Personality Traits and Behavioral Biases of Indian Investors

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ABSTRACT

Individuals' investment decision is affected by several factors, which are generally related to stock market or investors' demographics and their individual personalities. The present study is an attempt to find out the impact of individual investors' personality traits (MBTI Test) on their investment behavior by using two most prominent behavioral biases i.e. Overconfidence bias and Herding bias. Data has been collected from 1,000 individual investors across India by using convenience sampling and sending a structured questionnaire to the respondents, online and offline. For the data analysis, descriptive analysis and regression analysis have been run through SPSS version 24. The results of the study have indicated a strong relation between the behavioral biases (Overconfidence and Herding) and the personality traits (MBTI personality traits) of individual investors in India. The results of the study would be very useful for the individual investors in identifying their behavioral biases and personality traits and the impact of them on their investment decision and consequently they would be able to make a better investment decision which will result in an improved investment return. Apart from that, the financial advisors, Brokers or Practitioners also could take advantage from the findings of the present study in understanding the personality traits and behavioral biases of their clients and accordingly suggesting them the best investment avenues available for them in the Indian financial market.

Key Words: MBTI Personality Traits, Overconfidence Bias, Herding Bias, Investment Decision, Indian Individual Investors.

Introduction:

Every individual's life decisions are influenced by their behavioral biases which are formed out of their personality types, demographics and several other factors. When we talk about investment decision, a person's investment decision depends mainly on the financial market conditions which are interpreted by different individuals as per their behavioral biases, that is why few people keep holding the stocks, when there is a boom situation in the stock market and few prefer to sell out them instantly. In the present study, the focus is on finding out the impact of relationship between personality traits and behavioral biases on their investment decisions.

Behavioral Biases discussed in the Present Study: It is important to first have some understanding of the two biases which have been used in the present study therefore, a brief introduction of them is explained as below:

Overconfidence Bias: In general terms, overconfidence is the overestimation of one's capabilities, which is not objectively reasonable. When it is related to investment decision, the investors, who feel that they are more capable and knowledgeable than others for making investment decisions, their decisions will give them guaranteed returns and they don't need to look into any one's suggestions regarding their judgment, are called

the investors, possessing overconfidence bias. This bias sometime leads to adverse returns due to miscalibration of probabilities.

Herding Bias: Herd is called, the tendency of following crowd. There are found many investors in the financial market who prefer to just go by the decisions which most of the investors are taking and more than their own analysis, they believe in the analysis of other investors. Such investors have to face the situations of adverse returns or big loss when the investment trend goes wrong.

MBTI Personality Traits: In the present study, The Myers Briggs Type Indicator Test (MBTI) has been used to identify the personality traits of the individual investors. The following eight traits have been included under MBTI test:

Extraversion: Extraversion personality trait is related to the people who find their energy from the people. They are very outgoing, enthusiastic, expressive, active and gregarious people. They generally take the decisions quickly without putting a thorough consideration.

Introversion: Introversion personality trait is almost opposite to extraversion, they find their energy in things rather than people. They are reflective and reserved, prefer to spend most of their time alone in analyzing the things in their own way. They take quite long time in taking a decision.

Sensing: This personality trait is related to paying attention to physical reality. People possessing this trait, are concerned with what is actual, present, current, and real. They notice facts and remember details that are important to them. They like to see the practical use of things and learn best when they see how to use what they are learning. Experience weights them more than words.

Intuition: Intuition personality trait refers to the people who pay the most attention to impressions or the meaning and patterns of the information. They prefer to learn by thinking a problem through rather than by hands-on experience. They are found interested in new things and possibilities. They like to work with symbols or abstract theories.

Thinking: The people possessing this trait, think from head not heart, they are more interested in things than people, enjoy scientific and technical, logical fields, when making decision, they value more to the principles than people part. Sometimes they are found to be task oriented, uncaring or indifferent.

Feeling: Feelers are generally people oriented, they are compassionate and make decisions from heart. They give importance to values and harmony. They appear to be caring, warm, and tactful.

Judging: Judging personality trait describes a planned and organized life style. People belong to this trait, are generally settled, task oriented and quite disciplined. They prefer to get things decided beforehand. Sometimes they focus so much on the goal that they miss the new information however this trait only describes what one prefer in the outer world, he may, inside, feel flexible and open to new information so could be either extravert or introvert..

Perceiving: People belong to this trait, are generally quite opposite to judging, they prefer a flexible and spontaneous way of life, like to understand and adapt to the world rather than organizing it. They appear to stay open to new experiences and information.

Literature Review:

Bortoli D D et. al. (2019) investigated which of four paradigms best portrays the risk profile manifest by investors in their financial asset investment decisions by using prospect theory, investor profile analysis (IPA), the Big Five Personality Test, and the Cognitive Reflection Test (CRT). The results have shown that people who have greater risk tolerance according to IPA, who violate prospect theory, and who have a high degree of openness to experience, have the greatest probability of taking higher levels of risk in their investment decisions. With regard to the CRT, higher numbers of correct responses in this test had an inverse relationship with risk taking.

Agarwal Sandeep. (2018). concluded that Indian investors are highly susceptible to the cognitive errors as well as personality traits of individuals impact their susceptibility to behavioural biases.

Raheja Saloni (2017) found the relation of investment decisions with personality traits and behavioral biases to be statistically significant. The study revealed through its results that people preferred to invest in particular investment options according to their need and with certain objective in mind.

Bilgahan K & Ali B (2016) found through the results of their study that there was a significant relation between personality traits and psychological biases of investors, apart from it, the personality traits they found that personality traits affect the financial risk tolerance of the investors to a great extant.

Rzeszutek, Marcin (2015) investigated whether susceptibility to selected behavioral biases (overconfidence, mental accounting and sunk-cost fallacy) is correlated with the Eysenck's [1978] personality traits (impulsivity, venturesomeness, and empathy). The results demonstrated the relationship between venturesomeness and susceptibility to all behavioral biases explored in this study. The study revealed that higher level of venturesomeness was linked with a lower probability of all behavioral biases included in this study.

Moradi et. al. (2013) indicated through the results of their study, a relationship between the MBTI personality dimensions and behavioral biases like conservatism bias and availability bias among the investors in the Tehran Stock Exchange.

Research Objectives:

Following are the main objectives of the present study:

i)   To study the personality Traits of the individual Indian investors.

ii)   To investigate the overconfidence and herding bias of individual Indian investors.

iii)   To find out the relationship between personality traits and overconfidence and herding bias of individual Indian investors.

Research Methodology:

It's an analytical study, for which both primary and secondary data was required. Primary data is collected through a structured questionnaire from the five Indian metro cities'(Chennai, Bangalore, Bombay, Delhi and Kolkata) individual investors by using Non random, Purposive sampling.

The questionnaire has been divided into three parts first part included ten questions regarding the personal profile of investors, second part included ten questions related to Overconfidence and Herding bias of

investors and third part included sixty three questions (taken from MBTI Personality Test) related the personalities of investors as per the study objectives.

Data analysis has been conducted by applying multiple linear regression method for finding out the significance of relationships between various personality traits (assumed in MBTI Personality Test) and biases of individual investors in India through SPSS version 24, after checking the reliability of collected data and questionnaire through Cronbach's alpha.

Data Analysis:

Table 1: Reliability Statistics of personality Traits and Behavioral Biases

Personality Traits Under MBTI Model	Cronbach's Alpha	No of Items
Extroversion	0.868	10
Introversion	0.863	7
Sensing	0.837	6
Intuition	0.830	6
Thinking	0.887	7
Feeling	0.761	11
Judging	0.863	9
Perceiving	0.806	7
Overconfidence Bias	0.771	6
Herding Bias	0.776	4

First Hypothesis:

Ho: "There is no significant relation between Overconfidence Bias and Personality Traits of individual Indian investors.

H1: "There is a significant relation between Overconfidence Bias and Personality Traits of individual Indian investors.

Table No-2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.357[a]	.127	.120	.15260

Table No-3: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.365	8	.421	18.064	.000[b]
	Residual	23.079	991	.023		
	Total	26.444	999			
a. Dependent Variable : Overconfidence Bias						
b. Predictors: (Constant), P, N, I, S, F, T, E, J						

Table No-4: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.975	.074		13.242	.000
	E	.189	.051	.175	3.682	.000
	I	-.144	.035	-.125	-4.177	.000
	S	.033	.034	.029	.966	.334
	N	-.060	.035	-.053	-1.747	.081
	T	-.143	.036	-.168	-3.970	.000
	F	-.485	.055	-.380	-8.794	.000
	J	.094	.052	.089	1.815	.070
	P	-.008	.050	-.007	-.158	.874

From the above tables, it was revealed that the model was found a good fit as the R square value was 0.127 and $F_{(8, 991)} = 18.064$ with $P < 0.05$ therefore the null hypothesis was rejected and it was interpreted that there is a significant relation between Overconfidence Bias and Personality traits of individual investors.

The regression model equation has been formed as follows:

Overconfidence Bias = 0.975 + E (0.189) + I (-.144) + S (.033) + N (-.060) + T (-.143) + F (-.485) +J (.094) +P (-.008)

Second Hypothesis:

Ho: "There is no significant relation between Herding Bias and Personality Traits of individual investors.

H1: "There is a significant relation between Herding Bias and Personality Traits of individual investors.

Table No-5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.597[a]	.357	.351	.15494

Table No-6: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.186	8	1.648	68.657	.000[b]
	Residual	23.792	991	.024		
	Total	36.978	999			
a. Dependent Variable: Herding Bias						
b. Predictors: (Constant), P, S, I, N, F, E, T, J						

Table No-7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.956	.174		5.492	.000
	E	-.245	.115	-.068	-2.122	.034
	I	.018	.035	.014	.531	.596
	S	.031	.175	.005	.177	.860
	N	-.153	.065	-.060	-2.351	.019
	T	.221	.059	.127	3.768	.000
	F	-.155	.068	-.059	-2.279	.023
	J	-.397	.053	-.315	-7.559	.000
	P	.214	.056	.159	3.782	.000

From the above tables, it was revealed that the model was found a good fit as the R square value was 0.357 and F (8,991) = 68.657 with P < 0.05 therefore the null hypothesis was rejected and it was interpreted that there is a significant relation between Herding Bias and Personality traits of investors.

The regression model equation has been formed as follows:

Herding Bias = 0.956 + E (-.245) + I (.018) + S (.031) + N (-.153) + T (.221) + F (-.155) + J (-.397) + P (.214)

Results & Findings:

i)   The value of R square was found 0.127 which was less than 0.30 so it was revealed that personality traits could not explain very much variance in the overconfidence bias thus it could not be interpreted as a very good fit model but all the independent variables were found to have relation with the dependent variable (Overconfidence Bias) as all were entered in the model as predictors but significance was found less than 0.05 with Extroversion, Introversion, Thinking and Feeling Traits out of which Feeling(F) was found to be the most significant (negatively related) predictor with the correlation coefficient value of -0.485 followed by Extroversion (E: 0.189), Thinking (T: -0.143)) and Introversion (I: -0.144) negatively related with Overconfidence bias among personality traits .

ii)   In regard of Herding bias the R square was found 0.357 which was more than 0.30 so ,it was revealed that personality traits have explained a considerable amount of variance in the Herding Bias so it was appeared to be a very good fit model. Apart from this all the independent variables were found to have relation with the dependent variable (Herding Bias) as all were entered in the model as predictors however significance was found less than 0.05 with six variables i.e. extroversion, intuition, thinking, feeling, judging and perceiving out of which sensing was found to be the most significant (negatively related) predictor with the correlation coefficient value of 0.397 followed by Extraversion (E: -0.245), Thinking (T: 0.221) , Perceiving (P: 0.214), Feeling (F: -0.155), Intuition (-0.153) with Herding Bias.

Conclusion:

In the present study an attempt has been made to find out the relationship of personality traits and behavioral biases of individual investors in India by using eight personality traits and prominent behavioral biases, overconfidence and herding. After the analysis, it was found that there are few personality traits which had a strong significant relationship with the overconfidence and herding bias of individual Indian investors. Out of the two model which was formed with the help of multiple regression analysis, herding Bias model was found

to be better fit than Overconfidence bias as under Herding bias model more than 0.30 variance in the Herding Bias were explained by personality traits. The findings of the present study would be useful for the individual investors to identify their personality traits along with the behavioral biases and consequently improving their investment decision making. Apart from this the findings would also be useful for the financial advisors by identifying the particular personality traits and behavioral biases of their clients and accordingly suggesting them the right avenues of investment at the right times and in such a way helping them to increase their overall investment returns.

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