The Influence of Behavioral Finance on Decisions about Stock Market Investments

Anu Rekha.V.P.[1] and J.Sridevi[2]

[1]Research Scholar, Faculty of Management Studies, Dr.M.G.R Educational and Research Institute (Deemed to be University), Maduravoyal Chennai.

[2]Professor, Faculty of Management Studies, Dr.M.G.R Educational and Research Institute (Deemed to be University)
Maduravoyal Chennai.

`anurekha.mba@drmgrdu.ac.in`

Abstract. A new approach to investing for the Indian stock market embodies behavioural finance. Behavioural finance, a novel perspective on the financial system, provides investors new possibilities for investing in the Indian stock market. This study can help with the understanding of how psychological variables have influenced the development of the financial market. Investors can make better stock market-based investing decisions by using behavioural finance, which offers a better knowledge of the behaviour of financial markets. The samples were drawn from 120 respondents, of whom 41% were men and 59% were women. The sampling methods utilized were ANOVA, regression analysis, and the T-test. Financial investors wield enormous power over the Indian stock market due to their large investments there. This approach enables it simple to assess investor activity in the Indian stock market.

Keywords: Indian Stock Market, Investment decision, Market dynamics.

1   INTRODUCTION

A fresh notion that assists investors in making informed decisions while making investments in the Indian stock market has emerged from behavioural finance, a new

perspective on the financial markets. Behavioural finance is the study of investor psychology in financial decision-making. It mixes economics and psychology to explain why and how investors behave in accordance with the market. It implies that a significant amount of psychological and emotional elements influence investment decisions. The behavioural finance paradigm postulates that psychological and emotional factors play a role in investment decisions. This can be useful in identifying instances in which stock market investors act irrationally or fail to take into account all relevant information when making decisions. Because of their substantial investments in India, financial investors have a significant influence on the stock market there. This method aids in determining the actions of investors in the Indian stock market.

2   LITERATURE REVIEW

A Pareto analysis[1] is used to critically review the literature on behavioural finance. The paper offers a thorough review of the prior research and suggests areas for further investigation. Using Pareto analysis, the sample was drawn from research papers published between 1990 and 2021. [2] The study will contribute to our understanding of how emotional factors influence investing decisions and how cognitive errors affect those decisions. Lastly, the integration of traditional finance and psychology facilitates the analysis of stock market performance.

[8] The study determining the correlation between employee investment preference and behavioural finance in Indian private equity firms can be beneficial. A questionnaire was used to gather the data, and sampling techniques included descriptive statistics, percentage analysis, correlation analysis, and the t-test statistical tool (with a sample size of 60).

[10], The aim of this research is to ascertain the impact of behavioral finance on the investing choices made by single parents. Data can be obtained by surveying 203 respondents in total, and the preference for low or moderate risk can be ascertained using the qualitative method. This study suggests that an investor's income level and source have an impact on their willingness to take on risk.

[2] , This work adds to the body of information on the influence of heuristic and prospect theory on investment decisions. Ninety percent of the 200 completed surveys were recovered using multiple regression analysis, correlation, and percentages. Afrinvest West Africa Limited, Meristem Securities, Vetiva Capital, and ARM Nigeria Limited were the four investment banks that took part in the poll. The study illustrates the inverse association between investing decisions and heuristics.

[10], According to this study, behavioural financial theories are crucial for individual investors because behavioural biases and psychological factors influence investment decision-making in different ways.

[4] , found evidence from Pakistan on the impact of investor personality types and their interplay with demographic variables on investment behavior. An investor's three key elements are personality, psychological bias, and investment conduct. An empirical study was done to examine the relationship between stock market investment behavior and investor personality. Each investor received a questionnaire based on a multivariate regression analysis.

OBJECTIVE
- To research how stock market investors behave.

- To recognize the different behavioural factors that could likely influence an investment decision.
- To pinpoint the psychological biases that influence stock market investment choices.
- To determine investors' confidence and amount of stock market investment.

RESEARCH METHODOLOGY

Primary data: For this study, the questionnaire method of data collection involved the use of descriptive research and convenience sampling techniques. The demographic information of the respondents is provided in Section 1 of the questionnaire. This information includes the respondents' age, gender, level of education, occupation, income, details of their financial expenses, and investment preferences. The stock market investing period, heuristics, prospect theory, emotions, market impact, herding, and investment decision are all covered in Section 2 of the questionnaire. Out of the 120 respondents, 41% were men and 59% were women when it came to the samples. The goal of the sampling method is to gather data.

Secondary data is gathered online and from published sources. Convenient sampling is the sample method utilized.

Tools: (i) ANOVA (ii)Regression Analysis (iii)T- test

RESULTS & DISCUSSION

Table 1 AGE

	Frequency	Percent	Valid Percent	Cumulative Percent
18-27 Yrs	38	31.7	31.7	31.7
28-37 Yrs	62	51.7	51.7	83.3
38-47 Yrs	11	9.2	9.2	92.5
48 & Above	9	7.5	7.5	100.0

Total	120	100.0	100.0	

The data presented in the table depicts the distribution of respondents across different age groups. The majority of respondents, comprising 31.7%, fall within the age bracket of 18 to 27 years. Following this, 51.7% of respondents belong to the 28 to 37 years age group, constituting the largest proportion. A smaller but still notable percentage, 9.2%, are aged between 38 to 47 years, while 7.5% are aged 48 and above. In cumulative terms, the vast majority of respondents, 92.5%, are aged 37 and below, with only a minority aged 48 and above, making up 7.5% of the total respondents surveyed.

Table 2 GENDER

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	49	40.8	40.8	40.8
Female	71	59.2	59.2	100.0
Total	120	100.0	100.0	

The provided data illustrates the distribution of respondents based on gender. Among the total respondents surveyed, 40.8% identify as male, while a larger proportion, comprising 59.2%, identify as female. In cumulative terms, this signifies that the majority of respondents, accounting for 59.2%, identify as female, while 40.8% identify as male. Overall, the data showcases a gender distribution where females represent a larger portion of the sample compared to males.

Table 3 EDUCATION QUALIFICATION

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UG	35	29.2	29.2	29.2
	PG	76	63.3	63.3	92.5
	other	9	7.5	7.5	100.0
	Total	120	100.0	100.0	

The presented data outlines the educational qualifications of respondents, categorized into undergraduate (UG), postgraduate (PG), and 'other' categories. Among the total respondents, 29.2% have undergraduate qualifications, while the majority, constituting 63.3%, hold postgraduate degrees. Additionally, a smaller proportion, accounting for 7.5%, fall under the 'other' category, which likely includes individuals with qualifications other than undergraduate or postgraduate degrees, such as professional certifications or vocational training. In cumulative terms, this breakdown demonstrates that the largest proportion of respondents, amounting to 92.5%, possess postgraduate qualifications or higher, while the remaining 7.5% have other educational backgrounds.

Table 4 OCCUPATION

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government Jobs	6	5.0	5.0	5.0
	SelfEmployed	12	10.0	10.0	15.0
	Salaried	95	79.2	79.2	94.2
	Retired	5	4.2	4.2	98.3
	Others	2	1.7	1.7	100.0
	Total	120	100.0	100.0	

- The provided data delineates the employment status of respondents, segmented into various categories. Among the total respondents surveyed, 5.0% are employed in government jobs, while 10.0% are self-employed. A significant majority, constituting 79.2%, are salaried employees. Additionally, a small proportion of respondents, accounting for 4.2%, are retired, while 1.7% fall into the 'others' category, which likely encompasses individuals with employment statuses not explicitly mentioned in the preceding categories. In cumulative terms, this distribution illustrates that the majority of respondents, totaling 94.2%, are either salaried employees or self-employed, with smaller percentages in government jobs, retired, or other employment statuses.

Table 5 INCOME

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than25,000	27	22.5	22.5	22.5
25,001–50,000	32	26.7	26.7	49.2
50,001–75,000	27	22.5	22.5	71.7

75,001-1,00,000	9	7.5	7.5	79.2
Above1,00,000	25	20.8	20.8	100.0
Total	120	100.0	100.0	

- The data provided depicts the income distribution among respondents, categorized into different income brackets. Among the total respondents surveyed, 22.5% have incomes less than 25,000, while a slightly larger proportion, constituting 26.7%, fall within the income range of 25,001 to 50,000. Similarly, 22.5% of respondents earn between 50,001 to 75,000, while a smaller percentage, accounting for 7.5%, have incomes ranging from 75,001 to 1,00,000. Additionally, 20.8% of respondents earn above 1,00,000. In cumulative terms, this data reveals that the majority of respondents, totaling 79.2%, earn incomes of up to 1,00,000, with a notable proportion, 20.8%, earning above this threshold.

Table 6 .REGRESSION

MODEL SUMMARY[B]

Model	R	RSquare	Adjusted R Square	Std. Error oftheEstimate	Durbin-Watson
1	.861[a]	.741	.729	1.57198	2.145

a. Predictors: (Constant), H, HT, PT, E, MI
b. Dependent Variable: ID

- The model summary (Model Summary B) provides an overview of the regression model's performance. The coefficient of determination (R-squared) is 0.741, indicating that approximately 74.1% of the variance in the dependent variable (ID) is explained by the independent variables included in the model. The adjusted R-squared, which accounts for the number of predictors in the model, is slightly lower at 0.729. The standard error of the estimate is 1.57198, reflecting the average distance between the observed values and the predicted values by the model. The Durbin-Watson statistic is 2.145, which is close to 2, suggesting no significant autocorrelation in the residuals.

Table 7 ANOVA[a]

	Model	Sum ofSquares	df	MeanSquare	F	Sig.
1	Regression	804.794	5	160.959	65.136	.000[b]

Residual	281.706	114	2.471		
Total	1086.500	119			

a. DependentVariable:ID

b. Predictors:(Constant),H,HT,PT,E,MI

- The ANOVA table (Table 7) shows that the regression model is statistically significant (F = 65.136, p < .0001), indicating that the model as a whole predicts the dependent variable significantly better than chance. The predictors collectively explain a significant amount of variance in the dependent variable, with a sum of squares of 804.794.

Table 8 COEFFICIENTS

Mode		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.204	1.333		.153	.879		
	HT	-.040	.038	-.069	-1.077	.284	.547	1.827
	PT	.421	.045	.528	9.344	.000	.712	1.404
	E	-.458	.097	-.326	-4.701	.000	.474	2.109
	MI	1.006	.132	.533	7.616	.000	.465	2.152
	H	.559	.070	.452	7.997	.000	.711	1.406

- In Table 8, the coefficients for the predictors (HT, PT, E, MI, H) indicate the strength and direction of their relationship with the dependent variable (ID). Each predictor's unstandardized coefficient (B) represents the change in the dependent variable for a one-unit change in the predictor, holding other predictors constant. The standardized coefficients (Beta) indicate the relative importance of each predictor in explaining the variance of the dependent variable. Additionally, the t-value and associated p-value (Sig.) determine the significance of each predictor in the model. The collinearity statistics assess multicollinearity among predictors, with tolerance values close to 1 and VIF (Variance Inflation Factor) values below 10 indicating no multicollinearity issues.

Table 9. T – TEST
GROUP STATISTICS

	Gender	N	Mean	Std.Deviation	Std. ErrorMean
ID	Male	49	17.4286	3.62284	.51755
	Female	71	17.9718	2.52966	.30022

- The provided data presents the results of an independent samples t-test conducted to assess differences in the mean of a variable (ID) between two groups based on gender (Male and Female).

Table 10 INDEPENDENT SAMPLES TEST

	Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig.(2-tailed)	Mean Difference	Std. Error-Difference	95% ConfidenceIntervalof the Difference Lower	Upper
ID	Equal variances assumed	2.083	.152	.968	118	.335	.54326	.56133	-1.65485	.56833
	Equal variance not assumed			.908	79.560	.367	.54326	.59832	-1.73406	.64754

- Next, the t-test for equality of means compares the mean ID scores between Male and Female groups. With equal variances assumed, the t-statistic is .968 with 118 degrees of freedom and a two-tailed p-value of .335, suggesting no significant difference in the mean ID scores between males and females ($p > .05$). The mean difference between the two groups is .54326, with a standard error of .56133. The 95% confidence interval for the difference in means ranges from -1.65485 to .56833.

- When equal variances are not assumed, the t-statistic becomes .908 with 79.560 degrees of freedom and a two-tailed p-value of .367. Again, this indicates no significant difference in the mean ID scores between males and females ($p > .05$). The mean

difference remains the same, but the standard error differs slightly. The 95% confidence interval for the difference in means ranges from -1.73406 to .64754.

Table 11. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	125.408	3	41.803	5.045	.003
Within Groups	961.092	116	8.285		
Total	1086.500	119			

Table 11 presents the results of an ANOVA test, which examines whether there are significant differences in the mean ID scores across more than two groups (possibly including gender). The between-groups sum of squares is 125.408, with 3 degrees of freedom, resulting in a mean square of 41.803. The F-statistic is 5.045, with a corresponding p-value of .003, indicating that there are significant differences in the mean ID scores between groups.

Table 12- MULTIPLE COMPARISONS

DEPENDENT VARIABLE

(I) 1. Age	(J) 1. Age	MeanDifference (I-J)	Std. Error	Sig.	95%Confidence Interval	
					Lower Bound	Upper Bound
18-27 Years	28-37 Years	.97623	.59302	.357	-.5696	2.5220
	38-47 Years	.74163	.98552	.875	-1.8273	3.3105
	48 &Above	-2.89474*	1.06706	.038	-5.6762	-.1133
28-37 Years	18-27 Years	-.97623	.59302	.357	-2.5220	.5696
	38-47 Years	-.23460	.94172	.995	-2.6894	2.2201
	48 &Above	-3.87097*	1.02675	.001	-6.5474	-1.1946

38-47 Years	18-27 Years	-.74163	.98552	.875	-3.3105	1.8273
	28-37 Years	.23460	.94172	.995	-2.2201	2.6894
	48 &Above	-3.63636*	1.29375	.029	-7.0087	-.2640
48 &Above	18-27 Years	2.89474*	1.06706	.038	.1133	5.6762
	28-37 Years	3.87097*	1.02675	.001	1.1946	6.5474
	38-47 Years	3.63636*	1.29375	.029	.2640	7.0087

The mean difference is significant at the 0.05 level.

The Tukey Honestly Significant Difference (HSD) test was conducted to examine the differences in mean ID scores across different age groups. The results indicate that there are significant mean differences in ID scores between certain age groups. Specifically:

- The mean ID score for individuals aged 48 and above is significantly lower than those aged 18-27 years (mean difference = -2.89474, p = .038), 28-37 years (mean difference = -3.87097, p = .001), and 38-47 years (mean difference = -3.63636, p = .029).
- There is also a significant mean difference in ID scores between individuals aged 28-37 years and those aged 48 and above (mean difference = 3.87097, p = .001), as well as between individuals aged 38-47 years and those aged 48 and above (mean difference = 3.63636, p = .029).

No other significant mean differences were found between age groups.

In conclusion, age appears to have a significant impact on ID scores, with older individuals (48 years and above) generally having lower ID scores compared to younger age groups. These findings highlight the importance of considering age as a factor when analyzing ID scores.

3   FINDINGS

The findings of this study shed light on the attitudes and trading practices of stock market investors. This study may look into how behavioral finance affects investing in stock markets decisions. This study may look into how behavioral finance affects stock market investing decisions. Behavioural finance holds that people's financial decisions are influenced by both individual and market psychology. When making stock market investments, investors should avoid behavioral biases and overconfidence.

4   SUGGESTIONS & CONCLUSION

Targeted Marketing and Outreach: Businesses and organizations could tailor their marketing strategies and outreach efforts to cater to the demographic majority of respondents aged between 18 to 37 years and possessing postgraduate qualifications. This might involve leveraging social media platforms, online advertising, and targeted messaging to engage with young, educated consumers effectively.

Employment opportunity: Given that a sizable percentage of respondents were paid workers, businesses should concentrate on providing competitive employment packages, opportunity for professional growth, and a nice work environment to draw and keep top talent. Furthermore, offering benefits and flexible work schedules that meet the demands of a diverse workforce may raise productivity and employee happiness.

Financial Services and Products: Financial institutions may find opportunities to offer customized financial services and products tailored to different income brackets, considering the income distribution among respondents. This could include budgeting tools, investment options, and savings plans designed to meet the specific financial goals and needs of individuals across various income levels.

Education and Skill Development: Educational institutions and training providers could develop programs and courses aimed at further skill development, professional advancement, and lifelong learning, recognizing the high proportion of respondents with postgraduate qualifications. Offering flexible learning options, online courses, and certifications aligned with industry demands could appeal to individuals seeking to enhance their knowledge and career prospects.

Retirement Planning and Services: For the small percentage of respondents who are retired, financial advisors and retirement planning services may find opportunities to offer tailored advice, investment strategies, and retirement solutions to help individuals effectively manage their finances and prepare for retirement. By considering these suggestions and adapting strategies to align with the demographic characteristics and needs of respondents, businesses, organizations, and service providers can better connect with their target audience and deliver value-added solutions and services. Interpretation of R-squared: The independent variables in the model account for around 74.1% of the variation in the dependent variable (ID), with an R-squared value of 0.741. This suggests that there is a relatively high correlation between the dependent variable and the predictors. It's important to keep in mind, though, that

about 25.9% of the variation is still unaccounted for, indicating that the dependent variable may possibly be influenced by other factors not taken into account by the model. Model Significance: The ANOVA table demonstrates that the regression model is statistically significant (F = 65.136, p < .0001), indicating that the predictors collectively have a significant effect on predicting the dependent variable. This implies that the model describes the data more accurately than a model without any predictions. Coefficient Interpretation: The correlation between the predictors (HT, PT, E, MI, and H) and the dependent variable (ID) may be seen in terms of both its strength and direction. It is crucial to carefully consider these coefficients in light of the research design, the units of measurement used for the dependent variable, and the predictors. Positive coefficients indicate a positive association, whereas negative coefficients imply a negative correlation. Significance of Predictors: The t-values and associated p-values (Sig.) help determine the significance of each predictor inside the model. A statistically significant predictor of the dependent variable is one with a low p-value, usually less than 0.05. When deriving conclusions and evaluating the model's results, it is imperative to concentrate on predictors with significant p-values.

Multicollinearity Assessment: Multicollinearity among predictors is evaluated using collinearity statistics, such as tolerance values and VIFs. VIF scores less than 10 and tolerance values approaching 1 often point to the absence of multicollinearity problems. However, if multicollinearity is found, it can compromise the validity of the interpretations and coefficients, necessitating more research or corrective measures like changing variables or transforming data.

Researchers can derive significant conclusions and make well-informed judgments from the outcomes of the regression model by closely examining the model's overall explanatory power, multicollinearity problems, and predictor importance.

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