A Study on the Impact of COVID- 19 on Investor Behaviour of Individuals in a Small Town in the State of Madhya Pradesh, India

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Abstract

Purpose: To understand how the COVID-19 pandemic has impacted investment and financial decisions of individuals in small towns in developing nations such as India.

Methodology: A literature review was undertaken on COVID-19 and steps taken by the government to fight the pandemic. A sample survey was conducted to determine the impact of COVID- 19 on individuals' financial transactions in Madhya Pradesh (MP). The respondents either belonged to the service sector or owned businesses. The relationship between the COVID-19 pandemic and change in investment decisions of individuals with respect to SIPs was studied.

Findings: Significant association was found between measures taken to prevent the spread of COVID-19 (such as lockdown and travel restrictions) and individual income; such preventive measures directly impacted savings and investment behaviour. Indeed, respondents reported a 43% drop in SIP investments during the COVID-19 pandemic. While decline in investment was common to genders, the difference between percentage decline was statistically non-significant. Furthermore, investment behaviour did not vary with investor age.

Research Implications: Results highlight the socioeconomic effects of the COVID-19 outbreak at the micro-level and may enable financial institutions and individuals to better handle such situations in future. The scope of the present research is limited. Future studies could consider larger samples and different contexts to gain deeper insights into the socioeconomic effects of the COVID-19 pandemic. Studies could also suggest policies and measures to help governments effectively deal with future crises.

Originality/ Value: Hitherto, the impact of COVID-19 outbreak on investment decisions of individuals in Tier 3 cities had remained under-examined; this is one of the first studies to carry out such an investigation.

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INTRODUCTION

The outbreak of the highly infectious COVID-19 significantly disrupted human life. Measures to fight the pandemic included social distancing, self-isolation, shutting down of institutions and establishments, restricting modes of transport, and nation-wide lockdowns. While such steps seemed necessary considering the fact that this was a novel disease with no known cure, the impact on economic activity around the globe was significant.

The first COVID-19 positive case in India was registered on 30th January 2020 (India Today). Cases have increased regularly and substantially ever since. With effect from 25th March 2020, the Government of India declared a three weeklong country-wide lockdown to restrict the number of cases due to the fast spread of the virus. During this period, all educational institutions, offices, public and tourist places, public utilities, religious places, and non-essential businesses and services (including retail establishments) were shut down. Modes of transport were also restricted. The lockdown was further extended from 15th April 2020 to 3rd May 2020, and then from 4th May 2020 to 17th May 2020. Indeed, the lockdown continued till 31st May after which services were restored in a phased manner.

With the protracted lockdown and restricted economic activity, the economy witnessed an extended period of slowdown; millions of jobs were lost, and businesses severely hit.

The impact of the COVID-19 outbreak has been repeatedly compared with the financial crisis of 2008, which has been extensively studied in interrelation and overabundance effect literature (e.g. Kenourgios et al. 2011; Bekiros, 2014; Luchtenberg & Vu, 2015; Yarovaya et al., 2016).

The COVID-19 pandemic has been considered a cause of systematic risk, hence, its impact on financial transactions must be examined. Orlweski (2008) identified five unique stages of the 2008 global financial crisis: 1) the beginning of the subprime mortgage disaster; 2) the expansion of credit risk with mounting losses of financial institutions; 3) liquidity crunch; 4) the commodity price bubble; and 5) the ultimate freeze of credit markets. Extant literature has comprehensively examined the reasons and results of the financial crisis on housing and securities markets, corporate investment decisions, financial institutions, bank lending, financial regulations and institutional investors. Significant research attention has also been paid to the effects of the COVID-19 pandemic on gold prices, crude oil prices, cryptocurrencies and market indices. However, the influence of the COVID-19 on individual investor behaviour is an area that remains relatively under-examined.

At the time of crisis, investors are susceptible to sensational and surprising news (Dzielinski, 2011). An information overload may hinder intelligent decision-making and curb individual investor trading activity during a crisis (Agnew and Szykman, 2005).

LITERATURE REVIEW

The authors have carried out a literature review to compare the financial crisis of 2008 and the impact of the COVID-19 outbreak on financial markets. The findings from the literature review are presented below:

A. Demographic Factors Affecting Mutual Fund Investment Decisions

Lewellen et al. (1977) determined that demographic factors such as age, gender, family income, and other determinants influenced individual investment decision making. Age and income significantly influenced the selection of a mutual fund (Syama Sunder, 1998). Desigan et al. (2006) examined women investors' attitudes towards investment and concluded that women investors were reluctant to invest in mutual funds due to various reasons, including: inadequate knowledge of the different investment instruments and respective instrument policies; market volatility; uncertainties related to investment and assessment of investment; redressal of grievances; etc. Generally, men tend to be relatively confident and willing to take risk while women display greater aversion to risk (Barber & Odean, 2001), thus, it may be presumed that men are more likely to invest in stocks than women.

Sudalaimuthu and Senthilkumar (2008) analysed investor preference with respect to the mutual fund sector considering the following variables: scheme type; purchase of mutual fund units; level of uncertainty faced by investors; origin of data on market value of units; investors' perspective towards variables impacting mutual fund investment; investors' level of contentment against different instigating factors; source of knowledge of mutual fund schemes; type of plan held by investors; investors' knowledge of risk category; and problems encountered by mutual fund investors. Investors belonging to middle- and lower-income groups were found to be relatively more risk averse. Generally, investors seek higher returns at low risk (Kaplan & Garrick, 1981). Singh and Jha (2009) discovered that investors chose mutual funds on the basis of the funds' ability to provide returns, liquidity, and security; investors were not well informed about systematic investment plans (SIPs). Investor preference with respect to mutual funds varied with age and income. Age significantly impacted awareness of mutual funds while gender did not show a significant influence on awareness of mutual funds. Investors falling within the age group 20-30 displayed the tendency to invest more in mutual funds (Raja Rehan, Saba Naz, Imran Ume, Omais Ahmed, 2018). Binod Guragai & S. Drew Peabody (2018) concluded that as investors grew older, planning for retirement and savings assumed higher priority; such investors tended to invest more in stocks.

There is a considerable influence of investment options such as Bank Deposits, Insurance, PPF, NSC, Post office, Real estate, Gold and Chit funds in investment decision making; especially when individuals are making investments on high/low risk investment options that helps to take better decision making (Senthamizhselvi. A and Vedantam Seetha Ram, 2018).

B. Factors Influencing Individual Investor Behaviour

Empirical studies examining individual investor attitude first appeared in the 1970s. Lewellen, Lease, and Schlarbaum in 1974 determined that age, gender, earnings and literacy influenced investor choices for capital gains, dividend income and total income. Some theories on investor behaviour focus more on decision making to avoid poor results (Robert A. Nagy and Robert W. Obenberg, 1994).

Cognitive characteristics play a significant role in individual decision making related to investing. Psychological attributes such as the capability to take risk, mental calculation, willingness to take financial risk and degree of risk aversion significantly affect individual investment decisions (Dr. Aparna Samudra, Dr.M.A.Burghate, 2012). Madhusudan V.

Jambodekar (1996) concluded that investors sought security of assets (especially the principal), convertibility into cash, and growth in the amount of investment (appreciation) in order of priority. Harlis, Peterson (1998) stated that when selecting an investment, the investor usually focused on the element of gain, and paid less attention to inherent risk or expenditure. A financial product is usually chosen on the basis of one's awareness of the product and the advantages and disadvantages it offers. For example, gold as a primary investment might reflect preferences, beliefs or liking of female family members for gold products and accessories (K. Senthil Kumar, C. Vijaya Banu, V. Lakshmana Gomathi Nayagam, 2008).

Gormsen & Koijen (2020) have considered the use of information from the accumulated equity market and dividend futures to compute how investors' anticipation about economic progress beyond boundaries emerge as a reaction to the coronavirus outbreak and subsequent policy feedback.

It has been observed by authors that change in investor perception drives the willingness to trade and take risks. This is mainly due to the poor performance of the stock market during the financial crisis. Other variables impacting investor behaviour include ability of investors to buy shares; tax implications; dividend expectations; risks involved; and capital gains.

While undesirable events may not be necessarily prevented, risk may be reduced by investing in different, relatively secure investments with fair returns (K. Parimalakanthi and Dr.M. Ashok Kumar, 2015). Kirshnudu.Ch, B. Krishna Reddy and G. Rama Krishna Reddy (2009) stated that family members' perceptions and beliefs strongly influenced investors' decisions. Alagu Pandian. V and G. Thangadurai (2013) found that most investors opted for bank deposits first, then for investments in gold. Parimalakanthi. K and Dr. M. Ashok Kumar (2015) emphasized that investors chose to invest in banks for greater security.

While men have been found to be more open to taking risks, women have usually displayed the tendency to invest in low return but relatively secure instruments. (Mittal, Manish; Vyas, R. K., 2011).

C. Individual Investor Perception During the Financial Crisis

Individual investors were the most affected by the financial crisis of 2007-09. The collapse in investor wealth combined with market volatility probably led to a change in individual investor perception and attitude (Hudomiet, Kézdi, and Willis 2011). Organizations and individual investors were largely affected by the financial crisis of 2007–2009. Some investors might have been driven to become over cautious about investing in equity altogether (Bucher-Koenen and Ziegelmeyer 2011). Investor attitude and opinion change naturally during crisis, with focus shifting from return expectations to risk-resistance (Hoffmann, Thomas Post, Pennings, 2011).

Events such as the 2008-09 financial crisis, may have a substantial influence on individual investors (Kanheman and Tversky, 1972), Malmendier and Nagel (2011) opined that occurrences such as the Great Depression of the 1930s could have long-lasting effects on investor opinion and risk-bearing attitude. During a financial crisis, investor wealth is negatively impacted and returns become uncertain.

An interesting study showed that older baby boomers (baby boomers are those born 1943-1960) seemed scared of the Great Recession whereas millennials (born 1980–1994), demonstrated financial planning resiliency (Zick, Mayer, and Glaubitz 2012, p.13).

Forbes (2020) examines the impact of crises on different generations and states that millennials witnessed three events: 9/11, during which nearly all of them were under the age of 18; the Great Recession (2008), when a few of them were either beginning their careers or about to complete their education; and now, the COVID-19 outbreak. Millennials are termed 'job-baggers' who value purpose- driven work. Saving has never been high on their agenda, but with this pandemic, they will probably shift their priority to saving and stability.

Workers with no formal employment contracts face job and income insecurity, and don't enjoy health or pension benefits, thus, they are more likely to be negatively affected by crises like the present one (Dev and Sengupta, 2020). There has been an increase in unemployment due to reduced production. Further, spending saw a significant rise towards hospitalization, care, and treatment of COVID -19 patients (OECD Interim Economic Assessment, 2 March 2020).
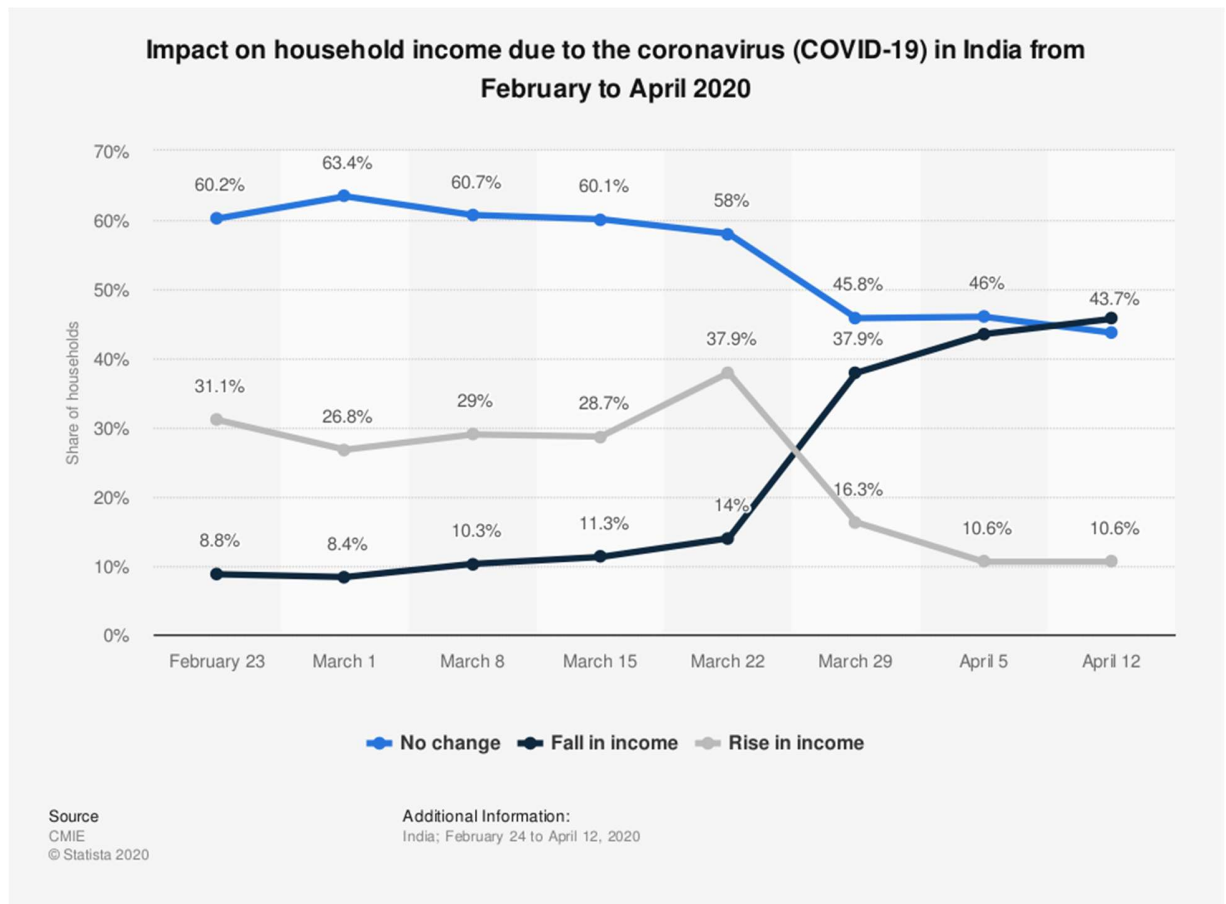
Gold is a relatively safe investment considering volatile market conditions and uncertain returns (Taufiq Choudhry, Syed S. Hassan, Sarosh Shabi, 2015). According to Coudert and Raymond (2011) and Tuysuz (2013), at the time of financial crisis, the price of risky financial assets goes down relatively, concurrently as the fall in prices in one market leads to contamination in other markets, and there is herd behavior observed among investors which results in escalation in prices of more secure assets (specifically gold compared to other assets). Baur and McDermott (2010), Chan et al. (2011), Coudert and Raymond (2011), Miyazaki et al. (2012), Miyazaki and Hamori (2013), Chen and Lin (2014), Emmrich and McGroarty (2013), and Tuysuz (2013) furnished factual proof in favour of gold as a strong investment during financial collapse. While stock indices of Japan, the UK, and the US exhibited a significant drop during (insert period), gold prices witnessed a significant increase. This may be ascribed to investors' reaction to greater financial market unpredictability and increased demand for gold across these countries (Taufiq Choudhry, Syed S. Hassan, Sarosh Shabi, 2015).

D. Impact of COVID-19 on Household Income

Household income in India was considerably impacted by the lockdown imposed in response to the COVID-19 outbreak (**Figure 1**). Decline in household income increased from about nine percent in late February to 45.7 percent in mid-April 2020 (statista.com, 2020).

Figure 1

Impact of COVID-19 on household income

Impact on household income due to the coronavirus (COVID-19) in India from February to April 2020

Source
CMIE
© Statista 2020

Additional Information:
India; February 24 to April 12, 2020

Source: statista.com

Among the most impacted by the lockdown were regular wage earners, followed by casual workers and own-account workers. Also, 84 percent families reported a decline in earnings because of the lockdown (CMIE); among such households, those dependent on sources of earnings hit most due to the lockdown were affected more. On the contrary, family members who were salaried employees and could work from home continued to earn. 88 percent of rural households recorded a decline in earnings under the lockdown as against 75 percent of urban households.

Marianne Bertrand, Kaushik Krishnan, and Heather Schofield, 2020 indicated that the unemployment rate touched 25.5 percent on May 5, from 7.4 percent on March 21. During the same period, the labour force participation rate dropped by 6.6 percentage points (**Figure 2**) which further impacted income.

Figure 2

Impact of the lockdown on India's unemployment rate

Source: Chicago Booth

E. Impact of COVID-19 on Financial Markets

The sudden crash in global markets led to a significant downward trend in the Indian financial market; with foreign investors (FPIs) shifting to dollar-backed assets, the Indian stock market witnessed a fall. S&P BSE Sensex which stood at 42273 points on 20 January 2020, dropped to 29894 points on 08 April 2020 (outlook.com). Nifty 50 also fell by 38% (**Table 1**). The stock market reflected investor (foreign and domestic) sentiment in light of the pandemic. These developments impacted organizations as well. Companies curtailed operations, layoffs increased, and employee remuneration saw major cuts during the period. Indeed, specific sectors such as hospitality, tourism, and entertainment were considerably impacted and stocks of companies in these sectors fell by over 40%. (BW Businessworld). **Figures 3 and 4** show the volatility in Sensex and Nifty respectively for the year May 2019 - June 2020.

Figure 3

Sensex volatility index from May 2019 to June 2020.

Source: Sharekhan.com

Figure 4

Nifty volatility index from May 2019 to June 2020.

Source: sharekhan.com

Table1

Before and During COVID View of Indian Stock Markets

|	Indexes-14 Jan 20	Indexes-23 Mar 20	Indexes-24 Apr 20
Nifty 50	12,362	7,610	9,154
Sensex	41,952	25,981	31,327

Equity-oriented mutual funds displayed an adverse yield of around 25 percent during March and April, as the extensive market witnessed observed symbolic downturn amid coronavirus generated recession worries. The 44-player mutual fund industry is not resistant to the economic setback of Covid-19, and moving forward, small and mid-cap equity schemes might carry on persisting under stress in the short to medium term as a result of unpredictable movements in the markets (Business Standard).

Alber (2020) assessed Coronavirus transmission by aggregate cases, new cases, aggregate deaths, and new deaths. The study considered 6 worst hit countries (according to the number of cumulative cases) daily from March 1, 2020 to April 10, 2020. Results indicated that stock market returns appeared to be susceptible to the total number of Coronavirus cases rather than the number of daily deaths, and to Coronavirus aggregate indicators more than new ones.

E-gold is believed to be a secure investment option in times of political and financial unpredictability. It is considered a hedge against inflation and currency degradation. It tends to gain from extensive stimulus procedures (Economic Times, June 25, 2020). Gold is an asset that seems to be able to grow in value even amid uncertain and difficult times. With domestic gold prices at high record, analysts look at the upward movement lasting for the yellow metal. During the Covid-19 outbreak, the BSE Sensex fell to 25,981 points in March 2020 from its peak of 42,320 points. While BSE has since recovered considerably, it is still short of its previous high. Gold, however, has surpassed all other asset classes, having risen almost 20 percent from the lows in March, and 50 percent in the last one year to touch a historic high of Rs. 49,000 in the domestic market (**Figure 5)** (ET Markets).

Figure 5

6 months Gold Price Performance INR.
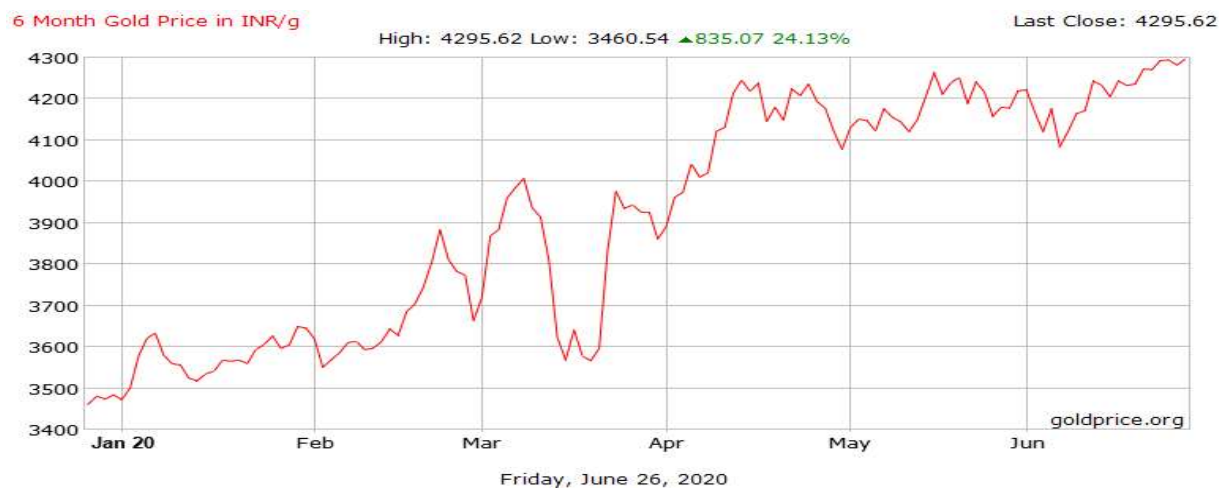
Source: goldprice.org

RATIONALE OF THE STUDY:

Recent COVID -19 related literature has focussed on macro factors such as changes in stock markets, employment, fall in GDP, etc., but this study examines how the investment behaviour of individuals was impacted during the COVID-19 outbreak due to reduction in business income, loss of job, preserving cash for emergencies, etc. This paper studies the impact of such factors on the amounts invested by investors in systematic investment plans (SIPs) during lockdown in a tier III city in India; hitherto, such an examination has not been attempted. Comparing the results of this study with those of earlier crises related studies with respect to gender and investment preferences would provide deeper insights into the impact of the COVID 19 pandemic on investor behaviour, and offer new understanding of the different dimensions to a crisis.

RESEARCH METHODOLOGY

The present study used convenience sampling and followed the primary survey method. Respondents (male and female) were a group of investors who fell in the age group 20 to 70. The participants belonged to a small town – Nepanagar - in the state of Madhya Pradesh (India); the town has a population of nearly 30,000. Chiefly, the residents of Nepanagar either own businesses or work in the service sector. A well-structured questionnaire was framed and randomly circulated among 100 investors.

A small town from MP was considered because previous studies have already examined investor behaviour in Tier I and Tier II cities like Mumbai, Chennai, Delhi, Coimbatore, etc.; there exists limited literature on investor behaviour and household finances in Tier III towns. Further,

the impact of COVID-19 on populations in Tier III towns has remained under-examined. The population of the town pertaining to the service sector and business generally invests in financial instruments like Mutual Funds and shares. Respondents belonging to the service industry work in a newsprint manufacturing undertaking which is a public sector undertaking. Majority of the employees are graduates/ diploma holders, and the basis of salary is government pay scale. Due to these factors, age and gender of respondents have been considered to draw conclusions regarding their investment behaviour.

The population of the town was 30000 according to the 2011 India census. Approximately 2% of the 6000 families in the town were regular investors. A sample of 100 families represents 83% of the families investing regularly. This sample size was higher than the representative sample size, arrived at by keeping a 95% confidence level and 5% margin of error.

Respondents either worked in the paper manufacturing industry or run businesses as their main occupation; they showed preference for mutual funds and the stock market. Research questions were framed to determine the impact of   COVID-19 on investments in SIPs. Conclusions were drawn on the basis of the examination of various factors impacting investments before and after the COVID-19 outbreak**.**

HYPOTHESES TESTING

In light of the discussion in preceding sections, the following null hypotheses are proposed:

1. Monthly investments in SIPs prior to the COVID-19 outbreak were equal to monthly investments in SIPs during the COVID-19 outbreak.

2. There is no association between gender and amount invested in SIPs before and during the COVID-19 outbreak.

3. There is no correlation between age of respondents and change in investments in SIPs before and during the COVID-19 outbreak.

Hypothesis Testing and Findings

The study was conducted on 100 respondents. These respondents were investors who preferred to invest in mutual funds and the stock market on a monthly basis. Respondents falling in the age group 22-70 provided information about monthly investment amounts in SIPs before and during the COVID-19 outbreak, i.e., before February 2020 and after. Respondents also disclosed reasons behind changes in monthly investment amounts and mentioned other investment options they preferred during the COVID-19 outbreak.

Tests related to Hypothesis 1: Amount invested by investors in SIPs prior to and during the COVID-19 outbreak.

Respondents were asked to disclose the monthly amounts they invested in SIPs before and during the COVID-19 outbreak. To determine the association between these amounts, a paired sample t-test was used. Results of the test are provided in **Tables 2 and 3**.

The p = .001, i.e., the significance value of 2 tailed test is less than .05. A *p*-value less than .05 (typically ≤ 0.05) is statistically significant; it indicates strong evidence against the null hypothesis as there is a less than 5% probability that the null hypothesis is correct (and that the results are random). Therefore, we reject null hypothesis 1, and accept the alternative hypothesis. It can be concluded that the monthly amounts invested in SIPs before the COVID-19 outbreak differed from those during the outbreak.

The average monthly amount invested in SIPs by all respondents before and during the COVID-19 outbreak is provided in **Table 2**. The amount of investment shows a downward trend as reflected in **Figure 6**; the percentage decline was 43%.

Table 2
Paired Sample Statistics

	Mean	*N*	*Std. Deviation*	*S.E. Mean*
Pair 1 Monthly Investment Before COVID 19	4390.00	100	4725.591	472.559
Monthly Investment After COVID19	2495.00	100	3520.858	352.086

Table 3
Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	*Std. Deviation*	*Std. Error Mean*	*Lower*	*Upper*	*t*	*df*	*Sig. (2-tailed)*
Pair 1	Monthly Investment Before COVID19 – Monthly Investment After COVID19	1895	2207.99	220.80	1456.89	2333.11	8.582	99	0.000

Test related to Hypothesis 2: Association between gender and investment in SIPs before and during the COVID-19 outbreak.

The 100 respondents (68 male and 32 female) were asked to mention the amounts they invested in SIPs before and during the COVID-19 outbreak. An independent sample t-test was

used to determine if there was a difference between SIP investments by males and females before and during the COVID-19 outbreak. The outcomes of the test are provided in **Table 4**.

Figure 6

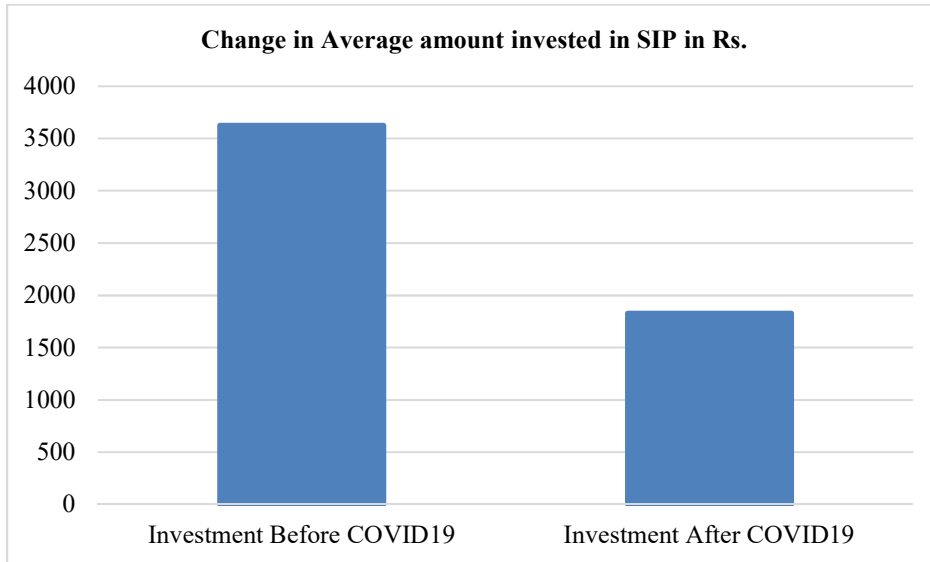*Mean amount invested in SIP before and during COVID-19 crisis (in Rs.)*

Table 4

 Results of statistical test to find association between gender and SIP investment pre and during COVID-19

Group Statistics					
Gender		N	Mean	Std. Deviation	Std. Error Mean
Monthly Investment Before COVID19	Male	68	4477.94	5254.30	637.18
	Female	32	4203.13	3405.07	601.94
Monthly Investment After COVID19	Male	68	2661.76	3965.75	480.92
	Female	32	2140.63	2325.29	411.06

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Monthly Investment Before COVID19	Equal variances assumed	1.47	0.23	0.27	98.00	0.79	274.82
	Equal variances not assumed			0.31	88.17	0.75	274.82
Monthly Investment After COVID19	Equal variances assumed	1.90	0.17	0.69	98.00	0.49	521.14
	Equal variances not assumed			0.82	93.17	0.41	521.14

Table 4 shows the difference between mean amounts invested by respondents in SIPs before and during COVID 19. Observed decrease in amounts invested by male and female respondents was 41% and 49% respectively.

The p – values for investment before and during the COVID-19 outbreak were greater than 0.05, thus, null hypothesis 2 is retained. It may be said that there is no association between the amounts invested in SIPs before and during the COVID-19 outbreak and the gender of the respondent. **Figure 7** reflects the change in mean SIP investments by male and female respondents before and during the outbreak; a decline of 41% and 49% in SIP investments was observed for male and female respondents respectively.

Figure 7

Decline in mean of SIP investments
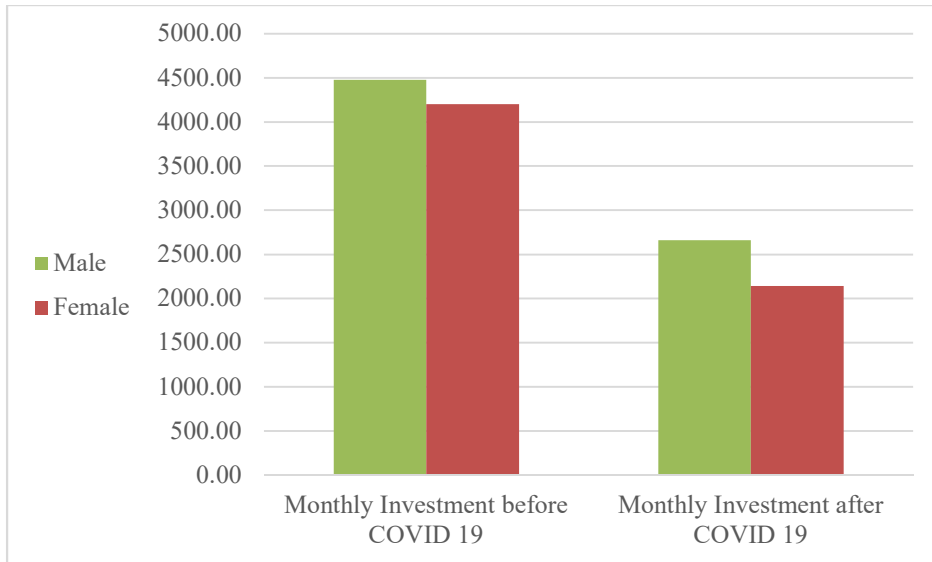
Test related to Hypothesis 3: Association between age of respondents and difference in amounts invested before and during the COVID-19 outbreak.

The respondents interviewed belonged to the age group 23 to 66. To study the association between the age of the respondents and the difference in the amounts invested by them before and during the COVID-19 outbreak, we conducted regression analysis. The results of the test are provided in **Tables 5a and 5b**.

Table 5a

Results of statistical test to find association between age and difference in SIP investment pre and during COVID-19

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.192	0.037	0.027	2177.985

Table 5b

ANOVA for association between age of respondents and change in investment amount in SIP pre and during COVID-19

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17773077.295	1	17773077.295	3.747	.056b
	Residual	464874422.705	98	4743616.558		
	Total	482647500.000	99			
a. Dependent Variable: Change in investment amount						
b. Predictors: (Constant), Age						

The *R* value represents simple correlation, and its value is 0.192 (the "**R**" Column). This indicates a low degree of correlation. The R^2 value (the "**R Square**" column) indicates the degree of the total variation in the dependent variable (change in amount invested) which can be explained by the independent variable (age). In this case, 3.7% can be explained, which is quite less.

The Sig. column in the table indicates the statistical significance of the regression model that was run. Here, p value is greater than 0.05, thus, null hypothesis 3 is accepted. It may be said that there is no association between age of respondents and difference in amounts invested in SIPs before and during the COVID-19 outbreak.

RESEARCH FINDINGS

The first hypothesis test reveals that individual investor behaviour was impacted by the measures taken during the COVID-19 outbreak. The monthly amount invested by respondents in SIPs dropped by 43%.

The major reasons behind the decreased investment were decline in household income and retaining cash for emergencies. Other reasons cited by respondents included fall in the stock market (Nifty 50 and Sensex experienced a fall of 38%-40%); mutual funds also yielded negative returns during the pandemic.

The second hypothesis assumed an overall decrease in SIP investments during the COVID-19 outbreak. No association was found between gender and reduction in SIP investments. Previous research suggests that women tend to be more risk averse and uncertain about investing in mutual funds. In our study, it is observed that respondents with business as the main occupation were impacted the most by the COVID-19 outbreak; this is the section that accounted for a major decrease in SIP investments. Further, 18 out of 32 female respondents with business as the main occupation reported a significant decrease in their SIP investments. The reason behind the reduction in investments was majorly due to decrease in business income due to lockdown measures implemented by central government.

The third hypothesis tested the association between age of respondents and difference in amounts invested in SIPs before and during the COVID-19 outbreak. No correlation between age and difference in invested amounts was found. Previously, age was recognised to influence investment in mutual funds. It was suggested that as investors grew old, they focused more on savings and retirement, and thus invested in mutual funds. The results of our study show no correlation between age and change in the amount of investment in SIP as the important factor for the decrease in the amount of investment in SIPs in income during COVID-19 and investors preserving cash for emergencies.

Respondents were also asked to mention their preferences for various investment options before and during the outbreak. Majority of the respondents reported that the COVID-19 pandemic had changed their investment and portfolio management perceptions. Presently, they preferred investing in instruments that offered moderate returns and were less risky, such as bank deposits (savings account and fixed deposits), gold, mutual funds, and postal savings. Studies suggest that bank deposits, PPF, gold, chit funds, NSC, etc. attract investors in search of low-risk investment options. **Figure 8** below displays percentage change in preference for investment options before and during the COVID-19 pandemic.

Figure 8

Change in preference for investment options before and during COVID 19
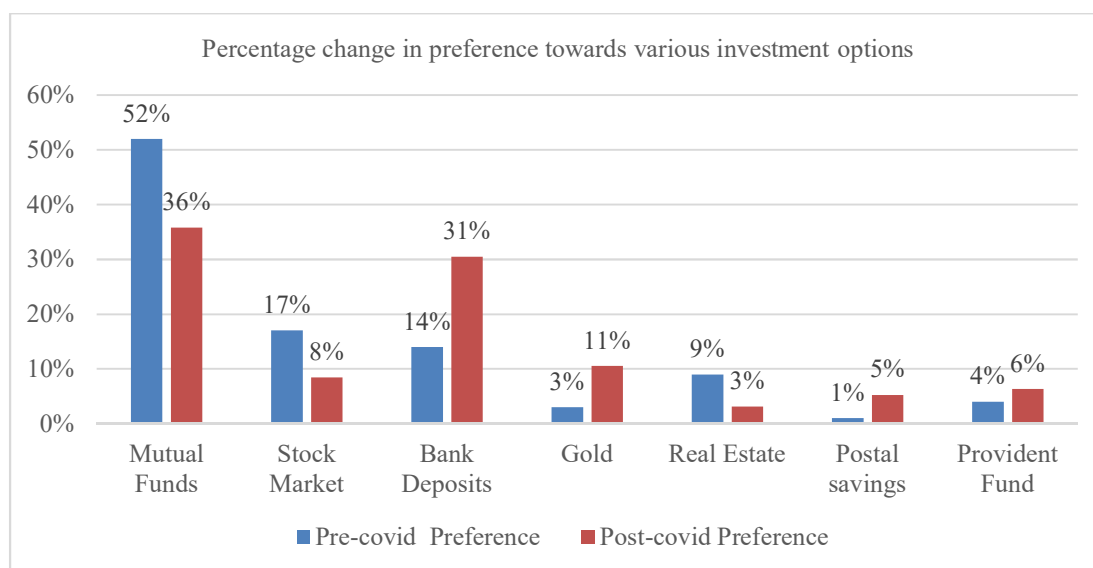
There was a 30% decline in preference for mutual funds during the pandemic. The decline was sharper for the stock market at 53%. On the contrary, it was observed that the respondents were willing to diversify their portfolio towards less risky investment options such as bank deposits, postal savings, and public provident fund. Previous research during financial crisis suggests that investors consider gold as a protection against volatile market returns.

From the above literature review, it is visible that as in earlier crises situations gold prices had gone up during COVID 19. But our respondents reported that due to lockdown and social distancing measures, all the gold shops were closed, and they were not able to purchase physical

gold. It was also observed that the respondents were not aware of Gold ETF i.e. Exchange Traded Fund companies. But their preference to invest in gold - a safe haven was expressed by several investors.

DISCUSSION

The primary purpose of the present research was to study the impact of the COVID-19 outbreak on the perceptions and decisions of individual investors. To this end, a well-structured questionnaire was distributed among investors belonging to a small town in Madhya Pradesh. These respondents were regular SIP investors and invested a fixed sum in SIPs every month. After collecting response on questionnaire, it was found that a significant number of respondents had either withdrawn their monthly investments in SIPs or reduced the amount of investment during lockdown. Thus, quantitative data obtained from the questionnaire were further analysed by framing various hypotheses and the results were obtained after applying various statistical tests to these hypotheses.

Previously, research has examined the impact of the COVID-19 pandemic on stock prices, Indian economy, oil prices, gold, cryptocurrencies, and geopolitical risk. Various studies have also been conducted on gold price volatility and stock market returns, corporate bond market reaction to COVID-19, and individual investor attitude and opinion about investments during the financial crisis 2008. Research has also been conducted on the impact of COVID-19 on the income of households in India (Chicago Booth, 2020).

In extension to the literature available on investor behaviour, the impact of COVID 19, stock market volatility, gold price, this research paper delivers the further outcomes pertaining to small retail investors and the impact of COVID on their investment behaviour. The present study discloses that there has been a decrease in SIP investments during the COVID-19 outbreak due to decreased household income, stock market crash, and investor preferences shifting towards more secure investment options like bank deposits.

Further research can be conducted on the measures taken by investors to diversify their portfolio, steps taken by investors to recover losses from the stock market, how the investors of particular areas or regions try to increase their financial literacy after COVID 19.

CONCLUSION

The COVID-19 outbreak has significantly impacted the economy. Given the huge population and problematic circumstances of the economy, especially the financial sector and lockdown and social distancing have proven to be unsettling. Due to measures taken by the government to control the spread of COVID-19 such as lockdown and the stock market crash, individual investor's willingness to invest in mutual funds and the stock market has been impacted negatively. In present times, investors seem to have become more risk averse, and prefer relatively secure investment options offering moderate return with low risk. Investors also need to be educated about Gold ETFs, time to enter and exit the stock market, and mutual fund schemes. It also throws some light on the fact that mutual fund associations and policymakers should conduct campaigns in smaller towns to enhance financial literacy of people.

LIMITATIONS

1. The study is based on random sampling method instead of consensus method.
2. Respondents belonged to a Tier 3 town in Madhya Pradesh, and findings may not be generalized to other regions.

SCOPE FOR FURTHER RESEARCH

Future research could be conducted to examine the initiatives taken by various policymakers to enhance financial literacy in small towns of India, and their impact on the investment habits of the population.

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