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Investment patterns and preferences of Indian retail investors: COVID as an Influencer

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PHD CHAMBER OF COMMERCE AND INDUSTRY

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PHD Chambers' Viewpoint

Shri Sanjeev Agrawal
President, PHDCCI

Individual investors have embraced a diverse array of financial instruments, demonstrating adaptability and resilience in navigating uncertain economic terrain during and after the Covid pandemic. Despite initial market turbulence, investors have seized opportunities for growth, strategically allocating capital across sectors poised for resilience and innovation. As economies recover, optimism pervades markets, driving interest towards emerging opportunities such as sustainable investments and transformative technologies. This proactive engagement underscores investors' confidence in the economy's ability to rebound and thrive, highlighting a steadfast commitment to long-term financial success and prosperity.

Shri Hemant Jain
Senior Vice President, PHDCCI

Investment decision-making operates within a dynamic framework that continually responds to evolving market conditions, economic indicators, and geopolitical factors. Investors must navigate through a landscape characterized by fluctuating asset prices, changing interest rates, and unpredictable consumer sentiments. Moreover, technological advancements and regulatory shifts introduce new variables that influence investment strategies. To thrive in such an environment, investors need to stay informed, agile, and proactive.

Shri Rajeev Juneja
Vice President
PHDCCI

Investor preferences and behaviors towards financial instruments are intricate, reflecting a blend of risk tolerance, investment objectives, and the ever-shifting currents of market dynamics. Economic climates, geopolitical shifts, and regulatory reforms further mold these inclinations. With technological advancements, retail investors now have broader access to diverse investment opportunities. Understanding these dynamics is essential for crafting effective investment strategies tailored to individual needs and market conditions.

Dr Ranjeet Mehta
CEO & Secretary General
PHDCCI

The Covid pandemic has significantly reshaped investment patterns with a paradigm shift of challenges and opportunities in the Indian economy. While the stock market faced increased volatility amid sectoral disruptions, the crisis also accelerated the adoption of digital technologies. This led to substantial investments in sectors such as e-commerce, healthcare technology, and digital infrastructure. As the economy gradually recovers from the pandemic's impact, investors are navigating a transformed landscape, marked by innovation, adaptability, and a heightened focus on sustainability in shaping investment strategies for the future.

Dr S P Sharma
Chief Economist |
Deputy Secretary General
PHDCCI

The landscape of individual investments across various financial instruments underwent a significant evolution during and after the Covid, reflecting shifts in investor preferences and behaviors. As the pandemic unfolded, heightened volatility and economic uncertainty prompted investors to reassess their portfolios, with many gravitating towards safer options such as government bonds and stable dividend-paying stocks. Moreover, the pandemic underscored the importance of sustainability and social responsibility, leading to a surge in Environmental, Social, and Governance (ESG) investing.

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1. Introduction

The turbulence caused by Covid ignited a series of troubles related to survival for living, economy, and health for the entire world. It sent tremors across the global economy (World Development Report, 2022) affected due to pandemic (Himanshu et al., 2021). Uncertain events, unemployment, financial instability, fear about future, medical emergencies altered the penchants of investors (Selvan and Grace 2023). Their attitude towards finances also changed and was reflected in their investment patterns.

The swift and unprecedented spread of the COVID outbreak made the financial markets extremely volatile, leaving investors with huge losses in a short timeframe (Zhang et al., 2020). Covid prompted the investors to seek safer investments for their portfolios. (Noman et al., 2023). The investors started preferring secure options for investments in compared to the ones promising higher returns (Gupta et al., 2021).

Indian economy also witnessed several lows during covid times. Post pandemic, it gradually picked up. The expanding demand for services and matching supplies fueled India's growth. In the period immediately following covid (Year 2022), Indian shoppers retorted to revenge shopping to relieve their negative emotions (Babar, 2022) and revenge tourism picked up in the country (Joshi, 2022; Parasa,2021) after second wave of corona virus subsided. Thus, India's economy rebounded significantly with most of the GDP components growing at a faster pace in comparison to pre-covid years (Verma et al., 2023).

The growth estimates for Indian economy for financial year 24 are predicted as 7% by Reserve Bank of India (Rajora, 2023). As the estimates for growth are bright, it is fair to expect that the investors will raise their overall investments across various options further expanding the overall saving and investment landscape.

India's major investment sectors: push and pull effects of the pandemic

Investment preferences in India has always been influenced by various factors, which have changed rather evolved post Covid pandemic. To begin with gold has always been a popular investment choice for Indians due to cultural, historical, and economic reasons. While the cultural affinity for gold remains strong in India, the investment landscape has witnessed a shift towards digital and paperless options, especially after the onset of the COVID pandemic.

The demand for gold as a safe-haven asset has persisted, but the means of investing have evolved to accommodate changing preferences and the digital transformation of financial markets. Gold holds cultural and religious significance in India. It is often bought and gifted during festivals, weddings, and other auspicious occasions. It has traditionally been considered a store of value and a hedge against inflation.

Indian investors prefer holding physical gold in the form of jewelry or coins and always have a strong affinity for gold jewelry. Many families invest in gold ornaments, considering them both an adornment and an investment. Before Covid, financial instruments like Gold Exchange Traded Funds (ETFs) and Sovereign Gold Bonds gained popularity as they provided a more convenient and paperless way of investing in gold. Post pandemic the economic uncertainty increased the demand for safe-haven assets like gold.

Investors sought stability amid market volatility. The pandemic accelerated the shift towards digital and paperless investments. Gold ETFs, digital gold platforms, and online trading of gold gained popularity as people embraced online financial transactions. The government's issuance of Sovereign Gold Bonds continued to be popular post-COVID, offering investors an interest-bearing option with capital appreciation potential.

Many platforms have also emerged that allowed investors to buy and sell gold digitally in smaller denominations, making it accessible to a broader audience. While banks have also introduced gold savings accounts, allowing customers to invest in gold digitally without the need for physical possession. The pandemic led to a surge in gold prices globally, making it an attractive investment for those looking for capital appreciation.

The pandemic has also had a profound impact on global financial markets, and India in that case too is no exception. The investment preferences in stocks in India have undergone significant changes before and after the Covid pandemic. Khan et al. (2020) studied the impact of Covid on the investment pattern of investors with specific reference to traditional investment (real estate and gold) and market based financial products (equities) in Mumbai and concluded that the average preference rating scores across all three investment avenues i.e., Gold, Real Estate and Equities are lower in post – covid scenario as compared to pre – covid scenario. This may be attributed to lockdown restrictions and reduction or loss of income due to job losses.

Before the pandemic, many Indian investors favoured traditional investment options, such as fixed deposits, real estate, and gold as stock markets were considered relatively risky by these investors, thus they often adopted a long-term perspective when investing in stocks.

Blue-chip stocks with a history of stable performance were popular choices amongst the retail investors and they traditionally had a more limited presence in the stock market compared to institutional investors.

Investors which preferred stocks focused on regular dividends, considering them as a source of passive income. The pandemic led to outburst in retail investor participation in the stock market. Lockdowns, remote work, and increased leisure time contributed to more people exploring stock trading as a source of income and the adoption of digital platforms for trading increased significantly. Online brokerages and trading applications observed a surge in users as investor's adopted technology for stock market transactions.

The increased market volatility during and after the initial phases of the pandemic attracted traders looking to capitalize on short-term price movements while some investors shifted focus from large-cap stocks to small and mid-cap stocks, as they seek the higher potential returns leading to an increased overall risk profile of their portfolios. The pandemic highlighted the importance of sectors like technology and healthcare and investors showed increased interest in stocks related to these sectors due to the accelerated digital adoption and healthcare advancements.

The stock market witnessed an increase in speculative trading, with some investors participating in high-risk, high-reward strategies, influenced by market sentiments and social media discussions. The interconnectedness of global financial markets and the impact of international events on Indian stocks became more evident during and after the pandemic. Thus, COVID pandemic has significantly influenced investment preferences in stocks in Indian context. The rise of retail participation, increased focus on digital platforms, and changes in sector preferences, and a shift towards shorter-term and more speculative trading are some of the notable trends observed after the onset of the pandemic.

The investment landscape in mutual funds in India has also experienced changes before and after the COVID pandemic. The pandemic significantly impacted investor behaviour, market dynamics, and the overall economic environment. Before the pandemic, Systematic Investment Plans (SIPs) gained popularity among retail investors as it allowed the investors to contribute a fixed amount regularly, promoting disciplined and regular investing.

Himanshu et al. (2021) studied the impact of Covid on portfolio allocation decisions and concluded that since the returns on risky assets are not as expected, investors are moving towards a conservative portfolio and the case of transition from risky to risk-free assets is not the same in the case of all investors. Equity mutual funds were popular among risk seeking investors in lieu of higher returns. Many investors were attracted to the capital appreciation over the long term and often adopted a diversified approach, investing in a mix of equity and debt mutual funds to balance risk and return.

Equity-linked savings schemes (ELSS) were commonly chosen by investor for the tax-saving. Investors paid close attention to the historical performance of mutual funds, relying on past returns and ratings to make investment decisions. The uncertainty brought about by the pandemic led to increased risk aversion among investors and they shifted from equity funds to debt funds or hybrid funds to mitigate risk while the investors seeking liquidity and safety turned to liquid and short-term debt funds, emphasized capital preservation during uncertain times. Investors became more cautious about credit risk and focused on the quality of the debt instruments held by mutual funds.

The pandemic also accelerated the adoption of digital platforms for mutual fund transactions and the online platforms and mobile apps became more popular for investing, monitoring portfolios, and managing investments remotely. Certain sectors, such as pharmaceuticals and technology, gained prominence due to their resilience during the pandemic. Investors became more focused on the fund manager's expertise and the investment strategy of mutual funds, recognizing the importance of active management in directing market uncertainties. The increased availability of information and educational resources online empowered investors to make more informed decisions.

Financial literacy and awareness played a crucial role in shaping investment choices. Despite market volatility, SIPs retained their popularity, with investors recognizing the benefits of law of averaging in volatile market conditions. Thus, COVID pandemic has influenced investor behavior in the mutual fund space in India. While certain trends, such as the popularity of SIPs, have continued, there has been a shift in risk appetite, sector preferences, and the emphasis on digital platforms and fund management strategies. Investors are now more focused on building resilient portfolios that can withstand market uncertainties.

Derivatives, another type of financial instruments whose value is derived from an underlying asset, index, or rate. In India, whose trading primarily takes place in the form of futures and options contracts on stock indices and individual stocks, has witnessed changes before and after the COVID pandemic. Derivatives, especially futures and options, were often used for speculative trading as the traders took positions based on expectations of future price movements and the Institutional investors and market participants used derivatives as a tool for risk management.

Hedging strategies were employed to mitigate potential losses in the underlying securities as derivatives allowed investors to take leveraged positions with a relatively small upfront margin and this attracted both institutional and retail traders looking for enhanced returns. NSE Nifty and BSE Sensex derivatives were popular, providing exposure to a basket of stocks rather than individual securities.

The heightened market volatility during and after the pandemic led to increased trading activity in derivatives, traders sought to capitalize on price fluctuations, taking advantage of opportunities in both rising and falling markets. The pandemic saw a drastic increase in retail participation in the derivatives market due to increased accessibility to online trading platforms and educational resources contributed to more individual investors entering the derivatives space.

Investors, both institutional and retail, started employing more sophisticated options trading strategies like covered calls, protective puts, and iron condors gained attention as investors sought to manage risk while maintaining exposure to the market. The economic uncertainties triggered by the pandemic prompted increased hedging activities and the investors and businesses used derivatives to protect their portfolios and manage risk amid market volatility. Investors became more perceptive, focusing on derivatives with higher liquidity and better risk management practices. Still the Blue-chip stocks and indices continued to be preferred for derivative trading.

Regulatory authorities' implemented measures to manage risks associated with derivative trading, including margin requirements and position limits and these measures aimed to ensure market stability and protect investors. The trading in derivatives increased with the use of technology and algorithmic trading in order to capitalize on short-term price movements. Sectors like pharmaceuticals, technology, and e-commerce gained prominence, impacting the derivatives market as investors adjusted their positions accordingly. Therefore, it can be concluded that COVID pandemic has influenced derivative investment preferences in India by increasing retail participation, emphasizing risk management, and promoting the use of more sophisticated trading strategies. The derivatives market remains dynamic, with investors adapting to evolving market conditions and leveraging derivatives for both speculation and risk management purposes.

The real estate sector in India has also experienced notable shifts in investment preferences before and after the COVID pandemic. Real estate has long been a traditional and favored investment choice for Indians as property ownership is often considered a tangible and secure asset. Residential properties, including apartments and houses, were popular choices for investment and end-use and the demand was driven by factors like growing urbanization, population growth, and the aspiration for homeownership. Investors, including institutional players, showed interest in commercial real estate, especially in prime business districts while the office spaces, retail spaces, and commercial complexes were sought after for rental income and capital appreciation.

Real estate investments were typically viewed with a long-term horizon, and property purchases were often seen as a stable and appreciating asset over time. The pandemic brought about changes in residential real estate preferences as there was a shift in demand towards larger homes or those with dedicated workspaces as remote work became more prevalent. With the acceptance of remote work, there has been increased interest in suburban and peripheral areas and investors sought properties in locations offering more space, greenery, and better affordability.

The pandemic highlighted the importance of health and safety in living spaces and the properties with open spaces, well-ventilated designs, and proximity to healthcare facilities gained popularity. The remote work trend had an impact on commercial real estate, with a decrease in demand for office spaces in certain areas. However, warehousing and logistics gained prominence due to the growth of e-commerce and the pandemic accelerated the adoption of technology in real estate transactions as well.

Sanchaniya (2021) studied the effect of Covid on the real estate industry in India and explained that the market value of real estate increased during the Covid era and due to the constrained job market, developers were unable to satisfy demand. The paper concluded that the epidemic is oppressive since it is expected to claim thousands of lives, home values dropped in value as the housing supply decreased, reducing state revenues, owing to the decline in demand and the increase in negotiating power in the short-supply market, location scouting has already begun, but at a slower pace.

Virtual property tours, online documentation, and digital payment methods became more common and the focus on affordable housing increased as economic uncertainties led buyers to prioritize budget-friendly options. Government also promoted housing purchase decisions with the introduction of initiatives like Pradhan Mantri Awas Yojana (PMAY). Some investors shifted from direct property ownership to real estate investment trusts (REITs) and real estate mutual funds as they provided a more liquid and diversified way to invest in real estate.

Thus, COVID pandemic has influenced real estate investment preferences in India by reshaping residential demands, and accelerating the adoption of technology in transactions. The focus on health, safety, and affordability has become more prominent, impacting both residential and commercial real estate trends.

2. Objectives

- To understand the factors that influence the individual investments across various financial instruments pre and after the Covid pandemic
- To assess and compare the investor preferences and behaviors towards various financial instruments pre and post Covid.

3. Methodology

Sampling-In an attempt to fulfill the objectives, individuals investing in mutual funds, bonds, stocks, derivatives, gold and real estate were taken as sampling unit. The present study used convenience sampling and followed the primary survey method. Convenience sampling is a non-probability sampling method where units are selected for inclusion in the sample because they are the easiest for the researcher to access. When theoretical saturation was achieved with a significant decline in the rate of new information added, in the frame of stipulated time, the questionnaire link was duly closed. This determined the size of sample.

Questionnaire- it was mix of multiple-choice questions and used Likert scale to capture the preference and intention of respondents towards various investment options in Pre (FY 2018-2020) and Post COVID (FY 2021-23) period. 5 pointer Likert scale ranged from 1 (for strongly disagree) to 5 (strongly agree) capturing the agreement/disagreement of the respondents towards inventory of statements designed for the purpose. Questions related to the impact of varied factors, which were filtered through past studies, were also included.

These variables were – Degree of Risk associated with investment option, tax benefits received, liquidity, degree of returns received and regularity of returns (from that investment option). The answers were sought from the respondents who were investing in any or all these options (Mutual funds, Gold, real estate etc.) in pre and post covid times. Questionnaire was designed and circulated as google forms.

Data Presentation Method - Demographic details of the sample surveyed were detailed in Table 1. Table 2 established the normality of data using Skewness-Kurtosis and Shapiro Wilk test. Table 3.1. 3.2 and 3.3 depicted the results of paired sample T-tests for various investment options, rest of the tables (Table 4.1- Table 11), sum up the regression test results.

Hypothesis

Ha – There is a significant difference between people's preference towards investment options in before and after Covid periods.

Hb1 - There is a significant influence exerted by various factors affecting investment (considered in the model) on the intention of investors to invest in various options in pre- Covid scenario.

Hb2 - There is a significant influence exerted by various factors affecting investment (considered in the model) on the intention of investors to invest in various options in post- Covid scenario.

Other hypothesis - There is a significant influence exerted by various factors affecting investment (considered in the model) on the preference of investors to invest in a particular investment option (for example mutual fund) in pre- Covid period and the same was tested for that investment option (mutual fund) in post covid period also. These hypotheses were tested for all the investment options individually where that investment option served as dependent and all factors (considered in the model) were taken as independent variables.

4. Results & Discussion

This section presents the results and discussion of the present study. This discussion is defined into two parts, i.e., statistical summary and analysis that can be described as follows:

Summary Statistics

Table 1: Demographic Results

Demographics	Description	Frequency	Percentage
Gender	Male	147	61.8
	Female	91	38.2
Married	Married with kids	100	42.0
	Married without kids	18	7.6
	Divorced/single/separated	120	50.4
Education	Undergraduate and below	3	1.3
	Graduate	69	29.0
	Postgraduate	156	65.5
	Others	10	4.2

Occupation	Private Employee	106	44.5
	Government Employee	13	5.5
	Business/ Self employed	31	13.0
	Retired	14	5.9
	Others	74	31.1
Decision to invest depends upon	Financial advisor/Broker	41	17.2
	Family and friends	65	27.3
	Self	132	55.5
Monthly income before Covid	Less than 15,000 per month	65	27
	15,001 - 25,000 per month	27	11
	25,001 - 50,000 per month	47	20
	More than 50,000 per month	99	42
Monthly income after Covid	Less than 15,000 per month	33	14
	15,001 - 25,000 per month	26	11
	25,001 - 50,000 per month	64	27
	More than 50,000 per month	115	48
Percentage of total income invested in various investment options before Covid	Up to 10%	118	54
	11%-20%	51	21
	21%-30%	45	19
	31% and more	14	6
Percentage of total income invested in various investment options after Covid	Up to 10%	85	44
	11%-20%	50	21
	21%-30%	56	24
	30% and more	27	11

Table 1 shows that in the sample size of 238, the maximum number of respondents, i.e., 156 (65.5%), had postgraduation degrees. However, in graduation, below graduation and other categories, 69 (29%), 3 (1.3%), and 10 (4.2%) respondents were there, respectively. Further, it also indicates that in the sample size of 238, the maximum number of respondents, i.e., 106 (44.5%), were working in the private sector. However, 31(13%) and 14 (5.9%), respondents are working in the business/self-employment segment and in retire category.

Furthermore, in the government sector and other categories, respondents participated were 13 (5.5%) and 74 (31.1%). The result of decision to invest exhibits that the maximum number of respondents, i.e., 132 (55.5%), are investing by self. Further, 65(27.3%) respondents were taking advice from family and friends, and rest of the respondents, i.e., 41(17%), were taking advice to invest from a financial adviser or broker.

Table 1 also indicates that before Covid, 99 respondents had a monthly income of more than Rs 50,000 but after covid this number increased to 115. The table also indicates that 27% (65), had a monthly income of less than 15,000 before COVID, and 14% (33) had a monthly income of less than 15,000 after COVID.

Moreover, only 6% of the respondents were investing around 30% or more of their income in investment avenues considered in this paper. While this percentage of respondents increased to 11% in post Covid times. However maximum percentage respondents in both pre and post Covid era were investing up to 10% of their income in the investment avenues studied in this paper.

Table 2: Normality Test

Parameters	**Skewness**	**Kurtosis**	**Shapiro-Wilk test p-value**
I prefer to invest in mutual funds before Covid	-1.810	-1.750	0.102
I prefer to invest in mutual funds after Covid	-1.570	-1.640	0.110
I prefer to invest in bonds before Covid	1.420	-1.836	0.200
I prefer to invest in bonds after Covid	1.240	-1.650	0.056
I prefer to invest in stocks before Covid	-1.670	-1.740	0.100
I prefer to invest in stocks after Covid	-1.560	1.616	0.170
I prefer to invest in derivatives before Covid	1.050	-1.910	0.210
I prefer to invest in derivatives after Covid	1.980	-1.910	0.301
I prefer to invest in gold before Covid	-1.970	-1.990	0.110
I prefer to invest in gold after Covid	-1.603	-1.440	0.210
I prefer to invest in real estate before Covid	-1.157	-0.220	0.067
I prefer to invest in real estate after Covid	-1.280	-1.740	0.320
Degree of Risk affect investment decision before Covid	-1.780	-1.037	0.220
Degree of Risk affect investment decision after Covid	-1.590	0.520	0.340
Tax benefits affects investment decision before Covid	-1.930	-1.780	0.125
Tax benefits affects investment decision after Covid	-1.840	-1.603	0.212
Liquidity affects my investment decision before Covid	-1.730	-1.450	0.310
Liquidity affects my investment decision after Covid	-1.310	0.226	0.500
Degree of returns affects investment before Covid	-1.080	-0.188	0.451
Degree of returns affects investment after Covid	-0.940	1.833	0.212

Regularity of returns affects investment decision before COVID	-1.890	-1.810	0.510
Regularity of returns affects investment decision after COVID	-1.970	-1.619	0.224
Intent to invest in mutual fund	-1.433	-1.191	0.251
Intent to invest in bond	-1.270	-1.850	0.560
Intent to invest in stocks	0.622	1.119	0.340
Intent to invest in derivatives	1.220	1.320	0.410
Intent to invest in Gold	0.781	1.210	0.140
Intent to invest in real estate	-1.340	-1.760	0.056

Table 2 shows that for all the considered parameters response data set is normally distributed because skewness and Kurtosis value, lies between -2 to 2 and Shapiro-Wilk test p-value is more than 0.05. Thus, the model is well-fitted with the observed values.

Analysis

This section presents the analysis of the present study. Differences in the preferences of investors to invest in various avenues in pre and post covid times has been captured by using paired sample statistics. It was hypothesized that there is a significant gap in people's preference towards investment options, such as mutual funds, bonds, stocks, derivate, gold and real state before and after COVID.

Tables 3.1, 3.2 and 3.3 contains statistical information such as mean, sample size, standard deviation, and standard error, correlation coefficients, significance of these coefficients and significance of their paired differences before and after COVID for different investment options.

Table 3.1: Paired Samples Statistics for Investment Options

Preference towards various investment options	Mean	N	Std. Deviation	Std. Error Mean
I prefer to invest in mutual funds before Covid	3.24	238	1.428	0.093
I prefer to invest in mutual funds after Covid	3.64	238	1.410	0.091
I prefer to invest in bonds before Covid	2.40	238	1.193	0.077
I prefer to invest in bonds after Covid	2.63	238	1.235	0.080
I prefer to invest in stocks before Covid	3.13	238	1.286	0.083
I prefer to invest in stocks after Covid	3.56	238	1.254	0.081
I prefer to invest in derivatives before Covid	2.19	238	1.137	0.074

I prefer to invest in derivatives after Covid	2.33	238	1.177	0.076
I prefer to invest in gold before Covid	3.41	238	1.285	0.083
I prefer to invest in gold after Covid	3.65	238	1.202	0.078
I prefer to invest in real estate before Covid	3.24	238	1.348	0.087
I prefer to invest in real estate after Covid	3.42	238	1.344	0.087

The mean values for 238 respondent set (in above Table 3.1) indicate that the investors preference for investing in a particular option in post covid era compared to pre covid times. As the mean values for all the investment options are higher in post covid times compared to their pre Covid numbers, it indicates **that people's preference to invest (in all the options considered) has gone up post covid.**

Table 3.2: Paired Samples Correlation Matrix

Preference towards various investment options		N	Correlation	Sig.
Pair 1	I prefer to invest in mutual funds before Covid & I prefer to invest in mutual funds after Covid	238	0.787	0.00
Pair 2	I prefer to invest in bonds before Covid & I prefer to invest bonds after Covid	238	0.822	0.00
Pair 3	I prefer to invest in stocks before Covid & I prefer to invest in stocks after Covid	238	0.673	0.00
Pair 4	I prefer to invest in derivatives before Covid & I prefer to invest in derivatives after Covid	238	0.839	0.00
Pair 5	I prefer to invest in gold before Covid & I prefer to invest in gold after Covid	238	0.774	0.00
Pair 6	I prefer to invest in real state before Covid & I prefer to invest in real state after Covid	238	0.781	0.00

Table 3.2 shows the correlation matrix for the considered hypothesis. The table shows **a high degree of correlation between investor preferences for mutual funds, bonds, derivatives, gold, and real estate before COVID–19 and after COVID–19**. Further, this statistic came out to be significant (p-value for the variables is less than 0.05 at a 5% significance level). This was an essential parameter to rule out the likelihood of the relationship between variables to be existing by chance. **Thus, the variables can predict each other**. To dig deep into their relationship, regression was carried out.

Table 3.3: Paired Samples Test for Investment Options

Preference towards various investment options	Paired Differences		t	df	Sig. (2-tailed)	Result
	Mean	Std. Deviation				
I prefer to invest in mutual funds before Covid - I prefer to invest in mutual funds after Covid	-0.399	0.926	-6.652	237	0.000	Accepted
I prefer to invest in bonds before Covid - I prefer to invest in bonds after Covid	-0.235	0.726	-5.002	237	0.000	Accepted
I prefer to invest in stocks before Covid - I prefer to invest in stocks after Covid	-0.437	1.028	-6.556	237	0.000	Accepted
I prefer to invest in derivatives before Covid - I prefer to invest in derivatives after Covid	-0.139	0.657	-3.254	237	0.001	Accepted
I prefer to invest in gold before Covid - I prefer to invest in gold after Covid	-0.239	0.840	-4.397	237	0.000	Accepted
I prefer to invest in real estate before Covid - I prefer to invest in real estate after Covid	-0.185	0.890	-3.203	237	0.002	Accepted

Table 3.3 indicates the pair samples test for people's preferences before and after covid for different investment options. It specifies that there is a significant difference between before and after covid preference to invest in all the options because the P-value is less than 0.05, at a 95% confidence level leading to the acceptance of null hypothesis (Ha). Thus, **it can be safely concluded that the preference to invest in these options before and after COVID is significantly different.** In other words, Covid has a significant impact on the preferences of investors for those investment avenues.

Similarly, the mean values for various factors impacting the decisions of investors pre and post covid also revealed that there is higher impact of these factors post covid period as compared to pre covid times (Appendix Table a), Paired sample correlation matrix showed a high and significant correlation between these factors (Appendix Table b), these factors having variable impact pre and post COVID (Appendix Table c). Next step involved the testing of Hb1 and Hb2. To conclude on the fact that how much do the various economic factors like Regularity of returns, Tax benefits, Degree of Risk, Liquidity and Degree of returns investment impact the intention of investors to invest in various options (mutual funds, bonds, stocks, derivatives, Gold, and real estate), regression analysis was carried out. Beforehand, testing of various assumptions like multicollinearity, autocorrelation etc. was conducted values were found within the prescribed limit.

The procedure was executed in two steps. First, the factors impacting the intention to invest pre covid were taken and regressed against the intention to invest. Then the same process was repeated for the factors impacting the intention of the investors to invest in post covid era.

Effect of factors influencing the decision to invest on the intention to invest (Pre Covid)-

Table 4.1 shows that the factors considered in the model contributes 26.5% of total variance caused in intention to invest. It means that the factors considered in this research (Regularity of returns, Tax benefits, Degree of Risk, Liquidity and Degree of returns) explain the intention of investors to invest in various options (mutual funds, bonds, stocks, derivatives, Gold, and real estate) to an extent of 26.5% in pre covid era.

Table 4.2 depicts that this model which was justified by the collection of data, was significant (.000 <.05). Table 4.3 shows the relative significance of all the factors considered and led us to the inference that **degree of returns and the regularity of returns were important factors impacting the investor's decision to invest in pre covid times.**

Table 4.1 Model Summary (Pre Covid)

Result of regression Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.530[a]	.281	.265	.70188

Table 4.2 ANOVA (Pre Covid)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	**Regression**	44.063	5	8.813	17.889	.000[b]
	Residual	112.813	229	0.493		
	Total	156.876	234			

Table 4.3 Coefficients[a] (Covid)

Model		Unstandardized Coefficients		Standardized Coefficient	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.86	0.167		11.132	0.000
	Degree of Risk affect investment decision before the Covid	0.061	0.053	0.09	1.162	0.247
	Tax benefits affects investment decision before the Covid	0.079	0.048	0.123	1.667	0.097
	Liquidity affects my investment decision before the Covid	-0.055	0.058	-0.082	-0.945	0.346
	Degree of returns affects investment before Covid	0.211	0.06	0.314	3.544	0.000
	Regularity of returns affects investment decision before Covid	0.114	0.047	0.179	2.4	0.017

These results were then compared with the results obtained in the post covid era. Similar tables were generated and it was found from tables 5.1, 5.2 and 5.3 that after the occurrence of pandemic, the factors had a greater influence on the intention of the investors to invest in various investment avenues. This influence now increased to 37%. Again, this model was found significant as depicted by ANOVA (Table 5.2). However, Table 5.3 revealed that the **tax benefits along with the Percentage of return and Regularity of returns, mattered a lot to the investment intention post covid.**

Table 5.1 Model Summary (Post Covid)

Result of regression Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.620[a]	.385	.371	.651

Table 5.2 ANOVA (Post Covid)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60.343	5	12.069	28.409	.000[b]
	Residual	96.432	227	.425		
	Total	156.776	232			

Table 5.3 Coefficients (Post Covid)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.364	.174		7.843	.000
	Degree of Risk affect investment decision after Covid	.061	.051	.087	1.200	.231
	Tax benefits affects investment decision after Covid	.133	.042	.203	3.158	.002
	Liquidity affects my investment decision after Covid	-.007	.054	-.009	-.125	.901
	Degree of returns affects investment after Covid	.230	.058	.321	3.987	.000
	Regularity of returns affects investment decision after Covid	.107	.043	.163	2.467	.014

Other hypothesis tested -Effect of all the factors on the investment preference in and post covid scenarios for each investment option (individually) was tested by using regression. Thus, the preference of investor to invest in each investment option served as dependent and the factors (considered in the model) as independent variables. After running regression and confirming that the models were significant, the isolated influence of each factor on that particular investment option in pre and post COVID times was reported in tables for the sake of drawing conclusions (Tables 6-11). This analysis was drawn from the coefficients table produced as a result of running this regression.

Starting with Mutual funds (Table 6), it was found that **while percentage of return, regularity of returns and degree of risk were important factors that influence the preference of investors towards investing in mutual funds pre covid, post covid era saw more influence of liquidity rather than degree of risk involved in the mutual fund investments**.

As supported by literature also, a vast variety of mutual funds demonstrated resilience during covid times (Novick et al., 2020) instilling trust in the security of mutual funds. During covid, the investors must have realized the need to have least entry and exit load in mutual funds so that they could sell their shares and receive money within days, making liquidity an important feature to look at while buying this financial instrument.

Table 6: Factors Influencing the Preference of Investor for Mutual funds

Name of the factors	Significance	
	Pre Covid	Post Covid
Degree of Risk affect investment decision after Covid	.032	.323
Tax benefits affects investment decision after Covid	.431	.401
Liquidity affects my investment decision after Covid	.102	.027
Degree of returns affects investment after Covid	.000	.000
Regularity of returns affects investment decision after Covid	.043	.070

Since bonds have an inherent characteristic of being secure offering fairly reliable returns, 'Degree of risk' was not found to have an impact on the preference of investors while investing in them (Table 7). Post covid, three remaining factors i.e. Tax benefits, liquidity, degree of returns were the influencers while buying bonds (Table 7). Comparing this with **pre covid scenario, investors majorly preferred bonds due to the tax benefits that they offered. But after the pandemic, they are expecting bonds to provide them with higher return and liquidity well.**

Table 7: Factors Influencing the Preference of Investors for Bonds

Name of the factors	Significance	
	Pre Covid	Post Covid
Degree of Risk affect investment decision after Covid	.140	.375
Tax benefits affects investment decision after Covid	.010	.003
Liquidity affects my investment decision after Covid	.058	.003
Degree of returns affects investment after Covid	.301	.036
Regularity of returns affects investment decision after Covid	.191	.098

Stocks is a riskier form of investment avenue which is more volatile and can cause steep gains or losses. They are currently bought just because of their ability to provide with higher returns. As depicted by Table 8 the preference for investment in stocks is primarily driven by the returns which the stocks are anticipated to yield.

This contrasts with the preference of investors in pre covid times, when while buying stocks, investors were also wary of their liquidity in addition to the returns they were yielding. But it seems as if **now, the investors have clearly categorized stock investments as high paying ones and are not looking for any other advantage like tax benefits, liquidity, etc, from them.**

Table 8: Factors Influencing the Preference of Investor for Stocks

Name of the factors	Significance	
	Pre Covid	Post Covid
Degree of Risk affect investment decision after Covid	.314	.586
Tax benefits affects investment decision after Covid	.427	.447
Liquidity affects my investment decision after Covid	.025	.136
Degree of returns affects investment after Covid	.004	.003
Regularity of returns affects investment decision after Covid	.788	.644

Gold bonds or SGBs generally are a step by government to graduate the investors from buying gold in physical form. Though there are no deductions for investment in gold bonds under section 80C of Income Tax Act, (Acharya, 2024) but capital gains earned at the end of 8 years are completely tax free (Hdfc Bank, 2023). Another benefit attached to this method of investment is the regularity of returns in the form of interest which is fixed at 2.50% per annum (Motilal Oswal Phygital, n.d.). No wonder these are the **factors (Tax benefits and regularity of returns) that direct the preference of investors to invest in gold bonds in both pre and post covid times** (refer Table 9)

Table 9: Factors Influencing the Preference of Investor for Gold Bonds

Name of the factors	Significance	
	Pre Covid	Post Covid
Degree of Risk affect investment decision after Covid	.697	.480
Tax benefits affects investment decision after Covid	.002	.000
Liquidity affects my investment decision after Covid	.301	.742
Degree of returns affects investment after Covid	.831	.523
Regularity of returns affects investment decision after Covid	.022	.011

Real estate offers regularity of returns without active involvement in short run. It can serve as the second source of income. Income from real estate can be earned in the form of property appreciation in long run and rent on regular basis. Moreover, the tax deduction on home loan also makes it a lucrative option to invest. Thus, the results presented in Table 10. These two **factors-tax benefits and regularity of returns were important in post covid times**. But in **pre covid times, while investing in real estate the investors considered its probability to be sold quickly as a major factor while going for it.**

Table 10: Factors Influencing the Preference of Investor for Real Estate

Name of the factors	Significance	
	Pre Covid	Post Covid
Degree of Risk affect investment decision after Covid	.229	.375
Tax benefits affects investment decision after Covid	.079	.000
Liquidity affects my investment decision after Covid	.011	.742
Degree of returns affects investment after Covid	.844	.084
Regularity of returns affects investment decision after Covid	.086	.013

In case of derivatives, degree of risk, liquidity, percentage returns and regularity of returns were important factors to be considered pre covid. But post-tax benefits extended by derivatives and regularity of returns turned into significant influencers affecting their preference to buy. Derivatives, allowed the investors to leverage their positions with relatively small upfront margins, have been widely used in hedging strategies by retail and institutional traders to mitigate potential losses in their underlying securities. The pandemic saw an increase in retail participation in the derivatives market.

Table 11: Factors Influencing the Preference of Investor for Derivatives

Name of the factors	Significance	
	Pre Covid	Post Covid
Degree of Risk affect investment decision after Covid	.030	.182
Tax benefits affects investment decision after Covid	.382	.019
Liquidity affects my investment decision after Covid	.022	.175
Degree of returns affects investment after Covid	.043	.088
Regularity of returns affects investment decision after Covid	.002	.018

5. Conclusions

Through our study we conclude that Degree of risk affected the investment decision in mutual funds and derivatives in both pre but not in post covid era. Tax benefits were considered as an important factor for investing in Gold Bonds and Real estate investments in both pre and post covid while it only affected pre covid in investment in bonds.

Liquidity affected the decision making in Derivatives, Stocks and Real estate in pre covid era while for Mutual Funds and Bonds it only effected post covid times. For gold bonds liquidity is never a factor as it is in the inherit nature of the gold bonds. Degree of returns is considered an important factor while investing in Mutual funds and Stock as people trade higher returns against the risk. While Regularity of returns played a pivotal role in gold bonds and derivatives pre and post covid.

In March 2020, the Indian economy saw a decline in the BSE Sensex to 13.2% and in the Nifty to 29% (Bora and Basistha, 2021). In 2020, India's demand for gold dropped by 35%, to its lowest level in 26 years (Financial Express, Jan 29, 2021). Furthermore, Gupta et al. (2021) discovered that following Covid, there was a 25.7% decrease in gold investment. E-gold, which benefited from substantial government stimulus programs and is seen as a safe investment alternative in uncertain political and financial times (Economic Times, June 25, 2020).

In 2019–2020, there was an increase in investor involvement and a rise in the percentage of household savings in mutual funds (ET, 2021). During that time, the eight largest cities in India had a 66% decrease in home sales. Between July and September 2020, the eight largest cities in India saw a 66% decrease in property sales; nevertheless, in 2022, there was an increase. Real Insight Residential - January-March 2022 reports that sales of residential properties increased by 7% year, from 66,176 units in Q1 2021 to 70,623 units in Q1 2022. In terms of supply, 79,532 units were introduced in Q1 2022 compared to 53,037 units in 2021, representing a 50% YoY gain (Mishra, 2022) The COVID-19 economic downturn did not even deter the mutual fund sector.

The government's actions to stop the spread of COVID-19 have made individual investors less likely to invest in stock market and mutual funds became popular among investors. Due in large part to Covid-19 and the booming equity markets, mutual funds added an incredible Rs 7 lakh crore to their asset base in 2021, making them a popular choice for investors (Et, 2021). Siddiqui et al. (2022) found that there was a modest link for real estate and gold, and a high correlation for mutual funds.

Additionally, it was discovered that there has been a growing share of household savings going into mutual funds and increased investor engagement during the last two years (2019–2020). (ETC

2022). Additionally, benchmark equity indexes more than doubled between March 2020 and October 2021, drawing a large number of new investors to mutual funds.

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7. Appendix

Table a: Paired Samples Statistics for Factors Affecting Investment Decision

Preference towards various investment options	Mean	N	Std. Deviation	Std. Error Mean
Degree of Risk affect investment decision before COVID-19	3.55	238	1.196	0.078
Degree of Risk affect investment decision after COVID-19	3.72	238	1.166	0.076
Tax benefits affects investment decision before COVID-19	3.28	238	1.269	0.082
Tax benefits affects investment decision after COVID-19	3.48	238	1.248	0.081
Liquidity affects my investment decision before COVID-19	3.50	238	1.214	0.079
Liquidity affects my investment decision after COVID-19	3.74	238	1.126	0.073
Degree of returns affects investment before COVID-19	3.76	238	1.211	0.078
Degree of returns affects investment after COVID-19	3.96	238	1.139	0.074
Regularity of returns affects investment decision before COVID-19	3.33	233	1.295	0.085
Regularity of returns affects investment decision after COVID-19	3.55	233	1.256	0.082

Table b: Paired Samples Correlation Matrix

Preference towards various investment options		N	Correlation	Sig.
Pair 1	Degree of Risk affect investment decision before COVID-19 & Degree of Risk affect investment decision after COVID-19	238	0.855	0.00
Pair 2	Tax benefits affects investment decision before COVID-19 & Tax benefits affects investment decision after COVID-19	238	0.869	0.00
Pair 3	Liquidity affects my investment decision before COVID-19 & Liquidity affects my investment decision after COVID-19	238	0.819	0.00
Pair 4	Degree of returns affects investment before COVID-19 & percentage of return affects investment after COVID-19	238	0.822	0.00
Pair 5	Regularity of returns affects investment decision before COVID-19 & regula income affects investment decision after COVID-19	233	0.852	0.00

Table c: Paired Samples Test Factors Affecting Investment Decision

Preference towards various investment options	Paired Differences		t	df	Sig. (2-tailed)	Result
	Mean	Standard Deviation				
Degree of Risk affect investment decision before COVID-19- Degree of Risk affect investment decision after COVID-19	-0.172	0.636	-4.177	237	0.000	Accepted
Tax benefits affects investment decision before COVID-19 - Tax benefits affects investment decision after COVID-19	-0.202	0.644	-4.831	237	0.000	Accepted
Liquidity affects my investment decision before COVID-19 - Liquidity affects my investment decision after COVID-19	-0.235	0.708	-5.127	237	0.000	Accepted
Degree of returns affects investment before COVID-19 - degree of returns affects investment after COVID-19	-0.197	0.705	-4.323	237	0.000	Accepted
Regularity of returns affects investment decision before COVID-19 - regularity of returns affects investment decision after COVID-19	-0.219	0.694	-4.812	232	0.000	Accepted

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Notes

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PHD Chamber of Commerce and Industry (PHDCCI) has been working as a catalyst for the promotion of Indian industry, trade and entrepreneurship for the past 118 years. It is a forward looking, proactive and dynamic PAN-India apex organization. As a partner in progress with industry and government, PHDCCI works at the grass roots level with strong national and international linkages for propelling progress, harmony and integrated development of the Indian economy.

PHDCCI, acting as the "Voice of Industry & Trade" with a large membership base of 1,50,000 direct and indirect members consisting of large, medium and small industries, has forged ahead leveraging its legacy with the industry knowledge across multiple sectors to take Indian Economy to the next level.

At the global level, we have been working with the Embassies and High Commissions in India and overseas to bring in the International Best Practices and Business Opportunities.

PHD Chamber has special focus on the following thrust areas:

- **Economic & Business Policy Advocacy**
- **Industry**
- **Infrastructure**
- **Housing**
- **Health**
- **Education & Skill Development**
- **Agriculture & Agri-business**
- **ICT**
- **International Trade**
- **Defence & HLS**
- **Banking, Financial Services and Insurance**

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