






# “Impact of personality traits on investment decision-making: Mediating role of investor sentiment in India”

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# IMPACT OF PERSONALITY TRAITS ON INVESTMENT DECISION-MAKING: MEDIATING ROLE OF INVESTOR SENTIMENT IN INDIA

## Abstract

The behavior of investors and their investment decision-making process in the financial markets are guided by psychological (sentiments) and personal characteristics (personality traits). Research in recent years has shown the connection between investor sentiment and personality traits and investment decisions. Though academic works in the field of behavioral finance are growing, studies on personality traits and investment decision-making with investor sentiment as a mediator are sparse. To this end, the paper aims to analyze the effects of Indian retail investors' Big-five personality traits (Neuroticism, Extraversion, Openness to experience, Agreeableness, and Conscientiousness) on their short-term and long-term investment decision-making with the mediating effect of investor sentiment. The study employs the Partial Least Square-Structural Equation Model to test the framed hypotheses. The findings of the study reveal that Neuroticism has a significant positive effect ( $\beta=0.352$ ,  $p<0.05$ ) on investor sentiment. It further shows that Extraversion has a significant positive effect ( $\beta=0.186$ ,  $p<0.05$ ) on long-term decision-making. On the contrary, the conscientiousness trait has a significant negative effect ( $\beta=-0.335$ ,  $p<0.05$ ) on short-term investment decision-making. Furthermore, the Openness trait demonstrates a significant effect on both short-term and long-term investment decision-making ( $\beta=0.357$ ,  $p<0.05$ ;  $\beta=0.007$ ,  $p<0.05$ ). However, the findings reveal no significant intervening effect of investor sentiment between personality traits and investment decision-making. Thus, the study strongly exerted the impact of investors' personality traits on their investment decision-making due to the high influence of personal characteristics over sentiment effects.

## Keywords

behavioral finance, Big Five personality traits, investor sentiment, investment decision-making, structural equation model, India

## JEL Classification

G40, G41

## INTRODUCTION

Over the past decade, the irrationality of individual investors is recognized as a key factor in the financial markets due to the repeat occurrence of crises and crashes. This questions the assumptions of the classical finance theory of Efficient Market Hypothesis (EMH) (Fama, 1965). It is likely noted that investors' irrationality is the result of changes in their personalities and sentiments which tends to have an impact on their decision-making (Lo et al., 2005). It is well observed that "people's decision-making is based on losses and gains rather than results" (Kahneman & Tversky, 1979). With this view, behavioral finance has emerged from the mainstream of finance, which tests the irrationality of investors and their psychological phenomena in the financial markets.

Investment Decision-Making (IDM) is a process of investing funds in the available alternatives after conducting an effective risk-return

analysis. It is evident to note that the investment decision is always guided by Personality Traits (PT) and Investor Sentiment (IS). Personality is referred as the thoughts, attitudes, and behavior patterns that distinguish one individual from another (Baker et al., 2021). Investor Sentiment (IS) is the overall attitude of investors toward the financial market (Baker & Wurgler, 2006). As the financial markets and economy of the country are interlinked, a favorable effect on the advancement and growth of a country is witnessed with an expanding market. Similarly, due to the increased participation of retail investors, financial markets also evidenced a remarkable influence of IS and personalities (Kengatharan & Kengatharan, 2014).

Past scholarly works have demonstrated the direct association between IS and decision-making (Haritha & Uchil, 2020). Further studies attempted to show the association between PT and IS (Baker et al., 2021). In addition, the nexus between IS and decision-making is also well documented (Sachdev & Lehal, 2023). Though it is well observed the importance of including mediators in behavioral finance (Nigam et al., 2018), no attempts have been made to examine the mediating effect of IS between PT and IDM. Moreover, it is crucial for market participants such as investors and financial advisors to realize the influence of PT and IS on IDM.

## 1. LITERATURE REVIEW AND HYPOTHESES

Classical finance theories assume that investors are rational decision-makers and that markets are informationally efficient based on the theory of the EMH (Fama, 1965), which is contradicted by behavioral finance theories. Noise trader theory in validating IS, states that the risk created by noise traders and their unpredictable decisions causes stock prices to fluctuate from their fundamental value (De Long et al., 1990). Behavioral finance theories by challenging efficient markets and the rationality of investors posit that investors are irrational in nature, and they exhibit various anomalies that tend to be influenced by psychological and emotional factors while making investment decisions (Kamath et al., 2022). Studies have revealed that psychological and emotional factors such as investors' personalities and sentiments play a vital role while making investment decisions (Haritha & Uchil, 2020).

As the participation of individual investors is growing in the Indian stock market, there arises various behavioral biases such as IS, herding, anchoring, and mental accounting. While PT have been found to be a significant predictor of investor biases and sentiment, they also play a prominent role in investment decisions (Haritha & Uchil, 2020). Among various PT theories, the "Five Factor Model" (FFM) is a widely accepted personality model, particularly in the Psychology and Management literature (Costa & McCrae, 1992;

Mayfield et al., 2008). The key dimensions of the FFM are "Neuroticism (NEU), Extraversion (EX), Conscientiousness (CON), Openness to experience (OP), and Agreeableness (AG)".

Investors' personality plays a crucial role in influencing the behavior of investors resulting in errors and biases in their decision-making (Kumar & Goyal, 2016). Previous scholarly works also confirm the linkage between behavioral finance and psychological biases (Durand et al., 2008; Oehler et al., 2018). Notably, the model with five key dimensions, namely, the "Big Five PT model" of Costa and McCrae (1992), attained essential support among personality psychologists (Jhon & Srivatsava, 1999). This model measures personality based on orthogonal dimensions which include NEU, EX, CON, OP, and AG (Alderotti et al., 2023). The score of each respondent concerned with these dimensions depicts an even pattern of thoughts and emotions (Rustichini et al., 2016).

**Neuroticism:** It is defined as a person who is more emotional, unpredictable, or "testy" than others (Oehler et al., 2018), they engage in unsteady decision-making as a result of their emotional instability and depressive behavior. A person with NEU exerts the feelings such as anger, fear, and anxiety (Camgoz et al., 2017).

**Extroversion:** It refers to an individual who is joyful, highly active, full of life, also friendly, and social with a great sense of humor (Ozer & Mutlu,

2019). Moreover, extroverts exhibit enthusiasm, excitement, and engage in the external world (Camgoz et al., 2017).

**Conscientiousness:** Individuals with CON display strong will, confidence, and advanced cognitive abilities (Mayfield et al., 2008). Further, they exhibit self-discipline, and they are success-oriented (Ozer & Mutlu, 2019).

**Openness to experience:** A person with OP is concerned with intellectual curiosity and readiness to try various activities. They are innovative and use creative knowledge in making decisions (Durand et al., 2008; Mayfield et al., 2008).

**Agreeableness:** It refers to an individual with cheerful, reliable, and welcoming nature. Individuals possessing AG display trustworthiness, cooperation, and thoughtfulness (Camgoz et al., 2017) and are likely to rely on other people's judgments and opinions (Mayfield et al., 2008).

Investment is defined as "the process of purchasing assets out of available resources with an aim to reap greater future benefits" (Ahmed, 2021). Investors make a commitment towards their resources in short-term investments as well as long-term investments. A short-term investment is a temporary investment in various securities which can be converted into cash between 3 to 12 months (Kenton, 2019) whereas, long-term investments are assets held for more than one year to generate revenue (Twin, 2019). It is well observed that investment outcomes are influenced by PT (Durand et al., 2008). Moreover, it was found that PT affects two major psychological biases, namely availability bias and the disposition effect. Baker et al. (2021) provided new insights on the relationship between PT and IS and stated that personality is significantly associated with behavioral biases. Further, Baker et al. (2022) studied the impact of PT on financial professionals' behavioral biases in making decisions. They found a significant relation of NEU, OP, and EX with behavioral biases. However, they found no significant effect of AG and CON with behavioral biases.

Similarly, it was found that there is a significant influence of IS on IDM, portfolio optimization, and timing of the securities (Haritha & Uchil, 2019).

Barber and Odean (1999) stated that investors frequently sell winning stocks while holding on to losing stocks and engage themselves in excessive trading. This behavior is the origin of human sentiment, and it affects their investment decisions. Experimental finance research showed the limits of human cognition and its effect on financial decision-making (Asaad, 2012). Forbes (2011) studied the investors' behavioral perspectives and financial decision-making and stated that investors' needs and wants act as a driving force for IDM. Extant literature provided a new perspective on the relationship between IS and decision-making and opined that investors gather information such as news, stock data, and gossip from other investors on the Internet and form their own opinions of security prices and indulge themselves in making investment decisions (Wang, 2022). Further, fear, behavioral biases, and euphoria were found to be the driving factors in IDM (de Oliveira Cardoso et al., 2022). Similarly, previous studies have also stated that companies' performance, the overall sentiment of the stock market, and past returns also have a significant influence on IDM (Joshi et al., 2011).

Several studies have attempted to understand the factors that influence IDM. Big Five traits on behavioral decision-making found a minimal relationship with key dimensions such as EX, NEU, OP, and CON (Buelow & Cayton, 2020), whereas Sachdeva and Lehal (2023) posit that EX, NEU, CON, and AG have a significant influence on decision-making. Further, it was noted that individual investors trade differently when they have personality compatibility with their investment advisors (Tauni et al., 2019). Investors with conscientious personalities are more responsible, and they try to avoid risks for better fulfilment of their responsibilities while making investment decisions (Kaur & Goel, 2022). The other facets of the study showed that EX has a positive influence and AG has a negative influence on investor performance and investors should gaze at their personalities while making investment decisions (Akhtar et al., 2017). Mayfield et al. (2008) studied the relationship between both long-term and short-term investment intentions and PT. They revealed that OP has a positive influence on long-term investment intentions and is unrelated to short-term investor intentions. Likewise, conscientiousness is also unrelated to

short-term investor intentions. Previous researchers have described the dimensions of PT differently with the extensive use of the “Big Five PT model.”

It was found from the past literature that there exists a significant relationship between PT and IS (Baker et al., 2018). Metawa et al. (2019) tried to examine the relationship between demographic variables and investment decisions with IS as a mediator and found that behavioral factors have an intervening effect on investment decisions. Though the past scholarly works revealed the significant effect of PT on IDM, to date no studies have attempted to examine the effect of IS between PT and IDM. Therefore, the main purpose of the study is to examine the effect of the Big-five PT on both short-term investment decision-making (SDM) and long-term investment decision-making (LDM) by considering IS as a mediator. Hence, the following hypotheses are framed:

*H1: PT (H1a: Neuroticism, H1b: Extroversion, H1c: Consciousness, H1d: Openness, H1e: Agreeableness) has a significant effect on Investor Sentiment.*

*H2a: IS has a significant effect on LDM.*

*H2b: IS has a significant effect on SDM.*

*H3: PT (H3a: Neuroticism, H3b: Extroversion, H3c: Consciousness, H3d: Openness, H3e: Agreeableness) has a significant effect on LDM (H3f: Neuroticism, H3g: Extroversion, H3h: Consciousness, H3i: Openness, H3j: Agreeableness) and on SDM.*

*H4: There is a significant effect of PT (H4a: Neuroticism, H4b: Extroversion, H4c: Consciousness, H4d: Openness, H4e: Agreeableness) on LDM (H4f: Neuroticism, H4g: Extroversion, H4h: Consciousness, H4i: Openness, H4j: Agreeableness) and on SDM through IS.*

## 2. METHOD

The study employed a quantitative research design using a questionnaire to gather primary data. The study performed a power analysis using G-power,

a computer-based statistical software to estimate the minimum sample size (Faul et al., 2009). The computation for this model showed that using eight predictors, power = 0.95, alpha = 0.05, and effect size of 0.15, the required sample size was 160. A simple random sampling procedure was employed for data collection and standardized questionnaires were sent to the respondents over e-mail. Among issued a total of 210 questionnaires, 192 questionnaires were returned by the respondents (91.42%). Out of 192 samples, 11 were removed due to incomplete information. A total of 181 were selected for further evaluation.

The survey questionnaire contained three measurement variables PT, IS, and IDM. The Big Five PT model was used to measure PT (Mayfield et al., 2008; Akhtar et al., 2017). To measure IDM (SDM and LDM), the study relies on Mayfield et al. (2008), and to measure IS, the work of Metawa et al. (2019) was used. The questionnaire includes four sections. Section A describes the demographics of the respondents; section B emphasizes the sentiment of investors using a “Five-point Likert Scale”, where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree; section C focuses on the respondents’ PT; and section D describes respondents’ behavior while taking IDM using same five-point scale. The questionnaire also included demographic variables such as education, occupation, income, and trading experience.

The study carried out statistical data analysis on Smart-PLS 4 software using the “Partial Least Square Structural Equation Modelling” (PLS-SEM). PLS-SEM is a widely utilized and recognized multivariate analysis that investigates the variables in the path model (Matha et al., 2022), also suitable for mediation analysis (Henseler et al., 2015). SEM measures the relationship between the variables, and it also directly measures the relationship among the observed and latent variables (Hair et al., 2009). Prior studies assert the use of PLS-SEM because of its benefits in exploratory and predictive modeling (Hair et al., 2012). SEM estimates measurement and structural models together. Further, the model is assessed with reliability and validity measurement. To check the reliability of the model, outer loadings, internal consistency reliability, and composite reliability were used. The accuracy of the model was



confirmed using convergent validity – Average of Variance Extracted (AVE) and discriminant validity – Fornell-Larcker criterion and Heterotrait-Monotrait ratio (HTMT) (Fornell & Larcker, 1981; Henseler et al., 2015). After establishing the measurement model, the hypothesized direct and indirect relationships were examined using path coefficients,  $Q^2$  values, and  $R^2$ .

### 3. RESULTS

The study examined the relationship between the PT and IDM (SDM and LDM), by taking IS as an intervening variable. The study based on literature and hypotheses, depicts the structured model in Figure 1. Table 1 exhibits the socio-demographic profile of 181 participants. The sample comprised 62.98% of males and 37.02% of females. The majority of the respondents belong to the age group between 21 and 31 years (53.03%) with less than 1 (40.88%) and 1 to 3 years of experience (26%). More than half of the respondents were with an education background of post-graduation (63.53%),

44.19% of respondents were salaried, and 51.93% of respondents had an annual income under five lakhs.

The analysis for the study was carried out using Smart PLS-SEM 4. It is a two-step model including both structural and measurement models. Structural models cannot be evaluated without assessing the reliability and validity of the measurement model. To measure the reliability of the model, Cronbach alpha, composite reliability, and outer loading for each construct were used and the results are depicted in Table 2. The study found that the values of internal consistency reliability denoted through Cronbach alpha and composite reliability of each construct were above the threshold limit of 0.7. Hence, all the constructs were considered reliable. Further, the outer loadings of each construct were tested, and the constructs such as EX2 (0.682), CON1 (0.426), CON2 (0.624), CON3 (0.608), IS1 (0.239), IS2 (0.660), IS3 (0.497), and SDM1 (0.683) were removed due to low factor loadings. The constructs above the threshold limit of 0.708 were retained for the analysis. The

**Table 1.** Respondents' measurement profile

	Demographic Profile	Frequency	Percentage (%)
Gender	Male	114	62.98
	Female	67	37.02
Age	Less than 20	3	1.66
	21-30	96	53.04
	31-40	38	20.99
	41-50	21	11.60
	51-60	16	8.84
	more than 60	7	3.87
Education	Below 12th	3	1.66
	Under-graduate	27	14.92
	Post-graduate	115	63.54
Occupation	Professional Course	36	19.89
	Salaried	80	44.20
	Business	11	6.08
	Professional	0	0.00
	Retired	26	14.36
	Housewife	7	3.87
Annual Income	Other	57	31.49
	Less than 5	94	51.93
	Above 5 -Below 10	39	21.55
	Above10 - below 15	18	9.94
	Above 15	30	16.57
Trading experience	Less than 1	74	40.88
	1 to 3 years	48	26.52
	3 to 5 Years	14	7.73
	Above 5 years	45	24.86

Convergent validity is tested using AVE, and all the AVE values were above 0.5. The results depicted in Tables 3 and 4 provide evidence for the discriminant validity of the constructs. The discriminant validity for the study constructs was assessed using Fornell-Lacker and HTMT criteria. According to Fornell-Lacker, discriminant validity is said to be established when the square root of the AVE values are greater than the correlation coefficients with the other constructs. Furthermore,

HTMT a stronger measure to determine discriminant validity was assessed. The study results reveal that all the HTMT values are below 0.85. Therefore, the discriminant validity for the study constructs was confirmed.

After validating the measurement models, to assess the structural model, hypothesis analysis was done using path coefficients and bootstrapping. The study extracts path coefficient values

**Table 2.** Measurement models

Constructs	Items	Outer loadings	Cronbach's $\alpha$	CR Values	AVE
Neuroticism	NEU1	0.765	0.857	0.865	0.701
	NEU2	0.869			
	NEU3	0.880			
	NEU4	0.831			
Extraversion	EX1	0.816	0.820	0.829	0.648
	EX2	0.682			
	EX3	0.739			
	EX4	0.776			
	EX5	0.835			
Openness to experience	OP1	0.823	0.826	0.832	0.659
	OP2	0.812			
	OP3	0.860			
	OP4	0.748			
Agreeableness	AG1	0.753	0.755	0.768	0.574
	AG2	0.707			
	AG3	0.854			
	AG4	0.706			
Conscientiousness	CON1	0.426	0.708	0.712	0.632
	CON2	0.624			
	CON3	0.608			
	CON4	0.789			
	CON5	0.822			
Investor Sentiment	IS1	0.239	0.717	0.719	0.638
	IS2	0.660			
	IS3	0.497			
	IS4	0.794			
	IS5	0.780			
	IS6	0.822			
Short-term investment decision making	SDM1	0.683	0.778	0.779	0.601
	SDM2	0.807			
	SDM3	0.788			
	SDM4	0.789			
	SDM5	0.714			
Long-term investment decision making	LDM1	0.784	0.844	0.863	0.616
	LDM2	0.789			
	LDM3	0.751			
	LDM4	0.859			
	LDM5	0.737			

**Note:** NEU = Neuroticism, EX = Extraversion, OP = Openness to experience, AG = Agreeableness, CON = Conscientiousness, IS = Investor sentiment, SDM = Short-term investment decision-making, LDM = Long-term investment decision-making, CR = Composite Reliability, AVE = Average Variance Extracted.

**Table 3.** Fornell-Lacker criterion

	AG	CON	EX	IS	LDM	NEU	OP	SDM
AG	0.757							
CON	0.204	0.795						
EX	-0.104	-0.017	0.805					
IS	-0.136	-0.331	0.026	0.799				
LDM	-0.200	-0.107	0.417	0.055	0.785			
NEU	-0.315	-0.486	-0.052	0.419	0.006	0.837		
OP	-0.275	-0.069	0.600	0.043	0.497	0.026	0.812	
SDM	-0.218	-0.378	0.250	0.160	0.454	0.202	0.365	0.775

**Table 4.** Heterotrait-monotrait ratio (HTMT) test

	AG	CON	EX	IS	LDM	NEU	OP	SDM
AG								
CON	0.374							
EX	0.197	0.122						
IS	0.218	0.460	0.134					
LDM	0.234	0.152	0.491	0.170				
NEU	0.402	0.617	0.111	0.538	0.127			
OP	0.321	0.140	0.728	0.132	0.582	0.138		
SDM	0.276	0.505	0.305	0.236	0.567	0.241	0.456	

using PLS bootstrapping with 5,000 sub-samples (Hair et al., 2012). Table 5 summarizes the structural relationship between path coefficients and the outcome for all hypotheses. It also reveals  $Q^2$  and  $R^2$  for endogenous constructs. The path coefficient values for PT to IS such as EX (H1b) ( $\beta = 0.046$ ,  $p > 0.05$ ), CON (H1c) ( $\beta = -0.162$ ,  $p > 0.05$ ), OP (H1d) ( $\beta = -0.003$ ,  $p > 0.05$ ), and AG (H1e) ( $\beta = 0.017$ ,  $p > 0.05$ ) were not significant except NEU (H1a) ( $\beta = 0.352$ ,  $p < 0.05$ ), which shows a significant result with a value lesser than 0.05. It implies that the 1% change in investors' NEU leads to a 35% change in their sentiment. Therefore, NEU has an impact on IS. Thus, H1b, H1c, H1d, H1e were rejected, and H1a was accepted. The results on the direct impact of PT as well as IS to LDM show, NEU (H3a) ( $\beta = -0.079$ ,  $p > 0.05$ ), CON (H3c) ( $\beta = -0.093$ ,  $p > 0.05$ ), OP (H3d) ( $\beta = 0.357$ ,  $p > 0.05$ ), AG (H3e) ( $\beta = -0.093$ ,  $p > 0.05$ ), and IS (H2a) ( $\beta = 0.020$ ,  $p > 0.05$ ) insignificant effect except EX (H3b) ( $\beta = 0.186$ ,  $p < 0.05$ ) which has a significant effect. Therefore, H2a, H3a, H3c, H3d, and H3e were rejected, and H3b was accepted. Additionally, the direct impact of PT as well as IS on SDM depicts, NEU (H3f) ( $\beta = 0.007$ ,  $p > 0.05$ ), EX (H3g) ( $\beta = 0.067$ ,  $p > 0.05$ ), AG (H3j) ( $\beta = -0.058$ ,  $p > 0.05$ ), and IS (H2b) ( $\beta = 0.020$ ,  $p > 0.05$ ), which shows an insignificant effect. However, CON (H3h) ( $\beta = -0.335$ ,  $p < 0.05$ ) shows that it has a significant negative effect on SDM at a 5% significance level. It posits

that the 1% change in investor CON trait leads to a change in the sentiment of about 33.5%. On the contrary, the OP shows (H3i) ( $\beta = 0.007$ ,  $p < 0.05$ ) a significant positive effect on SDM. Therefore, H3f, H3g, H3j, and H2b were rejected, and H3h and H3i were accepted. The result of R squared value for PT to IS is 0.201, representing 20.1% changes in the sentiment of investors explained by AG, CON, EX, NEU, and OP. The R squared value for PT to LDM and SDM is 0.283 and 0.265, respectively. This implies that the PT model accounts for 28.3% and 26.5% variability in LDM and SDM. The Q square value helps in understanding the generalizability of the model. According to Chin (1998), a predictive score of 2-15% indicates low power, 15-35% indicates good power, and more than 35% indicates strong power. The study shows Q square values from PT to IS, LDM, and SDM about 0.108, 0.156, and 0.142, respectively. This indicates that the Q square value of IS and SDM shows a low power, whereas LDM shows a high power.

As the current study examines the mediating effect of IS between Big Five PT and IDM. Table 6 exhibits the mediation results comparing the specific indirect and direct paths. The results depict that IS did not mediate the relationship between NEU (H4a) ( $\alpha = 0.007$ ,  $\beta = -0.079$ ), EX (H4b) ( $\alpha = 0.001$ ,  $\beta = 0.186$ ), CON (H4c) ( $\alpha = -0.003$ ,  $\beta = -0.093$ ), OP (H4d) ( $\alpha = 0.000$ ,  $\beta = 0.357$ ), AG (H4e)



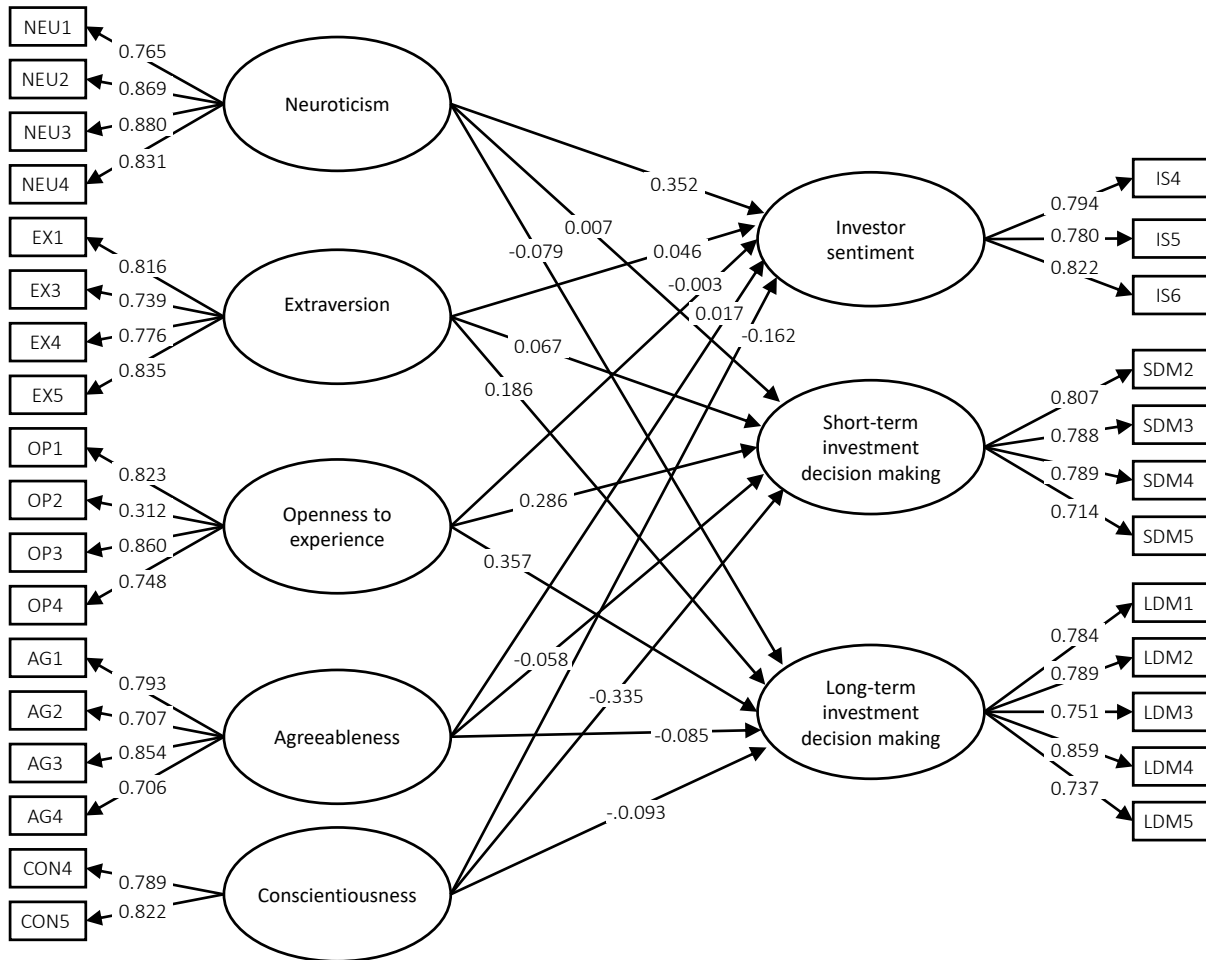


Figure 1. Structural model

Table 5. Structural path analysis

Hypothesis	Structural Path	Path-coefficient ( $\beta$ )	t-statistics	p-values	R2	Q2	Decision
H1a	NEU $\rightarrow$ IS	0.352*	4.097	0.000	0.201	0.108	YES
H1b	EX $\rightarrow$ IS	0.046	0.505	0.613			NO
H1c	CON $\rightarrow$ IS	-0.162	1.750	0.080			NO
H1d	OP $\rightarrow$ IS	-0.003	0.035	0.972			NO
H1e	AG $\rightarrow$ IS	0.017	0.190	0.85			NO
H2b	IS $\rightarrow$ LDM	0.020	0.241	0.809	0.283	0.156	NO
H3a	NEU $\rightarrow$ LDM	-0.079	0.803	0.422			NO
H3b	EX $\rightarrow$ LDM	0.186*	2.137	0.033			YES
H3c	CON $\rightarrow$ LDM	-0.093	1.011	0.312			NO
H3d	OP $\rightarrow$ LDM	0.357*	0.803	0.000			YES
H3e	AG $\rightarrow$ LDM	-0.093	1.012	0.312			NO
H2a	IS $\rightarrow$ SDM	0.020	0.233	0.816	0.265	0.142	NO
H3f	NEU $\rightarrow$ SDM	0.007	0.076	0.940			NO
H3g	EX $\rightarrow$ SDM	0.067	0.818	0.413			NO
H3h	CON $\rightarrow$ SDM	-0.335*	4.270	0.000			YES
H3i	OP $\rightarrow$ SDM	0.007*	3.023	0.003			YES
H3j	AG $\rightarrow$ SDM	-0.058	0.764	0.445			NO

Note: \* denotes significance level at 5%.

**Table 6.** Mediation analysis

Path	Indirect effect ( $\alpha$ )	p-values	Direct effect ( $\beta$ )	p-value	Decision
CON $\rightarrow$ IS $\rightarrow$ SDM	-0.003	0.837	-0.335*	0.000	No Mediation
AG $\rightarrow$ IS $\rightarrow$ LDM	0.000	0.966	-0.058	0.445	No Mediation
OP $\rightarrow$ IS $\rightarrow$ SDM	0.000	0.994	0.286*	0.003	No Mediation
NEU $\rightarrow$ IS $\rightarrow$ SDM	0.007	0.824	0.007	-0.940	No Mediation
EX $\rightarrow$ IS $\rightarrow$ LDM	0.001	0.916	0.186*	0.033	No Mediation
CON $\rightarrow$ IS $\rightarrow$ LDM	-0.003	0.835	-0.093	0.312	No Mediation
NEU $\rightarrow$ IS $\rightarrow$ LDM	0.007	0.816	-0.079	0.422	No Mediation
AG $\rightarrow$ IS $\rightarrow$ SDM	0.000	0.968	-0.058	0.445	No Mediation
EX $\rightarrow$ IS $\rightarrow$ SDM	0.001	0.917	0.067	0.413	No Mediation
OP $\rightarrow$ IS $\rightarrow$ LDM	0.000	0.994	0.357*	0.000	No Mediation

Note: \* denotes significance level at 5%.

( $\alpha=0.000$ ,  $\beta=-0.058$ ), and LDM. Further, the study also found no mediation effect between NEU (H4f) ( $\alpha=0.007$ ,  $\beta=0.007$ ), EX (H4g) ( $\alpha=0.001$ ,  $\beta=0.067$ ) CON (H4h) ( $\alpha=-0.003$ ,  $\beta=-0.335$ ), OP (H4i) ( $\alpha=0.000$ ,  $\beta=0.286$ ), AG (H4j) ( $\alpha=0.000$ ,  $\beta=-0.058$ ), and SDM. Therefore, the hypotheses H4a, H4b, H4c, H4d, H4e, H4f, H4g, H4h, H4i, and H4j were rejected.

## 4. DISCUSSION

The result of the hypothesis concerned with PT and IS demonstrated that there is a significant effect of NEU except for EX, OP, AG, and CON. This finding indicates that NEU is of utmost importance in affecting sentiment. This result is consistent with Lin (2011) and Baker et al. (2021), but in contrast to Zaidi and Tauni (2012). The rationale behind this finding is that investors with NEU are featured with unstable emotions, depression, anxiety, and a higher level of risk tolerance. Moreover, they are likely to be influenced by the actions of others during the investment horizon.

The findings on the effects of PT on IDM showed mixed results. The hypothesis concerned with CON revealed a significant negative effect on SDM. This finding is similar to Gardiner and Jackson (2012) who found less risky performance on the part of highly conscious individuals. However, the finding is in contrast with Tauni et al. (2019). The rationale behind this phenomenon is that conscious investors are keen to work hard, and they are ready to manage their investments to reap benefits. Further,

NEU, EX, and AG do not impact SDM. These findings are in tandem with Filbeck et al. (2005).

The result concerned with the OP trait showed that there exists a significant positive effect on LDM and SDM. These findings are aligned with Mayfield et al. (2008), Baker et al. (2021), and Sachdev and Lehal (2023). The common notion behind this is that investors open to new experiences are overconfident than others. They appeal more to new ideas, thoughts, aesthetics, and novelty (Lin, 2011). Further, they are more inclined towards risky investment avenues to generate a positive return. Thus, the framed hypothesis (H3d and H3i) on OP and IDM is strongly supported by past evidence. The results of EX showed a significant positive effect on LDM. This finding is in tandem with Pan and Statman (2013), who found similar observations in their study, but in contrast to Durand et al. (2008). As extrovert people create a trade-off and capitalize their money more on the stock market, they tend to enjoy a higher return from their investment in the long run. Further, it can be inferred that extroverted people will not be overconfident but more cautious about their financial decisions. However, findings on NEU, CON, and AG show no significant relationship with LDM. These results are in contrast with Baker et al. (2021) and Sachdev and Lehal (2023). A possible explanation for this is that investors with NEU, CON, and AG are not long-term decision-makers, as they are mainly associated with emotions and follow other people's judgment.

The study provides evidence that IS does not have a direct relationship with LDM and SDM.

These findings are supported by Lin (2011) and Kumar and Goyal (2016), who found that IS as a factor of herding behavior does not exert direct relation with decision-making. Further, the results are in contrast with Haritha and Uchil (2019), who stated that even though investors have good knowl-

edge, they may not be confident enough to make decisions. Moreover, the results of the hypothesis concerned with the indirect effects of PT on IDM through mediating effects of IS show an insignificant impact. This indicates that individual investors' PTs are stronger than the sentiment effect.

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## CONCLUSION

This study aimed to examine the effect of the Big Five PT on IDM with a mediating role of IS. Among the Big Five PT, NEU significantly affects IS, as investors with the NEU trait account for varying degrees of characteristics such as unstable minds anxiety, and depression. Interestingly, it is observed that the OP trait has a strong effect on both LDM and SDM as investors are more creative and risk-averse while making investment decisions. However, IS does not mediate the relationship between PT and IDM based on the argument that PT overweighs the effect of IS.

The study enables retail investors to understand their own PT and thereby guides them to make efficient investment decisions. As a result, investors can avoid potential bias in their investment decisions. In addition, investors based on their knowledge of personality types could predict and modify trading strategies to reap maximum benefits. Based on the findings, policymakers can form a new way of profiling investors in accordance with investors' PT. The study helps researchers and academicians to enhance their knowledge of PT and its impact on investment decisions.

It is concluded from the study that there is a direct relationship between PT and IDM. However, IS does not play a mediating role but has a significant relationship with PT. The study is not without any limitations. Even though the study sample is collected throughout India, there is a need for even distribution of the sample. Future researchers might consider other mediating or moderating variables such as the herding effect, disposition effect, overconfidence, and other behavioral biases.

## AUTHOR CONTRIBUTIONS

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