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**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 explores the influence of the Big Five personality traits—extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience on individual investment decisions, with investor behavior serving as a mediating variable. Bridging the disciplines of psychology and finance, the research examines how inherent personality characteristics impact financial behavior and decision-making outcomes. A structured questionnaire was administered to 240 individual investors in Pakistan to collect primary data, and mediation analysis was conducted using the Process Macro in SPSS (Model 4). The results reveal that while all five traits directly affect investment decisions, only Conscientiousness and Neuroticism exhibit statistically significant indirect effects through investor behavior. These findings underscore the importance of psychological factors in shaping financial decisions and offer valuable insights for financial advisors, policymakers, and behavioral finance researchers. The study highlights the potential of personality-informed investment strategies to improve decision quality and investor outcomes in emerging markets.

**Keywords:** Big Five Personality Traits, Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness to Experience, Investor Behavior, Investment Decision-Making, Mediation Analysis, SPSS.

**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).

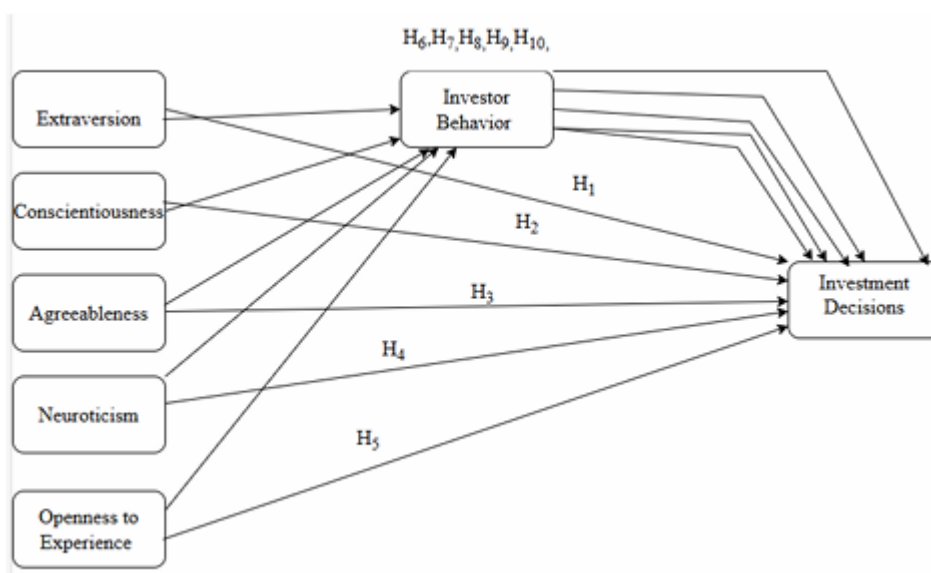
### **2.5 Efficient Market Hypothesis (EMH)**

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 Trait Theory** Trait Theory suggests that individuals possess enduring personality characteristics that consistently influence behavior across various situations. Costa, McCrae, and research (1999) These traits are considered stable over time and can meaningfully predict individual differences in risk perception, emotional responses, and investment preferences. In the context of financial decision-making, various studies have demonstrated the influence of personality traits on investor behavior. For example, Mayfield, Perdue, and Wooten (2008) showed that extraversion and openness are associated with a higher willingness to take investment risks, while neuroticism leads to risk aversion and market 13 anxiety. These findings confirm that personality traits serve as key predictors in shaping investor profiles and financial risk tolerance.

## 2.6 Theoretical model



**Figure 2.1:** Theoretical model

## 2.7 Hypotheses

H1: Extraversion significantly influences investment decision.

H2: Conscientiousness significantly influences investment decision.

H3: Agreeableness significantly influences investment decision.

H4: Neuroticism significantly influences investment decision.

H5: Openness to Experience significantly influence investment decision.

H6: Investor behavior mediate the relationship between extraversion and investment decision

H7: Investor behavior mediates the relationship between conscientiousness and investment decision

H8: Investor behavior mediate the relationship between agreeableness and investment decision

H9: Investor behavior mediates the relationship between neuroticism and investment

decision

H10: Investor behavior mediate the relationship between openness to Experience and investment decision

### 3. Methodology

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. 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 considered for this investigation. 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. 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. 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.

### 4. Results and Analysis:

In this study, the SPSS PROCESS macro developed by Andrew F. Hayes was employed to conduct mediation analysis, providing a robust framework to examine the indirect relationships among variables. Specifically, the Big Five personality traits—openness, conscientiousness, extraversion, agreeableness, and neuroticism—served as the independent variables. Investor behavior was introduced as the mediating variable, while the dependent variable was investment decision-making. PROCESS allowed the researchers to test whether and to what extent investor behavior mediated the effect of each personality trait on investment decisions. The analysis used bootstrapping techniques to generate confidence intervals for the indirect effects, offering a more accurate and reliable interpretation of the mediation paths. This approach enabled a nuanced understanding of how individual personality characteristics may influence investment choices through their impact on investor behavior.

#### 4.1.1 Multivariate Normality

One of the main requirements for PROCESS is multivariate normality. This assumption guarantees that the model's variables—such as personality traits and investing behavior—are regularly distributed.

**Table 4.1****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

**4.2 Pearson Correlation****Table 4.2****Correlations (N=245)**

Constructs		EX	CO	AG	NE	OE	ID	IB
EX	Pearson Correlation	1	.358*	.062	.242*	.254*	.022	.290**
	Sig. (2-tailed)		.000	.333	.000	.000	.729	.000
CO	Pearson Correlation	.358**	1	.152*	.359*	.433*	-.015	.383**
	Sig. (2-tailed)	.000		.017	.000	.000	.821	.000
AG	Pearson Correlation	.062	.152*	1	.086	.083	.160*	.125
	Sig. (2-tailed)	.333	.017		.178	.196	.012	.051
NE	Pearson Correlation	.242**	.359*	.086	1	.270*	.012	.202**
	Sig. (2-tailed)	.000	.000	.178		.000	.858	.002
OE	Pearson Correlation	.254**	.433*	.083	.270*	1	-.002	.315**
	Sig. (2-tailed)			.196				

ID	Sig. (2-tailed)	.000	.000	.196	.000		.977	.000
	Pearson Correlation	.022	-.015	.160*	.012	-.002	1	.118
IB	Sig. (2-tailed)	.729	.821	.012	.858	.977		.065
	Pearson Correlation	.290**	.383*	.125	.202*	.315*	.118	1
	Sig. (2-tailed)	.000	.000	.051	.002	.000	.065	

### 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 (CR)	Reliability 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

### 4.3 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	25.7%
	39-49	25.5%
	49-69	24.4%
	70 Above	12.6%
Monthly Income	Below 1 Lac	19%
	1 Lac to 5 Lac	32.8%
	5 Lac to 10 Lac	31.3%
	More than 10 Lac	16.9%

<b>Business Type</b>	Real Estate and Mutual Funds	15.6%
	Stock Market and Cryptocurrency	35.7%
	E-Commerce and Online Businesses	31.5%
	Others	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
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H1	Extraversion significantly influences investment decision.	Supported
H2	Conscientiousness significantly influences investment decision.	Supported
H3	Agreeableness significantly influences investment decision.	Supported
H4	Neuroticism significantly influences investment decision.	Supported
H5	Openness to Experience significantly influences investment decision.	Supported
H6	Investor behavior mediate the relationship between extraversion and investment decision.	Unsupported
H7	Investor behavior mediates the relationship between conscientiousness and investment decision.	Supported

H8	Investor behavior mediate the relationship between agreeableness and investment decision.	Unsupported
H9	Investor behavior mediates the relationship between neuroticism and investment decision.	Supported
H10	Investor behavior mediate the relationship between openness and investment decision.	Unsupported

[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.

- Islamoglu, M., Apan, M., & Ayvali, 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).