RELATIONSHIP BETWEEN PERSONALITY TRAITS AND THE PSYCHOLOGICAL BIASES OF RETAIL INVESTORS – AN EMPIRICAL STUDY

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Abstract

The role of personality in determining psychological bias has received limited attention and therefore, it is considered pertinent to complete the conceptualization of antecedents to psychological biases. The methodology of the study is based on primary data collected through well framed and structured questionnaire to elicit the perception of retail investors in the share market. Simple random sampling has been used to collect responses from the retail investors. Correlation analysis matrix has been derived to determine the relationship between psychological bias and personality traits. Factor analysis by principal component method has been applied to reduce the number of psychological biases and personality traits into ten meaningful factors and seven meaningful factors respectively. Major findings relating to the correlation between personalities and psychological biases of the sampled respondents revealed that three distinct personalities exhibit significant relationship with unique psychological biases. The investigation indicated the importance of taking psychological biases into account while studying the financial, economic and trading decisions of retail investors. Further, the results of the study has demonstrated that psychological biases are related to personality traits and thus knowledge of personality traits may assist in preventive counselling so as to minimise the influence of psychological biases on the retail investors.

Key Words: Psychological biases, personality traits, Correlation analysis matrix, retail investors, Extroversion

1. Introduction

The psychometric properties of the Big Five personality have received lot of research attention both nationally in India and internationally. The role of personality in determining psychological bias has received limited attention and therefore, it is considered pertinent to complete the conceptualization of antecedents to psychological biases. The investigation indicated the importance of taking psychological biases into account while studying the financial, economic and trading decisions of retail investors. Further, the results of the study has demonstrated that psychological biases are related to personality traits and thus knowledge of personality traits may assist in preventive counselling so as to minimise the influence of psychological biases on the retail investors.

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2. Review of Literature

It has been consistently observed that individuals are generally overconfident while assessing their performance. Schaefer et al. (2003) examined association among the big five personality traits and overconfidence bias. He measured overconfidence as the difference between confidence and accuracy in performance. Further, he observed that extraverts are more overconfident while individuals open to new experience possessed elevated levels of confidence but not overconfidence. Neuroticism, agreeableness and conscientiousness did not predict overconfidence. However to measure human performance and to explain variations, intellectual styles are used as additional factors apart from ability and personality. Intellectual styles refer to people's preferences in using their abilities and thinking style construct is a broad intellectual style construct. Li Fang Zhang (2005) established significant relationship between openness to experience with liberal thinking styles; neuroticism with conservative thinking styles, conscientiousness with hierarchical and monarchic style and extraversion related to external thinking style.

Majority of trait theorists incorporate self-regulatory capacity into their personality framework. Self regulation is the capacity to plan and execute control over one's behavior (Baumeister, 1998, Sedikides, Campbell Reeder, Elliot and Gregg, 2002). Among the Five factor dimensions, conscientiousness best reflects the notion of individual differences in the capacity for self regulation (Gramzaw et al., 2004). A study on personality traits as a viable approach for examining economic behaviour of individual investors tested whether behavioural intentions are predictive of financial and investment behaviour. It was observed that extraverts engaged in short-term investing and neurotics do not. Openness to experience did not predict short term investing but engaged in long-term investing. Further, risk averse individuals do not engage in long term investing (Cliff Mayfield, Grady Perdue, Kevin Wooten, 2008).

3.1 Research Methodology

The methodology of the study is based on primary data collected through well framed and structured questionnaire to elicit the perception of retail investors in the share market. Simple random sampling has been used to collect responses from the retail investors. According to Securities and Exchange board of India (SEBI), retail individual investor means an investor who applies or bids for securities of/for a value of not more than Rs.1,00,000. Retail investors are individual investors who buy and sell stocks on their own account.

3.2 Selection of Respondents

A heterogeneous sample was adopted to cover a wide variety of demographic group. The prime respondents are the retail investors of share broking firms and sub-broking firms. Since they have numerous branches in Chennai city, care was taken to ensure the selection of retail investors of share market in a fairly proportionate manner.

Questionnaire was also administered to the retail investor participants in the meetings conducted by the Madras Stock Exchange, Bombay Stock exchange, National Stock exchange and Securities exchange board of India. Further, questionnaire was circulated and collected during the regular meetings conducted by the Tamil Nadu Investors Association. The student traders of B-School Institute for Financial Management and Research, Nungambakkam also responded to the primary survey questionnaire.

4.1 Data Collection

Data for this study was primarily collected through a survey in the form of a questionnaire as well as through research based published data concerning retail investor participation.

4.2 Primary Data

The primary data was collected from the retail clients of share broking firms in person by the researcher through survey method. 1200 questionnaires were distributed for the main survey to the respondents in Chennai City. The number of questionnaire collected after sustained follow up was 859. Out of the 859 responses only 606 were complete and suitable for statistical analysis. Out of the total 1200, 341 questionnaires were not returned and 253 were eliminated for inconsistent replies and incomplete answers. Therefore, the exact sample size for this study is 606.

5.1 Data Analysis

●   Correlation analysis matrix has been derived to determine the relationship between psychological bias and personality traits

●   Factor analysis by principal component method has been applied to reduce the number of psychological biases and personality traits into ten meaningful factors and seven meaningful factors respectively.

5.1.1 Factor Analysis of Personality traits of Retail Investors

The factor analysis of the psychological biases and personality traits is conducted by means of exploratory factor analysis. As a first step towards an exploratory factor analysis, a principal component analysis was conducted in order to determine the underlying dimensions of psychological biases and personality traits of retail investors of share market in Chennai City. Seven principal components were constructed out of the personality traits using the Kaiser's varimax rotation technique which explains 54.926 % of the total variance which shown in Table 1 (Appendix). The eighth factor in Table 1 (Appendix) which consists of third variable viz. "I analyze market action to respond aptly" and eleventh variable "I do not follow diet or exercise program" which has the peculiarity of negative correlation value. This implies that the variable composition is not mixed up with the factors coined by the researcher. The seven

components resulting from factor analysis of personality traits are described as follows:

The variables in Table 2 (Appendix) relate to individuals who are assertive, energetic, stimulated and excited with people around. They possess positive emotions and are venturesome to accomplish their ambitions (Watson and Clark, 1997). Hence, **factor I is labeled as gregariousness.** The variables in Table 3 (Appendix) relate to individuals who are prone to anxiety; feel unsure and worried about their investments and trading decisions. Such individuals respond emotionally to market events and become easily tensed leading to erratic decisions. Hence, **factor II is described as Self-consciousness.** The variables in Table 4 (Appendix) indicate that the sample respondents perceive them as risk-averse and risk-avoiders. It shows that investors neither prefer nor have willingness to bear risk to achieve desired outcome in the stock market. They are found to be risk averters as they want to avoid risk and choose the safer option in making the decision. Therefore**, factor III is labeled as Risk-aversion**.The variables Table 5 (Appendix) deal with individuals who are thoroughly organized, achievement-striving, efficient and adhere to moral precepts (McCrae and John, 1992). They are self-disciplined and persevering. Hence, **factor IV is named as Diligence.** The variables in Table 6 (Appendix) represent individuals who are emotionally stable. They have good emotional control during stressful conditions of trading and are less prone to irrational ideas. Hence, **factor V is labeled as Pragmatism.** The variables in Table 7 (Appendix) represent individuals who possess inquiring intellect, vivid imagination resulting in creative ideas. Hence, **factor VI is labeled as Aesthetic.** The variables in Table 8 (Appendix) stated measure individuals who are empathetic, helpful and considerate (Taylor and de Bruin, 2006). Hence, **factor VII is named as Altruism.**

5.1.2 Factor Analysis for Psychological Bias

The variables covered in the survey capture ten psychological biases exhibited by the retail investors in Chennai city. Table 9 (Appendix) shows the ten principal components which are constructed out of psychological biases using the varimax rotation technique that explain 54.481 % of the total variance.The variables in Table 10 (Appendix) relate to the investor who is motivated to promote positive self views rather than negative self views of themselves (Taylor and Brown, 1988). Retail investors in Chennai City overestimate the accuracy of their own judgment towards stock market which is amplified because others seek information from them regarding investment. Therefore, **factor I is labeled as Self- enhancement bias.** The variables in Table 11(Appendix) indicate that the sample respondents in Chennai prefer to be exposed to information that is supportive of their current beliefs rather than to non supportive information. Thus, **factor II is named as Cognitive dissonance.**The variables in Table 12 (Appendix) reflect the investor's tendency to choose familiar stocks rather than unfamiliar ones. Hence **factor III is described as Ambiguity aversion.** The variables in Table 13 (Appendix) imply that sample respondents exhibit unrealistic perception of their control in

trading and investment decisions. Hence **factor IV is named as Illusion of control.**The variables in Table 14 (Appendix) capture the retail investor's tendency to extrapolate the recent trends in stock prices while forming expectations about future stock returns. Therefore, **factor V is labeled as Extrapolation bias.** The variables in Table 15 (Appendix) measure investors tendency to attribute internal factors viz. their own ability, effort and skill for successful outcomes. So, **factor VI is labeled as Performance attribution bias.**

The variables Table 16 (Appendix) imply that the sample respondents are more willing to bet on their own judgment because they are skillful and knowledgeable in trading and investment field. Thus, **factor VII is named as Competency bias.**The variables in Table 17 (Appendix) measure the perceived potentiality of investors towards information collection, segregation and compilation in terms of its utility towards trading decisions. Therefore, **factor VIII is labeled as Information Overload bias.** The variables in Table 18 (Appendix) indicate that the sample respondents are motivated to conform to social norms in their trading and investment decisions. Hence, **factor IX is named as Socio-Conformity bias.** The variables Table 19 (Appendix) relate to the perception of investors to erroneously believe in mean reversion of prices i.e. they believe today's losers will outperform today's winner likewise today's winners would be losers of tomorrow. Hence, **factor X is named as Disposition Effect.**

5.1.3. Correlation Analysis

Correlation analysis is used to describe the strength and direction of the linear relationship between two variables. The relationship between the Big Five personality traits and psychological biases is investigated by means of Pearson product moment correlations.

The data analysis determined in Table 20 (Appendix) reveals that several significant relationships exist between the personality traits and the psychological bias constructs. Although many of the relationships were statistically significant, only those relationships with coefficient >0.30 were considered meaningful (Tabachnich&Fidell, 2001).The discussion however includes all of the statistically significant relationship.

5.1.4 Self Enhancement Bias

Diligent investors exhibit a strong correlation towards self enhancement bias **(r=0.283)** since they are motivated to enhance their self worth which is linked to personal accomplishments and outcomes in the stock market (Felson, 1984; Marsh and Young, 1997). **Gregarious investors** show a correlation towards this bias **(r=0.238)** as they are known for positive affect. Their expectations are overtly positive in the stock market. Altruistic investors are correlated towards self enhancement bias **(r=0.209)** since altruistic individuals from eastern culture are likely to show low self enhancement on traits and behavior that are valued within their collectivistic culture (Sedikides, Gaertner and Toguchi, 2003, Sedikides, Gaertner and Vevea, 2005). **Aesthetic investors** displayed a correlation of **r=0.188** towards this bias.

They enjoy dealing with complexity involved in tasks and situations (Li Fang Zhang, 2006). They are convinced for having undertaken objective evaluation of the stocks and thus are susceptible to self enhancement bias. **Pragmatic investors** displayed a correlation **(r= 0.173)** towards self enhancement bias as they have low social anxiety but adopt on acquisitive style directed towards garnering approval and self enhancing their identity (Arkin, Appleman and Burger, 1980; Sheppered and Arkin, 1990). **Self-conscious investors** exhibit a low correlation **(r=0.143)** towards this bias. So they adopt a cautious, protective style directed towards avoiding social disapproval and protecting identity.

5.1.5 Cognitive Dissonance

Self-conscious investors displayed a high correlation **(r=0.315)** to cognitive dissonance since they are emotionally unstable, predisposed to experience negative emotions (McCrae and Costa, 1989). They are prone to emotional conflict and irrational ideas which causes worry and demonstrate a preoccupation with what may go wrong in decisions. **Aesthetic investors** exhibit a correlation **(r=0.171)** towards cognitive dissonance because they act decisively on early information before things unfold in the stock market as well as they are open minded to adjust to new information without being prejudiced by any prior beliefs (Junichiro Ishida, 2010). **Altruistic investors** show a correlation **(r= 0.144)** towards this bias. Thus they are less reactive to new information or new set of beliefs arousing dissonant cognition. **Diligent investors** display a correlation **(r=0.130)** towards this bias since they are strong-willed and competent individuals (McCrae and John, 1992). Therefore they are less subject to cognitive dissonance. **Pragmatic investors** display a low correlation **(r=0.111)** towards cognitive dissonance since they are characterised for calm and relaxed pre disposition (McCrae and John, 1992).

5.1.6 Ambiguity Aversion

Gregarious investors exhibit a strong correlation **(r=0.163)** towards ambiguity aversion. They can moderate the aversion to ambiguity reducing the specific aversion towards the options where the probabilities of outcomes are less clearly defined (John Anderson, Stephen Burks, Colin deYoung, Aldo Rustichini, 2011). **Diligent investors** are strongly correlated to ambiguity aversion with **(r=0.123)**. This indicates that though they can control urge for long term and desires in the service of long term goals and intention, they are avoidant and intolerant of ambiguity (Block and Block, 1980). **Altruistic investors** display a strong correlation **(r=0.081)** towards ambiguity aversion. Therefore, this bias has influence on altruistic personalities. **Pragmatic investors** show a low correlation **(r=0.080)** because they are emotionally stable and secure to actively seek information and accept new knowledge amidst uncertainty or ambiguity (Miculincer, 1997).

5.1.7 Illusion of Control

Gregarious investors are strongly correlated towards illusion of control **(r=0.405)**. Such investors are subject to illusion of control due to strong relationship with optimism (Sharpe et al., 2011) and their optimistic self-assessment in their trading and investment capabilities (Hens Bachmann, 2008). **Diligent investors** are strongly correlated to the extent **(r=0.206)** towards this bias due to inflated confidence and beliefs and sense of competition of such investors (Langer, 1975, Presson and Benassi, 1996). **Self-conscious investors** exhibit strong negative correlation **(r=-0.156)** and **pragmatic investors** display a weak correlation **(r=0.090)** towards this bias. Self conscious investors are individuals with depressed affective state but have realistic perception of personal control than pragmatic investors who possess non depressive affective state. **Altruistic investors** exhibit a strong correlation **(r=0.065)** towards this bias since they are modest and straight forward with no aspiration for riches.

5.1.8 Extrapolation Bias

Gregarious investors exhibit a strong correlation to representativeness bias**(r= 0.188)** which indicates that being hardcore traders they are keen screen observers to spot trends in the share market. **Diligent investors** showed a strong correlation towards this bias **(r=0.155)** which implies that they are also trend-chasers. **Altruistic investors** have reported a strong correlation towards this bias **(r=0.110)** because they are relaxed one time investors who rarely check their financial affairs but are likely to seek professional advice for investment purposes. **Pragmatic investors** exhibit a weak correlation towards this bias **(r=0.099)** which indicates that their calm mental disposition helps to spend great deal of thought and conduct a deep search of technical indicators to price a security. **Self conscious investors** reported a low correlation towards this bias **(r=0.087)** because being emotional, they are drawn towards hot tips and fashionable in the media.

5.1.9 Performance Attribution Bias

Diligent investors exhibit a strong correlation **(r = 0.200)** towards performance attribution bias since they strive for achievements and engage in goal directed actions. **Gregarious investors** displayed a strong correlation **(r = 0.196)** towards performance attribution bias. **Aesthetic investors** show a strong correlation **(r = 0.131)** towards this bias since memory for positive experience is often better than memory for negative experience (Linton, 1986;Matlin and Strang, 1978). **Self conscious investors** are strongly correlated **(r = 0.125)** towards this bias since they are keenly sensitive as to how they are regarded by others. Therefore they make self serving attention to manage impressions. **Altruistic investors** displayed a weak correlation **(r = 0.091)** to this bias since eastern culture value modesty which is prime characteristic of these investors. **Pragmatic investors** display weak correlation **(r = 0.086)** towards self attribution bias as they are less neurotic individuals and have less negative expectations and low concern for presentation.

5.1.10 Competency Bias

Aesthetic investors exhibit strong correlation **(r = 0.169)** towards competency bias since aesthetic personalities are the strongest predictor of variety of competencies such as general self competency (Marr et al; 2006). **Pragmatic investors** show a strong correlation **(r = 0.152)** relating to this bias as they are emotionally secure. **Self conscious investors** are strongly correlated to the extent **(r = 0.149)** to this bias. They have the mechanism to protect them from confusing or unfamiliar information. **Diligent investors** are weakly correlated to competency bias **(r = 0.091).** They become impulsive and careless in their efforts. **Altruistic investors** show a weak correlation **(r = 0.084)** towards this bias. Influence of altruism on information competency was significant in the study of Heinstrom (2003) in which impatient individuals are less likely to devote to thorough information seeking to achieve greater competency in stock market.

5.1.11 Information Overload Bias

Gregarious Investors exhibit strong correlation **(r = 0.297)** towards information overload bias since their enthusiasm in informal information retrieval does not make them systematic in quest for information. **Aesthetic investors** are weakly correlated **(r=0.091)** towards this bias as intellectual curiosity (Costa and McCrae, 1992) is their underlying motivating factor.

5.1.12 Socio-Conformity Bias

Self conscious investors exhibit strong correlation **(r = 0.349)** to socio-conformity bias because they are socially anxious and fear criticism by others (Neulinger and Stein, 1971) **Altruistic investors** exhibit a strong correlation **(r = 0.111)** to this bias. It is conjectured that they are less agreeable individuals who are less inclined to seek others as a source of support. Besides the above, three traits **aesthetic investors (r = 0.197),pragmatic (r =0.150), and diligent (r = 0.128)** are all strongly correlated to Socio conformity bias probably in order to avoid the social stigma of deviance.

5.1.13 Disposition Effect

Self-conscious investors are prone to strong correlation **(r = 0.221)** to disposition effect as they possess negative affect, tend to worry more often about the outcome of events (McCrae and Costa, 2006; Watson and Clark, 1992). **Pragmatic investors** show a strong correlation **(r = 0.142)** towards disposition effect as it is well known that they possess creative thinking and willingness to undertake new experiences. **Gregarious investors** are intense reward seekers (Horvath and Zuckerman, 1993), possess unrealistic and unfounded optimism towards stock market (Lawrence J. Belcher, 2007). **Diligent investors** are strongly correlated to disposition effect **(r =0.127)**. They demonstrate positive relationship towards professional efficacy in trading decisions. **Altruistic investors** exhibit a strong correlation towards this bias **(r=0.105)**. It serves as a resource to reduce disposition effect and promote feelings of personal accomplishment (Demerouto et al., 2001).

6. Findings

To find the relationship between personality traits and the psychological biases of retail investors

Self-conscious investors exhibit nine out of ten psychological biases viz. Self enhancement bias, Cognitive dissonance, Illusion of control, Extrapolation bias, Performance attribution bias, Competency bias, Information overload bias, Socio-conformity bias and Disposition effect.

Pragmatic investors are susceptible to nine out of ten psychological biases viz. Self enhancement bias, Cognitive dissonance, Illusion of control, Extrapolation bias, Performance attribution bias, Competency bias, Information overload bias, Socio-conformity bias and Disposition effect

Diligence is the personality dimension most strongly associated with all the ten psychological biases viz. Self enhancement bias, Cognitive dissonance, Ambiguity aversion, Illusion of control, Extrapolation bias, Performance attribution bias, Competency bias, Information overload bias, Socio-conformity bias and Disposition effect

Aesthetic investors are prone to eight out of ten psychological biases viz. Self enhancement bias, Cognitive dissonance, Extrapolation bias, Performance attribution bias, Competency bias, Information overload bias, Socio-conformity bias and Disposition effect

Altruistic investors exhibit seven out of ten psychological biases viz. Self enhancement bias, Cognitive dissonance, Illusion of control, Extrapolation bias, Competency bias, Socio-conformity bias and Disposition effect.

Gregarious investors are susceptible to seven out of ten psychological biases viz. Self enhancement bias, Ambiguity aversion, Illusion of control Extrapolation bias, Performance attribution bias, Information overload bias and Disposition effect

7. Conclusion

The result of the present study provides a unique contribution to the literature by examining an array of psychological biases and personality traits. In addition to the existing literature on psychological biases, that causes error in judgement and decision making,

Another important contribution of this thesis is that it uses an interdisciplinary research approach. More specifically, this thesis combined theoretical insights from the behavioural economics, behavioural finance, social psychology, personality psychology and anthropology literature. Moreover, the methodology used in this thesis is a combination of such literature. Survey approach to conduct a research instead of actual portfolio data contributes better understanding of the financial behaviour of individual investors, the motivation underlying their belief, preferences, attitudes and behaviour in smaller and less developed markets. By using the data from primary survey of retail investors in Chennai city, the researcher contributes towards bridging this gap.

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Appendix

Table 1: Rotated component matrix for personality traits

Components	Eigen value	% of variance explained	Cumulative variance
I	3.376	13.503	13.503
II	2.895	11.581	25.084
III	1.603	6.411	31.495
IV	1.473	5.894	37.389
V	1.268	5.071	42.460
VI	1.075	4.299	46.759
VII	1.023	4.093	50.852
VIII	1.019	4.074	54.926

Source: Computed data

Table 2: Factor I Gregariousness

Variables	Factor loading
I really enjoy talking to people	.804
I am cheerful and high spirited	.804
I am very active	.715
I avoid social gathering	.411

Source: Computed data

Table 3: Factor II Self- consciousness

Variables	Factor loading
I am often tensed	.737
When I fail, I consider giving up	.715
Sometimes I am not dependable	.601

Source: Computed data

Table 4: Factor III Risk aversion

Variables	Factor loading
I do not prefer to take risk	.805
I avoid risk totally	.687
I choose low risk-steady return over high risk high returns	.583

Source: Computed data

Table 5: Factor IV Diligence

Variables	Factor loading
I approach my task meticulously	.732
I perform each aspect of a job in the best manner	.684
I apologise on failure to do my work	.638

Source: Computed data

Table 6: Factor V Pragmatism

Variables	Factor loading
I analyse market action to respond aptly	.653
I do not trade by gut feeling	.626
I take market setbacks as cost	.588
Sometimes I feel worthless in trading	.437

Source: Computed data

Table 7: Factor VI Aesthetic

Variables	Factor loading
I often try new and strange food	.667
I am inquisitive	.612
I seek thrill	.535

Source: Computed data

Table 8: Factor VII Altruism

Variables	Factor loading
I often argue	.644
People think that I am cold and calculative	.628
I am thoughtful and considerate	.434

Source: Computed data

Table 9: Rotated component matrix for psychological biases

Components	Eigen value	% of variance explained	Cumulative variance
I	4.351	13.597	13.597
II	2.326	7.270	20.867
III	2.077	6.490	27.356
IV	1.450	4.531	31.887
V	1.353	4.229	36.116
VI	1.293	4.039	40.156
VII	1.259	3.934	44.090
VIII	1.147	3.585	47.676
IX	1.128	3.526	51.202
X	1.050	3.280	54.481

Source: Computed data

Table 10: Factor I Self enhancement bias

Variables	Factor loading
I have the ability to cut losses	.752
I am more knowledgeable than average investor	.679
Often, I am able to pick winning stocks	.661
I am familiar with trading process	.553
I have access to vast amount of information	.543
Others seek information on stock from me	.517

Source: Computed data

Table 11: Factor II Cognitive dissonance

Variables	Factor loading
I ignore information contradicting my belief	.694
I look for information supporting my belief	.692
I brush aside negative information about stock	.663

Source: Computed data

Table 12: Factor III Ambiguity aversion

Variables	Factor loading
I prefer familiar stock to the unfamiliar	.753
I prefer certain over uncertain	.746

Source: Computed data

Table 13: Factor IV Illusion of control

Variables	Factor loading
I own responsibility for my decisions	.752
Following the crowd is not always correct	.512
I have experienced both positive and negative outcomes	.466
Good results are due to my investment skills	.416

Source: Computed data

Table 14 : Factor V Extrapolation bias

Variables	Factor loading
Past performance of stocks indicate future price trend	.798
Good companies sustain high growth levels achieved in the past	.723
Good companies do not always make good investment	.604

Source: Computed data

Table 15 : Factor VI Performance attribution bias

Variables	Factor loading
All information on financial market is readily available	.669
My investment losses are due to unpredictable factors	.540
I have the training, experience and skills required to interpret information	.442

Source: Computed data

Table 16: Factor VII Competency bias

Variables	Factor loading
Critical analysis is not required for investment decisions	.699
I do not consider alternative methods	.635

Source: Computed data

Table 17: Factor VIII Information Overload bias

Variables	Factor loading
More the information better the forecast	.718
Time constraints prevent considering all information	.526

Source: Computed data

Table 18: Factor IX Socio conformity bias

Variables	Factor loading
I discuss about stocks often with my friends	.648
I act on others' behavior to grab profit opportunities	.535
I follow the herd to avoid loss	.461

Source: Computed data

Table 19: Factor X Disposition effect

Variables	Factor loading
I tend to sell stocks that go up in value	.637
Often I hold stocks that have lost value	.502

Source: Computed data

Table 20: Correlation analysis

Personality Dimensions	Rank	Psychological biases									
		Self enhancement bias	Cognitive dissonance	Ambiguity aversion	Illusion of control	Extrapolation bias	Performance attribution	Competency bias	Information overload bias	Socio-conformity bias	Disposition effect
Self consciousness	8/10	.143**	.315**	-.075	-.156**	.087*	.125**	.149**	.056	.349**	.221**
Pragmatism	9/10	.173**	.111**	.080*	.090*	.099*	.086*	.152**	.073	.150**	.172**
Diligence	10/10	.283**	.130**	.123**	.206**	.155**	.200**	.091*	.179**	.128**	.127**
Aesthetic	8/10	.188**	.171**	-.035	.027	.086**	.131**	.169**	.091*	.197**	.142**
Altruism	8/10	.209**	.144**	.081**	.065**	.110**	.091*	.084*	.053	.111**	.105**
Gregariousness	7/10	.238**	.041	.163**	.405**	.188**	.196**	.039	.297**	-.077	.141**

Source: Computed data