



Beyond the Big Five: How Dynamic Personality Traits Predict Financial Risk Tolerance?

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Abstract. The present study examines the impact of dynamic personality traits (emotions, financial self-efficacy, trait anger, resilience, and intolerance of uncertainty) on the financial risk tolerance of an investor. To that end, the study uses data collected from 486 stock market investors adopting a structured questionnaire, and the hypothesised relationships are evaluated through structural equation modelling. Results indicate that financial self-efficacy, positive emotion, and resilience improve the investor's financial risk tolerance, whereas intolerance of uncertainty, trait anger, and negative emotions bear a negative influence on financial risk tolerance. These findings are novel to the financial risk tolerance literature and deepen our understanding of the precursors of risky investment behaviour. Further, this study entails several practical implications for financial advisors and wealth managers.

Keywords: financial risk tolerance, resilience, emotions, financial self-efficacy, intolerance to uncertainty, trait anger

JEL Classification: G11, G41, O3

1. Introduction

Over the past two decades, researchers, financial advisers, consumers, and policymakers have been confronted with new and ever more complicated shifts in the financial landscape (Grable, 2016). As a result, the study of the exact ways in which individuals make decisions under risky situations has gained increasing traction. Particularly the role of financial risk tolerance (FRT) in explaining an individual's investment behaviour and the factors that determine financial risk tolerance have attracted substantial research and policy attention. A person's financial risk tolerance is their ability to accept uncertainty while making financial

decisions (Grable et al., 2004) or the readiness to engage in a financial action whose results are ambiguous and carry the possibility of a measurable loss. FRT represents an individual's tolerance for market volatility in terms of investing (Hallahan et al., 2004).

Financial risk tolerance is the underlying factor in a diverse array of financial decision-making contexts (Rai et al., 2021). For instance, an individual's financial risk tolerance affects their routine debt-versus-savings decisions, the choice of mortgage (Grable 1999), credit card adoption (Cope et al., 2013) and management (Campbell, 2006), pattern of expenditure (long-term vs short-term) (Sung et al., 1996), insurance purchase (Shusha 2017), and distribution of assets (Nguyen et al., 2019). Moreover, financial regulatory authorities worldwide also require financial advisors to examine their clients' financial risk propensity before providing investment recommendations or executing financial investment strategies (Hari et al., 2018). Countries such as the USA, the UK, Australia, and Canada have specific laws mandating the assessment of customers' risk tolerance by financial advisors (Wahl et al., 2020).

The Securities and Exchange Board of India (SEBI) has also advised wealth managers to offer meaningful advice after carefully considering the client's risk tolerance and financial needs. Therefore, an exhaustive and thorough understanding of investors' financial risk tolerance is not only a legal requirement but also a moral binding on wealth managers. Moreover, among the several factors required for making optimal portfolio selections based on risk and reward, the most important factor is the knowledge of risk tolerance (Droms, 1987). For designing investment strategies, an asset allocation decision model is built on four critical inputs, namely basic aim or purpose, time horizon, financial stability, and FRT (Garman et al., 2011; Grable, 1999). Despite the fact that the first three inputs are simple and easily available for investment planners and managers, FRT is a highly individualized and intricate phenomenon whose assessment is relatively difficult (Larkin et al., 2013). As a result, an increasing scholarly endeavour has been focused on generating an understanding of the dynamics of an individual's tolerance in risking current wealth for future growth that can be incorporated into designing precisely tailored financial advisory services (Gibson et al., 2013).

For that purpose, an extensive body of literature has tried to explore the factors that determine an investor's financial risk tolerance. These factors include financial literacy and investment experience (Awais et al., 2016), socio-demographic (Mukit 2020), attitudinal characteristics (Gondaliya et al., 2016), culture (Weber et al., 1998), bio-psychosocial characteristics (Patel et al., 2019), self-esteem and sensation seeking (Leon et al., 2020), emotional intelligence (Dhiman et al., 2018), etc. Among all the underlying factors, personality traits are considered to be the most significant determinant of an investor's financial risk tolerance (Sarwar et al., 2020).

However, while examining the impact of personality traits on FRT, the vast majority of scholars used the Big Five model of personality, which categorizes individual personality into five dimensions, also referred to as OCEAN (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism) (McCrae et al., 1987). Although a widely used framework, the Big Five taxonomy has lately attracted some criticism. Scholars such as Block (1995) and Brooks et al. (2021) argue that the Big Five model tends to oversimplify personality by assuming that personality traits are fixed and intractable. Clark et al. (2012) further argue that these traits are stable over time and have a longer-term impact on an individual. It fails to address why under different situations individuals behave differently for the same type of investment choice. Brooks et al. (2021) posit that the Big Five taxonomy (named by Goldberg (1990)) includes only a group of five stable traits that fail to capture the dynamism of personality in different contexts. Since according to the prior studies the limitation of stable traits is that they cannot be developed and moulded according to the context of situations, this urges the present study to examine the personality qualities that an investor imbibes and that can be developed, moulded, and learned over a period of time. Although Brooks et al. (2021) have offered a preliminary insight into this phenomenon, the evidence of dynamic personality traits (i.e. those psychological traits which, unlike the obdurate predispositions, do not remain constant and are therefore malleable in affecting FRT) is still far from conclusive.

In the light of this, the purpose of the present study is to examine the nebulous influence of dynamic personality characteristics (resilience, trait anger, financial self-efficacy, intolerance of uncertainty, and emotions) on an investor's financial risk tolerance. The evaluation of dynamic personality qualities might explain diversity in investor financial risk tolerance beyond that which is described by static personality, demographic and other socio-economic components investigated till date. Prior studies, such as Breaban et al. (2018), have shown how different emotional states influence the financial behaviour of an investor. Further: Gambetti et al. (2012) showed how trait anger influences the willingness to engage in risky investment decision making; Conlin et al. (2015) pointed out how intolerance of uncertainty determines investors' risk-averse nature; Hamurcu (2019) highlighted how resilience can reduce the behavioural biases of an investor and thereby result in a higher level of FRT; Asebedo et al. (2019) explained how financial self-efficacy can be developed and used to increase the financial satisfaction and financial risk tolerance of an investor in times of market anomalies.

The present study highlights the limitations of using exclusively the Big Five personality trait model to predict FRT. While the Big Five provide a useful framework for understanding personality, they may not capture the full range of individual differences in risk-taking behaviour (Brooks et al., 2021). The authors argue that incorporating dynamic personality traits, such as resilience, financial

self-efficacy, intolerance of uncertainty, trait anger, and emotions, may provide a more complete picture of how personality influences financial decision-making. Second, the paper advances our understanding of the relationship between personality and financial risk tolerance. By identifying specific dynamic personality traits that predict risk-taking behaviour, the authors provide an insight into the psychological mechanisms underpinning financial decision-making and can inform future research and practice in this area. For example, they suggest that individuals with high levels of resilience may be more willing to take risks in order to explore new opportunities, while those with high levels of positive emotions may be more willing to take risks in order to achieve long-term goals. Finally, the paper has important implications for both research and practice. By highlighting the importance of dynamic personality traits, the authors suggest new avenues for future research on personality and financial decision-making. Additionally, the identification of specific personality traits that predict risk tolerance may be useful for financial advisors and other practitioners who work with individuals to develop investment strategies.

The study is structured as follows. Section 2 presents the theoretical background of the study and the basis on which the hypotheses are developed. Section 3 contains the methodology employed such as data collection, questionnaire design, theoretical model, and statistical tools and techniques used. Section 4 presents the results and analysis. Section 5 concludes and discusses some limitations of the study.

2. Literature Review

2.1. Impact of Emotions on Financial Risk Tolerance

Emotions are mental states induced by neurophysiological changes related to ideas, sensations, behavioural responses, and a level of pleasure or dissatisfaction (Panksepp, 2005). A wide range of emotions have been examined in the psychology literature regarding their influence on decision-making in the context of risk. Forgas (1995) found that emotions have a greater impact in situations where concrete information is scarce and thereby taking a rational decision is more difficult. He further mentions that people experiencing positive emotions tend to have a positive outlook on life. They are usually optimistic regarding the outcomes of risky decisions. Seo et al. (2007) argue that people who experience positive emotions may utilize them to improve their decision-making efficacy and make better choices. The possible explanation mentioned by Johnson et al. (1983) is that individuals experiencing positive emotions tend to overestimate rewards and

underestimate risks (uncertain outcomes) and are thus willing to invest in risky assets. Bagozzi (2000) found that positive emotions serve as a powerful catalyst for action, bringing along inspiration, encouragement, and affirmation upon achieving an optimal financial goal. Literature supports that positive emotions such as hope, happiness, being inspired, enthusiasm, feeling proud and active, etc. encourage risk taking by increasing investors' confidence (Finucane et al., 2000; Kuhnen et al., 2011). Therefore, based on the available literature assessment, the following hypotheses are developed for this study:

H1: Positive emotions are positively correlated to financial risk tolerance.

Negative emotions have received a mixed response in research studies with regard to financial risk tolerance. For instance, Lee et al. (2011) reported that people who experienced negative emotions of fear tended to avoid making risky investment decisions. Frijda (1987) further adds that fear leads to avoidance of uncertain and doubtful investment activities, and therefore people with negative emotions sell stocks quickly. Gambetti et al. (2012) highlighted that anxious people avoid getting engaged into purchasing risky financial products. In an experiment conducted by Schulreich et al. (2016), it was shown that participants experiencing a sensation of fear tended to exhibit loss aversion behaviour. Similarly, emotions of sadness were also shown to decrease risk tolerance among investors (Vazquez et al., 2014).

Another negative emotion, anger, has generated opposite study results. Vazquez et al. (2014) and Fessler et al. (2004) report in their studies that anger tends to increase the reckless behaviour of an individual and thereby decrease the loss aversion level among investors. Lerner et al. (2006) argue that anger increases the feeling of confidence in the ability to manage finances, and thereby it increases the risk tolerance of an investor. Therefore, based on the existing evidence, our study assumed the dominating negative impact of negative emotions on financial choices, leading to the formulation of the following hypothesis:

H2: Negative emotion is negatively correlated to financial risk tolerance.

2.2. Financial Self-Efficacy

The ability to handle one's own financial affairs is known as financial self-efficacy. Having confidence in one's own abilities is essential for the successful self-management of financial resources (Farrell et al., 2016). Self-efficacy is one of the best indicators of successful performance in a variety of domains (Marlatt, 1985) since it boosts one's confidence in his or her ability to execute a specific behaviour (Stajkovic 1998). Lapp (2010) highlighted the role of financial self-efficacy in reaching long-term financial objectives. He further argues that financial self-efficacy has an essential role in forecasting financial behaviour during times of market instability. Stajkovic et al. (2018) reports that self-efficacy is a dynamic quality that motivates

and controls behaviour. When an individual has confidence in their ability to manage their money, they are more resilient when confronted with uncertainties and thereby make risky investment choices. Previous literature has shown how financial self-efficacy influences investment strategies (Forbes et al., 2010), retirement saving strategies (Dietz et al., 2003), and wealth accumulation (Chatterjee et al., 2011). Based on the findings of prior studies, we propose the following hypothesis:

H3: Financial self-efficacy is positively correlated to financial risk tolerance.

2.3. Resilience

Resilience is the individual's ability to recover quickly from an adversity, to adapt successfully to new situations, and to tolerate pressure or even thrive under it (Chapman et al., 2008). In other words, resilience is the ability of an investor to cope with financial instability (Salignac et al., 2019). Adger (2000) termed resilience as a dynamic personal trait marked by adaptability rather than stability. Literature shows that resilience is positively correlated to emotional stability (Friborg et al., 2005; Oshio et al., 2018; Shafiezadeh, 2012). As resilience is considered a more dynamic and changing process over time, investors can be assisted in developing resilience. It is not a quality that people either possess or lack but rather a set of behaviours, attitudes, and actions that may be acquired (Salignac et al., 2019).

Limited study has been conducted till now on exploring the links between resilience and financial risk-taking behaviour. However, knowing the relationship between resilience and risk appetite might provide significant insight into the effect of personality traits on risk tolerance. The creation of services to support individuals through times of financial distress can be facilitated by a greater knowledge of resilience (Brooks et al., 2021).

H4: Resilience is positively correlated to financial risk tolerance.

2.4. Intolerance of Uncertainty

The tendency to react emotionally, cognitively, and behaviourally to uncertain situations is called intolerance of uncertainty (IU). Buhr et al. (2009) argue that those who are intolerant of uncertainty hold negative ideas about future outcome, experience anxiety and therefore behave poorly when confronted with uncertain circumstances. A person with high sensitivity to ambiguity experiences higher anxiety and discomfort in ambiguous or uncertain situations (Dugas et al., 2004; Freeston et al., 1994; Rosser, 2019). Nouri (2020) reported in his study that a higher intolerance of uncertainty leads to anxiety, which in turn hampers financial decision-making. Conlin et al. (2015) argue that people who experience a higher degree of intolerance of uncertainty tend to avoid investing in stock market investments.

H5: Intolerance of uncertainty is negatively correlated to financial risk tolerance.

2.5. Trait Anger

A study conducted by Pease et al. (2015) showed positive relationship between neuroticism and the trait anger of an individual. Neurotic individuals take a pessimistic approach to getting involved in risky investment decisions (Rustichini et al., 2012; Young et al., 2012). People with trait anger are more likely to become enraged even at the slightest provocation, and these feelings are generally accompanied by feelings of hatred and disdain. Anger leads to increased anxiety, and anxiety tends to make a person conservative. Therefore, people tend to avoid getting involved in risky decisions while they are angry (Owen, 2011). Hassan et al. (2013) report that anger and individuals' investment behaviour are negatively correlated to each other. Anger causes an investor to make hasty judgments, which may be the consequence of his/her aggressive temperament, and as a result the investor is unable to attain his or her optimal financial goal. Therefore, people ranking high on trait anger tend to avoid getting involved in risky decision-making because of the feeling of the anxiety and emotional instability.

H6: Trait anger is negatively correlated to financial risk tolerance.

Based on the above discussion and the review of prior studies, it can be argued that the risk tolerance of an investor is strongly shaped by his/her dynamic personality characteristics, which might influence the success of investment decisions. *Figure 1* depicts the proposed model of the current study, where emotions, financial self-efficacy, resilience, intolerance of uncertainty, and trait anger have been treated as independent variables, whereas financial risk tolerance has been treated as dependent variable.

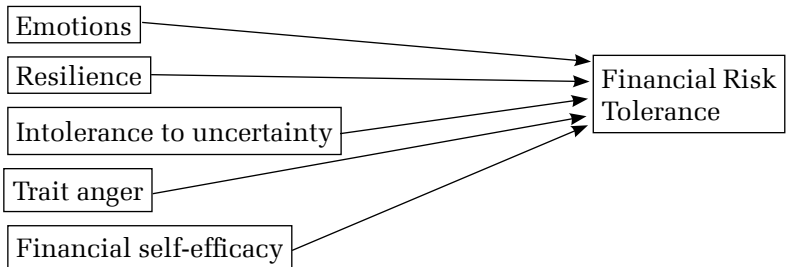


Figure 1. *Proposed model*

3. Methodology

In order to test the research hypothesis of this study, a cross-sectional survey was used. The study tested the proposed model by applying a statistical technique known as structural equation modelling (SEM) assisted by an analysis of moment

structure (AMOS), which is a covariance-based software. SEM represents the most appropriate and a well-substantiated method for analysing the complex behavioural cause and effect relationships in management research (Nusair et al., 2010). This research study used convenience sampling technique. The sample size of the study was determined by using Hair et al's (2010) criterion of a 1:10 (item to respondents) ratio. To further verify that our sample size is adequate for the parametric statistical analysis, we conducted the Olkin (2017) test of sampling adequacy. The result (0.897) indicated an adequate sample size (Field, 2009). The sample of the study consisted of stock market investors across India. Data were collected from November 2021 to March 2022 via an online structured questionnaire. In order to obtain a more representative sample of the population, the questionnaires were distributed through personal visits, emails, and social media websites, such as LinkedIn, to reach stock market investors across different cities. The data of the stock market investors was obtained with the help of various investment and brokerage companies in India. Further, stock market investor groups present on social media websites also served as potential resources for data collection. The surveyed investors were of different age groups, had various occupations, education and income levels.

The responses were elicited from 550 stock market investors, but some of them had to be ignored due to apparent inconsistencies or because they had left some sections blank. Consequently, the valid responses of a total of 486 investors were included in the analysis. Respondents were asked to fill in the required fields of the sub-sections regarding demographics, emotions, financial self-efficacy, resilience, intolerance of uncertainty, trait anger, and financial risk tolerance. The questionnaire consisted of 49 items altogether. The demographic distribution of the sample showed that 292 respondents were men and 194 were women. Further, it also revealed that 323 stock market investors were unmarried and 163 were married. 31.4% of the investors were between the age bracket of 31–40 years, whereas 20.2% of them fell in the age group of 51 years and above. 29.4% of the investors had postgraduate qualification, whereas 10.5% of them had higher secondary education. 49.9% of the investors had income levels of 20k–50k Rs, whereas 11.2% of the respondents had income levels between 75k and 1 lakh Rs, as shown in *Table 1*.

To measure the stock market investors' financial risk tolerance, a 5-item scale developed by Grable et al. (2004) was used. Responses were measured on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". To gain a comprehensive picture of the emotions of stock market investors while filling out the survey, we used a 10-item emotion scale, which is the brief version of the positive and negative affect schedule (PANAS) scale developed by Thompson (2007). A brief version of the scale was used to reduce respondents' fatigue while going through the wide range of questions. The PANAS scale is considered the most reliable and most cited scale for assessing emotions and was used here to assess investors' current

as well as recent (past few weeks) emotional state. The adopted scale consisted of a 5-point Likert scale ranging from “never” to “always” to evaluate positive and negative emotions such as upset, alert, inspired, nervous, enthusiastic, happy, angry, etc. A thorough literature study revealed that there is limited research available on how financial self-efficacy might be fostered to boost stock market investors’ financial risk tolerance. For this purpose, we used a 6-item scale developed by Lown (2011). Responses were measured on a 4-point Likert scale ranging from “not at all true” to “entirely true”. Some examples of items used in the financial self-efficacy scale are: “It is hard to stick to my spending plan when unexpected expenses arise.”; “I lack confidence in my ability to manage my finances.”; etc.

Table 1. *Demographic characteristics*

Characteristics	Frequency	Percentage
Age		
18–30	153	31.4
31–40	123	25.3
41–50	112	23.1
51 and above	98	20.2
Gender		
Male	292	60.7
Female	194	39.3
Marital status		
Married	163	33.6
Unmarried	323	66.4
Educational background		
< Higher secondary level	66	10.5
Graduate	112	23.3
Post-graduate	143	29.4
PhD or above	98	20.1
Professional	67	16.7
Monthly income (Rs)		
Below 25,000	97	19.9
25,000–50,000	202	42.9
50,000–75,000	59	12.1
75,000–100,000	57	11.7
100,000 <	71	13.4

Similarly, in order to explore the relation of resilience with respect to financial risk tolerance, a 5-point Likert scale was used that ranged from “strongly disagree” to “strongly agree”. The scale developed by Smith et al. (2008) consisted of 6 items such as: “I tend to bounce back quickly after hard times.”; “I recover quickly when something bad happens.”; etc. A 12-item scale developed by Carleton et

al. (2007) was used to evaluate the responses regarding uncertainty questions. The scale ranged from “not at all like me” to “entirely like me”. The items used in the scale were: “Unforeseen events upset me greatly.”; “It frustrates me not having all the information I need.”; etc. – these were used to evaluate how each item corresponds with the respondent’s character. Trait anger is one of the widely studied personality traits with respect to financial decision-making. In order to explore the relationship between trait anger and investors’ financial risk tolerance, we employed a 10-item scale developed by Spielberger et al. (1983). The scale ranged from “almost never” to “almost always” with items such as “I have a fiery temper”, I am quick-tempered”, etc.

4. Data Analysis and Results

4.1. Common Method Bias

The study adopted Harman’s single-factor test to identify common method bias. Results revealed that the total variance extracted by a single factor is 38.67%, which is less than the threshold value of 50%. Therefore, common method bias is not the problem for this study.

4.2. Reliability and Validity

This study used Cronbach’s alpha and composite reliability (CR) to test the variables. Cronbach’s alpha and the CR value of all the variables exceeded the recommended value of 0.700 (Nunnally, 1994). Composite reliability was assessed using the statistical package tool by Gaskin (2016). Variables’ composite reliability ranged from .757 to .921, which is above the benchmark value (Hair et al., 2010). The convergent validity of scale items was measured with the master validity tool by Gaskin and Linn (2016). We used average variance extracted (AVE) for establishing convergent validity, as suggested by Fornell et al. (1981). For each of the constructs included in the study, the AVE values were above the threshold value of 0.500. Therefore, the present study scales corroborate the requisite convergent validity. Further, the study used the heterotrait-monotrait (HTMT) ratio to measure the discriminant validity of the scale. All the values were below the threshold value of 0.85 (Henseler et al., 2015). The results of the above-mentioned tests are shown in *tables 2 and 3*.

Table 2. *Factor loadings, reliability, and convergent validity*

Construct	Factor loading	Alpha	CRE	AVE
EMO1	.823	.887	.890	.645
EMO2	.734			
EMO3	.982			
EMO4	.827			
EMO5	.759			
EMO6	.946			
EMO7	.721			
EMO8	.744			
EMO9	.769			
EMO10	.840			
INTOL1	.758	.921	.922	.796
INTOL2	.913			
INTOL3	.821			
INTOL4	.709			
INTOL5	.975			
INTOL6	.862			
INTOL7	.761			
INTOL8	.768			
INTOL9	.793			
INTOL10	.761			
INTOL11	.798			
INTOL12	.794			
ANG1	.947	.800	.761	.595
ANG2	.760			
ANG3	.714			
ANG4	.710			
ANG5	.762			
ANG6	.847			
ANG7	.742			
EFF1	.845	.758	.757	.653
EFF2	.805			
EFF3	.948			
EFF4	.740			
EFF5	.786			
EFF6	.953			
RESI1	.870	.886	0.887	.569
RESI2	.798			
RESI3	.816			
RESI4	.797			
RESI5	.757			

Construct	Factor loading	Alpha	CRE	AVE
FRT1	.817	.921	0.821	.699
FRT2	.857			
FRT3	.723			
FRT4	.735			
FRT5	.838			

Table 3. *Discriminant validity (HTMT ratio)*

	Positive emotions	Negative emotions	Resilience	Trait anger	Intolerance of uncertainty	Self-efficacy	FRT
Positive emotions							
Negative emotions	0.521						
Resilience	0.589	0.459					
Trait anger	0.543	0.338	0.498				
Intolerance of uncertainty	0.301	0.514	0.465	0.395			
Self-efficacy	0.594	0.362	0.224	0.489	0.466		
FRT	0.215	0.346	0.529	0.431	0.377	0.484	

4.3. Measurement Model

To test the measurement model of the study, confirmatory factor analysis (CFA) was estimated by using AMOS. As part of the CFA, factor loadings were computed for each item, whose results are presented in *Table 2*. It has been observed from the results that all factor loadings exceed 0.7, suggesting that the factor extracts sufficient variance from that variable. Further, models' overall goodness of fit were measured with model fit indices (CMIN/df, RMSEA, CFI, GFI, and TLI), and all values were within their corresponding permissible ranges.

Table 4. *Model fit indices*

Fit indices	Obtained value
CMIN/df	3.261
SRMR	.057
CFI	.983
TLI	.908
RMSEA	.061
GFI	.927

The six factor model trait – anger, emotions, intolerance of uncertainty, resilience, financial self-efficacy, and financial risk tolerance – yielded a good model fit, as shown in *Table 4*. Results of the measurement model indicate that the overall model is a better fit, and, consequently, the theoretical model is appropriate and fits the observed data well. It is inferred that the hypothesised six-factor CFA model matches the sample data extremely well.

4.4. Structural Model

The next required step of analysis was to evaluate the hypothesised relationships. An AMOS-generated structural equation model was utilized to test the correlations. If the value of CMIN/df is less than 5 and that of goodness of fit (GFI) index, Tucker–Lewis Index (TLI), and Confirmatory Fit Index (CFI) is more than 0.90, then the model is deemed well-fitting (Hair et al., 2010). In addition to it, an acceptable model is approved only if the estimated value of the root mean square residual (RMR) is less than 0.05 and the root mean square error approximation (RMSEA) is between 0.05 and 0.08. The model's fit indices of the study fell within the allowable range as follows: CMIN/df = 3.251, GFI = .927, TLI = .958, CFI = .908, SRMR = .519, and RMSEA = .061, as presented in *Table 4*.

The squared multiple correlation for FRT is 0.328, indicating that emotions, financial self-efficacy, intolerance of uncertainty, and resilience explain 32.8% of the variance in financial risk tolerance. Further, the results of this study indicate that there is positive and substantial effect of emotions on financial risk tolerance and thus validate hypotheses H1 and H2 ($b = 0.21$, $p = 0.01$). The relationship between financial self-efficacy and financial risk tolerance is positive and statistically significant ($b = 0.31$, $p = 0.01$), confirming the acceptance of hypothesis H3. Positive and substantial effects of resilience on financial risk tolerance were also observed ($b = 0.27$, $p = 0.01$), which supports H4. The relationship between intolerance of uncertainty and financial risk tolerance is negative and statistically significant ($b = -.024$, $p = 0.05$), thus leading to the acceptance of hypothesis H5. The influence of anger on financial risk tolerance is negative and statistically significant ($b = -0.20$, $p = 0.05$), supporting the hypothesised relationship included in H6. Results of the tested hypothesis are presented in *Table 5*.

Table 5. *Direct relationships*

Independent variables (IV)		Dependent variable (DV)	Estimate	P-value
Financial self-efficacy	→	FRT	0.31	***
Intolerance of uncertainty	→	FRT	-0.24	***
Trait anger	→	FRT	-0.20	**
Positive emotion	→	FRT	0.21	***
Resilience	→	FRT	0.27	***
Negative emotion	→	FRT	-0.17	**

Notes: *** and ** indicate significance at 1% and 5% levels respectively.

For a comprehensive understanding of the relationship between the components, Table 6 contains an inter-construct correlation matrix. From the matrix, several intriguing conclusions are drawn on the link between dynamic personality characteristics and FRT. Positive emotions are found to have a strong association with resilience (0.39). Similarly, a link between positive emotions and financial self-efficacy has been discovered (0.36). A negative correlation was found between negative emotions and resilience (-0.27) and between trait anger and resilience (-0.19). Similarly, evaluating their relationship with financial risk tolerance suggested that FRT was positively correlated with resilience (0.35), self-efficacy (0.33), and positive emotions (0.32) while negatively correlated with negative emotions (-0.19), intolerance of uncertainty (-0.23), and trait anger (-0.18).

Table 6. *Inter-construct correlations*

	Mean	SD	Positive emotions	Negative emotions	Resilience	Trait anger	Intolerance of uncertainty	Self-efficacy	FRT
Positive emotions	3.18	0.681	1						
Negative emotions	3.06	0.774	-0.25***	1					
Resilience	3.38	0.805	0.39***	-0.27***	1				
Trait anger	4.01	0.773	-0.16**	0.30***	-0.19**	1			
Intolerance of uncertainty	3.89	0.631	-0.09	0.33***	-0.24***	0.31***	1		
Self-efficacy	4.03	0.832	0.36***	-0.24***	0.38***	-0.21**	-0.19*	1	
FRT	3.97	0.752	0.33***	-0.19*	0.35***	-0.18*	-0.23**	0.33***	1

Notes: A Spearman's correlation matrix is presented here of positive and negative emotions, resilience, financial self-efficacy, trait anger, intolerance of uncertainty, and financial risk tolerance. *, **, and *** indicate significance at the 5%, 1%, and 0.1% levels respectively.

5. Discussion and Conclusions

The study attempted to examine the direct impact of dynamic personality traits on the financial risk tolerance of stock market investors in India. The independent variables of the study included positive and negative emotions (EMO), financial self-efficacy (FSE), resilience (RSE), trait anger (ANG), and intolerance of uncertainty (INTOL), whereas the dependent variable was represented by the financial risk tolerance (FRT) of an investor.

EMO were found to have significant impact on an investor's FRT (Brooks et al., 2022; Forgas, 1995; Forgas et al., 1987; Johnson et al., 1983). The findings of this study are in accordance with the appraisal tendency framework (Lerner et al., 2001) and emotional valence theory (Breaban et al., 2018), which shows that financial risk tolerance tends to increase monotonically with the positive emotions and to decrease with negative emotions towards investments. Investors experiencing positive emotions tend to behave optimistically. They see the bright side of the risky investments and tend to measure the possible outcome in terms of gain rather than in terms of loss, thus leading to an increased investment activity. With respect to negative emotions, the study found a negative relationship between EMO and FRT. Similar results were also found by other researchers (Brooks et al., 2021; Lee et al., 2011; Schulreich et al., 2016). The possible argument is that negative emotions are associated with critical thinking and more information processing. This results in the risk-averse nature of the investor. Some studies (Vazquez et al., 2014; Lerner et al., 2006) argue the contrary, that negative emotions lead to reckless decision-making and cause investors to feel more confident about risk taking. Hence, omitting the emotion factors while formulating the investment policies or theoretical models can provide an incomplete view of how individuals engage in investment decisions.

Overall sample findings revealed a positive relationship between FSE and FRT, supporting previous findings (Asebedo et al., 2019; Brooks et al., 2021; Stajkovic et al., 2018; Tang et al., 2019). Study findings align with the those of the PERMA (Positive emotion, Engagement, Relationships, Meaning, and Achievement) framework utilized by Asebedo et al. (2019) for their study. A possible explanation for our result is that higher levels of financial self-efficacy tend to increase the confidence and emotional wellbeing of an individual, which leads to higher financial risk tolerance. Hence, financial advisors should focus on developing practices that increase the financial self-efficacy level among the investors to make them sufficiently confident to participate in investments decisions.

The findings of the study suggest that INTOL is negatively correlated with the FRT of an investor. The possible explanation is that individuals react more strongly to losses than to equivalent benefits. Therefore, they avoid risks or uncertain investments, which may cause anxiety or fear of losing money. Similar findings have been reported by Buhr et al. (2009) and Conlin et al. (2015).

Sample results reveal that resilience (RESI) is positively and significantly correlated with the financial risk tolerance (FRT) of an investor. Resilience is a quality, behaviour, thought which can be developed or improved over time. Its malleable nature gives an opportunity to financial advisors and counsellors to develop this quality in an investor and help him/her to take financial risks. During financial adversity or uncertainty, it is resilience that tends to assist the

investor. Resilience, in a nut shell, leads to an increase in ability to cope with market anomalies, thus increasing the FRT of an investor. A similar finding was also reported by Brooks et al. (2021) and Salignac et al. (2019).

The findings of the study reveal that ANG has negative impact on an investor's FRT. Similar findings were presented by Owen (2011) and Tamimi et al. (2009). The argument of our study is based on the logic that persons with high anger levels tend to exaggerate the negative side and underestimate the positive side because anger generates feelings of hate and disgust. Angry investors view investments in terms of loss rather than in terms of gain. So, they avoid risk taking when confronted with risky investments. Contrary to our findings, several researchers (Brooks et al., 2021; Gambetti et al., 2012) report that trait anger is positively associated with attitude towards risk. According to their study, individuals with high scores on trait anger are more willing to invest in risky assets than individuals who score lower, as angry investors make more reckless decisions. They focus on only gaining rather than losing money.

The study endeavoured to take a look beyond the Big Five personality traits on which there is already an abundance of literature. The Big Five personality model contains only characteristics that are stable and cannot be strengthened or improved over time. However, the current research attempted to encompass all the dynamic personality traits that are present in investors and may be developed and increased over time. Further, there is a paucity of research on the direct association between dynamic personality characteristics and financial risk tolerance. The disclosure of the link between dynamic personality qualities, such as trait anger, financial self-efficacy, etc., and financial risk tolerance enables investors to deal with financial uncertainty and to take risky investment decisions.

The most important limitation of our study is that emotions and other dynamic personality characteristics change over time. Our research is only applicable to a given time period. Therefore, a future study should involve extended research periods (longitudinal data). Second, future research should focus on incorporating socio-demographic characteristics, such as culture, the significance of peer groups, etc., while analysing investor's FRT. The economic component of a country may also be included for analysis to make it more comprehensive, i.e. how changes in a country's economic status can influence an investor's risk tolerance. Furthermore, a future study may employ more objective measurements to examine investors' FRT. Researchers can compare investors of two or more nations based on these personality features. Future studies can take a large sample size to make their sample more representative. Researchers can increase the variety of investors by expanding the study's sample size. To expand the scope of this study, future research may incorporate financial literacy, investing expertise, etc. as a moderating variable between dynamic personality characteristics and financial risk tolerance.

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