

Covid-19 Pandemic and Its Impact on Women Investors -A Study of Twin City, Cuttack and Bhubaneswar

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Abstract

The Novel Corona virus was first reported in Wuhan, China in December 2019 and has since affected the lives of people all over the world. It is considered a threat to life and wealth. It not only damaged the health of individuals but also negatively impacted the economy. The majority of countries fell back as prey to COVID-19, resulting in low GDP.

The main purpose of this study is to understand how the pandemic has affected the financial decisions of female investors. Risk perceptions and tolerance of investors were briefly studied. To broaden the knowledge on this topic a few pieces of literature on demographic factors, investing behaviour of female investors, investors during crises, and so on were considered. A sample survey was conducted on 91 female respondents who invest in SIPs regularly. These female respondents belong to different working sectors in the twin city of Odisha. The amounts of investments in SIPs by female investors are observed to check for possible changes after the outbreak of COVID 19.

This study highlighted the socio-economic effects of COVID 19 on the behaviour of investors. Paired sample t-test and regression analysis were used to reach diverse conclusions, and the data was conveyed in tabular and graphical form for better understanding.

Keywords: Covid19, Sips, Equity Market, E-Gold, Two-Tailed Test, Linear Regression, Investor's Behaviour.

Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus, whose outbreak impacted human life severely. The majority of those infected with the virus have mild to moderate respiratory symptoms and will recover without the need for medical attention. According to WHO, "the best way to slow down transmission is to be well informed about the disease and how the virus spreads". Stay at least 1 metre away from people, wear a well-fitting mask, and wash your hands or use an alcohol-based sanitizer to avoid infection. Self isolation, social distancing, restrictions on transportation and mobility, closing down of institutions, and nationwide lockdowns are some of the Various measures introduced to fight the pandemic.

In India, the first case of COVID-19 infection was reported in Kerala on January 30, 2020. Since then, the number of cases has risen steadily and substantially. To cope up with the situation government imposed various restrictions and lockdowns. The first lockdown was announced on March 20th, 2020 by Prime Minister Narendra Modi for 21 days in an effort to contain the COVID-19 pandemic (The Economic Times). All schools, colleges, tourist attractions, offices, religious institutions, public utilities, and superfluous businesses and services were closed during this time. Fines and punishments were introduced for those who refused to follow the regulations. The lockdown continued until May 31st, after which services were gradually restored. Due to the continuous lockdowns and shutdowns, economic activities also gradually decreased resulting in slow economy, unemployment, and badly effected business.

Many countries faced recession because of social distancing policies and lockdown restrictions. This put more pressure on policy makers and resulted in fast policy decisions that had positive and negative effects on their economies. (Ozili and Arun, 2020)

According to ICGN's 2018 Guidance on Investor Fiduciary Duties "The nature of systemic risk is that it builds over time, it is interactive and synergistic and, once in play, is difficult to control. Systemic risk drivers tend to be cumulative and/or interdependent, resulting in far-reaching impacts, shocks or even system-wide failure." Novel coronavirus pandemic clearly meets its criteria for systemic risk. Investors and their expectations, on the other hand, play a crucial role in the financial markets. Investors' expectations are influenced by their perception, and



Priyanka Samal
Research Scholar,
Dept. of Management,
Ravenshaw University,
Cuttack, Odisha, India



Tushar Kanta Pany
Associate Professor and
Head,
Dept. of Commerce
Ravenshaw University,
Cuttack, Odisha, India

they normally associate their perception with action. They influence the price of the securities, the volume traded and various other financial operations in actual practice. During COVID 19, They were exposed to the dynamic market conditions and various financial risks.

This study thoroughly examines the various factors influencing an investor's behaviour during the COVID 19 outbreak. Investment decisions, the financial crisis on the securities market, financial regulations, and recent financial market trends are all examined briefly. This study focuses mainly on female investors from different working sectors who regularly invest in the market.

Review of Literature

Demographic Factors Effecting Mutual Fund Decisions

Rajarajan (2002) studied different aspects, such as the amount of the investment, the scheme selection, and the risk-bearing ability of the investors. He also mentioned the impact of demographic factors such as income, age, profession, and employment status on investment returns. The author concluded that age can have a substantial impact on the returns.

Mutual Fund Decisions and Female Investors

George Deepthi and Chandran Jagadees (2016) investigated that women were not risk takers and the majority of women preferred safe investment. Bank deposits are secured as the best investment option after gold, silver, and mutual funds. Debentures and derivatives are usually not preferred by female investors. Mutual funds were chosen mainly because of their better returns and tax benefits. This also showed the influence of marital status on investment decisions, as the majority of investors were married women. The study also revealed the growing interests of women investors and their satisfaction with mutual funds.

Investors' Behaviour At The Time Of Crisis

Arvid O.I. Hoffman, the author stated that investors' perceptions could be badly affected due to a lack of volatility in risk perceptions and tolerance than risk expectations. During the worst phase of the crisis, risk tolerance decreases while risk perception increases. At the end of the crisis, investors recovered the perception.

Dev and Sengupta 2020 conveyed the impact of the crisis on the workers. Employees with no formal contracts at work may face job insecurity and instability in income. During the crisis, a lack of health or pension benefits may have a negative impact on one's livelihood.

Impact Of Covid 19 on Household Earnings

Mrinalini Jha and Rahul Lahoti (2021) focused on inequality during COVID-19. People from lower income groups were affected by a larger decline in earnings. Due to the slowdown in the market and unemployment caused by COVID-19, there was an increase in hunger and indebtedness.

Figure 1 Unemployment rate in India from January 2020 to January 2021



(Statista, 2021)

The graph shows a huge rise in the unemployment rate, nearly 24% after the break out of COVID 19. It is possible due to a decrease in demand and a disturbance in the labour force. Social distancing, lockdowns, and shutdowns hamper the working conditions of people, resulting in the loss of jobs.

Impact of COVID 19 on Financial market

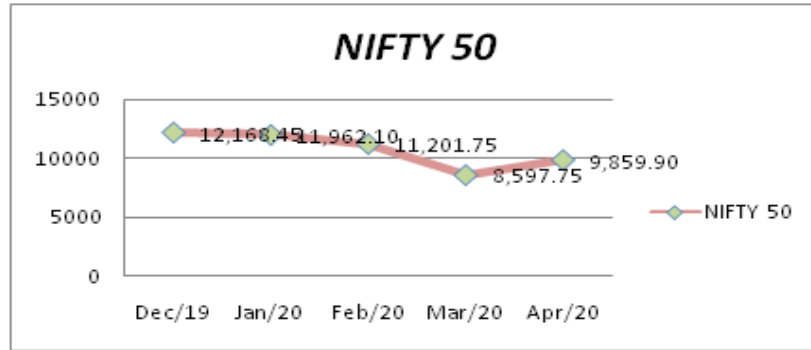
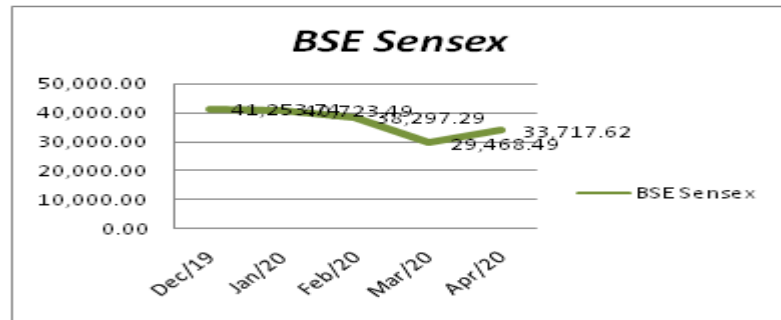


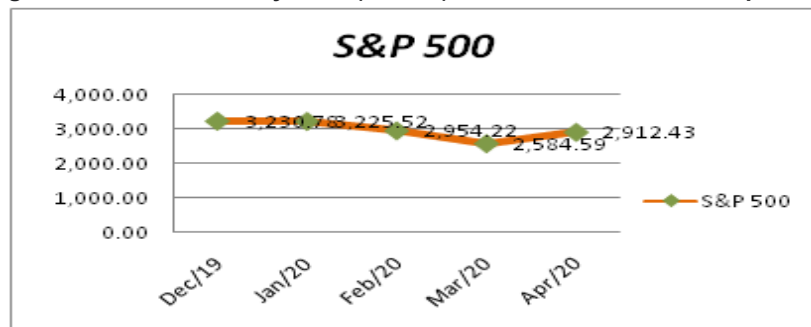
Figure 2 Nifty volatility index from December 2019 to April 2020 (Investing.com)

Figure 3 BSE sensex volatility index from December 2019 to April 2020



(Investing.com)

Figure 4 S&P 500 volatility index(in USD) from December 2019 to April 2020

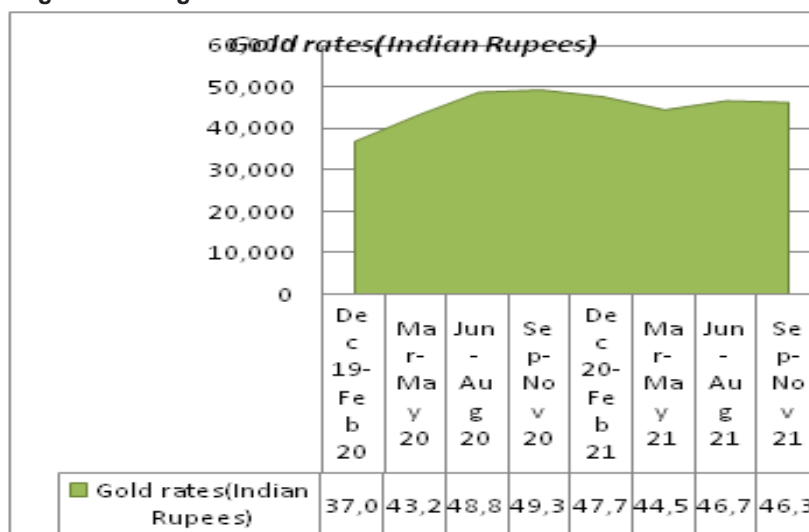


(Investing.com)

The above graphs show the various equity-oriented funds and their volatility after the breakout of COVID 19. During March and April 2020, the NIFTY fell by 23.25%, the BSE Sensex fell by 23.05%, and the S&P 500 fell by 12%.The fluctuations in the market created recession tension.

COVID19 has collapsed the backbone of the financial market. To boost the stock market, proper policy measures must have to be adopted by the government. " (Debakshi Bora, 2021)

Figure 5 Change in Gold rates from December 2019 to November 2021



(myloancare.in)

In the above graph, we can see a rapid increase of 16% in the price of gold after the pandemic breakout in 2020. This increase in the gold rate may be due to the financial stress faced by people. During the pandemic, salary cuts, unemployment, worker migration, and huge medical expenses affected their livelihood, resulting in indebtedness and loans. According to the Reserve Bank of India (RBI) sectoral deployment statistics, loans against gold jewellery jumped to 62,238cr on April 2021 from 24,747cr on April, 2019. Due to the huge financial insecurity, people turned to gold as a safe investment option. Gold has always been considered a safe investment to bank on in times of distress or emergencies. (India Today) At the beginning of COVID-19, people were not able to buy physical gold from the shops due to lockdowns and shutdowns, but with the ease of restrictions, the demand for gold increased. During shutdowns, investors perceive E-gold as a profitable opportunity. E-gold is the purchase of gold electronically; the investor does not need to be present at the shop or physically buy the gold. To purchase the E-gold, investors should have a valid trading account.

Objective of the Study

This recent COVID-19-related study focuses on female investor behavior both before and during the COVID-19 pandemic (2021). The objectives are as follows:

1. To see if there is a difference in the amount of money invested in SIPs before and after the COVID 19 outbreak.
2. To check the association of age with Change in amount of investments in SIPs before COVID-19 & during COVID-19.
3. To study the recent trends after the outbreak of COVID-19 and its impact on individual investing decisions.

Research Methodology

The present study mainly focuses on female investors working in different sectors from the age group of 20 to 60, who invest in SIPs regularly. These participants belong to the twin cities of Odisha—Cuttack and Bhubaneswar. This study is based on convenience sampling, and the primary survey method is followed. A well-structured questionnaire was circulated among 100 working women, of whom 91 responded. The research questions were asked in order to find out the impact of COVID 19 on investments in SIPs. Various conclusions were made on the basis of factors effecting investments before and during the outbreak of COVID 19

Hypotheses Testing

After the discussion above, the following null hypotheses are proposed.

1. There is no significant change between the monthly investments before COVID 19 and monthly investments after the outbreak of COVID 19.
2. There is no correlation between age of female respondents and change in amount of investments in SIPs (before and during the COVID 19 outbreak).

Tests Related To Hypothesis

Monthly investments in SIPs before and after the breakout of COVID 19
 The female respondents were asked to reveal the monthly investment amounts in SIPs before the pandemic and during the COVID-19 outbreak. A paired sample t-test was used to check the association between these two amounts.

Table 1 Paired sample statistics

	Mean	N	Std.Deviatio n	Std. Error
Monthly investment in SIPs before COVID 19	16318.68 13	91	11373.3402 9	1192.25002
Monthly investment in SIPs during COVID 19	13351.64 84	91	8725.91750	914.72470

Table 2 Paired sample correlations

		N	Corre lation	Significance	
				One-Si ded p	Two-Si ded p
	Monthly investment in SIPs before COVID 19 & Monthly investment in SIPs during COVID 19	9 1	.694	<.001	<.001

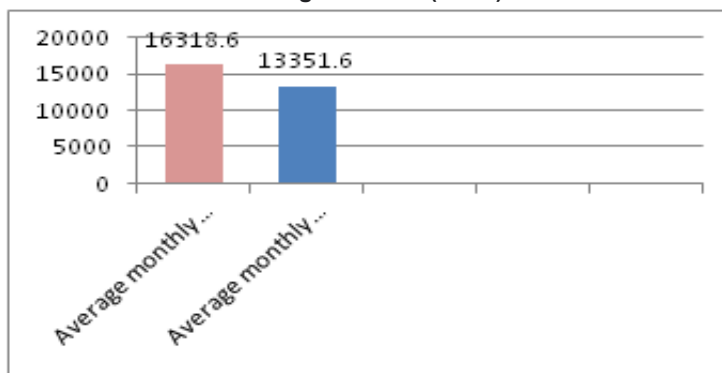
Table 3 Paired sample test

	Paired Differences					t	df	Significance	
	Mean	Std. Devi ation	Std. Erro r Mea n	95% Confidence Interval of the Difference				One-Sided p	Two-Sided p
				Lower	Upper				
Monthly investment in SIPs before COVID 19 - Monthly investment in SIPs during COVID19	2967. 03297	823 1.98 444	862. 946 45	1252.6 3923	4681.4 2670	3.438	90	<.001	<.001

In the above test, $p = .001$, which means the significance value of the two-tailed test is less than 0.05. When a p value is less than .05, it is considered as statistically significant which indicates strong evidence against the null hypothesis and there is less than 5% possibility of the null hypothesis being correct. Thus, we reject null hypothesis 1 and accept the alternative hypothesis i.e. there is a significant change in the monthly investment before COVID 19 and after the outbreak.

The average monthly investment in SIPs before the pandemic and after the outbreak shows a downward trend. The percentage decline in average Monthly investments after the outbreak of COVID 19 was 18%.

Figure 6 Change in average monthly amount invested in SIPs before and during COVID 19(in Rs)



Test related to Hypothesis 2: Association between the age of the respondents and their differed amount of investments in SIPs before and during the COVID 19 outbreak.

The investors belong to the age group of 20 to 60. Regression analysis was used to study the association between the age of female respondents and the change in investments in SIPs before and during the crisis. The female respondents belonged to the age group of 20 to 60.

Table 4 Statistical test to find association between age of the respondents and difference in investments in SIP before and after the pandemic

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.243 ^a	.059	.048	8030.55342

Table 5 ANOVA

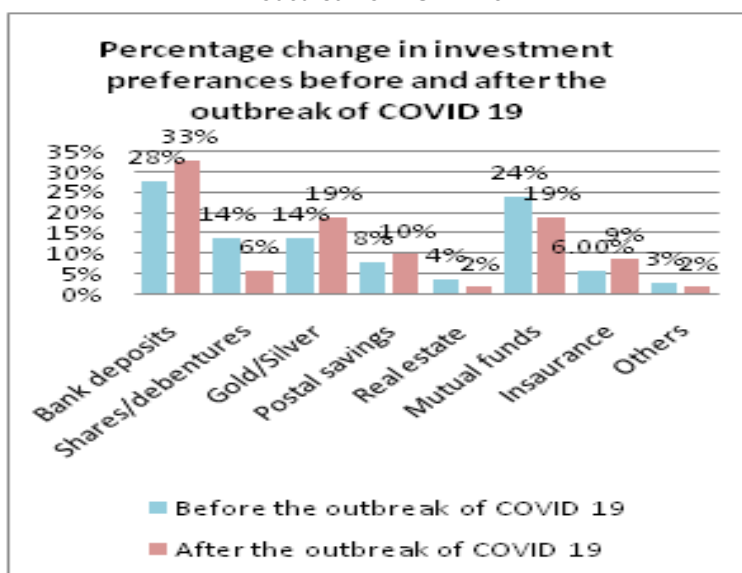
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	359309943.290	1	359309943.290	5.572	.020 ^b
	Residual	5739591155.611	89	64489788.265		
	Total	6098901098.901	90			
a. Dependent Variable: Change in the investment before and after the COVID 19 breakout						
b. Predictors: Age of the female respondents (Constant)						

From table 5. The value of **R** is 0.243 (in the **R** column). The value of **R** means simple correlation, and here it indicates a low degree of correlation. The **R** value (in the **R Square** column) indicates the degree of the total variation in the dependent variable that can be predicted by the independent variable. In this case, the dependent variable is the change in investments in SIPs before and after the breakout of COVID 19, and the independent variable is the age of the female respondents. Here, the **F** is 5.5%, which is very little. In the **Sig.** column, the table indicates the statistical significance of the regression model as the **p** is greater than 0.05, which means the null hypothesis 2 is accepted. It can be stated that there is no association between the age of respondents and the change of investments before and after the breakout of COVID 19.

Research Findings

1. The study reveals that the investors' behaviour was clearly affected by the outbreak of COVID 19. The investments in SIPs before and after the outbreak show a downward trend. The percentage change in the monthly investment fell to 18%. Low household incomes, a high unemployment rate, an increase in indebtedness, a drop in the stock market (the Nifty 50 fell to 23.25%, the BSE Sensex fell to 23.05%, and the S&P 500 fell to 12%), and negative returns from mutual funds during the pandemic were the main reasons for the decline.
2. In response to the second hypothesis, the study concludes that there is no correlation between the age of the female respondents and the difference in investments before and after the outbreak of COVID 19. Earlier, it was believed that investors develop more interest in investments with increasing age. The respondents who are older than 35 tend to invest more for retirement plans. In this study, there was a fall in investment in SIPs after the outbreak of the pandemic, which means the savings were preserved for emergencies.
3. The respondents were asked to reveal their choice of investments before and after the outbreak of COVID 19. The results show that the preference for bank deposits, postal savings, gold, silver, and insurance increased tremendously, whereas the choice for mutual funds, shares, debentures, and real estate decreased after the outbreak of COVID 19.

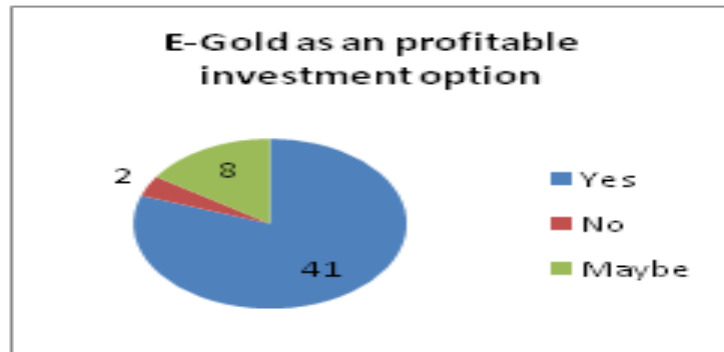
Figure 7 Percentage change in investment preferences before and after the outbreak of COVID 19



In the figure above, we can see a 7% rise in the preference for bank deposits and a 35% rise in the case of gold. Thus, gold can be considered profitable and safe before bank deposits. Mutual funds and shares/debentures can be seen in declining position with fall of 20% and 57% respectively.

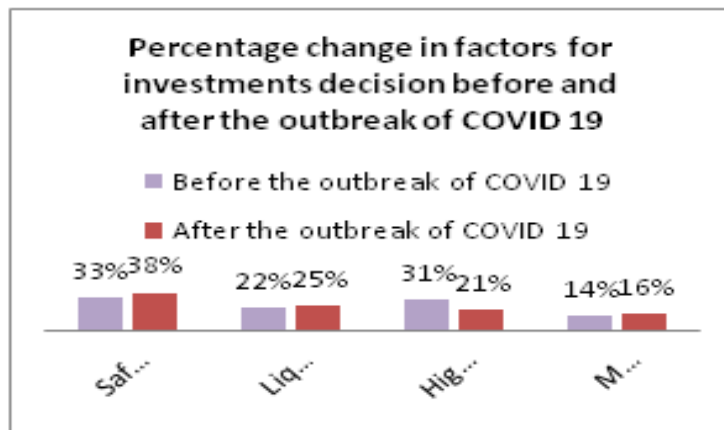
4. Gold behaves as a good investment opportunity at the time of crisis. Women investors tended to invest regularly in gold and silver prior to the pandemic, and the choice of investment increased from 14% to 19% during the COVID 19. Female respondents were asked if they had invested in E-Gold and if they found it profitable. Out of 91 respondents, only 52 had invested in E-Gold, of which 41 found it profitable, 2 thought it was unprofitable, and 8 respondents were skeptical. With other investment opportunities in the market, gold can be considered the safest and most profitable during a pandemic. In this context, around 42% respondents were not aware of this mode of investment due to lack of information in the market.

Figure 8 E-Gold as profitable investment option



5. The female respondents were asked about the factors affecting their choice of investments before and after COVID 19. And the results showed that women investors are not risk-takers and prefer more safety over high returns from investments. There is a 15% rise in safety, 13% in liquidity, and 12% in marketability in the choice of factors for investment decisions.

Figure 9 Percentage change in factors for investments decision before and after the outbreak of COVID 19



Conclusion

The Indian economy was badly affected by the outbreak of COVID-19. Due to the huge population and diversity in social status, it became harder to control the spread of the Novel Corona virus, resulting in number of deaths and mishaps. The Novel corona virus nearly affected every life in the country, and it is still present in the country even after vaccination. The current study focused primarily on the change in amount of investment in SIPs prior to and after the pandemic's outbreak. From January 2020 to November 2021, it created numerous chains of events in the economy: an increase in unemployment rates, a decrease in stock markets, a decrease in individual income, etc. are some of the examples that negatively impacted the economy, resulting in a downfall in the percentage of the amount invested after the breakout of COVID 19. Meanwhile, it also provided an investment opportunity, i.e., gold. COVID-19 has a huge impact on the financial sector as well. With dynamic market changes, investors become skeptical towards investing decisions. They are now unwilling to take risks and prefer safer options while investing. They are focusing on moderate returns with safety in investments. In the study, many respondents were not aware of recent market investing opportunities (E-Gold);with addition to opportunities and changes, the investors should be guided properly. Financial literacy can help an investor be more aware of their environment, which creates risk perception and risk tolerance. Policymakers should arrange campaigns to educate people about financial markets in different sections of society to reduce future financial crises. The government should take steps towards reducing socio-economic negative factors affecting the decision-making of an investor. Many investors or potential investors lost their jobs during the pandemic, faced near-death health experiences, and lost a huge amount of funds in the market, which enabled declining investments. Governments and policymakers should help investors recover their health and wealth in order to smooth functioning like pre-COVID times.

Scope for Further Research

The study was conducted in the twin cities of Odisha—Cuttack and Bhubaneswar—with 91 female working women. Future research could be possible with a bigger sample size and more demographic factors. A new study can be conducted on the need for financial literacy among investors and the efforts of policymakers to educate them

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