



# How Does Loss Aversion Mediate the Relationship Between Personality Traits and Efficiency of Skills in Investment Decision-Making?

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## ABSTRACT

This study examines how loss aversion mediates the connection between personality factors and the effectiveness of investment decision-making skills among individual investors at the Colombo Stock Exchange. This research challenges the neoclassical paradigm that presumes investor rationality. Instead, it accords with behavioural finance, which emphasizes deviations from rationality in both beliefs and preferences. Using Prospect Theory as a framework, this study examines how the five major personality traits -conscientiousness, extraversion, agreeableness, neuroticism, and openness to experience influence investment decision-making. Analyzing data from 351 investors, a structured questionnaire and purposive sampling were used. The analysis was conducted using Structural Equation Modelling with SmartPLS4. The results demonstrate notable correlations: individuals with a higher level of openness to experience and agreeableness tend to have a positive impact on their investment decision-making, whereas extraversion, openness to experience, and conscientiousness are highly associated with loss aversion. Loss aversion plays a crucial role in connecting extraversion, conscientiousness, and openness to experience with investment decision-making. This study enhances the field of behavioural finance by providing a detailed understanding of how personality traits and loss aversion influence investing choices.

**Keywords:** Efficiency of Skills, Investment Decision-making, Loss Aversion, Personality Traits

**JEL Classifications:** D81, D91, G41

## 1. INTRODUCTION

Throughout its history, finance has undergone significant improvement and transformation, driven by the exploration and establishment of numerous theories and models. Neoclassical finance, a pivotal theory within the domain of financial markets, has profoundly shaped the understanding of the financial landscape and serves as the foundation for modern financial theory (DeLong et al., 1990). In a market-driven economy, neoclassical economics emphasizes rational decision-making by individuals and corporations and posits the existence of unlimited arbitrage opportunities. Under the neoclassical finance framework, it is assumed that investor preferences align with the principles of

expected utility theory, where expectations are derived from probability beliefs represented by probability distributions (Nanayakkara et al., 2019). When investors receive new information, they update their beliefs using Bayesian updating and form their preferences based on Von Neumann and Morgenstern's (1944) utility theory to maximize their expected utility according to neoclassical theory. However, despite the apparent straightforwardness of the neoclassical framework, understanding financial phenomena within this paradigm has proven challenging (Barberis and Thaler, 2002). Over time, researchers and scholars have studied the assumptions underlying neoclassical finance, leading to the development of alternative theories and models that address the complexities and limitations of real-world markets.

## 2. LITERATURE REVIEW

Behavioural finance emerged in response to the difficulties encountered by the neoclassical paradigm in explaining financial occurrences. Behavioural finance asserts that human psychology significantly influences investor decisions and that economic agents do not always act rationally (Kahneman and Tversky, 1979). Consequently, individuals may make decisions affected by psychological biases and heuristics (DeLong et al., 1990). The Big Five Trait Theory has demonstrated considerable efficacy in the field of behavioural finance, investigating the psychological determinants that influence individuals' financial decision-making processes (Babiarz and Robb, 2014). Recent scholarly work has increasingly utilized personality traits and various psychological factors to assess risk aversion and investment decision-making (Perera, 2016; Nirmali and Buvanendra, 2021; Buddhika and Ediriwickrama, 2022). The Big Five Trait Theory, also known as the Five-Factor Model (FFM), was developed through the collaborative efforts of numerous psychologists over several decades. Gordon Allport, a prominent figure in this discipline, introduced a threefold factor model in 1936 (Allport, 1937). Raymond Cattell further developed and expanded Allport's earlier work in the 1940s, identifying five fundamental personality traits (Cattell, 1943)). These widely accepted traits include extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience.

Extraversion is characterized by traits such as sociability, energy, and a propensity for seeking excitement. Agreeableness reflects attributes like trust, straightforwardness, and modesty. Conscientious individuals are efficient, organized, and exhibit self-discipline. In contrast, neuroticism is associated with anxiety, hostility, and depression. Finally, openness to experience encompasses broad interests, original ideas, and an unconventional approach to life (Nirmali and Buvanendra, 2021).

While the relationship between personality traits and financial decision-making has been extensively studied within the field of behavioral economics on a global scale, there is a noticeable gap in the literature regarding the role of loss aversion in investment decisions. Aren et al. (2021) explored this role by treating loss aversion as a moderating variable, using a scale they developed to measure loss aversion. However, they acknowledged that the low reliability of this scale compromised their findings, leading them to recommend the development of a more reliable measure for future research. In response, the present study utilizes a validated scale developed by Li et al. (2021) to measure loss aversion. Additionally, as Aren et al. (2021) did not find a moderating effect of loss aversion on the relationship between personality traits and risky investment intentions, this study aims to fill this knowledge gap by investigating the mediating impact of loss aversion on the relationship between personality traits and the efficiency of skills in investment decision-making—a topic that has received limited attention in behavioural finance. Accordingly, this research attempts to address the following research questions.

- RQ1: What is the relationship between personality traits and the efficiency of skills in investment decision-making of Sri Lankan stock market investors?
- RQ2: Does loss aversion mediate the relationship between personality traits and efficiency of skills in investment decision-making of Sri Lankan stock market investors?

The Prospect Theory, introduced by Kahneman and Tversky in 1979, has emerged as a pivotal descriptive theory in the field of behavioural finance. This theory challenges classical economic theories, which assume that individuals are rational actors driven solely by the desire to maximize value. According to Prospect Theory, individuals assess prospective events by considering perceived gains and losses relative to a reference point, rather than evaluating them in absolute terms (Kahneman and Tversky, 1979). Notably, the theory posits that humans exhibit risk aversion regarding potential profits while displaying risk acceptance concerning potential losses. Furthermore, the theory emphasizes the significant role of how decisions are framed relative to a reference point (Levy, 1992).

The primary objective of Prospect Theory is to succinctly express individuals' risk attitudes (Nanayakkara et al., 2019). According to the theory, investors tend to exhibit an aversion to losses rather than a consistent aversion to risk (Kahneman and Tversky, 1979). Specifically, individuals display risk-averse behaviour when faced with potential rewards, while they exhibit risk-seeking behaviour when confronted with potential costs. In behavioural economics, it is observed that profits and losses are not perceived equally, with losses having a greater psychological impact than gains—a phenomenon known as “loss aversion.” Prospect Theory has contributed to a more comprehensive and realistic understanding of human behaviour by elucidating the psychological aspects underlying decision-making processes. The present study seeks to uncover the subtle interplay between the Big Five personality traits—conscientiousness, extraversion, agreeableness, neuroticism, and openness to experience—and investment decision-making in the presence of loss aversion behaviour.

Individuals who are open to experience exhibit traits such as intellectual curiosity, emotional receptiveness, aesthetic sensitivity, and a willingness to engage in novel experiences. Such individuals tend to show heightened creativity and emotional awareness (Jiang et al., 2024). Those demonstrating conscientiousness exhibit a notable level of self-discipline, a strong sense of duty and responsibility, and actively strive to meet external expectations in their pursuit of accomplishment. Research in psychology has established that conscientiousness is a robust predictor of job success, carrying approximately half the significance of IQ (Almlund et al., 2011).

Extraverted personalities commonly seek public engagement and rely on authority for guidance in decision-making processes (Sims, 2016). Investors with high levels of extraversion tend to access a greater quantity of market knowledge through their expansive social networks, resulting in increased confidence in their investment decisions and a higher frequency of trading activities (Pompian and Longo, 2004). Individuals with high levels of agreeableness tend to accept information without critical evaluation (Heinstrom, 2010). According to Eisen et al. (2013), these individuals' lack of curiosity and critical thinking leads them to readily accept inaccurate information, possibly resulting in herd behaviour and excessive trading (Tauni et al., 2015).

Neuroticism is characterized by emotional instability and vulnerability to psychological distress (Schneider, 2004). More neurotic individuals exhibit less dependable and consistent emotional reactions. They tend to display a casual and unconcerned attitude when expressing their emotions and perceive everyday occurrences as potentially menacing, while minor inconveniences are viewed as significant challenges (Widiger and Oltmanns, 2017).

Research on behavioural finance within the Sri Lankan context reveals several factors influencing investor decision-making at the Colombo Stock Exchange (CSE) and beyond. Kengatharan and Kengatharan (2014) identified four behavioural aspects—Herding, Heuristics, Prospect, and Market—that affect individual investors. The anchoring variable from heuristics emerged as highly influential, while the stock choice variable from herding showed minimal influence.

Perera (2016) examined the impact of gender attitudes on investor behaviour, highlighting that male investors often lack a well-defined investment strategy despite recognizing the importance of investing in the CSE. Gender attitudes significantly affect cognitive and emotional factors, influencing overall investor behaviour. Subramaniam and Velampy (2017) further identified biases such as Representativeness, Overconfidence, Availability, Loss Aversion, Regret Aversion, and Herding among household investors in the Northern Province.

Additional studies have explored various behavioural characteristics. Siraji and Buwanendra (2019) found that anchoring, disposition effect, overconfidence, and risk perception significantly impact CSE investors' decisions, with gender playing a crucial moderating role. Rajeshwaran (2020) discovered that heuristics positively correlate with investment performance, while prospect, market, and herding factors negatively correlate. Dharmasena et al. (2021) noted that market knowledge does not significantly influence investment decisions, and loss aversion negatively affects these decisions.

Further, Nirmali and Buwanendra (2021) demonstrated that personality traits like extraversion and agreeableness notably impact stock investment decisions, mediated by financial self-efficacy. Siraji et al. (2021) highlighted the influence of irrational behaviours such as anchoring and disposition effects on investment decisions, with significant gender differences.

Lastly, studies by Darsha and Sameera (2022) and Buddhika and Ediriwickrama (2022) emphasized the role of contextual determinants and psychological factors on investor behaviour during the COVID-19 pandemic and in general, respectively. Thuraisingam et al. (2022) explored the relationship between financial behaviour and well-being, noting a negative correlation with risk tolerance. Tennekoon and Liyanage (2023) identified a strong inclination towards risk aversion and Type A behaviour traits among investors, highlighting the significant influence of these traits on investment decisions.

While substantial research has been conducted on behavioural biases and cognitive factors affecting investment choices, there

remains a gap in understanding the specific impact of the Big Five personality traits and the moderating role of loss aversion in Sri Lanka.

A study by Aren et al. (2021) suggests that investors with higher levels of loss aversion may exhibit more cautious and conservative behaviours, even if they possess risk-seeking traits. The pleasure derived from gains, which pertain to the satisfaction and excitement from positive investment outcomes, can also moderate the relationship between personality traits and investment decisions. Investors who derive greater pleasure from gains might be more inclined to take risks, despite possessing traits that typically discourage such behaviour. Consequently, the intricate interplay between an investor's personality traits, their level of loss aversion, and the pleasure and pain associated with gains and losses collectively shape the complex landscape of investment decision-making. This nuanced relationship has not been sufficiently explored within the Sri Lankan context, prompting this study to investigate the interaction between personality traits and investment decision-making efficiency in the presence of loss aversion behaviour.

Accordingly, the following hypotheses have been developed for determining the relationship between personality traits and investment decision-making.

- H<sub>1a</sub>: There is a significant relationship between the Big Five Personality traits and the efficiency of skills in investment decision-making.
- H<sub>1b</sub>: There is a significant relationship between the Big Five Personality traits and the loss aversion behaviour of individual investors.
- H<sub>1c</sub>: The loss aversion behaviour of investors mediates the relationship between the Big Five personality traits and the efficiency of skills in investment decision-making.

### 3. METHODOLOGY

This research delves into the realm of positivist research philosophy, employing a research strategy that integrates descriptive research with a deductive and quantitative approach. The study adopts a cross-sectional time horizon. The population under consideration of the study is the investors who are actively engaged in stock market investments in the Colombo Stock Exchange, Sri Lanka. As obtaining data from the entire population is often impractical due to constraints such as time, cost, and resources, the present study utilizes a purposive sampling technique (Gayathree and Samarasinghe, 2019). 351 of sample size was determined fulfilling the analytical requirement of SmartPLS 4 which says sample size should at least equal to number of indicators times ten (indicators of the study × 10) (Hair et al., 2011). The primary instrument employed for data collection is the questionnaire survey. The data mostly collected consists of primary data, which predominantly pertains to the perceptions of the respondents. The study distributed the questionnaire via an electronic format contacting stock brokering companies and personal contacts of stock market investors. The questionnaire consisted of demographic factors, variables of the study, and their measurement items. The measurement scales for the study

were drawn from existing literature that was validated. All the indicators of the constructs were measured employing a five-point or seven-point Likert scale, which ranges from strongly disagree to strongly agree.

For the analysis, the data was processed using the statistical software SmartPLS4. This software is specifically designed for Partial Least Squares Structural Equation Modelling (PLS-SEM), which is a variance-based SEM technique. Structural Equation Modelling (SEM) is a comprehensive statistical approach used for testing hypotheses about relationships among observed and latent variables. According to Klem, as cited in Nusair and Hua (2010), SEM allows researchers to measure latent constructs, which are variables that are not directly observed but are inferred from other variables measured in the study. Additionally, SEM evaluates the hypothesized correlations between these constructs, providing a robust method for understanding complex relationships. The conceptual framework (Figure 1) of the study is developed using a well-established trait theory of personality to depict the particular personality trait’s intensity to affect investment decision-making. The theory of personality traits is used to identify the construct “personality traits” based on the five-factor model which has: extraversion, agreeableness, conscientiousness, neuroticism, and openness. As per Figure the relationship between personality traits and investment decision making proposed to have a mediating impact from the investor’s level of loss aversion.

The operationalization Table 1 shows the measurement matrix or measurement table, which is a research tool used to mark and arrange operational definitions and related measurements or methods. It provides an organized and methodical overview of how each variable in a study is measured or operationalized.

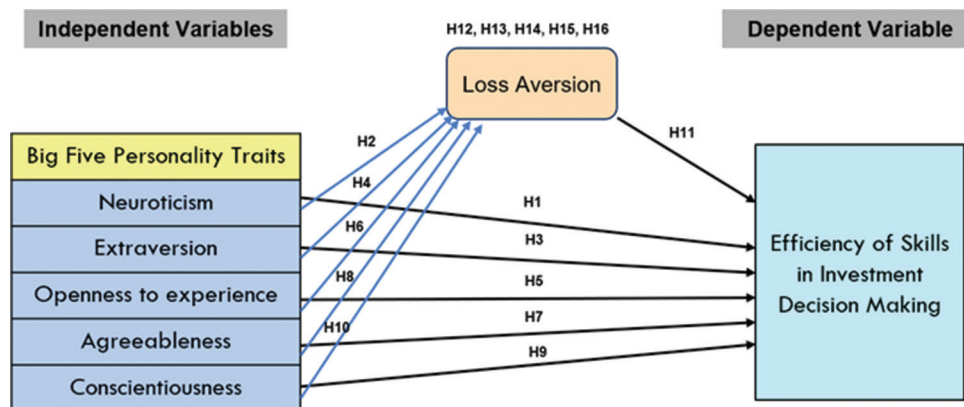
#### 4. FINDINGS AND DISCUSSION

The demographic analysis (Table 2) of the provided dataset demonstrates a heterogeneous composition across various demographic parameters pertinent to stock investment involvement. Notably, the age distribution exhibits a predominance of individuals aged between 21 and 30 years, representing 23.6% of the surveyed population, followed by those aged 31-49 (23.1%) and 31-40 (21.9%).

Gender-wise, the sample tilts slightly towards females, comprising 60.1% of the total respondents, whereas males account for 39.9%. Educationally, the majority of participants hold a degree (39.6%), followed by postgraduate qualification (28.2%), indicating a relatively high level of educational attainment among the cohort. Regarding investment experience, the data showcases a significant proportion of individuals with more than 5 but <10 years of experience (38.5%), closely trailed by those with more than 1 but <5 years (34.2%).

The present study is a factor model with formative indicators. The study contains seven constructs including five independent variables, a dependent variable and a mediating variable. In this study, the indicators cause to change in the latent construct (Hair et al., 2011). The indicators are represented in the model, using a single single-headed arrow pointing towards the latent construct inward from the indicators (Hair et al., 2011). Therefore, the indicators are said to be formative. Measurement model analysis and structural model analysis are the two phases of the Structural Equation Model (SEM) (Hair et al., 2011). The structural model, also called the inner model in PLS-SEM, describes the relationships between the latent variables. The Measurement model describes the relationships between the latent variables and their measures (i.e., their indicators). There are two types of measurement models in the context of PLS-SEM (Hair et al., 2011). Reflective measurement models and formative measurement models. The present study used a formative measurement model. The assessment of the measurement model has been done based on, individual item reliability; internal consistency reliability; convergent validity, and discriminant validity. A common method bias test is conducted with the purpose of assessing the bias that exists in the measurement method. Several statistical methods can be used to evaluate common method bias (Jakobsen and Jensen, 2015). One popular approach is Harman’s single-factor test, which differs from other statistical techniques in that it focuses on detecting bias rather than controlling it (Jakobsen and Jensen, 2015). Table 3 shows the presence of thirty-five (35) components, which exceeds the expected number of factors, with the first factor accounting for 11.992 % of the variance, which is less than the 50% criterion. Moreover, the cumulative variance of the dataset amounts to 34.263%, completing the 50% benchmark. As such, it is evident that there is no any common method bias associated with the data set.

Figure 1: Conceptual framework



Source: Author constructed

**Table 1: Indicators and measurement of variables**

Variable (s)	Definition	Indicators	Author (s)
Extraversion	Indicate assertiveness, sociability, talkativeness, optimism, and being upbeat and energetic	1. I really enjoy talking to people. 2. I often feel as if I'm bursting with energy. 3. I am a cheerful, high-spirited person. 4. I am a very active person.	Mayfield et al. (2008)
Agreeableness	Indicate altruism, personal warmth, sympathy towards others, helpfulness, and cooperation	1. I often get into arguments with my family and co-workers.* 2. Some people think I'm selfish and egotistical.* 3. Some people think of me as cold and calculating.* 4. I generally try to be thoughtful and considerate.	Mayfield et al. (2008)
Conscientiousness	Indicate purposefulness, being strong willed, determination, organization, reliability, and punctuality	1. I keep my belongings neat and clean. 2. I'm pretty good about pacing myself so as to get things done on time. 3. I waste a lot of time before settling down to work.* 4. Sometimes I'm not as dependable or reliable as I should be.* 5. I never seem to be able to get organized.*	Mayfield et al. (2008)
Neuroticism	Indicate tenseness, moodiness, anxiety, and insecurity	1. I often feel inferior to others. 2. When I'm under a great deal of stress, sometimes I feel like I'm going to pieces. 3. I often feel tense and jittery. 4. Sometimes I feel completely worthless. 5. Too often, when things go wrong, I get discouraged and feel like giving up.	Mayfield et al. (2008)
Openness to experience	Indicate an active imagination, aesthetic sensitivity, a preference for variety, intellectual curiosity, and broad cultural interest	1. I am intrigued by the patterns I find in art and nature. 2. I often try new and foreign foods. 3. I have little interest in speculating on the nature of the universe or the human condition.* 4. I have a lot of intellectual curiosity. 5. I often enjoy playing with theories or abstract ideas.	Mayfield et al. (2008)
Loss Aversion	A sure gain is preferred over a probabilistic gain, and a probabilistic loss is preferred over a sure loss.	1. Preference for loss over gain 2. Focus on failure and success 3. Focus on the time a loss or gain stays	Li et al., (2021)
Efficiency of Skills in Investment Decision Making	A process of making choices that allocate financial resources to obtain the maximum possible return.	1. Utility maximization 2. Forecasting 3. Consider all available information	Sarwar and Afaf (2016)

**Table 2: Demographic analysis**

Demographic profile	Number of respondents	Percentage
Age		
<20	50	14.2
Between 21 and 30	83	23.6
Between 31 and 40	77	21.9
Between 41 and 49	81	23.1
50 and above	60	17.1
Total	351	100.0
Gender		
Male	140	39.9
Female	211	60.1
Total	351	100
Education		
GCE OL	37	10.5
GCE AL	76	21.7
First Degree	139	39.6
Postgraduate Qualification	99	28.2
Total	351	100.0
Investment Experience		
More than 1 year but <5 years	120	34.2
More than 5 years but <10 years	135	38.5
More than 10 years but <20 years	72	20.5
More than 20 years	24	6.8
Total	351	100.0

Source: Survey Data

Hair et al. (2014) specify that outer measurement models need to be evaluated with reliability (composite reliability and outer loadings) and validity (convergent and discriminant validity). Accordingly, composite reliability is above 0.70 (Table 4) and the factor loadings also are above 0.50. Ringle et al. (2012) mentioned that in terms of evaluating reflective outer models, convergent and discriminant validity should be assessed. In order to ensure convergent validity (Table 4), the average variance extracted (AVE) can be used and to assess discriminant validity (Table 5), the Fornell–Larcker criterion can be applied. The convergent validity of the constructs was above 0.5. Fornell–Larcker criterion says that the AVE of a construct should be higher than the squared value of correlation with another construct (Ringle et al., 2011). AVE is observed along the diagonal of the matrix whilst, that value is compared with other correlation values of the construct, which met the criteria specified above.

Considering the outer measurement is established, the next step is to assess the structural model. The assessment of the structural (inner) model is done in accordance with the criteria specified by Henseler et al. (2015). Hair et al. (2011) specify that R squared and adjusted R squared values are weak, moderate and substantial for 0.25, 0.50 and 0.75 respectively (Hair et al., 2011). Further, path

**Table 3: Harma's single-factor test**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.992	34.263	34.263	11.992	34.263	34.263
2	2.513	7.179	41.442			
3	2.003	5.722	47.164			
4	1.630	4.657	51.821			
5	1.145	3.273	55.094			
6	1.119	3.196	58.290			
7	1.005	2.871	61.161			
8	0.909	2.598	63.760			
9	0.863	2.467	66.226			
10	0.760	2.170	68.396			
11	0.740	2.116	70.512			
12	0.685	1.958	72.470			
13	0.666	1.902	74.373			
14	0.628	1.793	76.166			
15	0.617	1.762	77.928			
16	0.590	1.687	79.615			
17	0.574	1.641	81.255			
18	0.540	1.544	82.799			
19	0.525	1.499	84.298			
20	0.510	1.456	85.755			
21	0.474	1.353	87.108			
22	0.463	1.323	88.431			
23	0.439	1.253	89.684			
24	0.433	1.236	90.920			
25	0.393	1.124	92.044			
26	0.365	1.043	93.087			
27	0.361	1.033	94.120			
28	0.338	0.965	95.085			
29	0.312	0.893	95.978			
30	0.295	0.843	96.821			
31	0.281	0.803	97.624			
32	0.263	0.750	98.374			
33	0.235	0.671	99.045			
34	0.216	0.616	99.662			
35	0.118	0.338	100.000			

Source: Survey Data

**Table 4: Reliability tests**

Variable	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
NE	0.787	0.797	0.853	0.538
EX	0.779	0.782	0.858	0.601
OP	0.795	0.798	0.859	0.551
AG	0.833	0.855	0.888	0.667
CO	0.788	0.789	0.855	0.543
LS	0.886	0.894	0.91	0.562
DM	0.832	0.835	0.888	0.665

Source: Survey Data

coefficients shall also be significant at a 10% significance level ( $P < 0.10$ ). According to Ringle et al. (2011), the researcher can select between 10%, 5% or 1%.

There are two endogenous (dependent variable) constructs of the current study; loss aversion and efficiency of skills in investment decision-making. The coefficient of determination ( $R^2$ ) value of efficiency of skills in investment decision-making is 0.562, indicating that there is a satisfactory level of explanatory power in the model to the efficiency of skills in investment decision-making. Similarly, the coefficient of determination ( $R^2$ ) value of loss aversion is 0.750, indicating a good level of explanatory power in the model of loss aversion.

The path coefficients and the significance levels are reported in Table 6 which is related to  $H_1$ ,  $H_2$ ,  $H_3$ ,  $H_4$ ,  $H_5$ ,  $H_6$ ,  $H_7$ ,  $H_8$ ,  $H_9$ ,  $H_{10}$ , and  $H_{11}$  (Figure 2). The analysis shows that,  $EX \rightarrow LS$ ,  $OP \rightarrow DM$ ,  $OP \rightarrow LS$ ,  $AG \rightarrow DM$ ,  $CO \rightarrow LS$ , and  $LS \rightarrow DM$  are significant.

Accordingly, the significance of the indirect effect between the two variables with the mediating impact was assessed in the PLS path model (Hair et al., 2014). If the generated result of the indirect effect is not significant, there is no effect (Hair et al., 2014). Similarly, if the generated result of the indirect effect is significant, the process is further proceeded by testing the significance of the direct effect in the PLS path model with the mediating variable (Hair et al., 2014). There is no mediation when the generated

**Table 5: Fornell–Larcker criterion**

	NE	EX	OP	AG	CO	LS	DM
NE	0.733						
EX	-0.412	0.775					
OP	-0.407	0.633	0.742				
AG	-0.141	0.34	0.311	0.816			
CO	-0.39	0.478	0.528	0.302	0.737		
LS	-0.444	0.765	0.738	0.33	0.559	0.75	
DM	-0.305	0.591	0.64	0.45	0.49	0.695	0.816

Source: Survey Data

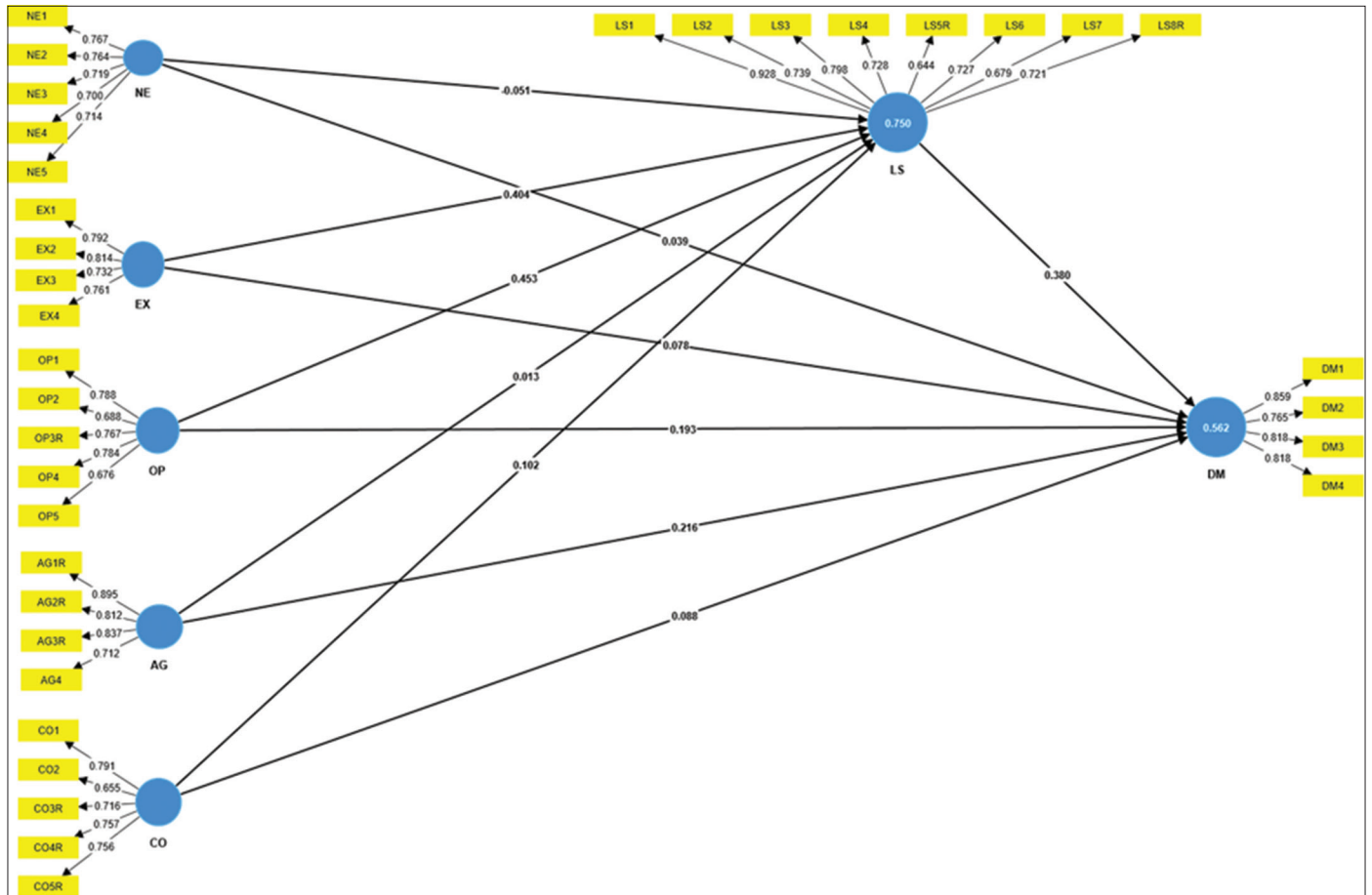
**Table 6: Analysis of hypothesis**

Hypotheses	Path	Path Coefficients (β)	T Statistics	P-values	Decision
H <sub>1</sub>	NE -> DM	0.039	0.849	0.396	Not Supported
H <sub>2</sub>	NE -> LS	-0.051	1.532	0.125	Not Supported
H <sub>3</sub>	EX -> DM	0.078	1.149	0.251	Not Supported
H <sub>4</sub>	EX -> LS	0.404	8.814	0.000	Supported
H <sub>5</sub>	OP -> DM	0.193	2.896	0.004	Supported
H <sub>6</sub>	OP -> LS	0.453	9.243	0.000	Supported
H <sub>7</sub>	AG -> DM	0.216	5.014	0.000	Supported
H <sub>8</sub>	AG -> LS	0.013	0.444	0.657	Not supported
H <sub>9</sub>	CO -> DM	0.088	1.605	0.109	Not supported
H <sub>10</sub>	CO -> LS	0.102	2.932	0.003	Supported
H <sub>11</sub>	LS -> DM	0.380	4.813	0.000	Supported

Source: Survey Data

NE: Neuroticism, EX: Extraversion, OP: Openness to experience, AG: Agreeableness, CO: Conscientiousness, LS: Loss Aversion, DM: Efficiency of skills in investment decision-making

**Figure 2: Hypothesis testing**



Source: Survey Data

**Table 7: Mediation analysis**

Total Effect				Direct effect			Hypothesis	Indirect Effect		
	Coefficient	T-value	P-value	Coefficient	T-value	P-value		Coefficient	T-value	P-value
NE -> DM	0.019	0.411	0.681	0.039	0.849	0.396	H <sub>12</sub> :NE->LS->DM	-0.019	0.411	0.681
EX -> DM	0.232	3.989	0.000	0.078	1.149	0.251	H <sub>13</sub> :EX->LS->DM	0.154	4.767	0.000
OP -> DM	0.365	6.184	0.000	0.193	2.896	0.004	H <sub>14</sub> :OP->LS->DM	0.172	3.865	0.000
AG-> DM	0.221	5.195	0.000	0.216	5.014	0.000	H <sub>15</sub> :AG->LS->DM	0.005	0.438	0.661
CO-> DM	0.127	2.313	0.021	0.088	1.605	0.109	H <sub>16</sub> :CO->LS->DM	0.039	2.402	0.016

result of the indirect effect is insignificant, but the direct effect is significant (Hair et al., 2014). When the generated result of indirect effect is significant, it is required to identify the type of mediation.

Accordingly, the results of the mediation analysis (Table 7) revealed that the NE trait does not have any direct or indirect influence on DM. LS plays a full mediation role between EX personality trait and DM. Moreover, the results confirm the complementary partial mediating role of LS in the relationship between OP and DM. Furthermore, the results of the present study reveal that there is no any mediation role of LS in the relationship between AG and DM and only a direct relationship exists between the AG personality trait and DM. Additionally, the results of the present study confirm a full mediation role played by LS in the relationship between CO and DM as there is only an indirect relationship exists between the CO and DM.

The scarcity of extant literature has hindered the identification of empirical evidence capable of validating these findings. This underscores the imperative for future researchers to delve deeper into the relationship, particularly focusing on the mediating role of loss aversion in the relationship between personality traits and the efficiency of skills in investment decision-making. The research conducted by Aren et al. (2021) investigated the moderating role of loss aversion in the relationship between personality traits and risky investment intention. Their findings suggest the absence of any moderating effect of loss aversion on the relationship between personality traits and risky investment intention. However, the present study corroborates the assertion that loss aversion adopts a mediating role between several personality types, specifically extraversion, openness, conscientiousness, and the efficiency of skills in investment decision-making.

## 5. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

The efficiency of investment decision-making differs according to the personality traits and individuals' behaviour regarding loss aversion. Aren et al. (2021) conducted research on the moderation effect of pleasure-seeking and loss aversion in the relationship between personality traits and risky investment intention, the researcher separately analysed pleasure-seeking and loss aversion. However, the present study used loss aversion as one mediator as the Prospect theory introduced by Kahneman and Tversky (1979) referred to loss aversion as a unique utility function that explains both risk aversion in the context of gains and risk-seeking behaviour in the context of loss.

As explained earlier the present study reveals that openness to experience and agreeableness personality traits showcased a significant direct relationship with investment decision making. Moreover, it was concluded that the loss aversion behaviour of individual investors plays a full mediation role between extraversion and investment decision making, and conscientiousness and investment decision-making further a partial mediating role between Openness to experience and investment decision-making.

Despite its contributions, this study has certain limitations that suggest avenues for further research. Firstly, the scope was confined to exploring only the BFPT, overlooking other potential predictors of investors' intentions under psychological or behavioural models. Future studies could expand upon this by incorporating additional predictors to provide a more comprehensive understanding of investor behaviour. Secondly, employing multi-group analysis to assess the moderating effect of demographic factors such as age, gender, literacy level, and income groups could offer valuable insights into how these variables influence the relationship between personality traits and investment intentions. Moreover, the cross-sectional nature of the study's questionnaire introduces subjectivity and limits the reliability of results over time. Longitudinal research is therefore recommended to track changes in investors' decisions and examine the translation of behavioural intentions into actual behaviour. Lastly, the study's reliance on a purposive sample restricts the generalizability of findings. Future investigations utilizing random sampling and conducting cross-country comparisons can enhance the external validity of the study's findings. Addressing these limitations will strengthen the robustness and applicability of research findings in understanding investor behaviour and informing financial decision-making processes.

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