# Behavioral finance in reatail investing - an Indian perspective

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# I. Introduction

In the recent decades, traditional financial theories based on the rational decision making assumption have become under scrutiny. The traditional view of an investor as a rational agent with rational choices on the basis of available information does not capture all the existing anomalies observed on the practical markets. It is this discrepancy between theory and reality about how investors actually behave that has spawned a new field of study, one known as behavioral finance, and which focuses on the combination of psychology and economics when dealing with how they go about solving the real-life investing puzzle (Barberis & Thaler, 2003; Kahneman & Tversky, 1979). Behavioral finance attempts to teach human beings why, in many cases, investors can make irrational decisions based on their cognitive biases, emotions, and social influences, which plays a significant role in their investment performance.

The retail investors are particularly likely to be susceptible to such psychological factors, as they do not have the resources and skills of the institutional participant. They tend to be influenced in their selection by things like heuristics, media coverage, peer reviews, or even gut feelings instead of doing a tough analytical research. Retail investors play an important role in the capital markets in India and this role has increased exponentially in the post-pandemic age. SEBI (2022) stated that the retail investors in the Indian stock market have grown by over 100 million after starting at 45 million at the beginning of March 2020.

Nevertheless, the growth in the participation has also highlighted behavioral anomalies. The mass buying of IPOs like Zomato, Paytm, and LIC or dynamic buying of small and cheap stocks and meme stocks highlight the huge influence of cognitive biases on the behavior of investors. Overconfidence, herd mentality and loss aversion are part of the behavioural traits, which is common among retail investors, influence not only their own portfolio but also efficiency of the whole market (Baker & Nofsinger, 2002; Pompian, 2012). Further, the investment democratization on FinTech platforms such as Zerodha, Groww, and Upstox has opened the door to investing to a wider audience, however, putting investments under the pretext of behavioral susceptibility on gamified interfaces and social investing.

India is a very special field to analyze behavioral finance as it is socio-economically diverse, financial literacy is different and savings and investments are highly culturally influenced. The traditional Indian family used to prefer to the risk averses instruments such as fixed deposit and gold. The current transition to equities and mutual funds, particularly to the new generation of millennials and Gen Z investors, is not only a shift in an investment pattern but also a shift in the psychology of the investor (Sinha, 2021). Such a changing behavior requires a further definition with the view of behavioral finance to identify the reasons and causes, motives, and the determination of decisions.

This study will explore the behavioral biases impacting Indian retail investors, determine the way these biases occur in various market conditions, and indulge in studying their effects on the individual and the market performance. The authors also pay attention to the factors that moderate such biases (or contribute to their enhancement) namely technological interventions, demographic factors and more monetary training. The proposed paper draws on the experience of the Indian context hence closing the gap in the current literature expanding the knowledge on the behavior in emerging markets and giving practical recommendations to policymakers, financial consultants, and retail investors.

In this way, the paper will be organized as follows: the second section will discuss the theoretical aspects of behavioral finance. Section 3 defines and discusses some of the main behavior biases which are found

in the Indian retail investors. Section 4 addresses the issue of demographic and socio-economic determination of psychology of investors. In Section 5, the content on influences of technology and FinTech platforms on behavioral tendencies is assessed. The sixth section provides case studies of investor behavior in India when there are mass events in the markets. In section 7, policy and advisory implications are deliberated. After all, Section 8 concludes the most important findings and proposes the future studies.

# II. Theoretical Framework of Behavioral Finance

According to the old financial theories used to describe how investors behave, like Efficient Market Hypothesis (EMH) and Modern Portfolio Theory (MPT), it has always been attributed that investors are rational beings, possess all the related information and that their decisions seek to maximize their utility (Fama, 1970). Nevertheless, these assumptions have been proved wrong several times by the observations made in a real world. Some market bubbles, market crashes and market anomalies that persist raise some questions to the view that the market system is efficient all the time and investors make rational decisions. This has made it happen that behavioral finance has emerged and it has increased in size very fast because it combines the understanding of psychology and economic theory to explain irrational behaviors of the investor.

# 2.1 Reason vs. Insanity

Rational investors since classical finance are assumed to handle all information in an objective fashion and to make decisions reflecting their best interest. The behavioral finance however brings the concept of bounded rationality in that people make poor decisions due to mental constraints, emotional responses, or social pressures (Simon, 1955). Investors are people, not computers, and they end up making decisions based on mental shortcuts, or as they are often called, heuristics.

# 2.2 Fundamental concepts in Behaviour Heuristics

Heuristics are rule-of-thumb solutions adopted to solve complicated problems or incomplete information. Although they are effective in most situations, they tend to result into predictable mistakes. For instance:

Availability heuristic: Investors take into consideration news or events that are most readily brought to mind: summary news or events tend to be overestimated.

Representativeness heuristic: Investors tend to use similarity as their basis of investigating their probabilities of making a decision due to the reliance on this approach; there is a pattern-chasing that is recorded hence (Tversky & Kahneman, 1974).

#### Biases

Behavioral biases can be described as systematic departures of rationality which are commonly ignited by heuristics or emotions. Some of the most common prejudices contain:

Overconfidence: Investors are misguided and assume that they know too much or can be predictive.

Loss aversion: An investor experiences the negative outcomes of losses more strongly compared with the positive effects of an equal gain (Kahneman & Tversky, 1979).

Anchoring: The situation when people use a certain piece of information too much in the decision-making process.

Herd behavior: Another concept is to do what the majority is doing and not analyze (done to your own choices).

Disposition effect: cashing in on victorious investments prematurely and hanging on to losers.

#### **Emotions and Decision**

Fear, greed, regret, and euphoria are some of the emotions that are likely to have very strong influence on investment behavior. An example is how during the bull market, one will have the optimism and might get over exposed to equities, during the bear market, one will have the temptation of panicking and sell leading to losses, which can be avoided. Behavioral finance recognizes the fact that emotional responses in many cases tend to influence the rational mind particularly when a subject is stressed or unable to cope in some way (Lo, 2004).

# 2.3 Important Theories of Behavioral Finance

#### **Prospect Theory**

Costing up Kahneman and Tversky (1979), prospect theory explores on the theory of expected utility, according to which it has been proposed that, people do not consider giving and taking into account in similar ways. Losing 1,000 rupees hurts more than it feels good to gain 1,000 rupees. This will create risk—aversion to gains and risk-seeking to losses. In India, this theory tries to put across the fact that most investors fail to recognize any losses prior to booking them or fail to pursue risky shares whenever they make a loss.

## **Mental Accounting**

Mental accounting is a term invented by Thaler (1999), denoting the tendency of individual people to sort money according to subjective rules, e.g., sorting income into the clearly labeled investment or savings accounts. This will bend financial planning. Indian investors, as an example, can behave in a different way with windfalls (e.g., come in the form of bonuses), seeing them as not part of monthly salary and with them distributing the amount to risky assets suddenly.

# **Framing Effect**

It is possible to influence the investor decisions based on the way options are framed. As an example, a description of a mutual fund as 80 percent ratio of positive returns in 10 years compared to a 20 percent chance that returns will be negative may make many more would-be investors, although it represents exactly the same description on a statistical basis. The bias has implications on product selection and risk perception.

# **Herding Behavior**

Herding is the behavior pattern in which one imitates the prevailing activity of a greater number being disregarding the personal information or research. This can be seen in India through IPO rush, or when retail investors have rushed en-masse into stocks recommended on social media. This kind of behavior may result into inefficiencies and bubbles in the market (Bikhchandani & Sharma, 2001).

# 2.4 Indian Retail Investing Applicability

The need to understand these concepts is important in the Indian context as the investor usually follows informal advice, the media and online influencers. A large number of new investors are not educated formally in any form of financial expertise and thus can be more prone to the effects of bias and emotional trading. Further, behavioral tendencies are further compounded by cultural factors i.e. aversion of debt, preference towards tangible assets and high familial influence, etc (Chaturvedi & Khare, 2012).

Behavioral finance offers a more elaborate way to explain why Indian retail investors can behave in a manner that is irrational according to conventional risk-return frameworks. It enables one to understand why sound reasoning most of the time gets superseded by intuition, group influence or even occurrences in the recent past. These patterns of behaviors are important to note in order to enhance the performance of investments and designing enhanced financial education curricula, models of advisory services, and regulatory measures.

Table 1: Key Behavioral Biases and Their Impact on Retail Investors

Bias	Definition	Impact on Indian Retail Investors
Overconfidence	Overestimating one's knowledge or skill	Frequent trading, high F&O exposure
Herd Behavior	Following others without independent analysis	IPO rushes, stock tips from WhatsApp groups
Loss Aversion	Disliking losses more than enjoying gains	Holding on to poor-performing stocks
Mental Accounting	Treating money differently based on source	Misallocation of windfall gains
Anchoring	Relying on irrelevant reference points	Buying/selling based on past high prices

# III. Behavioral Biases Among Indian Retail Investors

Behavioral finance list a variety of systematic biases which derail investor behaviour away from rational decision making. These biases are particularly dangerous to Indian retail investors, who tend to be bankrolled by low levels of financial literacy, greater emotional affect, and social disposition. These tendencies have increasingly become more prominent in the past few years because of the rapid increase in the number of

participants along with ease of access to trading platforms and an information overload presented by social media. This part discusses the most common behavioral biases influencing Indian retail investors and gives real-life examples of them.

## 3.1 Overconfidence bias

The feeling of overconfidence defines as the false assumption of knowledge, skills, or predictive ability seen by an investor. On the one hand, Indian investors tend to be high-traders, especially those among millennium and Gen Z, as they resort to attempting to exploit the market by securing profits directly through trade due to the attitude that it is possible to time the market or beat the professionals.

By way of example, when the pandemic-induced recovery of the markets in 202021 attracted many new traders, the newcomers instantly rushed to derivatives trading without realising the risks involved. SEBI (2022) also indicated that there was an acute rise in the retail level in Futures and Options (F&O) with most of the investors facing net loss of over 90 percent- a result that is accredited majorly to the overconfidence factor (SEBI, 2023).

## 3.2 The Herd Behavior

Herding relates to the reproduction of the activities of a big crowd of investors instead of taking an independent investment course. The herd behavior in India can be seen especially in IPO and stock market rally, sometime fuelled by media attention or recommendations by influencers.

Recent announcements of the massive retail oversubscription of the Zomato and Paytm IPO (2021) showed that uncertain fundamentals and valuation issues were not a problem. A large number of investors were investing due to peer pressure and FOMO (fear of missing out) and not through the analysis of companies. Such actions add to their overrated valuations and volatility after listings.

# 3.3 Anchoring Bias

Anchoring involves the process of relying too much on the first information at hand, the most common of which is the historical price of a stock, as a source of reference against making decisions. The Indian investors often anchor on past highs and lows without any regard to fundamental changes.

An example is how most retail investors kept purchasing the Yes Bank shares as it dropped to below 20 rupees without realizing that the stock will not regain its former prices. This is because anchored expectations caused people to continuously invest in an asset that was getting worse by the day and these people had to suffer huge losses in the process (Economic Times, 2020).

#### 3.4 Loss Aversion

Loss aversion refers to the fact that investors experience more pain of losing than the relief of equivalent gains (Kahneman and Tversky, 1979). Indian investors do not make exits easily to cut losers in hope of future rise especially when logic commands due to excessive holding on a given company based on hopes of recovery even when the company is not yet recovering.

This practice can be observed on portfolios that are overweight on performing poorly in the aspect of the public sector business or penny stocks. Instead of focusing on rebalance, investors stick emotionally to it because of the urge to set even, let the emotions guide, and in the end miss a good chance.

# 3.5 Disposition Effect

A disposition effect indicates the tendency of investors to sell their investments before the value in the investment appreciates (so as to avoid the realization of gains), and to avoid selling their losing investments even though they need to sell to reduce losses. This is common in India among the investors who lose stocks which upsurge by 10%-20% fearing a general loss and yet holding those which have been loss making perpetually.

According to a research conducted by Jain and Reddy (2016), they revealed that the disposition effect was common among Indian retail traders with the mobile trading applications. This results in poor compounding and non-optimal returns on investment portfolio.

# 3.6 Recency Bias

Recency bias causes investors to attach excessive weight on recent developments and overlook any trends. Such a bias in effect encourages investors to pursue momentum, or trends, without reason to know their causal drivers.

The outstanding example is the cryptocurrency rally of 2021. Indian investors have been flooding volatile digital tokens such as Bitcoin and Dogecoin with money being partly due to the recent price rallies, a big promotion by media, and the recommendations of the celebrities across the world. The crash that followed was very detrimental to several people and this proved the risks of recency based speculation.

## 3.7 Confirmation Bias

Confirmation bias is the overall tendency to acquire or observe information that can support the validity of previous existing beliefs and dismiss contradicting information. Instead of getting balanced opinions, India investors would tend to use news, YouTube videos, and forums to support their viewpoints in the market.

Such bias is further promoted in WhatsApp groups, and Telegram channels where investors only talk about bullish narratives, and they ignore meaningful analyses or the downside. It causes inappropriate diversification and excessive concentration on preferred industries or securities.

## 3.8 Gambler fallacyG

ambler fallacy is the wrong thinking that the likelihood of independent events occurring depend on the occurrence of the previous events. To take a typical example, once a stock is down several days in a row investors may take fright irrationally thinking that the stock is overdue to buck up without any underlying action precipitating it.

This is not uncommon in Indian markets where retail investors keep investing on small-cap or penny shares with the hopes of a turnaround as it had been the case in the past. The fallacy is a cause of speculative bubble and bust.

Bias	Definition	Indian Example
Overconfidence	Overestimation of one's ability	Retail surge in F&O trading post-2020
Herd Behavior	Copying others' actions without analysis	IPO rush for Zomato, Paytm
Anchoring	Fixating on past values	Holding Yes Bank for past price recovery
Loss Aversion	Avoiding realization of losses	Holding loss-making stocks indefinitely
Disposition Effect	Selling winners, holding losers	Selling quality stocks after short-term gains
Recency Bias	Relying on recent trends	Crypto and meme stock craze
Confirmation Bias	Seeking confirming opinions	YouTube stock tips reinforcing investor beliefs
Gambler's Fallacy	Expecting reversal based on past outcomes	Investing in falling stocks without catalysts

Table 2: Summary of Key Behavioral Biases Among Indian Retail Investors

# IV. Socio-Demographic Influences on Investor Behavior

The behavior of investors is determined by not only psychological inclinations but also demographical and socio-economic backgrounds. Age, gender, income, education, geographical position, and cultural background are those characteristics which are crucial to identify how a particular person experiences a risk, responds to news, and estimates a decision when investing. These influences are particularly high in the complex social fabric of India where they result in various behavioral patterns of retail investors. This part examines the socio-demographic characteristics affecting behavioural finance within the Indian retail investment when considering the relevant dimensions of their demographic features.

# 4.1 Age and Generational Differences

Age plays one of the central roles in determining risk appetite and behavioral inclinations. Compared to the older generation, younger ones, especially those in the 2035 range may be risk-takers, overconfident, and more involved with online investment portals (Chaturvedi & Khare, 2012). They tend to make more impulsive decisions, herd culturally, and fear the inability to get a profit (FOMO), when it comes to investing in trending assets (such as IPO, crypto, or meme stocks).

On the contrary, sophisticated investors (over 50) usually have a more conservative style, and as such, they prefer fixed-income assets, gold, or blue-chipped stocks. They are also more prone to the loss aversion effect and tend to stay with old portfolios that have little rebalancing done to them despite the dynamics in the market.

# 4.2 gender differences

It has been established that gender does play a role in determining how one invests in various levels. Research indicates that there is a higher degree of overconfidence among the men who invest in shares also it is observed that they trade more often and more prone to taking up more risks (Barber & Odean, 2001).

Instead, it has been noted that female investors are usually less willing to take some big risks and prefer making more well-grounded and long-term investment decisions. They are also more prone towards financial consultation and investing on wealth preservation and goal oriented investing (Gupta & Shrivastava, 2020). Nevertheless, women investors have been demonstrated as better long term returns than men in respect of portfolio churn and consistency in emotional market variations.

# 4.3 Financial Literacy and Education

Level of education is a great determinant of behavior propensity and the quality of decision making. Financially literate investors usually do not risk getting influenced by such biases as herding, anchoring, or framing effect. Nevertheless, retail investors in India have a low level of financial awareness, especially in the non-urban areas. A NSE Investor Survey (2022) suggests that more than 60 percent of active retail investors remain poorly educated about financial matters, and instead make decisions based on informal sources of information, including friends, family, and social media.

Even in the case of an educated investor, a domain of specifically required knowledge is very important. A non-financial graduate can also be a victim of behavioral traps who may be overwhelmed by complex instruments or various competing reports. Behavioral finance focuses on the fact that even the informed people are vulnerable to biases, yet, awareness and education can help to tone them down.

# 4.4 Investment Behavior and Levels of Income

The level of income affects the ability, as well as the psychology of investment. Individuals with higher incomes usually afford the financial flexibility to diversify portfolio and bear risks. They can be overconfident or self-attribution bias that they are successful in business or jobs, therefore, this success will extend to being successful in investing.

The loss aversion, mental accounting and regret aversion are however more prone to post-decision loss among the low- and middle-income investors. They also tend to take investments as ventures involving huge stakes, and thus any little loss might cause emotional suffering. This age group of investors tends to choose the instruments viewed as safe (such as PPF, gold, or fixed deposits), whereas their returns might be less. When they make any investment in equities, they are over-concentrated to some few ones and there is herd phenomenon due to social press or tips.

# 4.5 Urban-Rural divide

The geographical separation has a strong influence on retail investor behavior in India as well. In cities, investors are more exposed to technology, information and advisory services. They spend more on trading apps, reading content on the internet on finance, and invest in a wide assortment of vehicles such as mutual funds, equities and ETFs.

On the contrary, the rural and semi-urban investors usually have low capital market exposure. They are often driven by recommendations of their peers, the local agents or the sentiment of the community and this has a positive impact on the effects of herding and anchoring. The conventional wisdom regarding money, together with the lack of internet usage and financial literacy, further adds to inability to make rational choices in such areas (Sinha, 2021).

#### 4.6 Social and cultural factors

The culture of India with its high cultural orientations towards saving, risk adversion and family decisions also has a significant impact on the way people invest. The decisions made by individual investors are mostly influenced by the family opinions and social norms and also financial habits dependent on castes. An example would be that investment decisions in most Indian families are taken by the collective efforts of many family members hence a collective bias like being over-cautious or over-diversifying.

Moreover, local or religious traditions will motivate the demands on real property and precious metals compared to financial instruments. These anchors on cultural grounds make it more difficult to implement behavioral nudging, particularly within the conservative blocs of investors.

Table 3.: Socio-	Demographic	factors and b	oehavioral	patterns
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Factor	Influence on Behavior	Examples in India
Age	Younger = risk-taking, Older = conservative	Millennials in crypto; seniors in FDs
Gender	Males = overconfident; Females = cautious and consistent	Women outperform men in long-term SIPs
Education	Lower literacy = higher bias susceptibility	Rural investors rely on informal advice
Income	Low income = high loss aversion, narrow diversification	Concentration in few stocks or insurance-linked plans
Location	Urban = tech-savvy; Rural = traditional investing	Apps vs. offline agents
Culture	Family-driven, collectivist decisions	Group decision-making in joint families

# V. Impact of Technology & FinTech on Behavioral Biases

Retail investment in India has changed due to the digital revolution in the financial service industry. Investing has become easier and more affordable due to the emergence of FinTech platforms, mobile trading application, and digital advisory applications. But as much as technology has made investing an activity for ordinary people, it has also brought about added faces of the behavioral biases. Investors now are influenced not just by cognitive limits, emotions but also by app interfaces, social trading interface, algorithmic nudges and streaming data on the market. This paragraph looks at how technology as a factor has fueled and occasioned the behavioral biases of Indian retail investors.

#### 5.1 Emergence of Digital Places and Retail Involvement

FinTech companies such as Zerodha, Groww, Upstox, Paytm Money, and Angel One have completely cut down the cost of entry as a retail investor. These platforms have had millions of new users due to their simple interfaces, zero-brokerage plans, and instant KYC. SEBI (2023) has reported that the ratio of new Demat accounts opened after 2020 most likely via FinTech app is more than 80 percent.

On the one hand, the expansion of participation is a good thing, but it implies that, nowadays, many naive investors gain direct access to complicated financial products. Friction has decreased and trading on impulse could be much more frequent, especially when it comes to making biased decisions.

## 5.2 Gamification and Overconfidence

Several FinTech Apps have been adopting gamification to keep users using their product long term-examples include leaderboards, badges, daily log-in streaks, and instant portfolio changes. Although such characteristics result in increased use of apps, they also encourage overtrading and support overconfidence bias.

An example here is that the users would receive congratulatory messages when their stock appreciates or they have a successful trade even when the gain is petite or lucky. This may make new investors believe in their capability and zoom into more risky investors or trade more regularly without the proper research.

# 5.3 Herd Behavior and Social Trading

The informality of the financial advisory has emerged in social media platforms such as Twitter, YouTube, Telegram, and Reddit (India based threads). Content creators and influencers provide tips on stocks, ways of trading, or reviews on IPO to tens of thousands of people. Communities are also finding their ways into the FinTech apps allowing users to view trending stocks or what others are purchasing.

The environment enhances the herding effect in which the users do the crowd thinking rather than coming up with individual judgments. Such blind frenzy with the stocks such as Adani Enterprises, IRCTC, or IPOs new listings on the exchange were vividly promoted and discussed on social media where critical analysis was not put under consideration.

# 5.4 Real Time Information and Recency Bias

FinTech keeps a user in touch with the latest prices, stock-related breaking news and views of analysts on his fingertips. Although this makes information more democratic, it has also led to recency bias, in which the audience attaches too much weight to the recent trends and short-term news and ignores long-term fundamentals.

In the 202122 bull market, numerous retail investors in India bought-in to stocks that had an apparent short-term price momentum according to the most recently in vogue news, and sold-off during slight price corrections as a result of panic or FOMO. App notifications aroused emotional reactions related to market changes, which contributed to behavioral mistakes.

# 5.5 AI, Robo-Advisory and Anchoring Effects

Artificial intelligence-based investment platforms (such as ET Money or Kuvera) and robo-advisors allow choosing a portfolio relying on the user preferences. Yet, the anchoring bias may manifest itself when investors become rigid in model portfolios or expectations about returns implied by the application-and do not adjust to market fluctuations or to individual financial objectives.

Case in point, when an app advises an investor on a portfolio to take that can be categorised as moderate risk and a projected 12% expected rate, investors can get too comfortable with the scenario and work with that target, which in reality might no longer be within what they can reasonably get. Fixing a decision based on prior models or past returns decreases adaptability and flexibility of decision making.

# 5.6 Loss aversion and impulsive trading

Mobile application features (swipe-to-invest or one-click trading) help investors to make more impulsive trading decisions by purchasing shares on mobile networks without further research. In situations where trades cause losses, loss aversion takes over and this results in emotional decision making which may include revenging or sticking to bad assets more than they should.

These patterns crop up especially in intraday and options trading where there is high behavioral distortion due to real time feedback loop and emotional stress. According to a study conducted by NSE (2022), a large percentage of retail traders involving high frequency trading conducted under FinTech lost money because of the weak risk management skills and trading solely based on emotions.

# 5.7 Nudges and Behaviors that can have a Positive Effect

Notwithstanding these worries, technology can also decrease biases by means of behavioral push and intelligent design. For instance:

Other applications have become available that provide cooling-off periods before big trades.

Risk alerts or pop up alerts when volatility rises.

Goal-based investing interfaces where you think long term.

Formation of awareness through educational content installed in apps.

Responsible use of FinTech should aid to curb biases by gently guiding users to rational choices, e.g. SIP remember to transact, auto-rebalancing, portfolio-diversification nudges (Thaler & Sunstein, 2008).

FinTech Feature	Associated Bias Amplified	Example in Indian Context
Real-time updates	Recency bias	Reacting to short-term news or price changes
Gamification elements	Overconfidence, excessive trading	Trading streaks on Zerodha/Groww
Social trading/influencers	Herd behavior, confirmation bias	Buying stocks based on Twitter/Telegram tips
Swipe-to-trade interfaces	Impulsiveness, loss aversion	Quick exits during volatility without analysis
Al-driven models	Anchoring bias	Sticking to historical return projections

# VI. Behavioral Biases During Key Market Events in India

Even though there are always behavioral biases involved in the investment decision, however, at a time of market turbulence, calamity or irrational jubilation, they are much more pronounced. In Indian case, there have been a few high impact events where retail investor behavior under stress or euphoria did not follow a rational approach. The paragraph will deal with the nature and impact of cognitive and emotional bias in actions taken by retail investors during particular episodes of the market in the recent Indian history.

## 6.1 Market Crash and Rally of COVID-19 (2020 2021)

The COVID-19 pandemic developed a new climate of uncertainty, fear, and opportunity. In March 2020, Indian markets had crashed then one of the most dramatic bull runs ensued after. Both phases are characterized by important roles played by retail investors, and they showed many behavioral biases.

Panic Selling and Loss Aversion: in the panic selling that occurred with the first market crash, retail investors sold collective fund shares and equity investments because of fear of loss based on loss aversion and emotional turmoil. According to SEBI (2021), substantial redemptions in equity mutual funds were witnessed during the period March to May of the year 2020.

FOMO and Herding During Recovery: During the market rebounds of mid-2020, there was a high inflow of new investors into equities, which was the result of low valuations, social media driven stories, and the fear of missing out (FOMO). There has been a record level of Demat account openings with platforms such as Zerodha and Upstox- which is an indication of the herd behavior.

Over-Excitement in F&O Trading: Being full of hopes after the rally post COVID, many novice markets risked their money in Futures and Options (F&O) as they assumed that they were winning due to their efforts. A report by SEBI (2022) also revealed overconfidence bias when they found that more than 89 percent of these traders had net losses.

# 6.2 IPO Frenzy (2021 -2022)

The big boom in IPO in India came in 2021 and 2022 as businesses such as Zomato, Nykaa, Paytm, LIC, and Delhivery raised billions via IPOs in India. Participation by the retail investors was extreme and behavioral biases were galore.

Anchoring on Hype and Price Expectations: The valuation expectation of investors was anchored using the media headlines as well as the grey market premiums, which usually disregarded business fundamentals. Like in the case of Paytm where the company registered huge losses, and questions have been raised over its revenue generation, retail investors subscribed heavily to the IPO, hence its initial trading day had a slump of 27 percent (Business Standard, 2021).

Disposition Effect Post-Listing: Retail investors have been selling the profitable IPO shares at an early stage hence displaying disposition effect with hopes of the low-performers such as Paytm and CarTrade performing later

Second: Herding and Confirmation Bias: The hype in the social media of the IPOs added to herding behavior. Reddit India, Twitter, and Telegram forums were awash with what became known as subscription advice which would tend to cement the choices of investors with confirmation bias.

# 6.3 Cryptocurrency Craze and Crash (2021 2022)

India retained the global trend of cryptocurrency investments, especially by the rich innovators in the millennium and currently Gen Z generation. The unregulated nature, the use of aggressive influencer marketing and hype by media resulted in big acts of speculation.

Recency Bias and Illusion of Control: Investors were predicting the gains in the price of Bitcoin, Dogecoin, and Shiba Inu in the short term, which should persist in future. The recency bias and an illusion of control would result in high-risk allocations depending on mobile app trends and influencers on YouTube.

Regret Aversion and Loss Aversion: Following the 2022 crash on the crypto market, lots of investors decided not to sell their assets regardless of the enormous losses they faced as they hoped that things were going to change. This pattern is in line with the effect of regret aversion where the investors would be tempted not to execute the poor decision made in order to avoid getting into the state of suffering due to the emotional reaction.

# 6.4 Adani Group Price volatility (2023)

The circulation of the Hindenburg Report in early 2023 that labeled the Adani Group as an entity that engaged in corporate malpractice caused a giant selloff in the Adani shares. The Indian retail investor behavior response was quite different.

Panic and Herd and Overreaction: With the fear of collapse in mind, retail investors panicked and sold their shares in Adani without assessing the validity of the allegations. This action is common with herd panic and availability bias where people in the investment circle are blinded due to the clear vivid and recent information (Tversky & Kahneman, 1974).

Contrarian Overconfidence: At the other extreme there were some investors who were feeling overconfident and thought that this downturn was temporary and started to buy very aggressively. Most of them have referred to recovery experiences in other conglomerates as a rationale-a kind of anchoring in past rebounds.

Market Event Observed Biases Examples COVID-19 Crash & Rally Loss aversion, overconfidence, herding Panic selling, record F&O trading, new (2020) Demat accounts IPO Boom (2021-2022) Anchoring, confirmation bias. Zomato listing hype, Paytm overdisposition effect subscription Crypto Boom & Crash (2021-Recency bias, gambler's fallacy, regret Dogecoin mania, refusal to sell at loss 2022) aversion Adani Group Fallout (2023) Herd behavior, availability bias, Panic exits and contrarian dip-buying overconfidence

Table 5: Biases in Behaviours Identified in Events of Key Indian Market

# VII. Implications for Financial Advisors, Policymakers, and Educators

Learning about behavioral biases in Indian retail investors is more than academic interest, but has real world implications on financial advisors and regulators as well as educators. Since the participation of retail in India capital market, particularly through the digital systems is increasing at very high rate, there is a need to counter the adverse consequences of behavioral traps that may occur at both individual and market levels. This part presents practical implications and suggestions to major stakeholders.

# 7.1 Financial Advisors: Influencing Investor Behavior Using Individual Advice

The expectation of financial advisors in India has changed in that they are now expected to be behavioral coaches but no longer to provide traditional portfolio advice. Advisors should at least identify and resolve behavioral biases to move their clients towards long-term and more rational investment choices.

Behavioral Based Profiling: Advisors must not apply only the generic questionnaires but also need to apply the behavior profiling map-based questionnaires to test their loss aversion, time preference etc (questions of behavioral dimension) (Pompian, 2012).

Rousing Long-Term Investment Calories: Tactical nudges, like auto-invest in SIPs, invest with a purpose (cost of sending children to school, retirement), and expressing returns of investments in solution terms (sending children to school, retirement), can wage war against short-termism and panic sales.

Fighting the Problem of Overconfidence and Recency Bias: A personalized reporting system that induces awareness of prior volatility, illuminates prior investment errors, and how to visually present the long-term CAGR, rather than on the immediate returns, can help reduce overconfidence and recency bias.

Client Education on General Biases: Education on the decision traps can help the clients be well informed and contribute to a better investment performance in the cases of real-world Indian case (such as inconsistent IPO results and losses in F&O).

# 7.2 Policymakers and Regulators: Using Behavioral Insights to Increase Market Integrity

Such financial regulators of India, as SEBI, RBI, or AMFI, perform an essential role in inducing a market environment which reduces the risks of irrational investing as much as possible. A behavioral viewpoint can make a great contribution to regulatory design and investor protection.

Prescribed Reports with a Simplified Language: Since framing effects have the capability of affecting decisions, risk, charges, product suitability disclosures ought to be placed in simplified, visual formats with plain language text narratives. The existing heavy legal jargon discourages the understanding.

Wise Design of Default Options: It has been observed that of importance are default options in all pension schemes of the world. Giving an example, one can change long-term equity mutual funds to the default choice on some platforms rather than F&O or high-risk thematic funds, which will result in more consistent investment behaviour.

Gamification Regulation of FinTechs There are a number of Indian brokerage apps where the gamification (badges, leaderboards, color dashboards) encourages people to trade frequently. Such features should be audited and regulated by the regulators to avoid the compounding of overtrading and gambler fallacy (RBI, 2023).

Behavioral Lab in SEBI: It would be worthwhile to create a behavioral insights unit to conduct randomized experiments (e.g., the form of warnings preceding leveraged trading) that could aid in the development of better policies as has been done by FCA in the UK or CFPB in the US.

Immunity against Herd-based Buy-ups: SEBI can incorporate cooling periods at IPO-bidding manias, bull runs, allowance of educational disclaimers, or even during IPO retail placements; it can restrict retail participations on the basis of herding.

# 7.3 Teachers and financial literacy movements:

Financial literacy is not even in India and most investors in the markets do not have formal knowledge about risk and returns. The behavioral component in the financial education programs should be present so that it is not only knowledge that is being provided but prepares investors with competences ready to resist behavior.

Employment of Behavioral Finance in Curriculum: Introduction of behavioral finance modules in undergraduate course of commerce, finance and MBA in the Indian universities can create awareness at a grass-root level.

Behavioral Framing in Mass Campaigns: Mass marketing (by AMFI, NSE, RBI) is possible using behavioral frames such as loss aversion (What you are missing by not investing earlier) or social proof (8 crore Indians prefer SIPs).

Powerful Gamified Learning Tools are Bias Aware: Mobile apps and games used to simulate investment scenarios would be particularly effective if they have some component that provides feedback on cognitive biases (e.g., "You over-traded this week, and this indicates that the over-confidence bias is present in you").

Localized Behavioral Messaging: India is a land with diverse cultures so varied messaging is required in India. That is, by explaining risks with culturally and regionally relatable terms and language, enhanced understanding and trust can be achieved.

#### 7.4 Interdisciplinary Inputs:

Behavioral Economics, Psychology and Finance

Financial institutions, academia and behavioral researchers (there are also growing possibilities of interdisciplinary collaboration in India). It may result in:

Development of Behavioral Investor Personas that focuses on Indian demographics.

A national behavioural index, able to measure retail investor sentiment and biases throughout important market times.

Examples of behaviors of new financial technology policies included White Papers on the aspects of behavior of robo-advisor, algorithmic trade, and cryptocurrency investing.

## 8. Conclusion and Directions for Future Research

Behavioral finance has become a revolutionary practice that has challenged classical thinking on economics from one perspective, that is, rational decision-making. This study draws out a unique analysis of cognitive biases, emotional passions as well as socio-cultural factors and how these factors play important roles in influencing behavior of investment in case of Indian retail investing. As the retail participation increases exponentially in the wake of Covid post-2020, the Indian capital markets can be seen as a rich environment where the theory of behavioral finance may be applied and tested in real-time.

The research results indicate that overconfidence, herd behavior, loss aversion, and mental accounting are also rooted deep in decision-making habits by Indian investors. These prejudices are frequently intensified by demographic differences, age, gender, education, and income, and either technological facilitators, such as mobile investing applications and social investing portals. As an example, the mere availability and game-like mechanisms of FinTechs have not only made investing a democratic activity but has also opened up the way to the behavioral risk of overtrading and running around reshuffling the portfolio. Completely undermining groupthink and irrational exuberance, the role of new media and Internet forums in shaping the echo chamber also contributes to the perception.

This change of behavior of Indian retail investors is noteworthy especially due to unique socio-economic environment of the market. Cultural tendency to risk-averse of saving instruments is changing in India, especially on the part of those who are younger investors. But this transition is happening in such a way that the same cannot be matched with a corresponding development of behavioral awareness or financial literacy. Because of that, investors can be seen going through confusing financial choices with the help of gut feelings and unstructured advice and are susceptible to crashes, frauds, and under-performance.

Significant implications of the paper include equally important implications to the financial advisors, regulators and educators. It has to be accepted that advisors need to learn to be behavioral coaches who guide the investors to acknowledge and address the biases by individualising the plan, designing according to goals and constantly educating them. The regulators like SEBI and RBI have to take into account the behavioral components aspect of investor protection, more particularly with regard to delivering product disclosures, gamifying the trading experience, and having a herd mentality investment events like IPOs. Both formal and informal financial education has to include a behavioral aspect in order to make sure that financial knowledge can be used to demonstrate wise investment behavior.

Along with the given insights, this research has some limitations. On the one hand, the analysis, in spite of the variety of secondary materials and theoretical constructs deployed, has little empirical support in terms of large-scale survey-based or experimental data. Also, since India has a high level of diversity, the behavioral characteristics may vary widely across geographies, languages, and income levels, and fine-grained, locally-based research is desirable.

These gaps may be filled in future studies with:

The number of studies should also be quantitative, based on surveys of investors, potentially in collaboration with trading platforms, to evaluate the level and frequency of certain bias.

Longitudinal studies of the change in the behavior of investors across the market cycle where behavioral traits can be seen to be persistent or die off.

To have an insight into the influence of emotions and personality type on Indian retail investment decisions, neuroeconomic and psychometric measures will be conducted.

Comparative analysis of Indian and international retail investors in order to note the existence of cultural differences in behavioral finance.

Assessment of the effectiveness of the regulatory intervention of certain nature, e.g. SEBI mandate to educate people or to make apps to a certain standard in decreasing biased investing behavior.

Need of AI and behavioral nudges in the digital platforms and growth of robo-advisory and machine learning in retail investment decisions becoming more and more common.

Finally, behavioral finance provides a valuable tool in understanding and directing the behavior of Indian retail investors who have to navigate an evolving complex financial environment. In a better market when more people get involved there are some ways in which behavioral information should be incorporated into education, advice and regulation that will be necessary to make sure that investor optimism works to long run financial success instead of short period losses and profits. It is not an academic matter how you spot, and correct behavioral tendencies, but a fundamental condition of creating a resilient and inclusive financial market in India.

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