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FINANCIAL EFFICACY AND INVESTMENT DECISION

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Abstract

This study examines the impact of financial self-efficacy on the decision-making process within the Pakistani stock exchange. Data was collected from a sample of 500 individual investors in the Pakistan Stock Exchange (PSX) through a survey instrument. The overall dataset was analyzed using covariance-based structural equation modeling. The results indicate that financial self-efficacy and three emotional biases—regret aversion bias, status quo bias, and endowment bias—mediate the relationship between personality traits and individual investment decision-making. Additionally, the findings show that extroversion and neuroticism have significant negative effects on investment decisions and financial self-efficacy, respectively. The study suggests that investors who exhibit deliberative and optimistic thinking are more likely to make informed investment decisions, possess higher financial self-efficacy, and tend to save their money effectively.

INTRODUCTION

decisions on accessible market information, as evident by the efficient market theory of Fama (1970) and Markowitz's portfolio theory (1952). The fundamental notion of these conventional finance theories is that the market information regarding investment is readily and perfectly available to all individual investors. Thus, individual investors' entire investment decision is considered reasonable (Sadiq & Amna, 2019). In contrast, behavioural finance theories, including cognitive dissonance and prospect theory, question the investment decision's rationality since the individual investors have limited market knowledge (Ricciardi & Simon, 2000).

Thus, individual investors make unscrupulous investment decisions that are influenced by personal and psychological biases (Kourtidis et al., 2011).

Scholars argue that investors usually face challenges while making investment decisions since it requires effort and sufficient time to

assess distinct choices wisely. To individual investors, subjectively assessing the choices and investing is comparatively easier than following complex procedures to evaluate and select systematically among distinct investment choices (Ibbotson et al., 2018). Furthermore, according to prospect theory, investors are driven by their relentless biases stimulated by psychological attributes when investing in the stock market, particularly under uncertain conditions (Ricciardi & Simon, 2000). Personality is the most substantial and prominent cognitive bias that manipulates the individual's investment decision. The word personality means persona (a Latin word), which is a characteristic of someone's personality presumed by others or represented to others (Radin, 1932). Neuroticism, agreeableness, openness to experience, conscientiousness, and extroversion are five different personality characteristics (Fiske, 1949; Goldberg, 1993; McCrae & Costa, 2008). These scholars explored and presented the five dimensions of personality traits.

On the other hand, an emotion is observed as an instinctive response instead of deliberate thinking. Emotional bias is the mental state of an individual arising because of instinctive decisions instead of deliberate decisions. These prejudices are generally challenging to correct or adjust in individual investors since they originate from impulse or intuition, which though investors perhaps want to manage them, they frequently cannot. Emotions are linked to beliefs or presumptions related to relations or objects and in the investment world, which may lead to suboptimal results while deciding. Thus, it is prudent for individual investors to know their emotional prejudices and find out to manage them rather than trying to eradicate them. Prejudices categorized under emotional biases are regret aversion bias, status quo bias, and endowment bias (Pompeian, 2006). In addition, it has also been observed that financial knowledge or self-efficacy also performs a crucial role during investment decision-making. It is an individual investor's belief in overseeing finances using beliefs and financial services related to their capability to accomplish the most important financial objectives.

The existing literature validates that investors' demographic attributes play a vital role in investment decision-making (Powell & Ansic, 1997). Several demographic attributes, including gender, marital status, educational background, investment experience, income, and age, are the most pertinent while investigating investment decisions (Chavali & Mohanraj, 2016; Baruah & Parikh, 2018). The literature review below provides empirical evidence about the relationship between the abovementioned factors.

This study mainly emphasizes personality traits, i.e., neuroticism, agreeableness, openness to experience, conscientiousness, and extroversion, and their inter-association with investment decisions. Since academic scholars have overlooked these areas, this study attempts to forecast the influence of personality traits on investment decisions with the intervening role of financial self-efficacy and emotional biases. Moreover, financial self-efficacy and emotional biases are tested for their intervening role in the relationship between personality traits and investment decisions. Hence, this study employed a mediation model. Pakistani Stock market investors verify the model. In an economy like Pakistan, where several uncertainties, such as economic and political instability, are prevalent, investors invest more carefully and consciously in the market. This perception of investors could also be because of the stock market fluctuations and anomalies (Sadiq & Amna, 2019; Shaikh et al., (2021).

LITERATURE REVIEW

This section is categorized into two significant portions. In the first portion, a discussion on theories of finance has been reviewed, followed by the second portion comprising an empirical review of the study variables.

Theoretical Underpinnings

Economics-grounded theories presume that individuals reveal risk-averse attitudes in their everyday economic decisions. Although, the current literature infringes on this fundamental presumption of risk-averse attitude as an

essential trait in individuals. Psychologists believe individuals usually decide in unidirectional paradigms while making investment decisions (Perugini & Raad, 2001). Behavioural finance theories are consistent with this paradigm, including prospect theory, cognitive dissonance theory, and Eysenck personality theory.

The personality theory of Eysenck (1982) reported that an individual's intelligence and personality depend on biological factors. The scholar believed; genetics influences an individual's capability to manage in an unstable environment. Using factor analysis, the scholar classified personality traits into two significant categories: introversion and extraversion. Introversion is the psychological state of an individual in which individuals are depressed, reserved, entirely, and risk-averse. At the same time extroverts, on the other hand, are fond of thrills, optimistic, active, social, and, most importantly, risk takers (Pak & Mahmood, 2015). Later, Goldberg (1993) and McCrae & Costa (2008) categorized personality traits into five major dimensions: agreeableness, openness to experience, conscientiousness, and extroversion. As explained below:

- Neuroticism is a depressed, emotionally unstable, anxious, and angry trait disposition.
- Conscientiousness is a trait disposition of being diligent and careful. It implies the desire to do a job well and take the obligations seriously.
- Openness to experience is a creative, down-to-earth, imaginative, artistic, and curious trait.
- Agreeableness is a trait disposition of being helpful and apathetic. Such kinds of individuals put other requirements on priority.
- And finally, extroversion is an individual's emotional state towards being mainly worried about and acquiring indulgence from the outer self. This kind of personality is regarded as social and enthusiastic.

Cognitive dissonance theory states that an individual feels nervousness and apprehension when subjected to contradictory opinions. Accordingly, the person tries to eliminate the internal dispute in either of the two ways.

- By trying to justify and rationalize their selections
- By altering their feelings, past values, opinions, and beliefs

This theory perhaps narrates to cognitive dissonance experienced by traders or investors in the stock market. Traders are likely to respond in two methods: either by altering their opinions of conventional finance to behavioral finance or by streamlining their decisions related to investment via personal perspective (Ricciardi & Simon, 2000).

Finally, prospect theory narrates that emotional attributes lead to enduring prejudices that affect investors' decisions under uncertain conditions (Kahneman & Tversky, 1979). Accordingly, individuals may only sometimes make rational investment decisions. Furthermore, this theory reports that individuals base their preferences on the weights they assign to their decisions. Hence, perceptions and preferences differ from individual to individual. Likewise, traders assess the anticipated loss or profit based on observable risks. Concisely, traders' decisions are affected by their traits and preferences for risk (Ricciardi & Simon, 2000).

EMPIRICAL REVIEW

The investment decisions of investors are likely to be affected by personality traits. An anxious individual may end up behaving risk aversely. An anxious person may try to save money instead of investing it. In contrast, individuals open to experience may invest in risky investments. At the same time, if an extrovert individual wants to invest, that individual may also end up investing in a risky portfolio. It may be because that individual is optimistic about his / her financial decision. Furthermore, it can be stated that the decision-making style intervenes between personality traits and investment decision-making (Gambetti & Guiuberti, 2019).

Another scholar investigating the association between personality traits and investment decisions reported that personality could be gauged through a scale. Individuals who score

high on cognition may try to have a lower risk-taking propensity. Conversely, an individual who scores low on the introversion scale but high on the extroversion scale is likely to have a higher propensity for risk-taking. At the same time, in an investigation of the personality trait, the scholar utilized the Big Five personality trait model since it is an extensive instrument (Czerwonka, 2019).

Several studies have discovered that emotions and traits are fundamental attributes affecting decision-making related to investment (Yang et al., 2012). An investor's personality trait substantially influences their psychology, which may affect their decisions. The five-factor model (FFM) represents a novel generation of personality theories. The FFM provides an extensive yet convenient handbook of personality traits. It is a widely executable model in psychology studies (McCrae & Costa, 1987). Tauni et al. (2017) also reported the same evidence that investment decisions involve an individual's personality trait during the investment process. FFM is presumed to be covering almost the entire personality dimension.

Role of Financial Self-Efficacy

Empirical studies reported that financial attitude is mainly influenced by self-efficacy, an individual's confidence in one's capability to endure a financial condition besides being dazed (Dietz et al., 2003; Engelberg, 2007; Lown, 2012; Amatucci & Crawley, 2011). Financial self-efficacy (FSE) is narrated social cognitive theory that uncovers the part of psychological philosophy in driving an individual's financial behaviour and motivation (Sandler, 2000). Cognitive theory affirms that FSE holds superior control when it is realm particular and affects choices or tasks directly and indirectly to accomplish positive results, which individuals generally foresee (Akhtar & Das, 2020). Supporting the evidence, scholars asserted that FSE performs a mediating role and is determined as a far more reliable predictor of behavioural change and behaviour (Akhtar & Das, 2020). Several studies have overlooked its mediating role (Bailey & Austin, 2006; Zhao et al., 2005). Therefore, this study examines the intervening role of FSE between personality traits and investment decisions.

ROLE OF EMOTIONAL BIASES

An individual's persona describes different behaviour patterns, feelings, and thinking. The current study attempted to explain the irrational attitude of traders via personality traits. Traders' investment decisions are based on an obscure combination of several attributes (Akinkoye & Bankole, 2020). Studies have revealed several emotional biases, but three biases are considered in this study: endowment bias, status quo bias, and regret aversion bias. In behavioral finance, emotional biases as a mediator have been overlooked for so long, especially in the geographical context of Pakistan (Akhtar & Das, 2020; Riaz & Hunjra, 2015). Therefore, this study attempted to examine the intervening role of three emotional biases between personality traits and investment decisions.

THEORETICAL FRAMEWORK

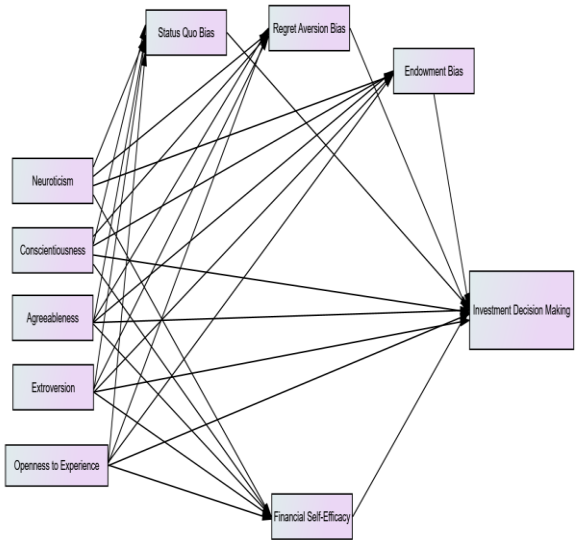

Figure 1: *Theoretical Framework*

RESEARCH METHODOLOGY

The study utilized both primary and secondary data. Primary data has been utilized via a structured survey instrument among those who

have already invested and are willing to invest shortly in Pakistan Stock Exchange (PSX). The number of those respondents was five hundred (250 were those who had already invested while 250 were those respondents who wanted to invest shortly in Pakistan Stock Exchange). Secondary data was utilized using a thorough review of past studies in the field. Through the extensive review, five factors of personality attributes and the role of mediators, namely financial self-efficacy, and emotional biases (i.e., endowment bias, regret aversion bias, status quo bias), have been determined. To analyze the data, IBM SPSS-24 and AMOS-20 are utilized. Initially, the demographic profile of the respondents was assessed, followed by testing the unmediated and mediated relationship between the variables. The survey instrument was fashioned in two sections - the first section describes the details.

In contrast, the second section asks questions about their personality attributes, financial self-efficacy, and emotional biases (i.e., status quo bias, regret aversion bias, and endowment bias). All the statements/constructs in the second portion were placed on a Five-Point Likert scale. The reason for placement on 5 PLS was that it was an already tested and validated instrument.

FINDINGS AND DISCUSSION

Table 1 shows the demographic characteristics of the respondents. The analysis shows that most of the respondents are male (f = 280, f/n = 56%). Most respondents were within the age limit between 25 and 35 years (f = 180, f/n = 36%). In addition, most of the respondents' highest qualification was a Master (f = 185, f/n = 37%). Finally, from their investment experience, it is observed that most of the respondents have an experience of utmost five years (f = 280, f/n = 56%).

Table 1: *Demographic Characteristics*

Variables	*Factors*	*Freq*	*%*	*Cum. %*
Gender	Male	280	56%	56%
	Female	220	44%	100%
Age	18 - 25	115	23%	23%
	25 - 35	180	36%	59%
	35 - 45	85	17%	76%
	45 and above	120	24%	100%
Edu	SSC	15	3%	3%
	Intermediate	60	12%	15%
	Bachelors	170	34%	49%
	Masters	185	37%	86%
	PhD	70	14%	100%
IINV EEXP	0 - 5	280	56%	56%
	5 - 10	115	23%	79%
	11 - 15	65	13%	92%
	15 and above	40	8%	100%

RELIABILITY ANALYSIS

Table 1 shows the demographic characteristics of the respondents. The analysis shows that most respondents are male (f = 280, f/n = 56%). Most respondents were within the age limit between 25 and 35 years (f = 180, f/n = 36%). In addition, most of the respondents' highest qualification was a Master's (f = 185, f/n = 37%). Finally, from their investment experience, it is observed that most respondents have an experience of utmost five years (f = 280, f/n = 56%).

Table 2: *Reliability Test*

Variables	*Codes*	*Items*	*Cronbach Alpha*
Neuroticism	NEU	4	0.782
Conscientiousness	CONS	5	0.818
Agreeableness	AGRE	3	0.745
Extroversion	EXT	4	0.799
Openness to Experience	OP	4	0.797
Status Quo Bias	STQB	3	0.777
Regret Aversion Bias	REGAB	4	0.839
Endowment Bias	ENDB	3	0.809
Financial Self-Efficacy	FSE	4	0.845

Investment Decision Making	DM	5	0.893
Overall		39	0.872

FORMATIVE MODEL (EFA)

Formative model basically illustrates a composite factor which encapsulates the usual variation in an assortment of constructs. A composite factor is deemed as the composition of independent albeit correlation, factors. This study utilized formative model to develop observed variables from latent variables. Using exploratory factor analysis (EFA), the process is performed.

Usually, the suitability of factor analysis is confirmed through sampling adequacy test. This study also performed the same test to verify if the adequacy test is appropriate for the current dataset or not. From the estimates in table 3, it is observed that the adequacy test is appropriate as the value of KMO observed to be more than 80% and the sphericity test failed to reject the null hypothesis. In addition to that, when the cumulative variance is observed for the dataset, it met the minimum criteria of 50%.

Table 3: *Sampling Adequacy Test and Cumulative Variance Explained*

Sampling Adequacy Test	***Value***
Kaiser-Meyer-Olkin Measure (KMO) of Sampling Adequacy.	.854
Bartlett's Test of Sphericity	
Approx. Chi-Square	7661.162
Df	741
Sig.	0.000
Factors Based on Eigen Score	10
Cumulative Variance Explained using Extraction Sum of Squared Loadings	52.676

Pattern matrix holds the factor loadings. Every row of the matrix is basically a regression equation in which the standardized observed variable is illustrated as a function of factors. Factor loading are basically the coefficients of regression. Table 4 shows the pattern matrix for this study. Observed variables are named based on factor loadings. Any cross loading observed was either inversed or discarded from the model.

Table 4: *Pattern Matrix*

Factor	DM	CONS	REGAB	FSE	EXT	OP	NEU	ENDB	STQB	AGRE
DM1	.778									
DM2	.777									
DM3	.776									
DM4	.818									
DM5	.758									
OP1						.693				
OP2						.743				
OP3						.667				
OP4						.700				
NEU1							.684			
NEU2							.724			
NEU3							.686			
NEU4							.661			
CONS1		.614								
CONS2		.807								
CONS3		.640								
CONS4		.640								
CONS5		.717								
STQB1									.740	
STQB2									.705	

STQB3					.720	
ENDB1				.765		
ENDB2				.754		
ENDB3				.759		
REGAB1	.754					
REGAB2	.728					
REGAB3	.722					
REGAB4	.789					
FSE1		.792				
FSE2		.731				
FSE3		.717				
FSE4		.767				
EXT1			.637			
EXT2			.740			
EXT3			.741			
EXT4			.693			
AGRE1						.750
AGRE2						.704
AGRE3						.632

Extraction Method: Maximum Likelihood.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

REFLECTIVE MODEL

Reflective model reports a latent factor to be postulated as a usual reason of indicator or item behavior. The causal path moves from latent factor to items. Reflective model / confirmatory factor analysis is performed to verify the causation from latent factors to items. Figure 2 shows the CFA model of the study.

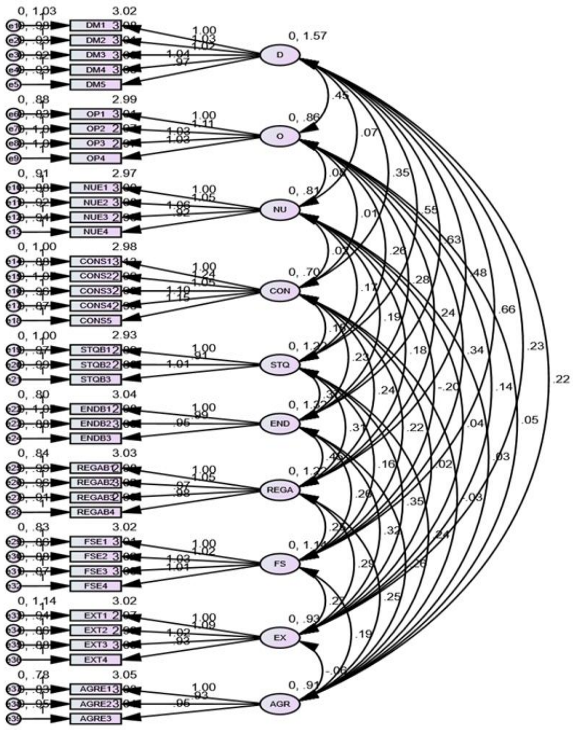

Figure 2: *CFA MODEL*

VALIDITY ANALYSIS

Validity analysis describes that how precisely a procedure measure what is meant to measure. Table 5 shows the validity analysis for the study variables. The measure of composite reliability (CR), average variance extracted (AVE), and

maximum shared variance (MSV) were utilized to assess the reliability and validity of the survey instrument. From the values of CR, AVE and MSV for each latent variable, it is observed to reliable and valid.

Table 5: *Validity Analysis*

Factors	CR	AVE	MSV	MaxR(H)	DM	OP	NUE	CONS	STQB	ENDB	REGAB	FSE	EXT	AG
DM	0.893	0.626	0.247	0.894	**0.791**									
OP	0.798	0.507	0.150	0.800	0.387***	**0.705**								
NUE	0.782	0.584	0.042	0.784	0.065	0.102†	**0.688**							
CONS	0.819	0.565	0.111	0.822	0.334***	0.007	0.026	**0.689**						
STQB	0.778	0.538	0.157	0.778	0.397***	0.257***	0.173**	0.164**	**0.734**					
ENDB	0.809	0.586	0.192	0.810	0.438***	0.261***	0.180**	0.242***	0.291***	**0.765**				
REGAB	0.840	0.567	0.127	0.840	0.351***	0.230***	0.183**	0.256***	0.256***	0.357***	**0.753**			
FSE	0.846	0.578	0.247	0.846	0.497***	0.339***	-0.206***	0.241***	0.132*	0.212***	0.210***	**0.760**		
EXT	0.800	0.501	0.105	0.802	0.186***	0.159**	0.045	0.024	0.324***	0.289***	0.276***	0.259***	**0.708**	
AGRE	0.746	0.534	0.056	0.748	0.187***	0.054	0.036	-0.033	0.227***	0.238***	0.236***	0.185**	-0.066	0.7

Significance of Correlations:
† p < 0.100
** p < 0.050*
*** p < 0.010*
**** p < 0.001*

CFA MODEL GOODNESS OF FIT ESTIMATES

As a stepwise procedure, finally the goodness of fit estimates for CFA was also observed. From the estimates shown in Table 6, it can be observed that the overall CFA model is a good fit.

Table 6: *CFA Goodness of Fit Estimates*

Tests	*Values*	*Cut of Point*
Chi Square/df	3.712	<5
CMIN/df	3.712	<5
CFI	0.970	≥95
RMSEA	0.036	> 0.05

STRUCTURAL EQUATION MODELLING (CB-SEM)

This study applied covariance-based SEM mainly for two reasons. First, the objectives of this study were about theory testing and confirmation. Secondly, the study was interested in examining both the direct and indirect relationship between the variables. Figure 3 shows the direct and indirect paths between the variables.

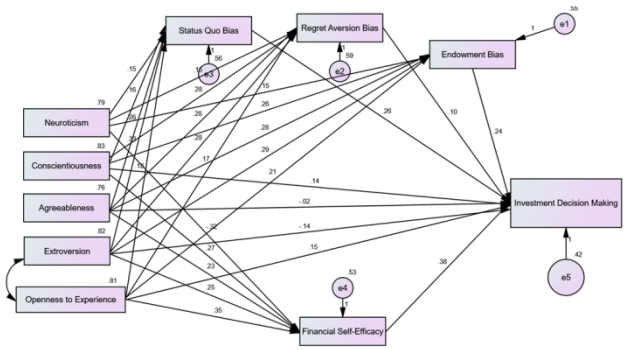

Figure 3: *CB-SEM - Direct and Indirect Path Estimates*

DIRECT EFFECT ESTIMATES

Direct effect estimates are basically the unmediated relationship between the variables. From the estimates in Table 7, it is observed that all paths posited positive relationship except for the relationship between neuroticism and financial self-efficacy and investment decision making and extroversion showing a negative relationship.

Table 7: *Direct Path Estimates*

Direct Paths	Estimate	S.E.	C.R.	P-Value
STQB <-- CONS	0.155	0.037	4.239	0.000
REGAB <--- EXT	0.277	0.039	7.128	0.000
FSE <--- AGRE	0.227	0.037	6.112	0.000
ENDB <-- AGRE	0.28	0.038	7.383	0.000
REGAB <--- AGRE	0.278	0.039	7.053	0.000
FSE <--- OP	0.352	0.037	9.565	0.000
FSE <--- EXT	0.253	0.037	6.907	0.000
FSE <--- CONS	0.269	0.036	7.561	0.000
FSE <--- NEU	-0.317	0.036	-8.695	0.000
ENDB <-- OP	0.206	0.038	5.483	0.000

ENDB <-- EXT	0.288	0.037	7.692	0.000
ENDB <-- CONS	0.259	0.036	7.141	0.000
ENDB <-- NEU	0.15	0.037	4.043	0.000
STQB <-- AGRE	0.256	0.038	6.695	0.000
STQB <-- NEU	0.146	0.038	3.877	0.000
REGAB <--- OP	0.168	0.039	4.316	0.000
REGAB <--- NEU	0.153	0.039	3.963	0.000
REGAB <--- CONS	0.276	0.038	7.338	0.000
STQB <-- EXT	0.326	0.038	8.62	0.000
STQB <-- OP	0.183	0.038	4.831	0.000
DM <--- AGRE	-0.02	0.039	-0.523	0.601
DM <--- EXT	-0.142	0.04	-3.567	0.000
DM <--- FSE	0.381	0.038	10.134	0.000
DM <--- OP	0.154	0.038	4.054	0.000
DM <--- STQB	0.262	0.038	6.809	0.000
DM <--- CONS	0.141	0.037	3.783	0.000
DM <--- REGAB	0.104	0.037	2.791	0.005
DM <--- ENDB	0.241	0.039	6.231	0.000
DM <-- NEU	0.196	0.031	6.321	0.002

INDIRECT EFFECT ESTIMATES

Once the direct paths were assessed, the mediating role of mediators has now been assessed. From the estimates in table 8, it can be observed that all the personality traits have a significant positive impact on individual investment decision making with the mediating role of financial self-efficacy and emotional biases (i.e., regret aversion bias, status quo bias, and endowment bias). Moreover, as per Hayes (2009), the role of mediators in the overall model was partial.

Table 8: *Indirect Path Estimates*

Indirect Paths	Mediator	Mediation	Estimate	S.E.	C.R	P - Value
NEU --> STQB --> DM	Status Quo Bias	Partial	0.031	0.010	3.100	0.002
CONS --> STQB --> DM			0.034	0.011	3.091	0.002
OP --> STQB --> DM			0.040	0.012	3.333	0.002
EXT --> STQB --> DM			0.070	0.017	4.118	0.002
AGRE --> STQB --> DM			0.055	0.013	4.231	0.002
NEU --> REGAB --> DM	Regret Aversion Bias	Partial	0.018	0.008	2.250	0.008
CONS --> REGAB --> DM			0.033	0.013	2.538	0.007
OP --> REGAB --> DM			0.020	0.009	2.222	0.007
EXT --> REGAB --> DM			0.034	0.013	2.615	0.007

AGRE --> REGAB --> DM			0.034	0.013	2.615	0.006
NEU --> ENDB --> DM	Endowment Bias	Partial	0.037	0.011	3.364	0.002
CONS --> ENDB --> DM			0.064	0.014	4.571	0.002
OP --> ENDB --> DM			0.050	0.013	3.846	0.002
EXT --> ENDB --> DM			0.071	0.017	4.176	0.002
AGRE --> ENDB --> DM			0.069	0.016	4.313	0.002
NEU --> FSE --> DM	Financial Self-Efficacy	Partial	-0.099	0.016	-6.188	0.002
CONS --> FSE --> DM			0.084	0.015	5.600	0.002
OP --> FSE --> DM			0.110	0.018	6.111	0.002
EXT --> FSE --> DM			0.079	0.016	4.938	0.002
AGRE --> FSE --> DM			0.071	0.015	4.733	0.002

The goodness of fit estimates in table 9 shows the overall model of CB-SEM to be a good fit. The study utilized CMIN/df, CFI and RMSEA to estimate the fit indices for the study.

Table 9: *CB-SEM Model Goodness of Fit Estimates*

Tests	Values	Cut of Point
Chi Square/df	2.105	<5
CMIN/df	2.105	<5
CFI	0.985	≥95
RMSEA	0.047	> 0.05

CONCLUSION

This research investigated the influence of personality traits on investment decisions through the mediation procedure of financial self-efficacy and emotional biases in the Pakistan Stock Exchange (PSX) market. The findings revealed that neuroticism is positively and substantially related to FSE and investment decisions. It indicates that the investors are not emotionally stable and react gloomy regarding investment decision-making in the Pakistan stock market. The findings also revealed that conscientiousness, openness to experience, and agreeableness are positively and substantially related to FSE and investment decisions. It indicates that the investors are curious, ready to experience, and agreeable regarding investment in the stock market.

Further, the findings revealed that FSE and three emotional biases, namely regret aversion bias, status quo bias, and endowment bias, significantly mediate between personality attributes and investment decision-making. It indicates that individuals who are financially literate and efficient tend to react according to their personality while investing in the stock market. For instance, a neurotic individual will avoid taking risks and want to play safe while investing in the stock market even though the individual is financially literate and vice versa. Emotional biases, on the other hand, illustrate that an individual's decisions can not be easily predicted since it is subjected to several factors and sentiments bounding them to make irrational decisions resulting in market inefficiency, which varies among individuals.

This study contributes to the existing literature by utilizing behavioral finance to improve understanding of the linkage between personality attributes and investment decisions

via conceptualization of the mediation process of emotional biases and FSE in the Pakistan stock exchange.

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