

Impact of Psychological Factors on Investment Decisions – Moderating Role of Personality Traits

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Abstract

The study aims to examine the moderating influence of the Big Five personality traits on the association between psychological factors and investing decision. The present study employs a single method of quantitative analysis. A sample size of 100 respondents was determined using the Kreggie-Morgan table, with a margin of error of 7.5%. In order to compensate for participants who did not respond, 200 questionnaires were handed out, and 145 of these responses were considered appropriate for the study. A meticulously designed questionnaire was created by using insights from prior research on Psychological variables, Personality traits, and investment decisions. The questions were meticulously formulated to guarantee lucidity and prevent prejudice, enabling participants to offer precise and significant responses. The questionnaire's validity and reliability were assessed using the Gaskins master validity table. The data was analyzed using factor analysis in SPSS and confirmatory factor analysis in AMOS software. The moderation analysis was performed utilizing the Andrew Hayes process macros. The results of the study show that Neuroticism diminishes the beneficial relationship between Psychological Factor and Investment decision. The positive association between Psychological Factor and Investment decision is strengthened by a high degree of openness to experience. Agreeableness reduces the positive relationship between Psychological Factor and Investment decision.

Keywords - Psychological factors, Investment decisions, Personality Traits, Big Five Personality traits

INTRODUCTION

Psychological factors play a crucial role in shaping investment decisions. Emotions like fear and greed often cloud investors' judgement and lead to irrational choices [1]. For instance, fear of missing out may push individuals to invest in trending stocks without thoroughly analysing their potential. On the other hand, overconfidence due to recent gains can lead to impulsive investments, disregarding the risks involved [2]. One key aspect is cognitive biases, which can cloud rational judgment and lead to suboptimal choices. For example, the anchoring bias causes individuals to rely heavily on the first piece of information they receive, often leading them to make decisions that are not based on accurate or comprehensive data. [3]. Similarly, the confirmation bias leads investors to seek out information that confirms their pre-existing beliefs while ignoring contradictory evidence [4] [5]. These biases can result in overconfidence and a reluctance to consider alternative viewpoints, ultimately affecting investment outcomes [6].

The impact of the Big Five personality traits on investment decisions can vary greatly. For example, individuals who score high in extraversion may be more likely to take risks, invest in high-growth assets, while those who score high in neuroticism may be more risk-averse, and opt for safer, low-risk investments [7]. Additionally, individuals who score high in openness to experience may be more willing to explore new investment opportunities, while those who score high in conscientiousness may be more diligent in conducting thorough research before making investment decisions [8]. Overall, understanding an individual's Big Five personality traits can provide valuable insights into their investment behaviour [9].

Personality traits play a significant role in shaping an individual's investment decisions [10]. For example, individuals with high levels of extraversion may be more likely to take risks and pursue higher return investments, while those with low levels of neuroticism may be more inclined to remain calm during market fluctuations [11]. Moreover, individuals with a strong sense of conscientiousness may carefully research and plan their investment strategies, leading to more informed decisions [12]. Overall, understanding the impact of personality traits on psychological factors can provide valuable insights into investors' behaviour and decision-making processes [13],[14].

With this background, the current study aims to understand the moderating role of personality traits on the relationship between Psychological factors and Investment decisions. The first section of this research gives the background of the study. The review of literature is presented in the second section, which also elaborates the research gap and presents the conceptual framework. The third section presents the research methodology and the fourth section presents the results of the study. The research article concludes with recommendations and scope of further research.

REVIEW OF LITERATURE

A Systematic review of literature is conducted. First the articles on impact of Psychological factors on investment decisions is studied. Further the role of personality traits on the investment decision are studies. Prominent research databases such as Scopus, Elsevier, Sage, Taylor and Francis, emerald etc are used.

When investors observe others engaging in a particular investment strategy, they may feel compelled to follow suit,

thinking that the majority cannot be wrong. This can lead to a herd mentality, where individuals base their decisions solely on the actions of others rather than conducting their own independent analysis [15]. When individuals observe others engaging in a particular investment strategy, they may feel compelled to follow suit, leading to a herd-like behavior. This can be further exacerbated by the volume of trading, as increasing trading activity can create a sense of urgency and fear of missing out, thus intensifying the herding behavior [16]. When investors quickly follow the actions of others, it can lead to a rush of buying or selling, causing extreme price fluctuations and increased market volatility. This can result in irrational investment decisions and a higher risk of financial losses. On the other hand, a slower herding behavior allows for more thoughtful analysis and independent decision-making, leading to a more stable and rational investment environment [17]. When individuals are overly confident in their abilities, they may take on excessive risks or fail to adequately assess potential risks. This can lead to poor investment choices and potential financial losses. Furthermore, overconfidence bias may also prevent individuals from seeking advice or considering alternative perspectives, limiting their ability to make informed and rational investment decisions [18]. When individuals are overly confident in their abilities, they may take on excessive risks or fail to adequately assess potential risks. This can lead to poor investment choices and potential financial losses. Furthermore, overconfidence bias may also prevent individuals from seeking advice or considering alternative perspectives, limiting their ability to make informed and rational investment decisions [19]. The gambler's fallacy can have a significant impact on investment decisions. This fallacy is the belief that previous outcomes in a random event can influence future outcomes. In the context of investments, this can lead investors to make irrational decisions based on the assumption that a particular asset or market will eventually revert to its average performance, even if there is no logical reason to believe so. As a result, investors may ignore critical market analysis and trends, increasing their risk of financial loss [20]. When investors anchor their decisions to a particular piece of information, such as a stock's historical price or a target price set by analysts, they may fail to consider other relevant factors. This can lead to unrealistic expectations and an overvaluation or undervaluation of a stock, ultimately resulting in poor investment outcomes [21]. When investors are influenced by information that is readily available to them, they may overestimate the likelihood of certain events or outcomes. This can lead to an imbalance in their investment portfolio, as they may focus too much on recent news or trends rather than considering a diverse range of investment options [22].

When faced with conflicting information or beliefs about an investment, individuals may experience discomfort and tension. This may lead them to rationalize their decisions or ignore contradictory evidence in order to reduce cognitive dissonance. Consequently, investors may hold onto underperforming investments or make impulsive decisions to align their beliefs with their actions, rather than objectively evaluating the potential risks and benefits. Overall, cognitive dissonance can cloud judgment and hinder the ability to make sound investment choices [23]. Mental accounting refers to the tendency of individuals to compartmentalize their money into different mental accounts based on various criteria such as source, purpose, or time frame. Mental accounting can lead to suboptimal investment decisions as individuals may not consider the overall portfolio and instead focus on the performance of individual accounts [24].

Individuals who are averse to feelings of regret may be more likely to avoid making risky investments, as they fear the potential for loss and subsequent regret. This aversion to regret can lead to a more conservative investment strategy, with an emphasis on preserving capital rather than pursuing potentially higher returns [25]. When faced with the possibility of a loss, individuals tend to feel the pain of losing more intensely than the pleasure derived from gaining an equivalent amount. Consequently, this leads to a tendency to avoid taking risks, which can hinder potential investment opportunities that may have yielded significant returns [26].

Individuals who score high on agreeableness tend to prioritize relationships and harmony, and this can influence their investment choices. They may be more likely to invest in socially responsible companies or opt for lower-risk investments to avoid potential conflicts [27]. Individuals who possess high levels of extraversion tend to be outgoing, social, and assertive. These traits may lead them to take more risks in their investment decisions, as they are more likely to seek out new opportunities and feel comfortable with uncertainty [28]. Individuals who are highly conscientious tend to be organized, disciplined, and detail-oriented. This means they are more likely to thoroughly research investment opportunities, carefully analyze risks, and make informed decisions [29]. Individuals with high levels of neuroticism may be more likely to make impulsive investment choices driven by fear and pessimism. They may also be more prone to excessive risk aversion, leading them to avoid potentially profitable investment opportunities [30]. Individuals with higher levels of openness to experience tend to be more willing to take risks in their investment decisions. These individuals are more likely to explore new opportunities and consider a wider range of investment options [31].

Research Gap

Previous studies focused on the impact of psychological factors on investment decisions; standalone studies on the role of personality traits were also conducted. There is a lack of research on the moderating role of the Big Five personality traits in the relationship between psychological factors and investment decisions. This gap in the literature highlights the need for further investigation into how individual differences in personality may influence the way psychological factors such as risk aversion or overconfidence impact investment decisions. Understanding how traits like extraversion, agreeableness, conscientiousness, neuroticism, and openness interact with psychological factors can provide valuable insights for investors and financial advisors looking to optimize decision-making processes. By exploring this

moderating role, researchers can offer a more comprehensive understanding of the complex dynamics at play in investment decision-making.

Conceptual framework

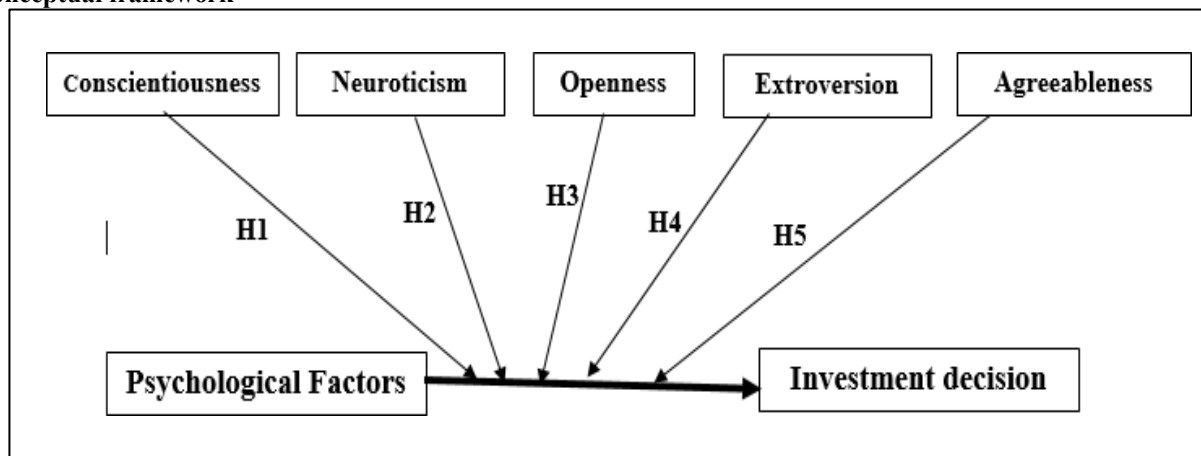


Figure 1- Conceptual Framework for the study

The conceptual framework shows the relationships that are measured in the research study. Many previous studies have established the relationship between Psychological factors and Investment decision. But there is a research gap in understanding the role of each personality type on the relationship between psychological factors and investment decision. Figure 1 shows the moderating relationship of B five personality traits on the relationship between psychological factors and investment decision.

Objective of the study – To analyse the moderating role of Big five personality traits on the relationship between psychological factors and investment decision.

Hypothesis of the study -

- H1- Neuroticism moderates the relationship between Psychological factors and Investment decision
- H2- Extroversion moderates the relationship between Psychological factors and Investment decision
- H3- Openness moderates the relationship between Psychological factors and Investment decision
- H4- Agreeableness moderates the relationship between Psychological factors and Investment decision
- H5- Conscientiousness moderates the relationship between Psychological factors and Investment decision

RESEARCH METHODOLOGY

The current research is a mono method quantitative analysis. Using the Kregcie-Morgan table [32] for the calculation of sample size, a sample of 100 respondents at a 7.5% margin of error was considered. To account for non-responses, 200 questionnaires were distributed, and 145 responses were deemed suitable for the study. The sampling was done using convenience sampling. Convenience sampling [33] was chosen as it allowed for a quick and accessible way to gather data from stock investors in Bengaluru city. A well-structured questionnaire was prepared by adapting to the previous studies on Psychological factors, Personality traits, and investment decisions. The questions were carefully worded to ensure clarity and avoid bias, allowing participants to provide accurate and meaningful responses. Additionally, experts in the field to ensure its validity and reliability reviewed the questionnaire. The Data interpretation was conducted using the Factor analysis using SPSS and confirmatory factor analysis using AMOS software[34]. The moderation analysis was conducted using the Andrew Hayes process macros.

RESULTS AND DISCUSSION

Demographic profile of the respondents

Table 1- Demographic profile of the respondents

Gender	Frequency	Percent
Male	107	73.8
Female	38	26.2
Total	145	100.0
Age	Frequency	Percent

< = 30 Years	99	68.3
31- 40 Years	35	24.1
41-50 Years	8	5.5
51-60 Years	2	1.4
Above 60 Years	1	0.7
Total	145	100.0
Marital status	Frequency	Percent
Single	94	64.8
Married	50	34.5
Divorced	1	0.7
Total	145	100.0
Qualification	Frequency	Percent
Graduation	68	46.9
Post-Graduation	55	37.9
Below Graduation	16	11.0
Above Post Graduation	6	4.1
Total	145	100.0
Income	Frequency	Percent
Less than 2,50,000	63	43.4
2,50,001 - 5,00,000	39	26.9
5,00,001 - 7,50,000	20	13.8
7,50,001 -10,00,000	9	6.2
Above 10,00,001	14	9.7
Total	145	100.0
Occupation	Frequency	Percent
Students	43	29.7
Professional	69	47.6
Business	10	6.9
Others	23	15.9

Total	145	100.0
Investment experience	Frequency	Percent
1-4 years	117	80.7
4-7 years	18	12.4
7-10 years	2	1.4
Above 10 years	8	5.5
Total	145	100.0
Percentage of savings	Frequency	Percent
<10%	74	51.0
11%- 20%	50	34.5
21%-30%	11	7.6
Above 30%	10	6.9
Total	145	100.0

Table 1 presents the demographic profile of the respondents. 73.8% respondents in the study are male and 26.2% are female. Majority 68.3% respondents are below 30 years of age, 24.1% are in between 31-40 years. 64.8% are single and 34.5% are married. 46.9% respondents in the study are graduates and 37.9% are post graduates. 43.4% respondents earned less than 2,50,000 per year 26.9% earned between 2,50,001- 5,00,000 and 13.8% respondents earned between 5,00,001 and 7,50,000. 29.7% respondents are students and 47.6% are professionals. A small proportion of 6.9% are businessmen. A majority 80.7% have 1-4 years of experience in investing. Only 5.5% respondents have above 10 years of experience. 51% respondents invest less than 10% of their savings, 34.5% save between 11%-20% and a small percentage of respondents save above 30%.

Item analysis for Psychological factors, Personality traits and Investment decision

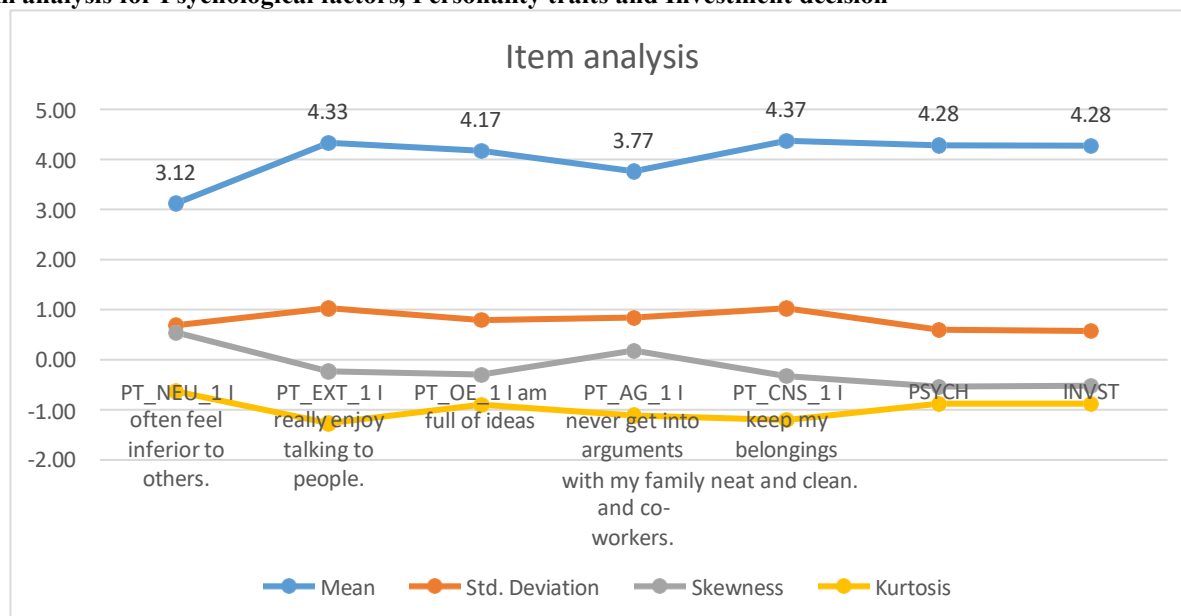


Figure 2- Item analysis for Psychological factors, Personality traits and Investment decision

As presented in the figure 2, The 7-point scale was administered to the respondents and the mean scores between 3 and 4 indicate neutral to agreement range of responses for the variables in the study. The standard deviation is below 1.500 indicating less variation in responses. The measures of normal distribution that are the skewness and Kurtosis are well within the range of -3.00 and +3.000 indicating normal distribution of data.

Testing of Hypothesis

Moderation analysis – analysis for H1 to H5

Table 2 – Moderation results for testing of Hypothesis

Variable names:			
Independent variable:	Psych Factor	Psych Factor	Psych Factor
Moderator:	Neuroticism	Openness to experience	Agreeableness
Dependent variable	Invest decision	Invest decision	Invest decision
Unstandardized Regression Coefficients:			
Independent variable:	0.899	0.9807	0.876
Moderator:	0.1553	0.0549	0.129
Interaction:	-0.011	0.1771	-0.761
Intercept / Constant:	3	3	3

H1- Neuroticism moderates the relationship between Psychological factors and Investment decision

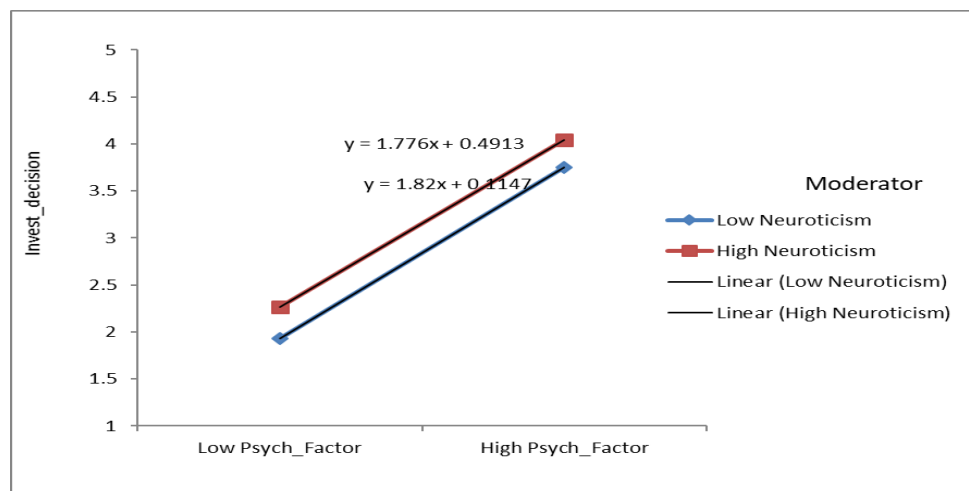


Figure 3 – Moderation regression results for Neuroticism moderates the relationship between Psychological factors and Investment decision

With a significance value of 0.000, and regression equation of $y = 1.776x + 0.4913$, Neuroticism dampens the positive relationship between Psychological Factor and Investment decision. Individuals who score higher on Neuroticism tend to be more anxious and less confident in their decision-making abilities, leading them to be more hesitant when it comes to making investment choices. This hesitation may result in them being less likely to take risks and ultimately impact the overall success of their investment decisions. Therefore, understanding the influence of Neuroticism on the relationship between Psychological Factors and investment decisions is crucial for accurately predicting and analyzing investor behavior [31].

H2- Extroversion moderates the relationship between Psychological factors and Investment decision

With a significance value of 0.2478, which is above the significance value of 0.05 indicates that extroversion does not moderate the relationship between Psychological factors and Investment decision. This suggests that extroversion does not play a significant role in influencing how psychological factors impact investment decision-making. Other factors may have a greater influence on this relationship, such as risk tolerance or financial knowledge. Further research may be needed to explore these other potential moderating variables and their impact on investment decision-making [29,31].

H3- Openness moderates the relationship between Psychological factors and Investment decision

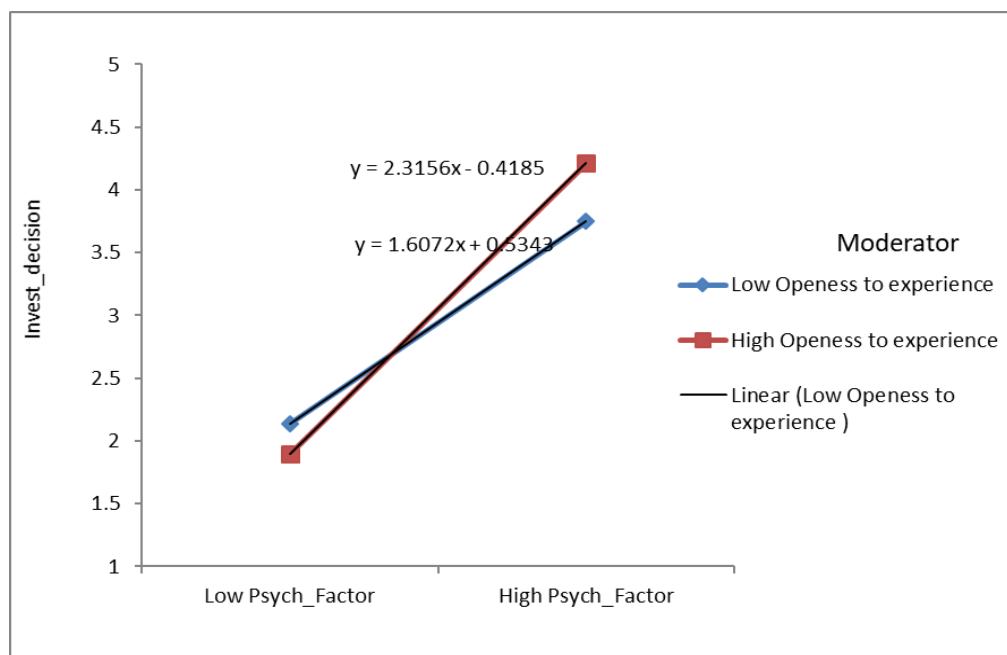


Figure 4- Moderation regression results for Openness moderates the relationship between Psychological factors and Investment decision

With a significance value of 0.000, and regression equation of $y = 2.3156x + 0.4185$ Openness to experience strengthens the positive relationship between Psychological Factor and Investment decision. Individuals who are more open to new experiences tend to be more willing to take risks and explore different investment opportunities. This openness allows them to consider a wider range of factors when making investment decisions, leading to more informed choices. As a result, their psychological factor plays a crucial role in guiding their investment decisions towards successful outcomes [26].

H4- Agreeableness moderates the relationship between Psychological factors and Investment decision

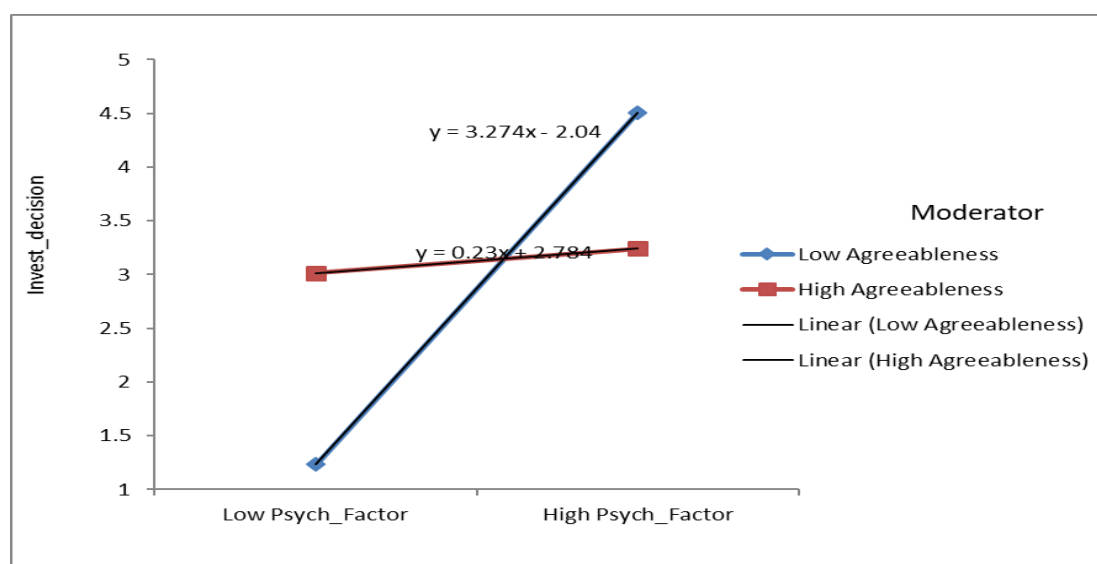


Figure 5- Moderation regression results for Agreeableness moderates the relationship between Psychological factors and Investment decision

With a significance value of 0.000, and regression equation of $y = 3.274x - 2.04$ Agreeableness dampens the positive relationship between Psychological Factor and Investment decision. This finding suggests that individuals high in Agreeableness may be less likely to make risky investment decisions based on psychological factors. This could be due to their tendency to prioritize harmony and cooperation in decision-making, leading them to avoid potentially volatile or uncertain investment opportunities [27]. Additionally, the negative coefficient for Agreeableness in the regression equation indicates that as Agreeableness scores increase, the strength of the relationship between Psychological Factor and Investment decision decreases. This highlights the important role that personality traits can play in shaping financial behaviors and outcomes [30].

H5- Conscientiousness moderates the relationship between Psychological factors and Investment decision With a significance value of 0.3831, which is above the significance value of 0.05 indicates Conscientiousness does not moderate the relationship between Psychological factors and Investment decision [28]. This suggests that an individual's level of Conscientiousness does not play a significant role in influencing how Psychological factors impact their investment decisions. Other factors may have a greater influence on this relationship, such as risk tolerance or financial knowledge [29]. Further research is needed to explore these potential moderating factors and their effects on investment decision-making.

CONCLUSION

Neuroticism weakens the positive correlation between Psychological Factor and Investment choice. There is a suggestion that investors with a high level of neuroticism are more prone to making impulsive decisions driven by emotions rather than making reasonable judgments based on careful study of evidence. This has the potential to result in hasty investment decisions that may not be in line with their long-term financial objectives. Hence, it is crucial for individuals with a high level of neuroticism to recognize the influence of their personality traits on their investing choices and to consult a financial advisor to minimize any possible adverse consequences. The favorable correlation between Psychological Factor and Investment decision is enhanced by a high level of openness to experience. It is recommended that individuals with high levels of neuroticism dedicate time to acquire knowledge about various investing strategies and establish a well-defined financial strategy that is in line with their long-term objectives. Through proactive measures and seeking expert guidance, individuals can effectively navigate the potential drawbacks of hasty decision-making and strive to establish a stable and secure financial future. Moreover, those who are receptive to novel experiences and ideas can adopt a more equitable and knowledgeable standpoint when it comes to investments, resulting in more prosperous outcomes in the future. Agreeableness mitigates the positive correlation between Psychological Factor and Investment

choice. It is recommended that individuals focus on enhancing their emotional intelligence and communication skills to successfully handle disagreements and conflicts that may occur when making investing decisions. By promoting, a transparent and cooperative method to financial planning, individuals can overcome the difficulties caused by agreeableness and guarantee the achievement of their long-term objectives. Maintaining equilibrium between embracing novel ideas and viewpoints and being loyal to own beliefs and goals is crucial in making sound financial decisions. The current study is a quantitative research design, future researchers can focus on conducting qualitative interviews to access the in depth understanding of investment decisions which are backed by the role of personality traits.

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