

A Generational Study of Behavioural Biases and Their Impact on Portfolio Management Among Active Investors in the Indian Stock Market" in Bengaluru

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ABSTRACT

Behavioural finance has taken over the traditional finance where it majorly emphasises on the effect of psychology on investment decision. The Behavioural finance has undoubtedly effected the Indian stock market and the retail investors of the same. The study aims to identify the prominent generation groups who are actively investing in Indian Stock market, to analyse which behavioural bias is most prevalent amongst active investor and finally to evaluate how the duration of investment affects their portfolio management. A well-structured questionnaire was circulated amongst the investors in Indian stock exchange. The sample size was restricted to 100. During the study it was found that Millennials formed the major active investors in Indian stock exchange and they were affected majorly by disposition biases. The respondents with higher duration of investing were found to rebalance their portfolio at least annually. The statistical tool used were Chi-square, one sample Z test and Spearman's correlation

KEYWORDS: *Behavioural Finance, Millennials, Behavioural biases, Indian stock market, portfolio management.*

INTRODUCTION

Behavioural finance is a field of study wherein it's a blend of psychology of human and finance. In simple words behavioural finance talks about how the human react to certain financial situations basically how they take financial decisions. Behavioural finance tries to explain how the investors are irrational because of the influence of other external factors. In the current era, where regularly earning individual or the ones with saving actually look forward for investment. The word investment is preserved differently by different individual depending upon their traits. There could be people who consider themselves as risk averse and there are people who consider themselves as risk takers. There are individuals who are influenced by people wherein there are people who are self-confident with their own decisions. All these aspects give rise to something called a behavioural bias. Which simply means other external factors which influences the decisions taken or made by mass.

The Indian stock market is the most dynamic stock markets in the world. They usually work in the form of primary market and secondary market. They are governed by securities exchange board of India. From the past few decades, the reoccurring theme is investment in stock market to book profit, as there is an advancement in the field of liberalisation, technology and digitalisation. But when we talk of investment in stock exchange its not all group of people are interested in investment and though they investment are might be majorly influenced by psychological factors. The people are grouped based on the year in which they are born as:- The Civil War Generation: Born 1845–1864, The Gilded Age Generation: Born 1865–1882, The Progressive Era Generation: Born 1883–1900, The Greatest Generation: Born 1901–1927, The Silent Generation: Born 1928–1945, Baby Boomers: Born 1946–1964, Generation X: Born 1965–1980, Millennials (Gen Y): Born 1981–1996, Generation Z: Born 1997–2012, Generation Alpha: Born 2013–2024 and Generation Beta: Born 2025–2039. Our study focuses on generational study on the impact of behavioural biases on the investment decision of building their portfolio.

Research Gap:

Despite the growing participation of individual investors in the Indian stock market, there is a **limited understanding of how different generational cohorts engage with investing behaviours**, particularly in the context of **behavioural finance**. Existing studies tend to focus broadly on investor psychology or stock market trends without differentiating between **generation-specific behaviours or preferences**.

Moreover, while behavioural biases like **overconfidence, herd behaviour, and loss aversion** have been studied globally, there is **insufficient empirical evidence on which of these biases is most prevalent among active Indian investors**, and whether this prevalence differs **across age groups or generations**.

Finally, although prior research acknowledges that behavioural biases influence investment decisions, **few studies in the Indian context examine how the most dominant bias directly affects portfolio management strategies**, such as diversification, risk tolerance, and rebalancing practices. This leaves a **critical gap in understanding the practical consequences of behavioural biases on financial outcomes** for different investor segments.

Research Questions:

1. Which generational groups (e.g., Gen Z, Millennials, Gen X, Baby Boomers) are most active in the Indian stock market?
2. Which behavioural biases (e.g., overconfidence, loss aversion, herd behaviour, anchoring, confirmation bias) are exhibited by active investors?
3. How does the duration of investment influence asset allocation and diversification decisions?

Review of literature:

1. (Prajwal, Sushma B S, & Chandrakala D P, March 2024) in their paper titled “Factors Influencing Investment Behaviour of Millennial Investors in the Stock Market in Bangalore Urban” are of the opinion that financial literacy has had a higher influence on the investment decisions of Gen Y. They have concluded that one must be aware on their comfort with regards to risk in order to take right investment decisions.
2. (Nga & Leong Ken Yien, 2013) in their paper titled “The influence of personality trait and demographics on financial decision making among Generation Y have found that agreeableness, openness and Conscientiousness have direct impact on risk and other cognitive biases. They majorly focused on the big personality trait from McCrae and Costa for their study. They also found that gender do not have any impact investment decisions.
3. (Rizwana & Sana Zaidi, 2024), in their paper titled “Effect of Behavioural Biases on Investment Decisions of Individual Investors in India” concluded that behavioural biases have an impact on the investment decision of individual who are investing in Indian stock market. They have also suggested that it is not only the information which is received but it should also be perceived in a right manner to take vital decisions.
4. (Prasetyo, Sumiati, & Kusuma Ratnawati, 2023) in their paper titled “The impact of disposition effect, herding and overconfidence on investment decision making moderated by financial literacy” found that overconfidence and disposition effect has an impact on the investment decision. It was also found that right financial education will help to reduce the overconfidence and disposition effect by greater extent.
5. (Desda, et al., February - 2025) in their paper titled “Investment Decisions of Generations Y and Z With Financial Literacy as a Moderation Variable in the Era of Digitalization” found that higher the

financial literacy higher quality of decisions are taken, lower the financial literacy lower quality of financial decisions are taken. With this they recommend that more financial literacy training needs to be given to both Gen Y and Gen Z.

Objective: -

1. To identify the prominent generation groups who are actively investing in Indian Stock market.
2. To analyse which behavioural bias is most prevalent amongst active investor.
3. To evaluate how the duration of investment affects their portfolio management.

Research Methodology: -

This study focused on both secondary and primary data. A well-structured questionnaire was circulated in Bengaluru urban. A sample size of 100 were taken into consideration for the study. The sampling technique used were snowball sampling. the respondents were asked to respond only if they were investing or invested previously in the stock exchange of India. The statistical tool used were Chi-square, one sample Z test and Spearman's correlation

Analysis and interpretation: -

Hypotheses

H₀₁: Millennials (aged 25–40) do not form the most active generation group investing in the Indian stock market

H₁₁: Millennials (aged 25–40) form the most active generation group investing in the Indian stock market

Table 1: -

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.466 ^a	2	.015
Likelihood Ratio	7.652	2	.022
Linear-by-Linear Association	3.774	1	.052
N of Valid Cases	100		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.00.

Interpretation: - Table 1 depicts that, since $p = 0.015 < 0.05$, you reject the null at the 5% significance level. That gives strong statistical evidence supporting your alternative: Millennials (aged 25–40) are indeed the most active generation investing in the Indian stock market, at least based on this sample.

H₀₂: There is no relationship between how long the investor are investing with the frequency of rebalancing their portfolios.

H₁₂: There is relationship between how long the investor are investing with the frequency of rebalancing their portfolios

Table 2:-

Correlations				
			How long have you been actively investing in the Indian stock market?	How often do you rebalance your portfolio?
Spearman's rho	How long have you been actively investing in the Indian stock market?	Correlation Coefficient	1.000	.218*
		Sig. (2-tailed)	.	.029
		N	100	100
	How often do you rebalance your portfolio?	Correlation Coefficient	.218*	1.000
		Sig. (2-tailed)	.029	.
		N	100	100

*. Correlation is significant at the 0.05 level (2-tailed).

Interpretation: - Table 2 depicts that A Spearman's correlation coefficient of 0.218 indicates a weak positive monotonic relationship—i.e., as education increases, rebalancing tends to increase, but modestly. With $p = .029$ (below the typical $\alpha = .05$), the result is **statistically significant**, meaning the observed association is unlikely to be due to chance alone. Since $p \leq \alpha$ we reject null hypothesis and accept the alternative hypothesis that is there is relationship between how long the investor are investing with the frequency of rebalancing their portfolios

H₀₃: Amongst Millennials disposition effect is not the prevalent behavioural bias.

H₁₃: Amongst Millennials disposition effect is the prevalent behavioural bias.

Table 3: -

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Have you ever held on to a poorly performing stock hoping it would recover?	51	1.33	.476	.067

One-Sample Test						
Test Value = 1						
	t	df	Significance One-Sided p	Two-Sided p	Mean Difference	95% Confidence Interval of the Difference Lower Upper
Have you ever held on to a poorly performing stock hoping it would recover?	5.000	50	<.001	<.001	.333	.20 .47

Interpretation: - Table 3 depicts that, Since the one- Sample z-test yielded $p < .001$, we reject the null hypothesis at traditional significance levels $\alpha = 0.05$. There is very strong statistical evidence that the disposition effect is indeed the prevalent behavioural bias among Millennials.”

Table 4:- Descriptive statistics of Demographic profile, Behavioural biases and portfolio management

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Gender	100	1	2	1.54	0	0
Year of birth	100	3	5	4.29	1	0
What is your highest level of education?	100	1	5	2.72	1	1
What is your monthly income?	100	1	5	2.68	1	1
Which sector are you working in?	100	1	5	2.31	1	1
Do you invest in Indian stock exchange?	100	1	2	1.30	0	0
How long have you been actively investing in the Indian stock market?	100	1	4	2.05	1	1
I believe I can consistently outperform the market based on my personal judgment.	100	1	5	3.30	1	1
I tend to buy or sell stocks when I see a large number of investors doing the same	100	1	5	3.13	1	1
I often base my investment decisions on the first price I saw or paid for a stock	100	1	5	3.15	1	1
I avoid selling a stock at a loss even when it No longer fits my strategy.	100	2	5	3.87	1	1
I seek out information that supports my investment choices and ignore conflicting information.	100	1	5	3.50	1	1
I avoid stocks I am unfamiliar with, even if they have strong fundamentals.	100	1	5	3.43	1	1
I avoid making risky investment decisions to prevent feeling regret later.	100	1	5	3.69	1	1
How would you describe your investment style?	100	1	3	1.89	1	0
How diversified is your investment portfolio?	100	1	3	2.08	1	0
How often do you rebalance your portfolio?	100	1	4	2.58	1	1
Have you ever held on to a poorly performing stock hoping it would recover?	100	1	2	1.38	0	0
Do you believe any of your investment losses were due to emotional or biased decisions?	100	1	3	2.24	1	1
Valid N (listwise)	100					

Standard Deviation and Variance use N, not N-1, in the denominator.

Interpretation: - Table 4 depicts that majority of the respondents fall between the age Born between 1981–1996(Millennials) or (Gen Y), and their higher level of education is post-graduation, their average monthly income is between ₹25,000 – ₹50,000, majority of them are private sector employees and they have been investing averagely between 1–3 years.

Secondly the different behavioural biases affecting their investment decision with or without knowledge is disposition effect where the mean average is highest at 3.87 and least being herd behaviour with the average of 3.13.

Thirdly majority of the respondents have Moderately diversified portfolio and majority of the respondents are moderate risk takers and finally, the respondents rebalanced their portfolio Annually.

Finding and Suggestion

During our study it was found that, Millennials (aged 25–40) were found to be the most active investors in the Indian stock market. Higher education is modestly associated with more frequent portfolio adjustments. The disposition effect is prevalent among Millennials. Majority are Millennials (born 1981–1996), holding postgraduate qualifications, earning ₹25,000–₹50,000 monthly, employed in the private sector, and are investing for 1–3 years. Disposition effect scored the highest (mean = 3.87), followed by herd behaviour (mean = 3.13). Most respondents are moderate risk-takers with moderately diversified portfolios. Portfolio rebalancing typically occurs on an annual basis.

By extensive survey conducted we would suggest that

Educational Programs: -Develop advanced educational interventions focusing on portfolio optimization and systematic rebalancing to reduce cognitive biases and foster more proactive investment behavior. **Bias-Aware Advisory Services:** -Financial advisors should integrate awareness of the disposition effect into client consultations—using tools like performance reports and loss-prevention strategies to counteract bias. **Digital Nudges:** -Incorporate in-app reminders or recommendations, especially targeting respondents with postgraduate education, to promote more frequent and strategic portfolio reviews. **Diversification Tools:** -Offer interactive visuals and scoring systems showing clients their diversification levels relative to optimal benchmarks, encouraging balanced portfolio adjustments. **Ongoing Monitoring and Support:** -Establish annual check-in tools or surveys for Millennials to track their investment behavior and flag early signs of emotional trading patterns.

Practical and social Implications:

- **Financial literacy programs**, particularly for postgraduate Millennials, should incorporate bias-awareness and rebalancing strategies.
- **Advisory services and fintech platforms** should offer nudges and tools to mitigate common biases like the disposition effect.
- These targeted interventions are likely to support more **rational and diversified investment decisions** among this economically active group.

Conclusion

This study demonstrates that **Millennials are the most active generation** in India's stock market. Their **higher education levels** are modestly tied to more frequent rebalancing behaviours, although education alone is not a strong predictor. The **disposition effect is notably prevalent** among this cohort, highlighting a key behavioural bias that investors and advisors should address.

Millennials in the sample were predominantly **postgraduates**, earning between **₹25,000–₹50,000**, working in the **private sector**, and had been investing for **1–3 years**. They are characterized by **moderate risk-taking**, **moderate portfolio diversification**, and **annual rebalancing** habits.

However, there is no study without limitation, With **n = 51 while only millennials were taken into consideration**, the study has limited statistical power, especially for weaker effects; this increases the risk of Type II errors. The study captures data at a single point in time, so it cannot evaluate changes in behaviour or causality over time. Key behavioural factors are included (e.g., disposition effect, herd behaviour), but important variables like financial literacy, technological usage, and peer pressure were not assessed. Though the sample presumably spans multiple regions, cultural or geographic variations among Millennials across India may limit generalizability

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