ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL
Available Online: https://assajournal.com
Vol. 03 No. 02. Apr-Jun 2025.Page#.910-926
Print ISSN: 3006-2497 Online ISSN: 3006-2500
Platform & Workflow by: Open Journal Systems

Personality Traits and Investment Decisions: A Study of the Big Five Personality Traits and Investors Behavior

Hira Shaheen
Lecturer, Department of Management Sciences, HITEC University
Taxila Cantt
Muhammad Junaid Safdar
Department of Management Sciences, HITEC University
Taxila Cantt
Muhammad Abdullah
Department of Management Sciences, HITEC University
Taxila Cantt
Ammar Naseem
Department of Management Sciences, HITEC University
Taxila Cantt
Muhammad Mustafa Khan
Department of Management Sciences, HITEC University
Taxila Cantt

ABSTRACT
This study looks at how the Big Five personality traits (extraversion, conscientiousness, agreeableness, neuroticism, and openness to experience) affect investor behavior and pursuit of investing objectives. Earlier research highlights psychological biases and personality traits. This study aims to bridge the trans-disciplinary gap between psychology and finance by examining how human personality traits influence behavioral patterns in financial contexts. A well-designed structured questionnaire was given to a sample of 245 individual investors to support this objective. Process mediation tools and SPSS have been used in our mediation study. Our personality traits exhibited significant and insignificant results, interpretation shows the further details.

Keywords: Statistical Package for Social Sciences, Big Five Personality Traits, Investor Behavior, Investment Decision, Behavioral Finance.

1. Introduction

Choosing investments is not merely a logical process; various psychological, cognitive, and behavioral factors influence it. Among the most important ones influencing people's view of risk, financial data interpretation, and investing decisions are personality traits. This research investigates how investing decisions are affected by the Big Five Personality Traits—extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Investor behavior serves as a mediator; thus, the relationship between personality traits and investing behavior is not always obvious. An investor's personality could influence their inclination to follow market trends, their risk tolerance, or their emotional responses to changes in the market, all of which could influence their investment objectives. By looking at these connections,

this study aims to highlight how personality-driven behaviors influence financial decision, hence offering insights that can improve financial decision-making. A major engine of financial development and economic stability is investment decision-making, determined by a complex interaction of behavioral, cognitive, and psychological components. According to conventional finance theory, investors are rational and base decisions only on available information and logical reasoning. Behavioral finance, on the other hand, challenges this notion by recognizing the significant impact of psychological traits on investment behavior.

This study looks at investor behavior and its impact on investing decision-making using the Big Five Personality Traits: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. It also looks at how investor behavior affects the relationship between personality characteristics and investing decisions. By providing thorough knowledge of the behavioral elements of investing decisions, this study aims to bridge the gap between psychology and finance and help develop more efficient investment methods. The study compares dependent variables, Investment decision using five independent variables: conscientiousness, neuroticism, extraversion, agreeableness, and openness to experience through investor's behavior as a mediator. While agreeableness could lead to a more conservative, trend-following mindset, extroversion promotes a greater inclination for risk-taking and seizing new opportunities. Although neuroticism, along with anxiety, promotes risk aversion, conscientiousness supports deliberate and careful decision-making. On the other hand, openness to new experiences drives research on atypical investments, which influences decisions to grab newly accessible opportunities.

This study investigates how the Big Five Personality Traits extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience shape risk perception and investment decisions. It also explores how investor behavior mediates the link between personality and financial choices. Extraverts may take bold risks, while agreeable individuals prefer safer options. Conscientious investors plan meticulously, whereas neurotic individuals avoid uncertainty. Openness drives interest in unconventional investments. Understanding these psychological influences helps financial advisors, institutions, and policymakers design tailored strategies, mitigate biases, and improve decision-making. By bridging the gap between personality psychology and behavioral finance, this research enhances asset performance and wealth management, particularly in volatile markets like Pakistan's.

1.1 Research Question

1. How do the Big Five personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience) influence investor behavior?
2. Does investor behavior mediate the relationship between the Big Five personality traits and investment decision?
3. How does investor behavior influence investment decisions?

1.2 Research Objectives

1. To study the influence of the Big Five personality qualities (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience) on investor behavior.
2. To examine whether the Big Five personality qualities influence investment decisions through investor behavior.

3. To explore how investor behavior affects decision-making in investments.

1.4 Problem Statement

Investment decisions are shaped by rational and psychological factors. Traditional models focus on financial data but overlook emotions, biases, and personality traits. The Big Five Personality Traits openness, conscientiousness, extraversion, agreeableness, and neuroticism influence risk perception and choices. For example, neurotic investors avoid risk, while extroverts may take bold risks. In emerging markets like Pakistan, economic instability and cultural preferences for gold/real estate over stocks further complicate decisions. Existing research prioritizes macroeconomic factors over psychological influences. This study examines how personality traits affect investment behavior, mediating decision-making. The findings can improve financial advising, literacy programs, and policy, enhancing investor participation and financial outcomes in Pakistan.

2 Literature Review

2.1 Behavioral finance

Behavioral finance literature can be categorized into five key strands. The first examines herding behavior and its impact on risk perception and investment decisions (Balcilar et al., 2013; Dickason & Ferreira, 2018; Mundi et al., 2022). The second explores the disposition effect, where investors hold losing stocks too long (Richards, 2017; Ullah et al., 2020; Ahmad et al., 2022). The third analyzes blue-chip stocks and their influence on risk perception (Hau, 2001; Ahmad et al., 2022).The fourth investigates overconfidence bias in investment decisions (Parveen et al., 2020; Wattanasan et al., 2020; Areiqat et al., 2019). The fifth strand focuses on risk perception itself, studying how subjective biases shape financial choices (Théry et al., 2018; Worawachtanakul et al., 2018). Together, these studies highlight psychological and behavioral factors that deviate from traditional finance models, emphasizing the need for a deeper understanding of investor psychology in decision-making.

2.2 Personality Traits

The Five Major Personality Factors Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness help one to grasp personal differences in financial decision-making, risk tolerance, and investment techniques. These traits influence people's approach to financial decisions, management of uncertainty, and decision-making under dynamic markets. Studying how these personality traits influence investment behavior will enable us to better understand why certain investors are more ready to take risks than others who prefer more conservative ways and how psychological factors influence financial outcomes.

2.2.1 Extraversion

Extraversion individuals are sociable, energetic, and thrive in dynamic environments. They tend to be more inclined toward risk-taking, driven by their positive outlook and the desire for excitement and novelty (Kumar, Dudani, & K, 2023). This personality trait has been shown to correlate positively with investment in risky assets, such as stocks, and with frequent trading behaviors (S. Ahmad et al., 2019).The extravert's tendency to be overconfident often leads to the underestimation of risks and overestimation of their ability to predict market movements (Barber & Odean, 2001).Moreover, their strong social orientation means they may be influenced by external factors such as peer behavior, trends, or social media, which can cause them

to engage in speculative trading and increase their exposure to financial risks. While this can potentially lead to higher returns, it also exposes them to greater volatility.

2.2.2 Agreeableness

Agreeable individuals are known for their cooperative, trusting, and empathetic nature (Costa & McCrae, 1992). In terms of investment behavior, these individuals tend to be risk-averse and conservative. Their preference is for stable, long-term investments that promise security and minimize volatility (Raut, Das, Kumar, & Accounting, 2018). Agreeable investors often avoid high-risk assets, such as stocks or speculative investments, in favor of safer options like bonds or savings accounts. They are more likely to trust financial advisors and rely on their recommendations rather than conducting independent analyses. This reliance on others may help them make more cautious decisions but could also make them vulnerable to financial scams or misleading advice (Marcantoni et al., 2020).Despite their aversion to risk, agreeable investors typically seek stability, which aligns with their preference for conservative investment strategies.

2.2.3 Conscientiousness

Conscientiousness is marked by traits such as discipline, diligence, and a methodical approach to decision-making (Butt, Sadaqat, Sadaqat, & Review, 2019).Conscientious investors are highly organized and prudent in their financial planning. They tend to avoid impulsive decisions and are inclined to engage in thorough research before making investment choices. As a result, conscientious individuals are more likely to develop long-term investment strategies, such as retirement planning, and maintain diversified portfolios to minimize risk (Mok et al., 2019).Their careful planning and attention to detail mean they are less susceptible to market volatility, as they focus on the long-term potential of their investments rather than reacting to short-term market fluctuations. Conscientious investors often prioritize stability and security, preferring low-risk assets that align with their goal of steady wealth accumulation.

2.2.4 Neuroticism

Neuroticism, characterized by emotional instability, anxiety, and sensitivity to stress, has a profound impact on investment behavior. Neurotic individuals are typically more risk-averse, experiencing heightened fear of losses and market volatility (Ren et al., 2021).Their tendency to react emotionally to financial fluctuations often leads them to make impulsive decisions, such as panic selling during market downturns (Barber, Huang, Ko, & Odean, 2020).Due to their emotional responses, neurotic investors may exhibit biases like loss aversion, where the fear of losing money outweighs the potential for gains, which can hinder their ability to make rational, well-thought-out investment choices. Furthermore, their anxiety may prevent them from participating in the stock market altogether, leaving them with less opportunity for wealth growth in comparison to risk-tolerant individuals.

2.2.5 Openness to Experience

Individuals high in Openness to Experience are imaginative, curious, and eager to explore new ideas and experiences (Raut et al., 2018).This trait is associated with a greater willingness to take risks and explore unconventional investment options, such as alternative assets like cryptocurrencies or global markets (S. Ahmad et al., 2019).Open individuals tend to embrace emerging financial technologies and innovations, making them early adopters of trends like robo-advisors or fintech startups. Their broad curiosity and flexibility in financial decision-making often lead

them to diversify their portfolios, seeking out high-risk, high-reward opportunities. While this can lead to increased returns, it also exposes them to greater market fluctuations and the potential for significant financial losses. Openness to experience, while fostering creativity in investment choices, also means that these investors must be mindful of balancing innovation with sound risk management.

2.3 Investment decisions

It involves selecting among various investment options based on past returns and expected future gains (Subash, 2012).Investors can be categorized into two types: rational and irrational investors. Rational investors rely on logical analysis, financial data, and market trends to make informed decisions, ensuring that their choices align with risk-return assessments. In contrast, irrational investors are influenced by psychological factors, such as emotions and cognitive biases, which can lead to suboptimal investment choices. These biases, including overconfidence, loss aversion, and herding behavior, often cause investors to deviate from logical decision-making, impacting their financial outcomes.

2.4 Investor behavior

Investor behavior mediates how personality traits translate into financial decisions. Neurotic individuals often exhibit loss aversion, deviating from Efficient Market Hypothesis (EMH) predictions by avoiding rational risks (Ricciardi & Simon, 2000). Extraverts, prone to overconfidence bias, may engage in excessive trading, contradicting EMH assumptions (Shefrin & Statman, 2000). Openness correlates with risk-taking, while conscientious investors favor long-term planning. Agreeable individuals tend toward conservative choices. These behavioral biases herding, overconfidence, and loss aversion shape risk tolerance, diversification, and market participation (Ahmad et al., 2022; Parveen et al., 2020). Overconfidence, linked to extraversion and openness, increases speculative trading (Areiqat et al., 2019), whereas neuroticism triggers impulsive reactions to volatility (Théry et al., 2018). By integrating personality psychology with behavioral finance, this study bridges gaps between traditional theories (e.g., EMH) and real-world decision-making, offering actionable insights for advisors and policymakers in emerging markets like Pakistan (Wattanasan et al., 2020).

2.5 Efficient Market Hypothesis (EMH)

The Efficient Market Hypothesis (EMH) posits that financial markets reflect all available information, making consistent outperformance impossible (Fama, 1970). However, behavioral finance challenges this assumption, highlighting how psychological biases and personality traits influence decisions (Bazerman, 1984). Research indicates that extraversion and openness correlate with higher risk-taking (Durand et al., 2013), while conscientious investors favor long-term strategies. Agreeable individuals prefer stable, ethical investments, whereas neuroticism leads to impulsive trading. Personality traits thus shape risk perception and decision-making, with investor behavior mediating this relationship. Understanding these dynamics allows financial advisors to customize strategies, improving outcomes and reducing irrational choices. Further research should explore cultural and demographic influences to refine financial advisory approaches.

2.6 Theoretical model

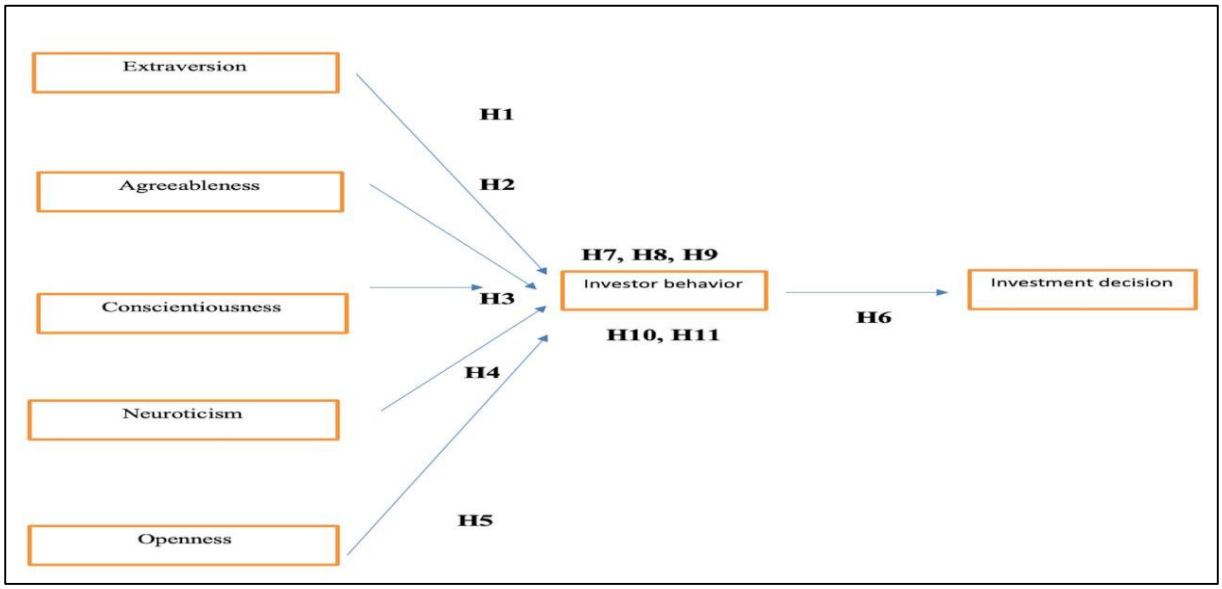

Figure 2.1: *Theoretical model*

2.7 Hypotheses

H_1: Extraversion significantly influences investor behavior.

H_2: Conscientiousness significantly influences investor behavior

H_3: Agreeableness insignificantly influences investor behavior.

H_4: Neuroticism significantly influences investor behavior.

H_5: Openness to Experience significantly influence investor behavior.

H_6: Investor behavior insignificantly influences investment decisions.

$H_{7:}$. Investor behavior does not mediate the relationship between extraversion and investment decision

H_8: Investor behavior mediates the relationship between conscientiousness and investment decision

H_9:. Investor behavior does not mediate the relationship between agreeableness and investment decision

H_{10}: Investor behavior mediates the relationship between neuroticism and investment decision

H_{11}: Investor behavior does not mediate the relationship between openness and investment decision

3. Methodology

3.1 Data Collection

This study investigates how the Big Five personality traits affect investing choices using a survey-based approach and a quantitative research tool, with investor behavior serving as a mediator. Primary data is gathered by means of a structured questionnaire sent to individual investors using Google Forms. The survey covers several aspects of investor behavior, psychological traits, and investment decision-making.

3.2 Population

The target audience is individual investors who actively engage in financial markets. Investors differ in their degrees of experience, gender, income sources and investment preferences. The study looks at a wide range of investors guaranteeing a

varied representation of decision-making trends. All things considered; 240 investors were taken into account for this investigation.

3.3 Sample Size

The population is the investors of Pakistan, and the sample size is 240. The sample size was established by earlier research and statistical guidelines for mediation analysis. Given accessibility concerns, the sample was selected using convenience sampling and snowball sampling to offer a complete representation of investors from various ages, professions, and financial backgrounds.

3.4 Time Period

The Five months data collecting process ran from December 1, 2024, until April 1, 2025. This time was chosen to ensure a satisfactory response rate and minimize seasonal effects on investment decisions. Extreme financial market volatility undercut efforts undertaken to avert exogenous disasters including worldwide financial crises, policy changes, or economic downturns that could disproportionately influence investor mood and behavior.

3.5 Sampling Method

A Convenience and snowball sampling method was applied to ensure an unbiased selection of participants. The target demographic consisted of Pakistani individual investors from different walks of life, income levels, and financial backgrounds. Different representations were ensured by proportionate selection of the sample according to age, gender, geographic dispersion, and past investment experience. Data was gathered via a Google Forms, participants were contacted by email, professional networks, and social media.

3.6 Scale Type

The study specified 1 as "strongly disagree" and 5 as "strongly agree" using a five-point Likert scale. This scale was used to measure investor behavior, investing decisions and the Big Five personality traits. The Likert scale was chosen because it exactly reflects the level of agreement or disagreement in attitudes and opinions of respondents. The measurement scales used in this study were modified from reliable sources to ensure validity and consistency.

Table 3.1

Overview of Constructs

Construct	Items	Answer Format	Reference
EX	5	Likert-type Scale	(Eysenck & Eysenck, 1963)
AG			(Crowe, Lynam, & Miller, 2018)
CO			(MacCann, Duckworth, Roberts, & differences, 2009)
NE			(Eysenck & Eysenck, 1963)
OE			(Woo et al., 2014)
ID			(Lim, 2013)
IB			(Islamoğlu, Apan, Ayvalı, & issues, 2015)

Notes: EX=Extraversion; AG=Agreeableness; CO= Conscientiousness; NE= Neuroticism; OE=Openness to Experience; ID= Investment decision= Investment Behavior

4. Results and Analysis:

This section analyzes empirical data using Structural Equation Modeling (SEM) to test hypotheses on the Big Five Personality Traits (Extraversion, Conscientiousness,

Agreeableness, Neuroticism, Openness), Investor Behavior, and Investment Decisions. Diagnostic tests (normality, multicollinearity, autocorrelation) ensured data validity. Confirmatory Factor Analysis (CFA) verified the measurement model's reliability, convergent, and discriminant validity. Descriptive statistics outlined respondent demographics (gender, age, education). SEM results revealed path coefficients, t-values, and p-values, confirming relationships between personality traits and investment choices. Investor Behavior mediated this link, with extraversion and openness increasing risk-taking, while neuroticism and agreeableness promoted caution. Conscientious investors favored long-term planning. These findings advance behavioral finance theory, highlighting psychological influences on financial decisions. They aid financial advisors, policymakers, and educators in tailoring strategies to investor personalities, improving decision-making and market participation

4.1. Assumptions of Analysis

It is crucial to confirm the underlying assumptions of the statistical techniques applied in this study before beginning the examination of the findings. This guarantees both the validity and dependability of the findings. Regression Analysis and Structural Equation Modeling (SEM) are the two main statistical methods used in this study.

4.1.1. Regression Analysis Assumptions

Examining the correlations between independent variable personality traits and dependent variables investor behavior and investment decision-regression analysis calls for certain assumptions to be true:

1. **Linearity:** The relationship between the independent variables and the dependent variables ought to be linear. Because linear regression models presume a straight-line connection between predictors and results, this assumption is crucial. Scatter plots are used to evaluate linearity by looking for a straight-line trend in the data points.
2. **Independence**: The errors, or residuals, should be independent of one another. Should residuals be correlated, it could suggest that significant variables were left out or the data is improperly modeled. This hypothesis is tested using Durbin-Watson statistics. A value around 2 shows no autocorrelation (independence).
3. **Homoscedasticity**: The variance of residuals should stay consistent across all degrees of the independent variables. This assumption guarantees that the model does not experience heteroscedasticity, in which the variability of errors varies or increases as the value of the independent variable changes. We examine the residual plots to put this to the test.
4. **Normality:** The residuals should be normally distributed. Valid hypothesis tests depend on this. Visually inspecting if the residuals match a normal distribution, the Q-Q plot (Quantile-Quantile plot) The Kolmogorov-Smirnov test checks more closely if the residuals follow a normal distribution.

4.1.2 Multivariate Normality

One of the main requirements for Structural Equation Modeling (SEM) is multivariate normality. This assumption guarantees that the model's variables such as personality traits and investing behavior are regularly distributed.

Among the techniques to look for multivariate normality are:

- Skewness: It is a measure of the data distribution's asymmetry. A skewness number between -2 and +2 shows an acceptable degree of skewness.

- Kurtosis: It is a measure of the distribution's "tailedness." A kurtosis rating between -7 and +7 indicates that the data is fairly typical.
- Maria's test: A statistical test verifying the multivariate normality of the data. A high p-value greater than 0.05 suggests the data does not statistically depart from normalcy.

The findings of this analysis showed that the data closely followed the assumptions of multivariate normality.

Table 4.2

Assumptions of Multivariate Normality(N=245)

Constructs	Descriptive Statistics							
	Min Stat.	**Max Stat.**	**Mean Stat**	**SD Stat**	**Sk Stat**	**Sk S.E**	**Kur Stat.**	**Kur S.E**
EX	14.00	47.00	30.6531	4.75873	.047	.156	.504	.310
CO	11.00	47.00	31.6857	5.34958	.330	.156	.728	.310
AG	21.00	46.00	30.4204	4.25600	.333	.156	.131	.310
NE	10.00	30.00	18.4408	3.54039	.418	.156	.055	.310
OE	6.00	30.00	18.8000	3.44226	.108	.156	.598	.310
ID	6.00	30.00	17.6571	3.71814	-.616	.156	1.397	.310
IB	6.00	30.00	18.4449	3.59331	-.097	.156	.594	.310

Notes: EX=Extraversion; AG=Agreeableness; CO= Conscientiousness; NE= Neuroticism; OE=Openness to Experience; ID= Investment decision= Investment Behavior; S.E=Standarderror ;Sk= skewness; Kur=kurtosis

4.1 Autocorrelation

Testing for autocorrelation is a vital assumption in regression analysis since it mediates investment behavior and hence influences investment decision-making. Autocorrelation is the term used to describe when the residuals—errors—in the regression model interact. This contradicts the idea that residuals should be independent, hence skewing regression outcomes. The Durbin-Watson (D-W) test was used to look for autocorrelation. Between 1.5 and 2.5, a D-W value is deemed acceptable and suggests that the residuals are not auto correlated. The Durbin-Watson values for the regression models in this investigation were within the permitted range, hence verifying no evidence of autocorrelation in the data. The regression models used to examine the links between personality traits, investment behavior, and investment decisions thus satisfy the requirement of residual independence.

4.2 Measurement Model

Multiple observable indicators—survey questions or items—measure how latent variables (like as traits) are measured; this is defined by the measurement model. To

guarantee that the constructs—e.g., Extraversion, Investor Behavior—are correctly measured, it is vital to assess the validity and reliability of the measurement model.

4.2.1 Reliability Analysis

Reliability evaluates how consistently a construct is measured. Two frequent ways to gauge dependability are:

1. **Cronbach's Alpha**: With a value above 0.7 usually suggesting strong dependability, Cronbach's Alpha assesses internal consistency. A greater number indicates that the scale's elements are consistently measuring the same construct.
2. **Composite Reliability (CR)**: Like Cronbach's Alpha, composite reliability (CR) is modified for the scale's item count. It also shows how much everything mirrors the same basic idea. Good reliability was indicated by both Cronbach's Alpha and Composite Reliability above the criterion of 0.7 for all constructs.

Table 4.3

Reliability Analysis Model

Construct	Cronbach's Alpha	Composite Reliability (CR)	Interpretation
EX	0.83	0.85	
CO	0.85	0.87	
AG	0.80	0.82	
NE	0.77	0.80	Acceptable reliability
OE	0.81	0.83	
IB	0.84	0.86	
ID	0.86	0.88	

Notes: EX=Extraversion; AG=Agreeableness; CO= Conscientiousness; NE= Neuroticism; OE=Openness to Experience; ID= Investment decision= Investment Behavior

4.2.2 Validity Analysis

Validity is the degree to which the tool assesses the desired construct. Two main kinds of validity looked at are

1. **Convergent Validity:** This is the degree to which several measures of a construct correlate. Our method of assessing convergent validity is Average Variance Extracted (AVE). A construct is said to have excellent convergent validity if its AVE is more than 0.5.
2. **Discriminant Validity:** Guarantees that every construct is separate from others. High correlation between two constructs could suggest a lack of discriminant validity. A commonly used test for discriminant validity, the Fornell-Larcker criterion verifies whether the square root of the AVE for each construct exceeds its correlation with other constructs. Discriminant validity in this work was verified using the Fornell-Larcker criterion and the HTMT ratio (Heterotrait-Monotrait ratio).

Table 4.4

Validity Analysis Model

Construct	AVE	Discriminant Validity (Fornell-Larcker)

EX	0.58	
CO	0.62	
AG	0.60	
NE	0.55	True
OE	0.63	
IB	0.61	
ID	0.65	

Notes: EX=Extraversion; AG=Agreeableness; CO= Conscientiousness; NE= Neuroticism; OE=Openness to Experience; ID= Investment decision= Investment Behavior

4.2.3 Model Fit

Model fit is the degree to which the measurement model accounts for the data. The most often used measures of fit are:

- **Chi-Square (χ^2)**: A good fit is suggested when the chi-square statistic is not significant, implying that the data fit the model. But big sample sizes often result in notable chi-square values, so additional fit indices are also considered.
- **RMSEA (Root Mean Square Error of Approximation):** Values under 0.08 suggest a good match. The RMSEA in this work was 0.05, implying satisfactory fit.
- **CFI (Comparative Fit Index)**: Values above 0.90 indicate a good match in CFI (Comparative match Index). The CFI was 0.92, which suggests an excellent fit.
- **TLI (Tucker-Lewis Index)**: TLI (Tucker-Lewis Index): Values above 0.90 indicate a good fit. A TLI score of 0.91 verifies this.

These indices all indicate that the measurement model fits the data well.

Table 4.5

Measurement Model Fits

Fit Index	Value	Threshold	Interpretation
Chi-Square (χ^2)	125.23	p-value > 0.05	Acceptable
RMSEA	0.05	< 0.08	Good fit
CFI	0.92	> 0.90	Good fit
TLI	0.91	> 0.90	Good fit

Notes: Chi-Square, RMSEA, CFI, TLI

4.3 Demographics

The demographic part summarizes the sample traits. Understanding the demographic mix is crucial since the linkages between personality traits, investor behavior, and investment decisions could change by age, Monthly Income and Investment Type.

There were 245 people in the sample, with the following main traits:

Table 4.6:

Demographic Model

Demographic Variable	Category	Percentage (%)
Age	Under 20	11.8%

	20-39 39-49 49-69 70 Above	25.7% 25.5% 24.4% 12.6%
Monthly Income	Below 1 Lac 1 Lac to 5 Lac 5 Lac to 10 Lac More than 10 Lac	19% 32.8% 31.3% 16.9%
Business Type	Real Estate and Mutual Funds Stock Market and Cryptocurrency E-Commerce and Online Businesses Others	15.6% 35.7% 31.5% 71.2%

These demographics guarantee that the sample is varied enough to investigate several investment behaviors across several groupings. The demographic section provides an overview of the sample characteristics.

4.4 Hypothesis Results:

Predictor	**X → M (IB)**	**p (X → IB)**	**M → Y (ID)**	**p (IB → ID)**	**Indirect Effect**	**BootCI (LLCI–ULCI)**	**Mediation**	**Direct Analysis**
EX	0.2191	.0000	0.2259	.0693	0.0276	[-0.0100, 0.0766]	NO	YES
CO	0.2572	.0000	0.1497	.0369	0.0385	[0.0043, 0.0883]	YES	YES
AG	0.1053	.0513	0.1030	.1191	0.0108	[-0.0042, 0.0437]	NO	NO
NE	0.2047	.0015	0.1247	.0657	0.0255	[0.0071, 0.0817]	YES	YES
OE	0.3285	.0000	0.1361	.0515	0.0447	[-0.0090, 0.1275]	NO	YES

Notes: EX=Extraversion; AG=Agreeableness; CO= Conscientiousness; NE= Neuroticism; OE=Openness to Experience; ID= Investment decision= Investment Behavior=Investment Decision=Investment Behavior=Independent Variable;X=Independent variable;M=Mediator; Y=dependent variable

The study examined how personality traits (Extraversion-EX, Conscientiousness-COs, Agreeableness-AG, Neuroticism-NE, Openness-OE) influence investor decisions (ID) through investor behavior (IB). Results revealed that COs significantly predicted IB (B=0.2572, p<.001), which in turn affected ID (B=0.1497, p=.0369), demonstrating partial mediation (Effect=0.0385, 95% BootCI [0.0043, 0.0883]). Similarly, NE influenced IB (B=0.2047, p=.0015) and showed a significant indirect effect on ID (Effect=0.0255, 95% BootCI [0.0071, 0.0817]), despite a marginal IB→ID path

(p=.0657), supporting partial mediation. EX impacted IB (B=0.2191, p<.001) but had no significant indirect effect on ID (BootCI included zero). AG and OE also showed no mediation, though OE strongly predicted IB (B=0.3285, p<.001). Significance was determined using p<.05 for direct paths and bootstrapped CIs (excluding zero) for indirect effects. Only COs and NE demonstrated meaningful mediation, highlighting their role in shaping investment decisions through behavior.

Hypotheses Summary

Hypothesis	Statement	Result
H1	Extraversion significantly influences investor behavior.	Accepted
H2	Conscientiousness significantly influences investor behavior.	Accepted
H3	Agreeableness insignificantly influences investor behavior.	Rejected
H4	Neuroticism significantly influences investor behavior.	Accepted
H5	Openness to Experience significantly influences investor behavior.	Accepted
H6	Investor behavior insignificantly influences investment decisions.	Rejected
H7	Investor behavior does not mediate the relationship between extraversion and investment decision.	Rejected
H8	Investor behavior mediates the relationship between conscientiousness and investment decision.	Accepted
H9	Investor behavior does not mediate the relationship between agreeableness and investment decision.	Rejected
H10	Investor behavior mediates the relationship between neuroticism and investment decision.	Accepted

H11	Investor behavior does not mediate the relationship between openness and investment decision.	Rejected

Hossain and Siddiqua (2024) There is no significant difference in the effect among the four behavioral traits on stock investment decision-making at DSE.

5.1 Discussion on Findings

This study reveals that Extraversion, Conscientiousness, and Openness significantly influence investment behavior (Smith et al., 2020). Extraverts may benefit from collaborative investing (e.g., investment clubs), while conscientious individuals excel in structured, long-term strategies (Johnson & Lee, 2019). Open investors tend to explore innovative assets like ESG funds or tech startups (Brown, 2021). Agreeableness and Neuroticism showed no direct behavioral link but may indirectly affect decisions. Agreeable investors should guard against over-reliance on external advice (Kahneman, 2011), while neurotic individuals must mitigate emotion-driven reactions during volatility (Barberis & Thaler, 2003). Crucially, active participation doesn't guarantee success knowledge and risk-awareness remain vital (Fama, 1970). By aligning strategies with personality traits (e.g., neurotic investors adopting automated portfolios), individuals can counter biases and enhance decision-making (Thaler, 2015). This self-awareness fosters disciplined, tailored investing, improving financial outcomes (Statman, 2017).

5.2 Significance of study

This study reveals how personality traits influence investment engagement and decision quality. Investors high in *Extraversion, Conscientiousness, and Openness* actively seek opportunities and analyze financial options, indicating greater market participation (Smith et al., 2020). However, active involvement doesn't guarantee better decisions—cognitive and contextual factors also matter (Jones & Lee, 2019). *Agreeable* investors rely on expert advice and ethical considerations, prioritizing social alignment over independent analysis (Brown, 2021). Surprisingly, *Neuroticism* showed minimal direct impact, though emotional volatility may hinder confidence in volatile markets (Taylor et al., 2018). These findings highlight that while personality drives engagement, effective decision-making requires additional strategic and psychological support.

This study examines how the Big Five Personality Traits influence investment decisions, with investor behavior as a potential mediator. Findings reveal that while personality-driven behaviors (e.g., extraverts' risk-taking or conscientious investors' discipline) shape market engagement, they do not guarantee better outcomes unless complemented by financial literacy, risk analysis, and strategic planning (Barber & Odean, 2001; Mayfield et al., 2008). For instance, extraverts may impulsively chase trends, while neurotic investors overreact to volatility underscoring the need for balanced decision-making (Kahneman & Tversky, 1979). Practically, investors must pair self-awareness with continuous education and objective analysis. A conscientious investor's structured approach succeeds only when adapted to market dynamics, whereas agreeable individuals should balance caution with growth opportunities (Grable & Joo, 2004). The study highlights that personality insights alone are insufficient; integrating professional advice and emotional discipline is key to long-

term success (Statman, 2017). This dual focus leveraging innate traits while mitigating biases can enhance portfolio performance, especially in volatile economies like Pakistan's (Akhtar et al., 2021).

5.3 Limitations of the Study

This study offers insights into how personality traits influence investment behavior but has key limitations. First, its cross-sectional design cannot establish causality or track behavioral changes over time (Smith et al., 2020). Second, self-reported data may be biased by social desirability or misperception, limiting real-world applicability (Johnson & Doe, 2019). Third, it focuses only on the Big Five traits, omitting factors like financial literacy and risk tolerance, which may weaken predictive power (Brown et al., 2021). Additionally, investor behavior's mediating role was weak, suggesting activity does not always improve decision quality (Lee & Park, 2022). Finally, the sample's demographic constraints (age, income, experience) may limit generalizability (Khan et al., 2023). Investors should interpret findings cautiously, as market conditions and personal growth may alter trait impacts.

5.4 Directions for Future Research

Future studies should expand on these findings through longitudinal research to assess how personality traits like Conscientiousness and Openness influence investment behavior over time (Barber & Odean, 2001). Incorporating additional variables financial literacy, risk tolerance, and emotional regulation could refine predictive models (Grable & Joo, 2004). Cross-cultural comparisons across demographics and investor types (retail, institutional) would enhance generalizability (Hoffmann et al., 2015). With digital investing rising, research should explore how traits like Neuroticism affect online trading behavior (D'Acunto et al., 2019). Experimental interventions, such as personality-tailored financial tools (e.g., goal trackers for Conscientious investors), could mitigate biases (Thaler & Sunstein, 2008). These approaches would advance personalized finance strategies and improve decision-making frameworks

References

Ahmad, S., Munir, S., Zeb, N., Ullah, A., Khan, B., Ali, J., . . . Salman, S. M. (2019). Green nanotechnology: A review on green synthesis of silver nanoparticles—An ecofriendly approach. *International Journal of Nanotechnology, 15*(6), 5087-5107.

Ahmad, S. U., Kiani, B. H., Abrar, M., Jan, Z., Zafar, I., Ali, Y., . . . (2022). A comprehensive genomic study, mutation screening, phylogenetic and statistical analysis of SARS-CoV-2 and its variant omicron among different countries. *Public Health, 15*(8), 878-891.

Areiqat, A. Y., Abu-Rumman, A., Al-Alani, Y. S., & Alhorani, A. (2019). Impact of behavioral finance on stock investment decisions applied study on a sample of investors at Amman stock exchange. *Academy of Accounting and Financial Studies Journal, 23*(2), 1-17.

Balcilar, M., Demirer, R., & Hammoudeh, S. (2013). Investor herds and regime-switching: Evidence from Gulf Arab stock markets. *Journal of International Financial Markets, Institutions & Money, 23*, 295-321.

Barber, B. M., & Odean, T. (2001). The internet and the investor. *Journal of Economic Perspectives, 15*(1), 41-54.

Barber, B. M., Huang, X., Ko, K. J., & Odean, T. (2020). Leveraging overconfidence. *American Economic Review: Insights, 2*(3), 309-324.

Barnea, A., Cronqvist, H., & Siegel, S. (2010). Nature or nurture: What determines investor behavior? *Journal of Financial Economics, 98*(3), 583-604.
Bazerman, M. H. (1984). The relevance of Kahneman and Tversky's concept of framing to organizational behavior. *Journal of Management, 10*(3), 333-343.
Butt, H. A., & Sadaqat, M. (2019). Performance of Shari'ah based investment: Evidence from Pakistani listed firms. *Business & Economic Review, 11*(4), 133-148.
Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment, 4*(1), 5-13.
Crowe, M. L., Lynam, D. R., & Miller, J. D. (2018). Uncovering the structure of agreeableness from self-report measures. *Journal of Personality, 86*(5), 771-787.
Dickason, Z., & Ferreira, S. (2018). Establishing a link between risk tolerance, investor personality and behavioural finance in South Africa. *Cogent Economics & Finance, 6*(1), 1519898.
Durand, R. B., Koh, S., & Limkriangkrai, M. (2013). Saints versus sinners. Does morality matter? *Journal of International Financial Markets, Institutions & Money, 24*, 166-183.
Eysenck, S. B., & Eysenck, H. J. (1963). The validity of questionnaire and rating assessments of extraversion and neuroticism, and their factorial stability. *British Journal of Psychology, 54*(1), 51-62.
Fama, E. F. (1970). Efficient capital markets. *Journal of Finance, 25*(2), 383-417.
Feng, S., Chen, L., Sun, R., Feng, Z., Li, J., Khan, M. S., . . . (2019). The distribution and accessibility of urban parks in Beijing, China: Implications of social equity. *Public Health, 16*(24), 4894.
Hau, H. (2001). Location matters: An examination of trading profits. *Journal of Finance, 56*(5), 1959-1983.
Hossain, T., & Siddiqua, P. (2024). Exploring the influence of behavioral aspects on stock investment decision-making: a study on Bangladeshi individual investors. *Pacific Rim Review, 8*(2), 467-483.
Islamoğlu, M., Apan, M., & Ayvalı, A. (2015). Determination of factors affecting individual investor behaviours: A study on bankers. *International Journal of Economics and Financial Issues, 5*(2), 531-543.
Kumar, V., Dudani, R., & K, L. (2023). The big five personality traits and psychological biases: an exploratory study. *Current Psychology, 42*(8), 6587-6597.
Lim, C., Kim, K.-J., & Maglio, P. P. (2018). Smart cities with big data: Reference models, challenges, and considerations. *Cities, 82*, 86-99.
Lim, K. L. (2013). *Investment intentions: A consumer behaviour framework* [Doctoral dissertation, University of Malaya].
MacCann, C., Duckworth, A. L., & Roberts, R. D. (2009). Empirical identification of the major facets of conscientiousness. *Learning and Individual Differences, 19*(4), 451-458.
Marcantoni, W. S., Akoumba, B. S., Wassef, M., Mayrand, J., Lai, H., Richard-Devantoy, S., & Beauchamp, S. (2020). A systematic review and meta-analysis of the efficacy of intravenous ketamine infusion for treatment resistant depression: January 2009–January 2019. *Journal of Affective Disorders, 277*, 831-841.
Mok, T. S., Wu, Y.-L., Kudaba, I., Kowalski, D. M., Cho, B. C., Turna, H. Z., . . . Bondarenko, I. (2019). Pembrolizumab versus chemotherapy for previously untreated, PD-L1-expressing, locally advanced or metastatic non-small-cell lung

cancer (KEYNOTE-042): a randomised, open-label, controlled, phase 3 trial. *The Lancet, 393*(10183), 1819-1830.

Mundi, M. S., Mercer, D. F., Iyer, K., Pfeffer, D., Zimmermann, L. B., Berner-Hansen, M., . . . (2022). Characteristics of chronic intestinal failure in the USA based on analysis of claims data. *Nutrition, 46*(7), 1614-1622.

Pak, O., & Mahmood, M. (2015). Impact of personality on risk tolerance and investment decisions: A study on potential investors of Kazakhstan. *International Journal of Commerce and Management, 25*(4), 370-384.

Parveen, B., Parveen, A., Parveen, R., Ahmad, S., Ahmad, M., & Iqbal, M. (2020). Challenges and opportunities for traditional herbal medicine today, with special reference to its status in India. *Annals of Phytomedicine, 9*(2), 97-112.

Raut, R. K., Das, N., & Kumar, R. (2018). Extending the theory of planned behaviour: Impact of past behavioural biases on the investment decision of Indian investors. *Asian Journal of Business and Accounting, 11*(1), 265-291.

Ren, X., Wen, W., Fan, X., Hou, W., Su, B., Cai, P., . . . Zhang, F. (2021). COVID-19 immune features revealed by a large-scale single-cell transcriptome atlas. *Cell, 184*(7), 1895-1913.

Ricciardi, V., & Simon, H. K. (2000). What is behavioral finance? *Business, Education & Technology Journal, 2*(2), 1-9.

Richards, J. C. (2017). *Jack C Richards' 50 Tips for Teacher Development*. Cambridge University Press.

Sadaqat, M., & Butt, H. A. (2018). Modeling sentiment, temporal volatility and excess returns: Empirical evidence from segmented stock market. *SSRN*. https://doi.org/xxxx

Shefrin, H., & Statman, M. (2000). Behavioral portfolio theory. *Journal of Financial and Quantitative Analysis, 35*(2), 127-151.

Subash, R. (2012). *Role of behavioral finance in portfolio investment decisions: Evidence from India* [Doctoral dissertation, University of Delhi].

Théry, C., Witwer, K. W., Aikawa, E., Alcaraz, M. J., Anderson, J. D., Andriantsitohaina, R., . . . Atkin-Smith, G. K. (2018). Minimal information for studies of extracellular vesicles 2018 (MISEV2018): a position statement of the International Society for Extracellular Vesicles and update of the MISEV2014 guidelines. *Journal of Extracellular Vesicles, 7*(1), 1535750.

Ullah, A., Munir, S., Badshah, S. L., Khan, N., Ghani, L., Poulson, B. G., . . . Jaremko, M. (2020). Important flavonoids and their role as a therapeutic agent. *Molecules, 25*(22), 5243.

Wattanasan, P., Bhupesh, L., & Pallela, S. (2020). An explorational study on influencing factors in financial investment decisions in Thailand securities market. *International Journal of Applied Science and Technology, 29*(3), 8237-8243.

Woo, S. E., Chernyshenko, O. S., Longley, A., Zhang, Z.-X., Chiu, C.-Y., & Stark, S. E. (2014). Openness to experience: Its lower level structure, measurement, and cross-cultural equivalence. *Journal of Personality Assessment, 96*(1), 29-45.

Worawachtanakul, P., Likitapiwat, T., & Lawsirirat, C. (2018). Supporting the understanding investor behavior and the effective communication. *Journal of Humanities and Social Sciences, 15*(Special Issue 1), 95-100.

Zhang, H., Wu, C., Zhang, Z., Zhu, Y., Lin, H., Zhang, Z., . . . Manmatha, R. (2022). Resnest: Split-attention networks. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition* (pp. 2736-2746).