

# The Impact of COVID-19 on Investor Behaviour: A Comparative Analysis of Pre- and Post-Pandemic Investment Strategies

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**Abstract** - The study aims to shed light on the dynamics of investing strategies under unpredictable market situations by comparing investor behaviour before and after the COVID-19 pandemic. The study elucidates the mental and monetary effects of the worldwide health problem on the financial markets by investigating shifts in investing inclinations, risk perception, and decision-making procedures. The paper assesses the impact of COVID-19 on investor sentiment, asset allocation methods, and risk management techniques by using quantitative analysis and empirical data. Finding significant changes in investor behaviour and evaluating their effects on portfolio management and market stability, this research examines investment habits both before and after the epidemic. Additionally, the research delves into how post-pandemic investing strategies were shaped by government interventions, market rules, and investor education activities. The results add to the knowledge of investor actions and market dynamics amid extraordinary financial crises by shedding light on the resiliency of investors and the flexibility of financial markets.

**Index Terms** - COVID-19, Investor Behaviour, Investment, Economic Diversity

## I. INTRODUCTION

In a perfect world, while building a portfolio, investors would think about the potential rewards and losses. The global spread of the COVID-19 pandemic is a serious threat. Particularly in the financial markets, the economy is a domain that is profoundly affected by these circumstances. The stock market Index readings are reflective of capital market conditions, which are linked to key events in the COVID-19 timeline and situation report, as well as in the reports on the situation, which are backed by daily statistics from the National Disaster Management Authority [1].

In macroeconomics and finance, the dynamics of beliefs are crucial. In order to comprehend asset markets and actual economic activity, it is crucial to examine how attitudes change in response to changes in the economic climate and how these changes impact investment decisions. Following the stock market fall, people's average perceptions about stock returns over the next year became much gloomier. Additionally, there was a slight drop in average predictions of GDP (Gross Domestic Product) growth over the next three years. During this event, there was a rise in the average projected likelihood of short-term disasters in stock returns and GDP growth. These were defined as a 30% or more stock market collapse in the following year and an annual real GDP growth of less than -3% over the next three years, respectively. However, projections for GDP growth and stock returns over the next decade have stayed about the same or even gone up a little [2]. During the fall, there was a dramatic increase in the discordant views held by investors. Curiously, optimists' and pessimists' beliefs changed in quite different ways throughout this era, when categorized according to their beliefs before the crisis. When looking at the stock market's short-term prospects, the majority of investors turned more pessimistic.

As a result of its singularly devastating effects, extensive loss uncertainty, and intricate governance, the COVID-19 disease has profoundly influenced investor psychology and anticipation. As an example, the United States experienced the COVID-19 epidemic in early March 2020 caused a precipitous drop in financial markets as the VIX fear index surged. As a result of government stimulus programs, the financial markets went through a remarkable recovery and resurgence. The panic index did decline, but it remained higher than it had been before the outbreak. Indeed, investor behaviour will be further affected by the pandemic's psychological effects, which include increased vigilance, worry, and even terror. The subsequent impact on financial market performance will be seen through investors' investment choices [3]. However, it's important to remember that shifting investor sentiment and expectations in the face of major external shocks can impact financial contagion as well. For example, investors' already pessimistic outlook on financial markets has been further exacerbated by the fast pandemic spread and control measures like financial lockdowns and household confinement, all of which have added to the indecision of danger piling and the difficulty of irritated contamination, in an already deteriorating global economy.

When it came to the conditions that led to a positive shock in the demand for stocks among individual investors, the COVID period was unique: With interest rates slashed to record lows globally and professional persons had more time than ever to keep an eye on the stock market and make trades, thanks to the abundance of internet trading instruments and the end of lockdowns. Opening numbers for individual investor accounts corroborate the result of this combination as well. Thus, persistent inflows were prolonged and contrarian profit-taking was controlled during the rebound, which was coincidental with the robust V-shaped bounce and a distinct positive shock to aggregate individual investor demand. This somewhat complex aggregate trading result seems to have been driven by contrarian purchasing during the sell-off and then this positive shock during the comeback [4]

Globally, the banking industry is more significant. For economic well-being, every nation depends on its banking sector. An economy can't function without the banking sector, which is among the most important. The banking industry is the backbone of every economy's financial system or economic framework. In 2020, when the new coronavirus first appeared on the scene, the world's financial systems were usually well-capitalized and in compliance with applicable rules. The financial institutions were quick to react and diligent in maintaining service continuity. Extended payment deadlines, government work, and the delivery of financial relief were all things that banks typically don't do, but they rose to the occasion. If banks are able to keep their balance sheets in good shape, their liquidity levels high, their allowances reserve significantly increased, and their profitability high, then this is one of the strongest indicators of economic growth. All throughout the world, people are adjusting to the new normal as a result of the unforeseen pandemic crisis [5].

There has been a slowdown in the increase of per capita income in several nations as a direct consequence of the SARS-CoV-2 pandemic. When the epidemic reached 200 nations by year's end in 2020, the Indian government shut down the country's economy. In 2020, international commerce fell by 13%, the worst fall since the Great Depression of 1930, according to the International Monetary Fund. Foreign direct investment (FDI) is generally acknowledged as an essential component for attaining economic growth, creating jobs, transferring technology, and advancing industries. Gaining access to cutting-edge technology and other advantageous chances is its principal goal, which will increase economic growth. India must advance its economic growth if it is to remain a developing nation. To that end, it can take advantage of other nations' enticing and lucrative chances, which in turn can bring in investors from all over the globe. India can meet its demands with the help of these new sources of capital, which may increase production capacity, raise productivity, and open up new growth possibilities. Nonetheless, in the survey waves conducted in March and April, about half of the investors who were quite pessimistic before the crash (i.e., those who anticipated negative one-year stock market returns in February) changed their predictions higher [6].

Three main goals are intended to be accomplished by the study. First, it aims to compare investor actions before and after the COVID-19 pandemic to examine how the extraordinary crisis affected investors' decision-making and risk perceptions. Second, it hopes to shed light on how investor mood has changed in reaction to the crisis by assessing how COVID-19 has affected investment preferences across different asset classes, such as equities, bonds, real estate, and commodities. Lastly, the study seeks to examine how market volatility—which includes elements like trading volume, asset allocation changes, and changes in investment horizons—impacted investor decision-making before, during, and after the COVID-19 crisis. This will shed light on how market dynamics have molded investment strategies in periods of uncertainty.

## II. LITERATURE SURVEY

**Waliszewski, K. (2022)** highlighted that Users of robo-advice in Poland and Slovakia were different in their investing strategies during and after the COVID-19 epidemic, but their finances were unaffected by the virus [7]. Users of robo-advice in Poland and Slovakia utilized specialized banking and non-banking apps in addition to spreadsheets to handle their finances. In terms of explaining how Poles and Slovaks configured their finances on the app, sociodemographic characteristics were not very helpful. Amid the epidemic, Poles and Slovaks alike were aware of the availability of a personal financial app, and its usage was linked to saving.

**Priem, R. (2021)** discussed the impact of Belgium's COVID-19 lockdown on individual investors' finances. The study is the first to explore whether unusual market conditions have caused individual investors to buy more stocks [8]. The study leveraged a proprietary database of approximately 6.5 million investor transactions to show that most people boosted their equities investments during the epidemic, indicating a contrarian approach. Investors aged 18–35 and less active raise their stock investments more than other age and activity levels. Even during COVID-19 imprisonment, Belgian male investors expanded their share stakes more than female investors.

**Bouri, E., et. al. (2021)** investigated what effect the coronavirus outbreak had on herding behaviour among investors in 49 different stock markets throughout the world [9]. The study investigated the connection between herding behaviour and market uncertainty caused by a pandemic using an index based on daily newspaper readings. Specifically in developing and European PIIGS stock markets, the study showed a robust correlation between herd formation and COVID-19-induced market uncertainty. Policymakers and investors may use the data to keep an eye on investor mood and prevent mis-valuations. Price discovery and hedging tactics to reduce portfolio risk are other areas that benefit from the study.

**Smale, L. A. (2021)** demonstrated that US stock returns are negatively affected by the increased effect of COVID-19. On the other hand, it seems like some industries have benefited from the spotlight [10]. This outperformance is concentrated in consumer staples, healthcare, and information technology, which are the industries that are most likely to gain (or suffer the least loss) from the crisis and the spending that comes with it. One possible explanation for these findings is the information discovery hypothesis, which states that investors are actively seeking out data online to help them better comprehend how COVID-19 has affected the relative performance of different stock sectors.

**Huber, C., et. al. (2021)** investigated how exposure to catastrophic occurrences, like the COVID-19 market meltdown, affects the propensity to take risks [11]. The study conducted randomized controlled trials with financial experts in 2019 and 2020 to separate increases in risk-taking from confounding variables. Although the price predictions remained unchanged and the deemed experimental asset was less hazardous during the crisis than before, the study identified that their investments were 12% less in March of 2020 compared to December of 2019. Because adaptive normalization compares shock volatility to real market volatility (which was low in December 2019 but extremely high in March 2020), the perceived risk is likely to be lower. Decreased investment during the crisis could be explained by a greater reluctance to take risks, rather than a shift in perspective.

**Bocanet, A., et. al. (2021)** noted that Problems with consumer spending, worker management, and supply chains have been some of the many ways in which the COVID-19 epidemic has affected companies throughout the globe [12]. There was a negative effect on the UAE economy in Q1 2020, according to the study, as growth was negative across the board. But to stay in business, companies are now concentrating on building resilience inside their organizations and managing risks. The administration of the United Arab Emirates has taken steps to ensure that various industries can weather the post-pandemic storm, and they are now proposing economic diversification as a means to get the country back on track.

**Ortmann, R., et. al. (2020)** analyzed in light of the recent COVID-19 outbreak, how should individual investors react. Using data on individual trades, the study found that as the COVID-19 epidemic develops, investors ramp up their trading activity on both extensive and intense margins [13]. As a whole, investors are increasing the amount they put into their brokerage accounts and creating new ones. Every doubling of COVID-19 instances results in a 13.9% rise in the average weekly trading intensity. Stock and index trading are impacted by the surge in trading, which is most noticeable among older and male investors. When the Dow Jones fell 9.99% on March 12, investors cut back on their leverage dramatically.

## III. HYPOTHESIS OF THE STUDY

H1: "Investor behaviour has significantly changed following the COVID-19 pandemic compared to the pre-pandemic period".

H2: "The preference for certain asset classes has shifted as a result of the COVID-19 pandemic, with investors showing varying levels of preference for stocks, bonds, real estate, and commodities compared to the pre-pandemic period".

H3: Market volatility during the COVID-19 crisis has led to increased trading volume, significant shifts in asset allocation strategies, and changes in investment horizons among investors as they seek to manage risks and capitalize on opportunities.



**IV. RESEARCH METHODOLOGY**

The study utilized both primary and secondary data collection methods to determine The Impact of COVID-19 on Investor Behaviour: A Comparative Analysis of Pre- and Post-Pandemic Investment Strategies. The primary data is collected via a structured questionnaire through random sampling that has been used for investors. 385 investors were sent out the surveys, and 250 of them provided feedback. The study's secondary data came from a variety of credible sources, including newspapers, articles, websites, and online media. A mixed-method research strategy was utilized in the study. Data analysis was carried out using SPSS and Excel. To assess the hypothesis of the study, the statistical methods that were utilized were regression, correlation, standard deviation (SD), and mean.

**V. RESULTS**

*(1) Demographic Characteristics*

Table 1: Demographic Characteristics

Sr. No.	Demographic Characteristics	Category	N	%
1	Gender	Male	132	52.80%
		Female	118	47.20%
2	Age	18-25 years	51	20.40%
		26-35 years	92	36.80%
		36-45 years	75	30%
		Above 45 years	32	12.80%
3	Type of Education	Graduate	99	39.60%
		Post graduate	68	27.20%
		Diploma	35	14%
		Others	48	19.20%
4	What is your income?	15,000-30,000	38	15.20%
		30,001-45,000	105	42%
		45,001-60,000	45	18%
		Above 60,000	62	24.80%
5	What is your primary occupation or field of work?	Corporate Professionals	75	30%
		Business Owners	98	39.20%
		Self-Employed Individuals	55	22%
		Retirees and Pensioners	22	8.80%
6	What is your Marital Status?	Married	164	65.60%
		Unmarried	86	34.40%
7	What is your investment experience?	1-2 years	70	28%
		3-4 years	138	55.20%
		Above 4 years	42	16.80%

The respondents' gender, age group, marital status, level of education, total monthly income, occupation, and investing experience are all displayed in Table 1. Table 1 shows that of the 385 respondents, 52.80% are men and 47.20% are women. The age group of 26–35 years old accounts for the largest number of respondents (92) or 36.80%. A maximum of 105 respondents, or 42% of the sample, earn between \$30,00 and \$45,000 per month. The additional table reveals that the maximum number of respondents—99—are graduates or 39.6% of the total. The maximum number of respondents—98—are business owners or 39.20%; the maximum number of respondents—164—are married, or 65.60%; and the maximum number of respondents—138—have three to four years of experience, or 55.20%.

(2) H1: Investor behaviour has significantly changed following the COVID-19 pandemic compared to the pre-pandemic period.

**Table 2: Paired Sample statistics**

Paired Samples Statistics		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Investor Behaviour Pre- COVID-19 Pandemic	17.5680	250	3.83251	.24239
	Investor Behaviour Post- COVID-19 Pandemic	15.6680	250	4.41039	.27894

Table 2 displays the descriptive statistics. From pair 1, it can be seen that the average mean of Investor Behaviour Pre- COVID- 19 Pandemic is 17.5680, and the mean of Investor Behaviour Post- COVID-19 Pandemic is 15.6680. As per the average mean of both the pairs, it can be seen that Investor Behaviour Pre- COVID-19 Pandemic plays a greater role than Investor Behaviour Post- COVID-19 Pandemic.

**Table 3: Paired Samples Correlations**

Paired Samples Correlations		N	Correlation	Sig.
Pair 1	Investor Behaviour Pre- COVID-19 Pandemic & Investor Behaviour Post- COVID-19 Pandemic	250	.336	.000

Table 3 is the paired samples correlation table, which talks about the Pair 1 variables. The above table 3 shows that there is a positive correlation between Investor Behaviour Pre- COVID-19 Pandemic & Investor Behaviour Post- COVID-19 Pandemic (significance value is less than 0.05 i.e., 0.000).

**Table 4: Paired Samples Test**

Paired Samples Test		Paired Differences					t	df	Sig. (2-tailed)
Pair	Investor Behaviour Pre- COVID-19 Pandemic - Investor Behaviour Post- COVID-19 Pandemic	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
1	Investor Behaviour Pre- COVID-19 Pandemic - Investor Behaviour Post- COVID-19 Pandemic	1.90000	4.77212	.30182	1.30556	2.49444	6.295	249	.000

Table 4 is the paired sample test table, as it contains the inferential t-test statistics and shows whether there is a statistically significant difference between the conditions. As per table 3, From Pair 1, it can be seen that there is a statistically significant relationship between Investor Behaviour Pre- COVID-19 Pandemic - Investor Behaviour Post- COVID-19 Pandemic (significance value is smaller than 0.05 i.e., 0.000).

(3) H2: “The preference for certain asset classes has shifted as a result of the COVID-19 pandemic, with investors showing varying levels of preference for stocks, bonds, real estate, and commodities compared to the pre-pandemic period

**Table 5: Model Summary**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.205a	.042	.038	3.37781
a. Predictors: (Constant), COVID-19 Pandemic				

The model summary is defined in Table 5, which shows a strong degree of correlation. The dependent variable, COVID-19, reflects the majority of the variation in the whole, as indicated by the R-value of 0.205 for the simple correlation. One independent variable that may be utilized to explain the outcomes is the pandemic.

**Table 6: ANOVA**

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	123.633	1	123.633	10.836	.001b
	Residual	2829.583	248	11.410		
	Total	2953.216	249			
a. Dependent Variable: Investment Preferences Across Different Asset Classes						
b. Predictors: (Constant), COVID-19 Pandemic						

The aforementioned table, known as ANOVA table 6, shows how well the regression equation predicts the dependent variable and fits the data. The dependent variable is strongly predicted by the regression model, according to this table. This shows that the regression model's statistical significance is 0.001, which is less than 0.05, and that the model generally predicts the outcome variable statistically substantially (i.e., it fits the data well).

**Table 7: Coefficients**

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.855	.962		11.280	.000
	COVID-19 Pandemic	.184	.056	.205	3.292	.001
a. Dependent Variable: Investment Preferences Across Different Asset Classes						

Coefficients Table 7 gives us the data one needs to forecast the impact of the COVID-19 Pandemic and assess if the model finds the Investment Preferences Across Different Asset Classes to be statistically significant.

(4) H3: Market volatility during the COVID-19 crisis has led to increased trading volume, significant shifts in asset allocation strategies, and changes in investment horizons among investors as they seek to manage risks and capitalize on opportunities

**Table 8: Model Summary**

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.911a	.829	.828	.89469	
a. Predictors: (Constant), Market Volatility					

The model summary is defined in Table 8, which shows a strong degree of correlation. The market volatility dependent variable's R-value, or the amount of the overall variation that the independent variable can account for in explaining the outcomes, is 0.911 for the simple correlation.

**Table 9: ANOVA**

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	962.779	1	962.779	1202.767	.000b
	Residual	198.517	248	.800		
	Total	1161.296	249			
a. Dependent Variable: Investor Decision-making						
b. Predictors: (Constant), Market Volatility						

The aforementioned table, known as ANOVA table 9, shows how well the regression equation predicts the dependent variable and fits the data. The dependent variable is strongly predicted by the regression model, according to this table. This shows that the regression model's statistical significance, which is less than 0.05, is 0.000, meaning that generally, the model fits the data well and statistically substantially predicts the outcome variable.

**Table 10: Coefficients**

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.323	.222		-1.459	.146
	Market Volatility	.695	.020	.911	34.681	.000
a. Dependent Variable: Investor Decision-making						

The Coefficients Table 10 provides the necessary information to predict the effect of the Investor Decision-making, as well as determine whether the Investor Decision-making is statistically significant to the model.

## VI. DISCUSSION AND FINDINGS

During COVID 19, Investors behaviour had been significantly impacted. In light of this Gurbaxani and Gupte, (2021) stated that small cities in developing nations like India were greatly affected by the COVID-19 epidemic, which influenced investment and financial decisions [14]. There was a 43% decline in SIP investments due to the measures implemented to contain the virus. Furthermore, Ganiarto, E., (2021) investigated the contrasted the eras before and after the epidemic in Indonesia, examining the elements that influenced the investing behaviour of beginner investors [15]. The epidemic did not affect investment intentions, but approaches, biased models, and recognized interactive manipulation had a substantial effect. On the other hand, Wang, F., et. al., (2022) examine the effect of COVID-19 investment activity on the UK stock market via a questionnaire [16]. The study found a mitigated association between risk perception and financial risk tolerance, profitability rate, and satisfaction, with a substantial moderating effect of uncertainty. Another factor that Kiruba and Vasantha, (2021) explored was fear, risk perception, herding, and



vaccine updates in relation to the psychological impact of COVID-19 on stock market decisions, with a focus on statistical methods such as SPSS 21 [17]. Moreover, Malini, H. (2020) examined Six worldwide stock markets that displayed varying short-term return behaviour during the COVID-19 pandemic, showcasing different returns and emphasizing the need for authorities to make adjustments to mitigate risks in the financial sector [18]. Another aspect of investment by Khan, S., et. al., (2020) examined the impact of COVID-19 on the decisions of Mumbai-based investors, with a specific focus on traditional assets such as gold and real estate, as well as market-based financial instruments like stocks [19]. The results indicated that investor preferences were not static but rather affected by the actions of certain individuals. On the contrary, Dhall, R., & Singh, B. (2020) adhered to the face of the COVID-19 epidemic at the NSE industry level [20]. There was a noticeable absence of herding behaviour both before and during the epidemic, as indicated by the results. Traders used the study's findings to inform their pandemic strategy.

An in-depth examination of investor behaviour and its effects on financial markets, with a focus on small towns in developing nations like India, is provided by the current study, which is relevant in light of the COVID-19 data. This study seeks to offer a comprehensive understanding by investigating elements such as attitudes, risk perception, and psychological consequences that impact investing decisions. Previous research has focused on certain areas of investment behaviour, but this study strives to cover all bases. In addition, previous research has focused on how the pandemic has affected certain financial markets or investment instruments; however, this study aims to examine more general patterns and trends throughout various investment channels. The current study seeks to provide policymakers and investors with useful insights by combining multiple viewpoints and using statistical methods. It intends to contribute to a better-educated approach to managing financial markets during hard times.

## VII. CONCLUSIONS

In conclusion, comparing investing tactics before and after the COVID-19 disease, the study reveals how investor behaviour changed significantly as a result of the outbreak. Investors' attitudes, risk perception, and investment choices changed noticeably as a result of the epidemic, according to the results. The study sheds insight into the tenacity of investors in the face of extraordinary market circumstances and the enduring difficulties and unknowns encountered during the epidemic. Furthermore, the study highlights how financial institutions and lawmakers could adjust their approaches to reduce risks and assist investors in handling unpredictable market conditions. Taken together, the study sheds light on how investor behaviour changes during times of global crises and can help guide future efforts to strengthen financial stability and resilience.

This study's implications highlight the urgent need for regulators, financial institutions, and investors to adjust their strategies in light of the dramatic changes in investor behaviour witnessed during the COVID-19 epidemic. The findings highlight the significance of keeping track on and comprehending how investors' attitudes, perceptions of risk, and investment choices are always shifting in order to successfully navigate unpredictable market conditions. Potential biases in self-reported data and the constraints of the study's timeline make it difficult, if not impossible, to capture all aspects of investors' behaviour. The effectiveness of different intervention measures in assisting investors during crises should be investigated in future studies, and longitudinal studies should be considered to follow how investor behaviour evolves beyond the immediate effects of the epidemic. To further understand the many ways investors react to crises, studies should target certain demographics and look at geographical differences in investment behaviour. To sum up, these considerations provide useful direction for future studies that want to further our knowledge of how investors react during times of global crises.

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