normal for the first two months. By the end of March, a few states in India began to detect a new COVID-19 strain. Suddenly everything seemed to be in jeopardy, as the cases started to increase unexpectedly. This time, the new form of COVID-19 was more devastating, causing a tremendous loss of human life. As of June 20, 2021, the total death count in India crossed 3.8 lakhs, which includes more than 700 doctors on duty (Indian Medical Association Reports, 2021).

The outbreak of the second wave of COVID-19 in India was the ultimate period of *Dharma Sankat* (Moral Dilemma) for the Indian government and the administration, whether to safeguard the nation or to revive the economy. Thus, the government was left with no choice but to declare lockdown again. This time, the lockdown was declared state-wise. Slowly, the entire country saw the lockdown-2021, almost similar to the one seen in 2020. Identical to the previous year, the lockdown-2021 caused a similar economic downfall. Although this time the government had backup plans, nevertheless the impact on the economy could not be averted. Due to the lockdown, most of the educational and scientific institutions/laboratories were closed. This period gave people, including those from the scientific community, another opportunity to get involved in the world of the share market. Again, the news related to the markets and economy during this period further led to the growth of traders and investors from scientific backgrounds. The condition in India slowly became stable with the cumulative efforts of the government, the public, and healthcare workers. In fact, research shows that the growth in stock markets after the COVID-19 lockdown was much quicker and better than expected by the experts (Dey & Brown, 2021). Moreover, some wonderful initiatives were taken by the government to counter the impact of COVID-19, which helped in the growth of the stock market (Dey & Sharma, 2022). We were again back to our economic race after the impact of COVID-19, showing a major boom in stock market trading/investments, including millions from the scientific community.

Influence of Movies and Web Series in the Share Market Growth in India

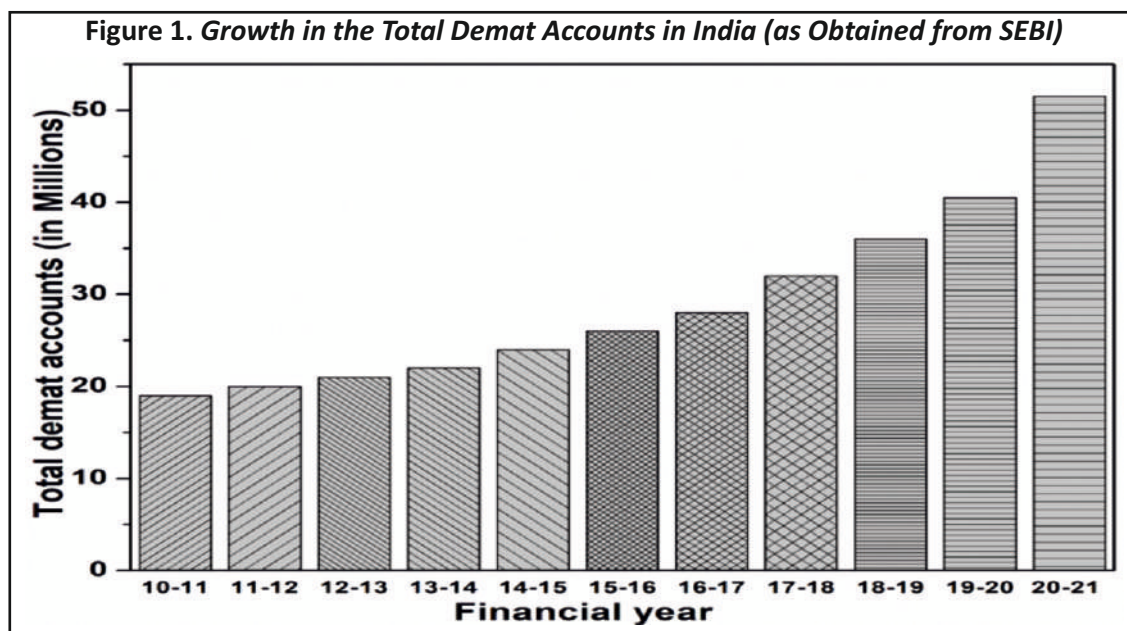
Films, documentaries, and television/ web series are known to influence people greatly. In a cinema-buff country like India, movies have always been a vital medium for bringing change in society. Several movies based on the share market have been popular among the masses, such as *Wall Street* (1987), *Rogue Trader* (1990), *Gafla* (2006), *Corporate* (2006), *Margin Call* (2008), *The Wolf of the Wall Street* (2013), and *Bazaar* (2018).

During the lockdown, most people spent their time watching movies and shows. One of the most popular and critically acclaimed Indian web series, *Scam-1992: The Harshad Mehta Story*, was released during the lockdown. The series, directed by Hansal Mehta, is regarded as one of the best web series produced throughout the world. With an IMDB rating of 9.5, the show played a significant role in influencing the Indian youths to share market trading. Another movie named *The Big Bull* was also released during the lockdown, which further aided in influencing the youths, including those from the scientific community, toward the share market trading and investments. Subsequently, people started watching more videos, movies, and shows about the share market and further developed the notion of the share market, the current scenarios, and the prospects. Recently, *Scam-2003: The Telgi Scam* was well appreciated by the audience, helping to boost the interest of the common people in the market and finance.

Analysis and Results

Share Market and the Scientific Community in India : The Survey and Findings

The share market trading in India reached its record high since the lockdown in 2020, and it's growing at a rapid pace. As per SEBI, 14.2 million new trading accounts were opened during the financial 2020–2021, which is three times the total trading accounts opened in the previous financial year (Indian Medical Association Reports, 2021). The main reasons for this tremendous surge in trading accounts are the available free times owing to the lockdown, the ease of account opening via electronic document verifications, and e-KYC (electronic know your customer). Interestingly, stock trading has become gender-inclusive, where males and females are equally interested in trading. Everyone from every class and background, including the scientific community, has actively started considering share market trading as a source of income generation. Figure 1 shows the year-wise increase in the total number of active Demat accounts obtained from SEBI.



Research Methodology

This research describes the inclination of the Indian scientific community (scientists, academicians, and post-graduates) toward the Indian stock market trading and investments. We present the involvement of people from the scientific community in trading and investment in stocks, mutual funds, and commodities. The survey was conducted among people from different age groups and scientific professions. This research is the first of its kind which correlates the scientific community with the share market.

Data collection and the study: A survey was conducted among the scientific forum, with 250 participants, to analyze the growing interests of the scientific community toward share market trading. The survey includes scientists, faculties of colleges and universities, Ph.D. Research scholars, post-doctorate fellows, and other graduates and postgraduates of all age groups (21–54 years) from a science background. A total of 20.2% of the participants were doctorates (Ph.D.) and above, whereas 56.8% of the survey participants were M.Sc./M.Tech degree holders. 15.2% were B.Sc. or equivalent degree holders. Other participants include M.Sc. with M.Phil and B.Ed. degrees (3.1%), B.Sc. with B.Ed. (2.6%), and other science degree holders (2.1%). The total number of scientists/young scientists participating in the survey is 66%, including Ph.D. research scholars, post-doctorate fellows, and faculties of colleges/universities currently involved in scientific research. The survey was conducted within a time frame of one month, during June–July 2021, after the relaxation of the COVID-19 lockdown in 2021. Standard Google forms were provided to obtain the data, followed by the analysis using MS Excel. Graphs and charts have been prepared and analyzed using the OriginPro 8.5 software.

It was observed that 66.27% of the people do not trade or invest in the share market. Although this is an embarrassing figure, it is interesting to note here that before 2020, only 11.51% of the scientific community was active in share market trading. Today, the percentage is almost 34%, of which 9.81% started trading in 2020. The year 2021 saw a whopping rise in new traders within the first five-six months, where 12.41% of the scientific community started their trading journey. The COVID-19 lockout, in other words, caused 24% of the scientific community to begin trading in the share market in 2020 (Figure 2). Among the 34% of the active traders from the scientific community, 20.9% trade in the future and options (F & O) segment of the equity market, and 44% are planning to trade in the F & O segment in the near future.

A total of 53.2% believe that the scientific community is slowly inclining toward the share market trading and

**Figure 2. Scientific Community Trading in the Share Market
(Year-Wise Growth Since 2020)**

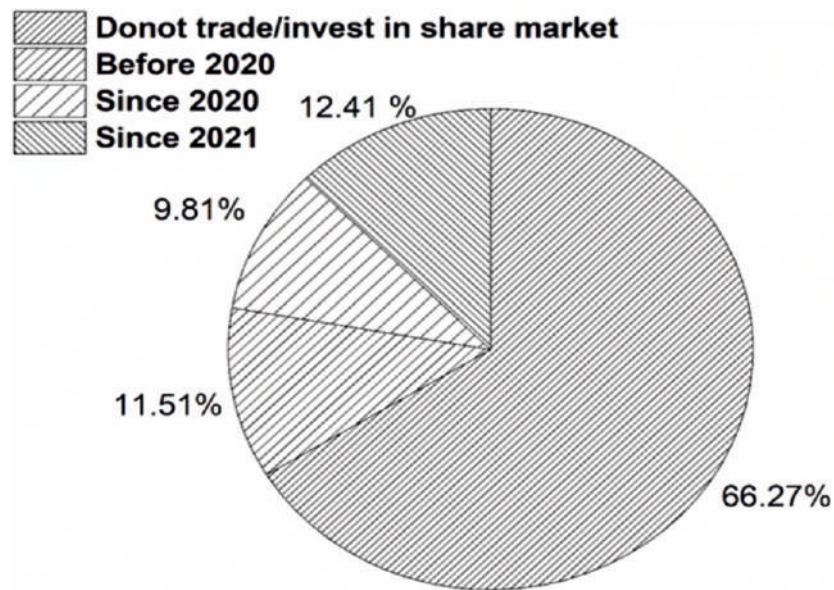
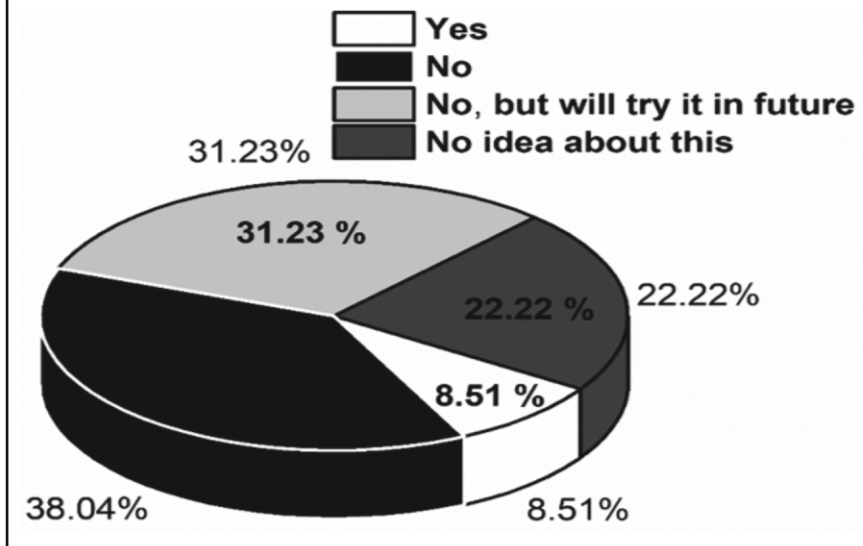


Figure 3. Involvement of the Scientific Community in Cryptocurrency



investments, 7.4% believe that they are not, and 39.4% are not sure about the inclination. The inclination of the scientific community toward share-market trading is considered a positive sign by 46%, whereas 49% are not sure about the same. Rest 5% consider this a negative sign, as they feel it may hamper the scientific research and growth. Although there has been a continuous growth of the scientific community in the equity market, participation in the commodity market is minimal. Only 9.2% trade and invest in commodities, 41.2% are planning to do so in the future, while 49.6% have no idea about this fragment of the market.

Interestingly, 8.51% of the scientific community has also started trading in cryptocurrency, and 38.04% do not trade in this segment. 31.23% are interested in investing in cryptocurrency in the future, while the remaining 22.22% have no idea about this segment (Figure 3).

Most of the people from the scientific community prefer long-term investments in the form of mutual funds,

followed by term deposits (recurring/fixed deposits) in banks. Even those investing in share markets prefer to hold the purchased share for the long run, as they feel they will benefit from higher returns. Comparatively, only a limited percentage of participants are involved in swing trading and intraday trading. Many participants prefer multiple strategies, such as long-term investment and swing or intraday trading, to maintain the risk-to-reward ratio. Although the involvement of the scientific community in the share market (equity/commodity) is not encouraging, with the growing interest in the market and digitalization, the coming days will certainly see a rise in traders from scientific forums.

Conclusion

With the growth of digitalization and the ease of account opening, Indians have been greatly influenced by share market trading. The lockdowns imposed due to COVID-19 further fuelled the growth, and in the financial year 2020–2021, 14.2 million new trading accounts were opened. Breaking the barrier and the common notions, the scientific community of India has also started trading in the Indian share markets. The COVID-19 lockdowns in 2020 and 2021 have played a crucial role in influencing the scientific community toward share market trading. At present, 34% of the scientific community is involved in share market trading and investments, which was merely 11.5% before 2020. A section of the scientific forum is also involved in the trading of commodities and cryptocurrencies. Although the involvement of the Indian scientific community in the share market is much lower compared to economic giants, such as China and the United States, nevertheless, in the next few years, we will certainly see more new traders making their way toward the share market.

Implications

Theoretical/ Managerial

Science, aided by economic understanding can be expected to be fruitful for the futuristic prospects of the nation. This work presents the growth of stock market investments among the scientific community and the impact of COVID-19 on this growing trend. It is observed that there has been a steep growth in the share market trading among people of science background. This growth can be seen as a positive change for the overall growth of the economy of the nation. The present study can be helpful in understanding the sentiment of the scientific community and the overall trends of the future market as a whole.

Limitations of the Study and Scope for Future Research

This study primarily focuses on the impact of the COVID-19 lockdown on the growth of trading and investments among the scientific community. Although the study has been carried out with utmost sincerity, the larger picture showing the impact on the actual economy could not be covered. Moreover, the sentiments and the impact after the lockdown period (2022-present) have not been studied, which could be carried out in the future. The actual scenario of combining the scientific picture and the capital market has not been fully understood, which gives an opportunity for future research.

Author's Contribution

Dr. Samiran Upadhyaya conceived the idea and developed qualitative and quantitative designs to undertake the empirical study by studying the research papers with high reputations. He further collected all the data for the research and wrote the manuscript in consultation with a few academicians in the related fields.

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Conflict of Interest

The author certifies that he has no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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