

#### Prasenjit Roy, S. K. Singh



Abstract: This paper set out to conduct a critical review of research on Financial Risk Tolerance. A total of 58 research papers were reviewed and published between 2000 and 2022. This investigation is divided into three sections. Firstly, it focuses on various types of personality. Secondly, it involves six demographic variables, and the remaining ones relate to multiple objectives. Tables and graphs were used to demonstrate the basis of the year of publication, the country of origin, the types of data, the objectives of the research, and the statistical tool used. Findings indicate that a greater number of research studies have been conducted over the last decade, and India has the most significant number of research papers. Nearly 75% of research is based on primary data. Grable's 13-item questionnaire and 5-point Likert Scale are often used. Descriptive Statistics, Cronbach's alpha, correlation, and regression are a few of the most common tools utilised in research papers.

Keywords: Critical Review, Financial Risk Tolerance, Risk Aversion, Big Five Personality, Type A & Type B Personality

JEL Classification: D14, D81, G02

#### I. INTRODUCTION

n Behavioural finance, two schools of thought are considered the main inspiration for an investor's behavioural actions. Behaviour that demographic features can influence represents the first school of thought. Demographic features possess characteristics that are conditional on an investor's characteristics, which can be measured. In this research paper, age, gender, marital status, income level, education, and occupation are the demographic factors that are mainly brought into consideration, to scan the link between financial risk tolerance and investor demographics (Ayuub et al., 2015 [3]; Bayar et al., 2020 [5]; Dohmen et al., 2005 [11]; Eker & Anbar, 2010 [12]; Faff et al., 2009 [13]; J. E. Grable, 2000 [20]; Hallahan et al., 2004 [23]; Hendrawaty et al., 2020, [25]; Kannadhasan, 2015, [30]; Mabalane, 2015 [33]; Mishra & Mishra, 2016 [35]; Reddy & Mahapatra, 2017 [44]; Shah et al., 2020 [50]; Shusha, 2017 [51]; Silvia Sutejo et al., 2018 [52]; Sulaiman, 2012 [54]) & whereas the psychological characteristics that bring impact belong to the second school of thought. These characteristics affect the equanimity of the investors' overconfidence, representativeness, heuristics, and conservatism.

#### Manuscript received on 25 December 2023 | Revised Manuscript received on 12 January 2024 | Manuscript Accepted on 15 January 2024 | Manuscript published on 30 January 2024. \*Correspondence Author(s)

Prasenjit Roy\*, School of Commerce and Business Studies, Junior Research Fellow, Faculty of Commerce, Jiwaji University, Gwalior (M. P), India. E-mail: i prasenjit@jiwaji.edu, ORCID ID: 0000-0003-2523-0091

S. K. Singh, School of Commerce and Business Studies, Dean, Faculty of Commerce, Jiwaji University, Gwalior 474011 (M.P.), India. E-mail: shivkumar67@gmail.com

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an open access article under the CC-BY-NC-ND license http://creativecommons.org/licenses/by-nc-nd/4.0/

The personality of an individual can be described as a set of traits and psychological dimensions that outline the harmonious pattern of thoughts, feelings, and actions. This paper mulls over the models of personality, for instance, the significant five personality factors, Type A and Type B Personalities, and Myers-Briggs Personality Types that brought up the correspondence between personality factors and risk tolerance (Anic, 2007 [1]; Dhiman & Raheja, 2018 [9]; Ferreira, 2019 [15]; Jameel & Siddiqui, 2019, [29]; Lawrenson & Dickason-Koekemoer, 2020 [32]; Mathur & Nathani, 2019 [34]; Pak & Mahmood, 2015 [38]; Pan & Statman, 2012 [39]; Pinjisakikool, 2018 [40]; Rai et al., 2021, [43]; M. Sadiq & Amna, 2019 [46]; M. N. Sadiq & Akhtar, 2019 [47]; Thanki, 2015 [55]; Thanki et al., 2022 [57]; Thanki & Baser, 2019 [56]; Vaibhav & Mehak, 2020, [58]). According to (John. E. Grable & Lytton, 1998 [22]), a rational investor is dependent on four primary fundamental inputs for progressing monetary and investment plans. These inputs are (i) goal, (ii) time horizon, (iii) financial stability, and (iv) financial risk tolerance (FRT). Whereas, (Dickason & Ferreira, 2018 [10]) identified personality and risk tolerance level as influencing factors for an individual investor's investment decision. Financial risk tolerance (FRT) is a term frequently used among financial advisors and investors. To define properly. Financial risk tolerance is the highest degree of unfavourable chances that an investor is willing to acknowledge while reaching any financial decisions (Eker & Anbar, 2010 [12]; Faff et al., 2008 [14]; J. E. Grable, 2000 [20]; Hallahan et al., 2004 [23]). Financial risk tolerance levels can vary depending on an individual's investment background. For instance, investors from wellestablished families may exhibit a lower level of financial risk tolerance compared to those from less established backgrounds. Financial risk tolerance levels could vary for different investors for the same financial opportunity. Investors tend to take on a higher level of financial risk to earn a superior level of financial return in the long run, thereby increasing their tolerance level and potentially enhancing their fortune. On the contrary, if investors fail to balance their risk tolerance and valuation, financial planning and decisions will perform incorrectly, resulting in negative returns and leaving them with a misunderstanding and a vague position.

#### **II. LITERATURE REVIEW**

#### Research Papers Have to Do with Various "Types of Personality"

(Anic, 2007 [1]) provide a comprehensive view of factors influencing the Five Factor Model of an individual's personality virtues, with the hypothesis that three out of five traits under the Five Factor Model, viz. conscientiousness,

neuroticism, and agreeableness, perform shallowly with risktaking. In contrast, the other two traits, namely extraversion and

Blue Eyes Intelligence Engineering

& Sciences Publication (BEIESP)

© Copyright: All rights reserved.

Published By:



openness, of personality perform excellently in risk-taking behaviour. After analysis, it was found that openness scored high, whereas neuroticism and agreeableness scored low in terms of risk-taking. Furthermore, openness is associated with risk-taking only when data are stratified by gender.

(Pan & Statman, 2012, [39]) explore the synopsis for various models such as the Big Five, Myers-Briggs, and Keirsey Models of personality. A sample size of 2500 was gathered from 'keirsey.com' to explore the channel among luck, skill, and life satisfaction with risk tolerance level, overconfidence, trust, and regret level. The data analysis reveals that a high level of extraversion in personality is associated with a higher risk tolerance and overconfidence levels. Similarly, a high level of openness makes personality more risk-tolerant. Whereas, personalities with high conscientiousness tend to have less tolerance for financial decisions.

(Pak & Mahmood, 2015, [38]) understand the correlation among traits of the personality, mindset for taking risks and investment decisions in Kazakhstan: a post-Soviet transition country. Twenty questions were framed, referring to 4 questions for each trait of the Big Five personality model. This study aims to raise awareness among potential investors and identify the personal characteristics to include in the process of providing advice to private investors. A positive result was found between extraversion and openness, while a negative result was found between agreeableness, conscientiousness, and neuroticism.

(Thanki, 2015, [55]) Work mainly provides a constructive view of the Type A and B personality model. This research paper presents the correlation between demographic characteristics and investors' performance under distinct personality traits. Cross-sectional descriptive research was conducted to measure 'Investment Risk Tolerance' with a quiz. Findings show a convincing relationship between tolerance level and income level, but a unique behaviour is observed. After exceeding a specific income limit, the marginal rate of increase in risk tolerance decreases. Furthermore, it is found that people with a Type B personality take lower risks than those with a Type A personality.

(Dhiman & Raheja, 2018, [9]) studied the existing relationship of risk tolerance with magnitudes of emotional intelligence and traits of personality. Emotional intelligence, encompassing empathy, social skills, self-awareness, emotional awareness, and motivation, served as the primary dimension for the study. This study shows that an investor's characteristics, of a nature, have a lesser influence on their risk tolerance level than emotional intelligence. This also illustrates a straightforward relationship between investment decisions and emotional intelligence, as well as the relationship between investment decisions and personality traits.

(Pinjisakikool, 2018, [40]) found out that risky investment is the behavioural part of the extraversion personality of investors. Generally, they prefer Bonds, Mutual Funds, and other similar investments for their portfolios. At the same time, investors with high levels of conscientiousness, emotional stability, and agreeableness tend to choose safer options, such as savings or fixed deposits. This study utilises the CentER Saving Survey as its data source, representing information on Dutch Households. This data is perfectly suitable for their objective of investigating the response of personality traits to the real behaviour of households regarding finance.

(M. Sadiq & Amna, 2019, [46]) in his descriptive analysis study classify personality traits parallel to the big five personality model, and makes a focus point on the bond between various decisions by an investor with their strength to the risk and their personality traits. Hypothesis testing was conducted using Structural Equation Modelling (SEM), and reliability was assessed through Confirmatory Factor Analysis (CFA). SPSS was used to analyse the data and provide a comprehensive model design for future research studies, which can utilise various analytical methods. The finding shows that an intermediary risk tolerance variable can influence personality traits and investment decisions.

(M. N. Sadiq & Akhtar, 2019, [47]) found multiple results in his study under one research topic. Organisational employees tolerate more risk when confronting investors with business and professional challenges. A positive relationship exists between financial risk tolerance, economic knowledge, and the investor's income level. Furthermore, an increasing number of family members from 3-5, 6-8, or above 8 years old shows a risk tolerance behaviour shifting from average to less risk-taking. This data fulfils the objective of constructing a bridge between FRT and demographic traits and personality types during investment selection.

(Mathur & Nathani, 2019, [34]) conduct their study on young investors to find out the interconnection between risk appetite level and various traits under the Big Five Personality Model. They use multiple hypotheses to test the existing relations and conclude that no difference exists in the tolerance level for financial risk. Additionally, no link was established between extraversion and conscientiousness and risk tolerance, and the opposite was found for a healthy link associated with agreeableness, neuroticism, and openness.

(Thanki & Baser, 2019, [56]) provides an understanding view of the type A and B personalities and tolerance level of risk, which is an extensive view of his previous work in 2015 (Thanki, 2015 [55]). Additionally, under the descriptive research design, this paper successfully demonstrates the relationship between independent variables, such as age, education, occupation, income, marital status, gender, and personality types, and the risk tolerance level for financial decisions. In conclusion, the author emphasises that investment planners should scrutinise the demographic variables and personality types of the stockholder.

(Ferreira, 2019, [15]) check out his study that whether various traits of individual personality can bring any possible changes in the tolerance level for credit risk or financial risk. a purposive sampling data collection was conducted by 13-question quiz questionnaires, which were developed by (J. Grable, 1999, [19]). They said that a financial planner must assess the demographic variables of an investor, then apply any suitable strategy or portfolio to the client.

(Lawrenson & Dickason-Koekemoer, 2020, [32]) in his study focused on the establishment of a structural equation model for the figuration of personality behavior, risk tolerance level, and the gravity of education for female capitalists.





They discovered that risk tolerance levels are influenced by a lack of education, leading to adverse consequences. Furthermore, an inverse relationship exists between education level and risk tolerance level.

(Vaibhav & Mehak, 2020 [58]) studied the big five personality model to gain a relationship with Financial Risk Tolerance. With the help of purposive sampling of 50 people, it is claimed that amid the traits of personality, viz. Extraversion, openness, conscientiousness, neuroticism, and agreeableness, under the Big Five model, exhibit an inconsequential relationship with financial risk tolerance.

(Rai et al., 2021 [43]) aimed to understand the factors conditioning issues of financial tolerance behaviour with the Big Five personality traits model. This study provides a descriptive idea of the Big Five Personality model. With the help of the Structural Equation Model based on Partial Least Squares (SEM-PLS), confirmatory factor analysis has been refined for the Big Five Personality Model and various other Personality Traits. In conclusion, it is found that agreeableness, openness, and conscientiousness are the variables associated with Financial Risk Tolerance. Data indicate that personality factors are promising to predict financial risk tolerance 23% of the time.

(Thanki et al., 2022, [57]) extend his work with another objective to resolve the gender-based tolerance level, or the same factors performing the same result on both genders in all risk tolerance behaviour. A sample size of 671 is used for analysis, and the reliability of the data is assessed using Cronbach's alpha. This analysis leads to the conclusion that independent factors, such as personality type, financial literacy, marital status, income from occupation, and the number of dependents, have consequences for FRT. In contrast, only four independent variables—financial literacy, marital status, income, and personality type—have consequences for the financial risk tolerance level of women.

(Jameel & Siddiqui, 2019 [29]) contributed to the literature differently. First, they examine the impact of various variables on risk tolerance and psychological biases, including anchor bias, gambler's fallacy, loss-averse bias, overconfidence bias, and representative bias. Secondly, they follow single investors in the Pakistan Stock Exchange to measure their demographic attributes and risk-taking behaviour. They find that extroversion establishes a correlation between availability biases and overconfidence biases, but no correlation exists among anchor bias, loss aversion, the gamble fallacy, and representative bias.

### B. The Research Paper Has to Do With "Six Core Demographic Variables"

(J. E. Grable, 2000, [20]) inspect the variables related to demographic, socioeconomic, and attitudinal that affect the risk appetite behavior of an investor on daily basis and tried to conclude a theory that defines the utilization of these variables separately or collectively as a deciding factor of financial risk tolerance. With 1075 respondents and descriptive analysis, Grable generalises a few points: that the feminine character in general is less financially risk-tolerant than men. Long story short, personalities with Type A characteristics have a higher risk tolerance than Type B personalities. (Hallahan et al., 2004, [23]) collects the data from the ProQuest Personal Financial data that measures the Financial Risk Tolerance into a score of 1- 100. This score represents a lower risk tolerance level, with a lower risk tolerance score indicating a higher risk tolerance. This paper aims to fulfil the research objectives and presents the results of the adverse connection between risk tolerance level and marital status, as well as the age factor. They attempt to support the statement that the feminine portion exhibits less risk-tolerant behaviour when dealing with finance.

(Dohmen et al., 2005 [11]) presented a paper that attempts to create a perspective and measurement of attitude toward risk management. With a survey size of 22,000 individuals, they confronted the evidence that some demographic variables, such as age, Gender, height, and parental education, have a similar qualitative impact on risk attitude. Furthermore, the analysis presents a variety of individual behavioural outcomes, such as smoking, migration, and employment choice, that affect individual risk attitudes.

(Faff et al., 2009, [13]) attempt the analysis of the survey collected on the Fina Metrica Personal Financial Profiling system, involving 15916 samples. The objective of the study is to examine the nonlinear correlation between FRT and demographic attributes. This data analysis was conducted using the regression model and presented data indicating that the risk tolerance score diminishes at a decreasing rate as the dependent variable increases. In contrast, the risk tolerance score for increasing age decreases at an increasing rate.

(Eker & Anbar, 2010, [12]) examined the demographic characteristics and financial risk tolerance of the sample collected at Uludag University in Turkey. This data shows a Cronbach's alpha of 0.61, which is considered moderate. This analysis provides ample information regarding the risk tolerance level among students. Public administration students show less credit risk-tolerant behaviour than economics and business administration students. Furthermore, it is found that students with jobs and highincome sources tend to exhibit higher risk tolerance levels.

(Sulaiman, 2012, [54]) in his research paper found a significant favorable bond financial risk tolerance with marital status and single investors earning level. Apart from this, the analysis data reflect a negative correlation between several dependents and assets-backed risk. they set the objective to investigate dependent and independent demographic variables with FRT, which also results in individuals with high formal education performing better results to analyze monetary risk.

(Mabalane, 2015, [33]) in his dissertation study expand his work to different countries. Do respondents from South Africa and those from Australia, the USA, and the UK face the same level of tolerance when engaging in monetary activity? This is the main aim of the research paper. A total of 6,828 respondents were studied, and it was found that the average financial risk tolerance score for Australia is similar to that of the USA, but slightly different from those of South Africa and the UK. Furthermore. Male residents of South Africa with good education, income, and net worth are dealing with a higher tolerance level when they deal with money.

Retrieval Number: 100.1/ijmh.E168410050124 DOI: 10.35940/ijmh.E1684.10050124 Journal Website: www.ijmh.org



(Ayuub et al., 2015 [3]) conduct a random sampling of 110 respondents from Pakistan with 12-question questionnaires and apply various descriptive analysis techniques. They also use the POST HOC TUKEY test on the sample for better analysis to find out the responses through various demographic variables to measure risk-taking ability. They conclude that demographic independent variables, such as education, age, and income, were negatively correlated with risk tolerance. Moreover, females in Pakistan, contrary to popular belief, tend to take more risks and generally avoid them. Dependency on the alpha male of the family for all monetary expenses creates a less risk-taking environment for the families.

(Kannadhasan, 2015 [30]) studies the risk tolerance behavior of investors who are non-professional investors, usually indulged in buying and selling categories of securities like mutual funds or exchange-traded funds (EFTs). a crosssectional survey on the sample results in four demographical variables in nature to influence the level of financial risk behaviour of the retail investors, out of six independent demographic variables. The other two variables, namely income and education, are not relevant for determining the risk behaviour of retail investors.

(Mishra & Mishra, 2016, [35]) contributed to the literature in different ways: first, to check whether individual consumption value and socioeconomic attributes are reputable among individual variables, weighted variables, and FRT. Secondly, the breadth of engagement of particular value of materialism and socioeconomic factors towards the above mean value for risk tolerance investment from below the mean value of FRT. The conclusion attempts to explore materialism by establishing a correlation with the FRT and finds that the group with a mean below the median shows lower materialism compared to the group with a high mean risk tolerance.

(Shusha, 2017, [51]) explore how Egyptians react to financial risk tolerance due to various demographic attributes that can influence the outcomes. The study involved over 386 respondents, resulting in a favourable correlation between financial literacy and educational level, as well as yearly income. In contrast, an unfavourable correlation exists between financial literacy and the number of dependents. On the other hand, financial risk tolerance is positively associated with educational level, financial literacy level, and yearly income. In contrast, it is negatively related to the number of dependents, gender, and age of the investors.

(Reddy & Mahapatra, 2017, [44]) aimed to understand how working adults in India deal with risk tolerance in their financial decisions and demographic characteristics. Demographic characteristics, including gender, age, education, income, marital status, and occupation, have been examined to draw conclusions based on a sample of 297 respondents. After the analysis, it was found that age, education, and personal financial knowledge are the primary factors contributing to FRT. This encourages the debate to include a proper finance course in the education system for better handling of financial risk tolerance (FRT).

(Silvia Sutejo et al., 2018, [52]) shows interest in concluding the literature by conducting a brief study on the independent demographic attribute of FRT for retail investors who show explicitly their concern to invest in the Indonesia Stock Exchange. The solution to this short study is the

positive correlation between the independent variable, income, and the dependent variable, financial risk tolerance.

(Bayar et al., 2020, [5]) researched the recorded effect of demographic features and the financial literacy level of investors in connection with financial risk tolerance. For the efficient fulfilment of this research, a sample of 325 respondents was collected from Usak University and analysed using logistic regression for hypothesis testing. Cronbach's alpha was also used to check the reliability of the data. This study aligns with other research papers in indicating that men have a higher risk tolerance level than women. Furthermore, a direct influence is found between financial literacy and FRT in investors.

(Shah et al., 2020, [50]) examined the business graduates in Pakistan to identify their financial risk appetite according to distinctive demographic factors. A Convenient sampling method has been adopted for collecting data using a Questionnaire based on the Grable and Lytton risk tolerance scale. The investigation's findings conclude that the saving and income levels of male business graduates are generally high, and the monetary tolerance level is positively correlated with the seniority level of business graduates. Furthermore, unfavourable relationships exist between investors' experience and their tolerance level of financial risk.

(Hendrawaty et al., 2020 [25]) finds out that an individual's literacy level does not have an impact on the risk tolerance level of individuals. On the other hand, independent demographic variables such as age, income, and gender constantly affect the tolerance level of financial risk. These conclusions were based on data from 200 respondents, and Cronbach's alpha was used to assess the reliability of the data.

## C. The Research Paper Has to Do Other Different Objectives

(Finke & Huston, 2003, [16]) turned his study towards scrutinizing the correlation among tolerance levels for financial risk, financial assets, and investors' net worth. They use data from 4,305 households, collected in the 1998 Survey of Consumer Finances (SCF). A descriptive and multivariate analysis of the sample data confirms the correlation among variables. Youngsters are less risk-averse, while as they grow older, their behaviour turns toward risk prudence.

(J. E. Grable et al., 2008, [21]) examined the model that affects the sensitivity of risky financial risk tolerance behaviour. They contributed to the literature through their two findings. First, they highlight the method by examining environmental and biopsychosocial profiles of investors that can predict financial risk tolerance and economic behaviour. and then secondly, they state that equal marginal protection from age and self-esteem cannot be achievable as excessive debt can be procrastinated due to having wealth.

(Faff et al., 200, [8]) established a bridge between risk aversion and tolerance level in finance by a descriptive analysis of 162 respondents. Risk aversion refers to the minimum tolerance level for financial risk, or the investor's likely aversion to taking risks associated with any economic activity. The nature of risk aversion tends to lean more towards women than men. They find a non-linear pattern with

age and Risk tolerance, as age increases, FRT initially decreases and then rises after a certain point.

Blue Eyes Intelligence Engineering

& Sciences Publication (BEIESP)

© Copyright: All rights reserved.

Published By:





(Hammitt et al., 2009; [24]) summarized the idea of good health and investors' life expectancy with financial risk tolerance. They employ a traditional life cycle model to assess the impact of FRT on investor longevity. A sample of 2,751 respondents was used for analysis, resulting in a downward trend in risk tolerance with age, as indicated by the Two-sided Jonckheere-Terpstra Non-Parametric test. Furthermore, the tolerance level of investor income risk and their health and longevity are positively correlated, as found in the investigation.

(Gilliam et al., 2010, [18]) tries to relate associations between the measures of risk tolerance and asset allocation. The analysis was on Grable and Lytton's 13-question multidimensional measure, with the single-question Survey of Consumer Finance (SCF). They gathered a sample from 328 respondents through convenience sampling to compare the SCF risk Measure and the GL-RTS. A survey of consumer finance appears less associated with FRT and more invested in investment.

(Sadi et al., 2011, [45]) attempt to detect the errors in investor behaviour and try to build a bridge with the personality level of the investor. This study was conducted in Iran, utilising a descriptive analysis approach with 200 samples. Despite the conclusion that depicts a direct relationship between extroversion and openness, along with hindsight and overconfidence biases, indirect other ties have come to light, including conscientiousness and randomness bias, as well as openness and availability bias.

(Gibson'' et al., 2013, [17]) conduct a survey just after the world financial crisis in 2008 to measure the Financial Risk Tolerance level among the investor. The behaviour of a large sample of 3,931 respondents was measured, and it was concluded that Financial Risk tolerance has a positive relationship with income, while showing no relationship with marital status, education, and wealth. Again, those investors who have confidence in their positive investment returns tend to have a high level of risk tolerance. Females and older investors tend to exhibit less risk-tolerant behaviour.

(Wasiuzzaman & Edalat, 2016, [59]) this study establishes the connection between investors' online social networks with their financial risk tolerance level. For that study, a sample size of 220 was utilised for analysis: several friends and the frequency of logging into Facebook. The use of Facebook for self-expression and social connection is the variable that makes connections with FRT. The findings conclude that the more time an individual spends logging onto social network sites, the more they have FRT. Also, it results in less FRT when a social network is used for social construction by an individual.

(Kubilay & Bayrakdaroglu, 2016, [31]) bring efforts through a questionnaire to find out the closeness among investors' traits, psychological biases, and FRT. This study was conducted in the Istanbul financial market, gathering responses from 536 investors. The analysis part of the sample is done by applying the Chi-Square test and Logistic Regression analysis. This leads the investigation to the point that a high level of agreeableness in the personality is found for people with low FRT.

(Wong & Carducci, 2016, [60]) redirect their research paper with six variables such as personal information, financial dishonesty, ambiguity tolerance, locus of control, sensation seeking, and financial risk tolerance. With these variables, the purpose was to establish the correlation with financial risk tolerance. The analysis supports the information gathered on a seven-point scale, ranging from 'very accurate' to 'very inaccurate', based on responses from 255 respondents, and presents the conclusion that financial risk tolerance does not affect financial dishonesty. for the variable locus of control, the more an investor thinks he has control over income, the higher the risk an investor can tolerate. Furthermore, a null relationship was found between risk and ambiguity tolerance.

(Awais et al., 2016, [2]) aimed to provide a deeper understanding for investors during investing or designing a portfolio by creating a theoretical model. Secondary data, which is descriptive, fully supported this attempt. The model encompasses four variables: financial literacy, investment experience, risk tolerance, and investment decisions. They ultimately conclude their study with a direct correlation between higher investment experience and financial literacy.

(Chiang & Xiao, 2017, [6]) investigate the financial risk tolerance for households and the characteristics of households in the USA, during the world economic crisis in 2008. For the analysis, they used the Survey of Consumer Finances collected from 2007 to 2009. The sample represents households from diverse cultures and racial backgrounds, including White, Black, Hispanic, and other ethnicities. They find that financial crises affect general households with lower tolerance for financial risk. Furthermore, the study concludes that minority households across the United States were disproportionately affected during the economic crisis.

(Dickason & Ferreira, 2018, [10]) developed the link among investor personalities, financial risk tolerance, and behavioural finance biases. The analysis part was prepared based on 1171 respondents, and the Dospert scale was used to assess risk preference in financial, health, recreation, ethical, and social factors. Also, a 7-point Likert scale was used during conducting the survey. The investigation leads to the conclusion of three risk categories. An investor with a high level of risk tolerance tends to portray themselves as aggressive in terms of self-control. An investor with a moderate level of risk tolerance typically exhibits a moderate level of growth towards regret aversion, characterised by tendencies such as representativeness, overconfidence, the gambler's fallacy, and availability bias. In contrast, an investor with a lower risk tolerance level is more conservative towards loss aversion and mental accounting.

(Rahman et al., 2019, [41]) contributed to the literature in a way to recognise the correlation between FRT and investors' behavioural factors in Malaysia's specific universities. Rahman considered behavior factors such as a propensity for regret, a propensity for trust, and happiness in life. The methodology was supported by SmartPLS software, utilising 1204 respondent data collected via a five-point Likert scale. The crux of this investigation highlights that a high level of Financial Risk tolerance impacts factors such as a propensity for regret and a tendency for trust. In contrast, a low level of financial risk tolerance has an impact on overall life satisfaction.



(De Bortoli et al., 2019, [8]) contributed to the study with his broad ideas of an investigation by comparing four paradigms, such as prospect theory, investor profile analysis, the big five personality test, and the cognitive reflection test, that best describe the risk tolerance of investors in their decisions related to financial asset investment. They perform their analysis using logical regression and find that a higher number of correct answers in the cognitive reflection test is inversely related to risk-taking behaviour, while the potential risk-bearing investor profile - disobeying prospect theory.

(Rahman, 2019, [42]) extend his investigation work on six behavioural factors in this research paper. He also questions the role of religiosity in the connection between behavioural factors and FRT. Six behavioural factors, namely regret, trust, overconfidence, social interaction, attributing success to luck, and happiness for life, were selected for analysis using Smart Pls with a sample size of over 1204. The conclusion of this indicates that, except for the propensity for social distancing, all other behavioural factors have a significant influence on financial risk tolerance.

(Nidhi Jain & Dr. Bikrant Kesari, 2020 [36]) in her study developed two hypotheses. The first hypothesis concerned the correlation between investors' personal and mental biases, and the second hypothesis examined the correlation between investors' behavioural biases and investment risk tolerance. They used 3 3-point Likert scale during the collection of 550 samples and used SPSS for analysis. The finding shows a confident correlation between investors' behavioural perceptions and behavioural traits.

(Basheer & Siddiqui, 2020, [4]) contributed to the literature by exploring the liaison among behavioural biases, financial literacy, personality, risk tolerance, and disposition biases. In the investigation, a research model was established to examine disposition biases by incorporating loss aversion, overconfidence, representativeness, anchoring, financial literacy, risk tolerance, and personality. A non-probability sample of 182 respondents was collected for the analysis of this descriptive research paper. The conclusion indicates that no substantial effect was observed for disposition bias among investors related to the factors of anchoring, representativeness, superego, obstinacy, parsimony, and orderliness. Furthermore, factors such as overconfidence and loss aversion have a substantial effect on investors' disposition bias regarding risk tolerance behaviour.

(Samanez-Larkin et al., 2020, [48]) found out that an investor faces risky financial behaviour due to their overconfidence in economic decision-making. These impairments in financial decision-making are almost 6% in digit for overconfidence. Older adults between 60 and 90 years of age show nearly the same level of financial literacy. These results were determined over 1219 respondents using Cross-sectional Data from the Rush Memory and Ageing Project.

(Istiqomah & Krisnawati, 2021, [28]) tries in his research paper to identify the impact of accounting information with risk tolerance over unbiased information in the MSME sectors. In this descriptive analysis, multiple regression was used. This research clarifies that investors lack reliable accounting information to make informed financial decisions. Additionally, unbiased information always enhances an investor's decision-making ability, but in the same situation,

decision-making is partially influenced by the risk that an investor will face later.

(Hermansson & Jonsson, 2021, [26]) focus his study on the investor's literacy level and interest level for upbringing the bridge with a financial risk tolerance level. This research paper follows a descriptive analysis, and for this purpose, 12,156 samples were selected via convenience sampling. Financial literacy has a lesser impact on an investor compared to a passion for financial interest in economic decisions, although both are linked to a higher risk tolerance level.

(ÇiFçi & ReiS, 2021, [7]) studied market liquidity in a different market with a provocative relationship with risk tolerance level for an investor. They found that the degree of influence level does not equally represent market liquidity and risk tolerance for all investors. Also, a far-seeing bond had been captured between the variables in the cointegration test.

(Hussain & Rasheed, 2022, [27]) in their descriptive research paper attempt to cover the effect of the personality level of an investor with financial literacy and overconfidence biases over the choice of taking risk tolerance level as a factor. A random sample on a five-point Likert scale model was conducted for data collection. It can be observed that the Likert five-point scale is the most commonly used and reliable method for data collection in the questionnaire. The hypotheses related to financial literacy and risk tolerance, investor personality and risk tolerance, and overconfidence biases and risk tolerance are collectively accepted.

(Singh et al., 2022, [53]) provide an extensive survey of financial risk tolerance by scrutinizing the link between an investor's behavioural biases and personality traits. An Individual's personality plays a key role in the selection of investment and how much investors are willing to risk. A cross-sectional research design was prepared using the data of 847 respondents. The questionnaire contains 37 questions, and the evaluation was recorded on a Five-point Likert scale. The finding of this study is that financial advisors extend their work with financial education to their clients to mitigate business effects.

(Nurhidayah, 2022, [37]) focus the study on the behaviour of millennial investors with financial risk tolerance over the impact of social media. The noble quality of social media influences the millennials' tolerance level in economic decisions, which may impact trading activity in the capital market and vice versa. A positive correlation was found between investor behaviour and trading activity among investors who engage in trading and access higher-quality stock information on social media.

(Şen, 2022, [49]) Provide an extensive survey to inspect the correlation between financial risk tolerance and individual narcissistic behaviour. They surveyed undergraduate students and gathered 383 responses for analysis. The survey says that women are less risk-averse and less selfish than men. To be more specific, logical regression established a direct relationship between narcissism

level and risk tolerance level.

& Sciences Publication (BEIESP)

© Copyright: All rights reserved.

Published By:





#### **III. METHODOLOGY**

This critical review scrutinises the empirical research on financial risk tolerance, which falls within the realm of behavioural finance. For collecting the literature, a software program called "Publish and Perish" was used. A range of online databases is analysed using this software, with the following keywords: "Financial Risk Tolerance", "Risk Behaviour", and "Risk Personality" to obtain the cited citation. Then, these citations are analysed and their results are evaluated in terms of citation metrics. The ancestry approach has also been used later for collecting more articles. This search yielded 58 articles that fulfil the purpose of a decisive examination of previously published research on

financial risk tolerance, under the following limitations: (a) work published in English, (b) reported and published between January 2000 and December 2022, and (c) peerreviewed journal articles.

Every article was scrutinized by applying the following filters: (i) publication information, (ii) article related to investors' type of personality, demographic variables, or other related areas, (iii) underlying theoretical framework, (iv) objectives of the article, (v) techniques of data collection, (vi) data analysis methods, and (vii) findings of the article.

#### **IV. ANALYSIS OF REVIEW OF LITERATURE**

This part of the research paper presents the extraction of a review of the literature on the following basis:

#### **Research Published in Different Years** A.

## Table 1: Number of Research Papers Published in Different Years

Year of Publication	No. of Research Papers	Year of Publication	No. of Research Papers	Year of Publication	No. of Research Papers
2000	1	2010	2	2017	3
2003	1	2011	1	2018	4
2004	1	2012	2	2019	8
2005	1	2013	1	2020	8
2007	1	2015	6	2021	4
2008	2	2016	4	2022	6
2009	2				



Figure 1: Number of Research Papers Published in Different Years

Figure 1 shows the number of research papers published between 2000 and 2022. It was observed that the number of primary documents published on financial risk tolerance was minimal, but this increased gradually in later years. It was noticed that 2% of the article selected for review were published in 2000, 2% in 2003, 2% in 2004, 2% in 2005, 2% in 2007, 3% in 2008, 3% in 2009, 3% in 2010, 2% in 2011, 3% in 2012, 2% in 2013, 10% in 2015, 7% in 2016, 5% in 2017, 7% in 2018, 14% in 2019, 14% in 2020, 7% in 2021, and 10% in 2022 were published. It could be seen that article publishing was at its peak during 2019 and 2020, followed by 2015 and 2022.



Published By:

& Sciences Publication (BEIESP)

### B. Research Paper Published in Different Countries

Table 2:	Nu	mber of	Dif	ferent R	Researches	Publis	hed in I	Diffe	rent Co	ountries	
	0		18 Y	0.75	1.0	0		18 T	A T2	1.15	Î

Country	No of Research Papers	Country	No of Research Papers
Australia	4	Malaysia	3
China	1	Pakistan	8
Egypt	1	Romania	1
Germany	1	South Africa	4
India	14	Sweden	1
Indonesia	4	Turkey	5
Iran	1	USA	9
Kazakhstan	1		





Figure 2 highlights the map, according to research papers published in those countries. It can be seen that Asian Countries have active participation in investigations like Financial Risk Tolerance. A total of 38 articles were reported, which represent nearly two-thirds of the total research articles. The Middle East alone accounts for one out of five articles in the total. The analysis of the articles shows India (14), the USA (9), Pakistan (8), and Turkey (5) are the few countries that represent the most research papers, respectively. Researchers in India are analysing FRT and demographic variables for individual, retail investor FRT, and their risk-taking behaviour, risk tolerance, and the factors that influence it. Demographics or personality traits, FRT among Indian Investors, do personality traits and emotional intelligence of investors determine their risk tolerance, the influence of personality traits on households FRT, the interactive impact of demographic variable and personality types on risk tolerance, personality traits and FRT in young investors, analysis on investor behavioral biases, investment risk tolerance, and decision making, personality traits lead to investors FRT, the role of gender in FRT, etc.

A country like the USA indulged in the research on FRT and additional factors that affect risk-taking in everyday money matters, the brighter side of FRT, environmental and biopsychosocial profiling as a means for describing FRT, the effect of health and longevity on FRT, measuring the perception of FRT, investors' personality in the investors' questionnaire, whether sensation seeking, control orientation, ambiguity, and dishonesty traits affect FRT, and overconfidence in financial knowledge with FRT. In Pakistan, research is conducted on financial literacy, investors' personality, overconfidence bias, investment decisions, and FRT, explaining the disposition bias among investors. Additionally, analysis is performed on FRT and demographic factors among graduates. While conducting research in Turkey on financial literacy and financial risk tolerance (FRT) of individual investors, an exploratory study was conducted on the connection between narcissistic personality and FRT, as well as the relationship between investors' risk tolerance and market liquidity.





#### C. Research Published under a Common Objective or Area

CODE NO	Common Objectives or Area	No of Research Papers	References
FRT01	Relationship between FRT and	16	FC03, FC05, FC06, FC12, FC13, FC16, FC20, FC21,
	Demographic Variables		FC24, FC28, FC30, FC32, FC33, FC46, FC49, FC50
FRT02	Relationship between FRT and Net	2	FC04, FC14
	Worth/ Financial Position		
FRT03	Relationship between FRT and	16	FC07, FC18, FC22, FC25, FC34, FC36, FC38, FC39,
	Personality		FC40, FC42, FC44, FC45, FC51, FC53, FC57, FC60,
FRT04	Identification of different	15	FC08, FC19, FC27, FC29, FC31, FC35, FC37, FC41,
	Variables that influence FRT		FC43, FC48, FC52, FC54, FC55, FC58, FC62
FRT05	The link between FRT and Risk	1	FC09
	Aversion		
FRT06	FRT with Health & Longevity	1	FC11
FRT07	Error in Personality with Financial	4	FC15, FC26, FC47, FC59
	Decisions		
FRT08	FRT and Online Social Media	2	FC23, FC61
	Network		
FRT09	FRT and Market Liquidity	1	FC56



Figure 3: Number of Research Papers with Common Objectives and Area

Figure 3 presents the objectives, which were categorised into nine categories. Most of the articles fall into the FRT01, FRT03, and FRT04 categories, which represent the relationship between FRT and Demographic variables (28 per cent), the Relationship between FRT and personality (28 per cent), and the Identification of different variables that influence FRT (26 per cent), respectively. Furthermore, the relationship between FRT and investors' financial position and net worth was caught up under FRT02 (4 percent}, the Link between FRT and Risk Aversion under FRT05 (1 percent), FRT with Longevity under FRT06 (1 percent), Error in personality with Financial Decisions under FRT07 (7 percent), FRT and Online Social Media Network under FRT08 (4 percent) and FRT and market liquidity under FRT09 (1 percent).

#### D. Research Published According to Data Types & Methods

#### Table 4: Number of Research Papers Published with Data Types & Methods







Figure 4 shows that, in the process of reviewing the literature, researchers primarily use primary data, which accounts for 74 per cent of the total literature under analysis. Secondary data is the second choice for researchers, covering 26 per cent of the literature. Random sampling, convenience sampling, and Purposive sampling are the techniques that were taken into consideration to describe the true nature of primary data in this research.

#### E. Likert Scale used in Prior Research Table 5: Number of Research Papers that Use Likert Scale



Figure 5: Number of Research Papers Using Likert Scale

Figure 5 states that out of a total of 58 reviews of literature, only 27 of them used the Likert Scale during the collection of data. The most common Likert scale used was the 5-point Likert Scale (15), followed by the 4-point Likert Scale and the 7point Likert Scale, which were used 7 times and 3 times, respectively.

#### F. **Statistical Tools Used in Research Paper**

Table	6: I	Number	of S	Statistical	Tools	used	in	the	Prior	Researc	ch

Statistical Tools	No. of Papers	Citation Code for Research Paper
Descriptive Analysis	36	FC03, FC04, FC05, FC07, FC08, FC09, FC11, FC13, FC14, FC15, FC19, FC20, FC21,
		FC23, FC24, FC25, FC27, FC28, FC34, FC35, FC36, FC39, FC40, FC41, FC45, FC46,
		FC48, FC50, FC51, FC52, FC54, FC55, FC57, FC58, FC60, FC62
Regression	24	FC04, FC05, FC07, FC11, FC13, FC20, FC22, FC23, FC24, FC26, FC27, FC32, FC33,
		FC34, FC39, FC40, FC41, FC46, FC47, FC49, FC50, FC54, FC55, FC62
T Test	21	FC05, FC07, FC09, FC12, FC13, FC14, FC16, FC19, FC20, FC24, FC25, FC27, FC32,
		FC34, FC37, FC42, FC43, FC45, FC48, FC50, FC54
ANOVA	10	FC13, FC19, FC20, FC21, FC25, FC28, FC34, FC35, FC54, FC62
Chi-Square	22	FC07, FC08, FC13, FC14, FC16, FC20, FC25, FC26, FC28, FC31, FC37, FC40, FC43,
		FC44, FC45, FC46, FC47, FC48, FC49, FC53, FC57, FC61
SPSS	19	FC08, FC13, FC20, FC21, FC22, FC26, FC34, FC38, FC39, FC42, FC44, FC46, FC47,
		FC49, FC53, FC54, FC59, FC60, FC62
Least Square	4	FC04, FC14, FC19, FC23
R Square	16	EC05 EC06 EC07 EC12 EC18 EC10 EC22 EC24 EC26 EC34 EC36 EC30 EC48
It Square	10	FC53 FC54 FC58
P Value	22	FC05 FC09 FC11 FC12 FC14 FC19 FC22 FC23 FC24 FC26 FC27 FC28 FC31
1		FC46, FC48, FC49, FC51, FC52, FC56, FC57, FC58, FC61
Wilcoxon Rank Test	2	FC07. FC19
Incremental Index of	1	FC08
Fit	-	
Normed Fit Index	3	FC08, FC48, FC57
Sum of Squares	6	FC21, FC25, FC28, FC39, FC42, FC62
Dospert Scale	2	FC35, FC62
Composite Reliability	8	FC37, FC43, FC48, FC55, FC57, FC58, FC59, FC61
Correlation	23	FC07, FC08, FC11, FC12, FC14, FC15, FC16, FC18, FC20, FC22, FC24, FC27, FC31,
		FC32, FC33, FC35, FC40, FC42, FC45, FC46, FC50, FC51, FC61,
F Test	19	FC05, FC13, FC19, FC21, FC24, 25, FC26, FC28, FC34, FC35, FC36, FC39, FC42, FC45,
		FC57 FC58 FC59 FC60 FC62



Published By:

& Sciences Publication (BEIESP)



#### International Journal of Management and Humanities (IJMH) ISSN: 2394-0913 (Online), Volume-10 Issue-5, January 2023

Z Test	3	FC07, FC55, FC56
Factor Analysis	7	FC15, FC31, FC43, FC53, FC57, FC59, FC55,
Cronbach Alpha	30	FC07, FC13, FC14, FC15, FC19, FC20, FC21, FC22, FC23, FC24, FC26, FC30, FC31,
		FC33, FC34, FC35, FC37, FC43, FC44, FC45, FC47, FC49, FC50, FC53, FC55, FC57,
		FC58, FC59, FC60, FC61
SEM PLS	11	FC08, FC37, FC38, FC43, FC45, FC48, FC53, FC57, FC58, FC59, FC61
Significance Level	19	FC04, FC09, FC13, FC20, FC21, FC24, FC25, FC28, FC32, FC33, FC34, FC35, FC40,
		FC42, FC45, FC54, FC59, FC60, FC62
Standard Error	25	FC05, FC09, FC12, FC13 FC14, FC19, FC21, FC22, FC23, FC24, FC26, FC31, FC33,
		FC34, FC37, FC39, FC40, FC42, FC43, FC46, FC53, FC54, FC60, FC61, FC62
Beta Coefficient	22	FC07, FC09, FC12, FC13, FC14, FC19, FC22, FC24, FC26, FC27, FC32, FC34, FC40,
		FC42, FC43, FC50, FC52, FC54, FC58, FC59, FC60, FC62
Degree of Freedom	16	FC08, FC13, FC16, FC20, FC21, FC25, FC26, FC34, FC35, FC39, FC40, FC42, FC44,
		FC45, FC53, FC62
Comparative Fit Index	2	FC08, FC59
Wald Test	6	FC08, FC09, FC13, FC24, FC26, FC40
Cluster Analysis	1	FC24
Bootstrapping	1	FC48
Harman One Factor	1	FC59
Test		



#### Figure 6: Statistical Tools Used in the Research Papers

Figure 4 presents a bar chart view of the various tests applied to the research papers collected for the literature review. A considerable number of research papers applied Descriptive statistics (37) in the analysis part, which nominated it as the most common and essential statistical tool. In contrast, Cronbach's Alpha (30), which applies to checking the reliability of the data, is used in almost every second paper. Other statistical tools such as; Standard Error (25), Regression (24), Correlation (23), Chi-Square (22), Beta Coefficient (22), P value (22), T-Test (21), F test (19), Significance Level (19), R Square (16), Degree of Freedom (16), etc, are used very often. Analytical Software such as SEM-PLS (11) and SPSS (8) plays a key role in the evaluation part of a research paper.

Published By: Blue Eyes Intelligence Engineering & Sciences Publication (BEIESP) © Copyright: All rights reserved.



27

#### V. CONCLUSION

This study attempts to review the research published on Financial Risk Tolerance (FRT). A total of 58 articles were critically examined in all aspects to present a summary of each article. Initially, Grable (J. Grable, 1999 [19]; J. E. Grable, 2000 [20]; J. E. Grable et al., 2008 [21]; John. E. Grable & Lytton, 1998, [22]) present his extraordinary work and pave the way for further research, then Faff (Faff et al., 2008, 2009) and other researchers, and recently Thanki (Thanki, 2015 [55]; Thanki et al., 2022 [57]; Thanki & Baser, 2019 [56]) showed very active participation in the area of financial risk tolerance. It was also found that a total of 19 countries were involved in investigations related to Financial Risk Tolerance, suggesting that this is a worldwide phenomenon. India is the most populated country in the world with a large no of investment plans for investors. Ultimately, it provides a large number of areas and views for research; however, a relatively small number of studies have been conducted in India compared to those in foreign countries collectively. However, India still conducts more research on individual financial risk tolerance.

The review also highlights the trend of using primary data over secondary data in their investigation. Around two-thirds of the investigation was based on primary data. The pattern of collecting primary data may differ for different natures of inquiry. However, gathering information through questionnaires is one of the most effective methods. A 13item questionnaire was shared by Grable (J. Grable, 1999 [19]) to measure Financial Risk Tolerance was used in a research paper (Gilliam et al., 2010 [18]; J. E. Grable et al., 2008 [21]; Mishra & Mishra, 2016 [35]; M. N. Sadiq & Akhtar, 2019 [47]; Şen, 2022 [49]; Shah et al., 2020 [50]; Shusha, 2017 [51]; Thanki, 2015 [55]; Thanki & Baser, 2019 [56]; Wasiuzzaman & Edalat, 2016 [59]) during the collection of data.

#### **DECLARATION STATEMENT**

Funding	No, I did not receive.
Conflicts of Interest	No conflicts of interest to the best of our knowledge.
Ethical Approval and Consent to Participate	No, the article does not require ethical approval or consent to participate, as it presents evidence.
Availability of Data and Material/ Data Access Statement	Not relevant.
Authors Contributions	All authors have equal contributions to this.

#### REFERENCES

- Anic, G. (2007). The Association Between Risk Taking And 1. Personality. Graduate Theses and Dissertations, 35.
- 2. Awais, M., Laber, M. F., Rasheed, N., & Khursheed, A. (2016). Impact of Financial Literacy and Investment Experience on Risk Tolerance and Investment Decisions: Empirical Evidence from Pakistan. 6(1), 7.
- ayuub, sunia, latif, madiha, aslam, sumaira, & saleem, hassan. (2015). 3. Financial Risk Tolerance Based On Demographic Factors Pakistani Perspective. International Journal of Information, Business and Management, 7(2), 20.
- 4. Basheer, A., & Siddiqui, D. A. (2020). Explaining the Disposition Bias among Investors: The Mediatory Role of Personality, Financial Literacy, Behavioral Bias and Risk Tolerance. Business and Economic Research, 10(2), 290. https://doi.org/10.5296/ber.v10i2.1682
- 5. Bayar, Y., Sezgin, H. F., Öztürk, Ö. F., & Şaşmaz, M. Ü. (2020). Financial Literacy and Financial Risk Tolerance of Individual Investors: Multinomial Logistic Regression Approach. SAGE Open,

10(3),

https://doi.org/10.1177/2158244020945717

Chiang, T.-F., & Xiao, J. J. (2017). Household characteristics and the 6. change of financial risk tolerance during the financial crisis in the United States: CHIANG and XIAO. International Journal of Consumer Studies, 41(5), 484-493. https://doi.org/10.1111/ijcs.12356

215824402094571.

- ÇiFçi, G., & ReiS, Ş. G. (2021). THE INVESTOR RISK TOLERANCE AND MARKET LIQUIDITY CONNECTION: EVIDENCE FROM THE SELECTED MARKETS. Hitit Sosyal Bilimler Dergisi. https://doi.org/10.17218/hititsbd.1024411
- De Bortoli, D., da Costa, N., Goulart, M., & Campara, J. (2019). Personality traits and investor profile analysis: A behavioural finance study. PLOSONE, 14(3), e0214062 https://doi.org/10.1371/journal.pone.0214062
- 9 Dhiman, B., & Raheja, S. (2018). Do Personality Traits and Emotional Intelligence of Investors Determine Their Risk Tolerance? Labour Studies, 43(1-2), 88-99. Management and https://doi.org/10.1177/0258042X17745184
- 10. Dickason, Z., & Ferreira, S. (2018). Establishing a link between risk tolerance, investor personality and behavioural finance in South Africa. Cogent Economics & Finance, 6(1), 1519898. https://doi.org/10.1080/23322039.2018.1519898
- 11. Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J., & Wagner, G. G. (2005). Individual Risk Attitudes: New Evidence from a Large, Representative, Experimentally-Validated Survey. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.807408
- 12. Eker, M., & Anbar, A. (2010). AN EMPIRICAL INVESTIGATION FOR DETERMINING OF THE RELATION BETWEEN FINANCIAL PERSONAL RISK TOLERANCE AND DEMOGRAPHIC CHARACTERISTIC. Ege Akademik Bakis (Ege Academic Review), 10(2), 503-503. https://doi.org/10.21121/eab.2010219633
- Faff, R., Hallahan, T., & McKenzie, M. (2009). Nonlinear linkages 13. between financial risk tolerance and demographic characteristics. Letters, Applied Economics 16(13), 1329-1332. https://doi.org/10.1080/13504850701381123
- Faff, R., Mulino, D., & Chai, D. (2008). ON THE LINKAGE 14. BETWEEN FINANCIAL RISK TOLERANCE AND RISK AVERSION. Journal of Financial Research, 31(1), 1–23. https://doi.org/10.1111/j.1475-6803.2008.00229.x
- 15. Ferreira, S. J. (2019). IS FINANCIAL RISK TOLERANCE INFLUENCED BY PERSONALITY TRAITS? Proceedings of the 12th Economics & Finance Conference, Dubrovnik. 12th Economics & Finance Conference, Dubrovnik. https://doi.org/10.20472/EFC.2019.012.005
- Finke, M. S., & Huston, S. J. (2003). The Brighter Side of Financial 16. Risk: Financial Risk Tolerance and Wealth. Journal of Family and Economic Issues, 24(3),24. https://doi.org/10.1023/A:1025443204681
- 17. Gibson'', R., Michayluk''', D., & de Venter'', G. V. (2013). Financial risk tolerance: An analysis of unexplored factors. Financial Services Review, 22(1), 23-50.
- Gilliam, J., Chatterjee, S., & Grable, J. (2010). Measuring the 18 Perception of Financial Risk Tolerance: A Tale of Two Measures. Journal of Financial Counselling and Planning, 21(2). https://ssrn.com/abstract=2061313
- Grable, J. (1999). Financial risk tolerance revisited: The development 19 of a risk assessment instrument\*. Financial Services Review, 8(3), 163-181. https://doi.org/10.1016/S1057-0810(99)00041-4
- 20. Grable, J. E. (2000). Financial Risk Tolerance and Additional Factors That Affect Risk Taking in Everyday Money Matters. JOURNAL OF BUSINESS AND PSYCHOLOGY, 14(4), 625-630. https://doi.org/10.1023/A:1022994314982
- 21. Grable, J. E., Britt, S. L., & Webb, F. J. (2008). Environmental and Biopsychosocial Profiling as a Means for Describing Financial Risk-Taking Behavior. 19(2), 16.
- Grable, John. E., & Lytton, Ruth. H. (1998). Investor Risk Tolerance: 22. Testing the Efficacy of Demographics as Differentiating and Classifying Factors. Financial Counselling and Planning, 9(1), 61-
- 23. Hallahan, T. A., Faff, R. W., & McKenzie, M. D. (2004). An empirical investigation of personal financial risk tolerance. Financial Services Review, 13(1), 22.
- Hammitt, J. K., Haninger, K., & Treich, N. (2009). Effects of Health and Longevity on Financial Risk Tolerance. The Geneva Risk and Insurance Review, 34(2), 117-139 https://doi.org/10.1057/grir.2009.6



Retrieval Number: 100.1/ijmh.E168410050124 DOI: 10.35940/ijmh.E1684.10050124 Journal Website: www.ijmh.org

Published By:

& Sciences Publication (BEIESP)



- Hendrawaty, E., Irawati, N., & Sadalia, I. (2020). FINANCIAL LITERACY, DEMOGRAPHIC DIFFERENCES AND FINANCIAL RISK TOLERANCE LEVEL: A CASE STUDY. Journal of Security and Sustainability Issues. 9(M). https://doi.org/10.9770/jssi.2020.9.M(15)
- 26. Hermansson, C., & Jonsson, S. (2021). The impact of financial literacy and financial interest on risk tolerance. Journal of Behavioral Experimental Finance, 29. 100450. and https://doi.org/10.1016/j.jbef.2020.100450
- 27. Hussain, S., & Rasheed, A. (2022). Empirical Study on Financial Literacy, Investors' Personality, Overconfidence Bias and Investment Decisions and Risk Tolerance as Mediator Factor [Preprint]. In Review. https://doi.org/10.21203/rs.3.rs-2005225/v1
- 28 Istiqomah, N., & Krisnawati, A. (2021). Risk Tolerance and Investor Decision Behavior in MSMEs. AFRE (Accounting and Financial Review), 4(1), 45-53. https://doi.org/10.26905/afr.v4i1.5979
- 29. Jameel, Q., & Siddiqui, D. A. (2019). Effect of Demographics, Personality Traits, and Financial Literacy on Risk Tolerance and Behavioral Biases in Individual Investors of Pakistan Stock Exchange. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3510620
- Kannadhasan, M. (2015). Retail investors' financial risk tolerance and 30. their risk-taking behaviour: The role of demographics as differentiating and classifying factors. IIMB Management Review, 27(3), 175-184. https://doi.org/10.1016/j.iimb.2015.06.004
- 31. Kubilay, B., & Bayrakdaroglu, A. (2016). An Empirical Research on Investor Biases in Financial Decision-Making, Financial Risk Tolerance and Financial Personality. International Journal of Financial Research, 7(2), p171. https://doi.org/10.5430/ijfr.v7n2p171
- 32. Lawrenson, J., & Dickason-Koekemoer, Z. (2020). A model for female South African investors' financial risk tolerance. Cogent **Economics** æ Finance, 8(1), 1794493. https://doi.org/10.1080/23322039.2020.1794493
- Mabalane, M. D. (2015). CULTURAL AND DEMOGRAPHIC 33. DIFFERENCES IN FINANCIAL RISK TOLERANCE. 137.
- Mathur, Dr. G., & Nathani, Dr. N. (2019). Personality Traits and Risk 34. Tolerance among Young Investors. International Journal of Innovative Technology and Exploring Engineering, 8(10), 2019-2023. https://doi.org/10.35940/ijitee.J9312.0881019
- 35. Mishra, M., & Mishra, S. (2016). Financial Risk Tolerance among Indian Investors: A Multiple Discriminant Modeling of Determinants. Strategic Change, 25(5), 485-500. https://doi.org/10.1002/jsc.2075
- Nidhi Jain & Dr. Bikrant Kesari. (2020). An Empirical Analysis of 36. Investor Behavioral Biases, Investment Risk Tolerance and Decision-Making. GISBusiness, 15(2), 46-57. https://doi.org/10.26643/gis.v15i2.18897
- Nurhidayah, N. (2022). Social Media, Financial Risk Tolerance, and 37. Indonesian Millennial Generation Investor Behavior. International Journal of Finance & Banking Studies (2147-4486), 11(4), 17-23. https://doi.org/10.20525/ijfbs.v11i4.1840
- Pak, O., & Mahmood, M. (2015). Impact of personality on risk 38. tolerance and investment decisions: A study on potential investors of Kazakhstan. International Journal of Commerce and Management, 25(4), 370-384. https://doi.org/10.1108/IJCoMA-01-2013-0002
- 39. Pan, C. H., & Statman, M. (2012). Investor Personality in Investor Questionnaires. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2022339
- Pinjisakikool, T. (2018). The Influence of Personality Traits on 40. Households' Financial Risk Tolerance and Financial Behaviour. Journal of Interdisciplinary Economics, 30(1).32 - 54. https://doi.org/10.1177/0260107917731034
- 41. Rahman, M. (2019). Propensity toward financial risk tolerance: An analysis using behavioural factors. Review of Behavioral Finance, 12(3), 259-281. https://doi.org/10.1108/RBF-01-2019-0002
- Rahman, M., Albaity, M., & Isa, C. R. (2019). Behavioural 42. propensities and financial risk tolerance: The moderating effect of ethnicity. International Journal of Emerging Markets, 15(4), 728-745. https://doi.org/10.1108/IJOEM-01-2018-0024
- 43. Rai, K., Gupta, A., & Tyagi, A. (2021). Personality Traits Leads to Investor's Financial Risk Tolerance: A Structural Equation Modelling Approach. Management and Labour Studies, 46(4), 422-437. https://doi.org/10.1177/0258042X211018955

- Reddy, K. S., & Mahapatra, M. S. (2017). Risk tolerance, personal financial knowledge and demographic characteristicsevidence from India. The Journal of Developing Areas, 51(3), 51–62. https://doi.org/10.1353/jda.2017.0060
- Sadi, R., Asl, H. G., Rostami, M. R., Gholipour, A., & Gholipour, F. 45. (2011). Behavioral Finance: The Explanation of Investors' Personality and Perceptual Biases Effects on Financial Decisions. International Journal of Economics and Finance, 3(5). p234. https://doi.org/10.5539/ijef.v3n5p234
- 46. Sadiq, M., & Amna, H. (2019). Impact of Personality Traits on Risk Tolerance and Investors' Decision Making: International Journal of Applied Behavioral Economics. 8(1). 1 - 20.https://doi.org/10.4018/IJABE.2019010101
- Sadiq, M. N., & Akhtar, M. (2019). The Relationship of Investors' 47. Demographic Traits and Personality Type with Financial Risk Tolerance in Investment Decisions. Sukkur IBA Journal of 87-107. Management and Business, 6(1), https://doi.org/10.30537/sijmb.v6i1.449
- 48. Samanez-Larkin, G. R., Mottola, G., Heflin, D., Yu, L., & Boyle, P. (2020). Overconfidence in financial knowledge is associated with financial risk tolerance in older adults [Preprint]. PsyArXiv. https://doi.org/10.31234/osf.io/p5gec
- 49. Şen, S. (2022). Narcissistic Personality and Financial Risk Tolerance: An Exploratory Study in Turkey. International Journal of Applied **Behavioral** Economics, 11(1),1 - 17https://doi.org/10.4018/IJABE.295862
- Shah, N. H., Khalid, W., Khan, S., Arif, M., & Khan, M. A. (2020). 50. AN EMPIRICAL ANALYSIS OF FINANCIAL RISK TOLERANCE AND DEMOGRAPHIC FACTORS OF BUSINESS GRADUATES IN PAKISTAN. International Journal of Economics and Financial Issues. 10(4), 220 - 234.https://doi.org/10.32479/ijefi.9365
- 51. Shusha, A. (2017). Does Financial Literacy Moderate the Relationship among Demographic Characteristics and Financial Risk Tolerance? Evidence from Egypt. Australasian Accounting, Business and Finance Journal, 11(3), 67-86. https://doi.org/10.14453/aabfj.v11i3.6
- 52. Silvia Sutejo, B., Kokoh Natan Pranata, Y., & Anom Mahadwartha, P. (2018). Demography factors, financial risk tolerance, and retail investors. Proceedings of the 15th International Symposium on Management (INSYMA 2018). 15th International Symposium on (INSYMA 2018), Chonburi, Management Thailand. https://doi.org/10.2991/insyma-18.2018.20
- 53. Singh, Y., Adil, Mohd., & Haque, S. M. I. (2022). Personality traits and behaviour biases: The moderating role of risk-tolerance. Quality & Quantity. https://doi.org/10.1007/s11135-022-01516-4
- 54. Sulaiman, E. K. (2012). An Empirical Analysis of Financial Risk Tolerance and Demographic Features of Individual Investors. and Finance, 109-115. Procedia *Economics* 2, https://doi.org/10.1016/S2212-5671(12)00070-6
- 55. Thanki, H. (2015). Risk Tolerance Dependent on What? Demographics or Personality Type: Findings from an Empirical Research. Journal of Marketing and Consumer Research, 6(1), 9.
- Thanki, H., & Baser, N. (2019). Interactive Impact of Demographic 56. Variables and Personality Type on Risk Tolerance. Emerging Economy Studies, 5(1), 42-54. https://doi.org/10.1177/2394901519825924
- Thanki, H., Shah, S., Sapovadia, V., Oza, A. D., & Burduhos-Nergis, 57. D. D. (2022). Role of Gender in Predicting Determinants of Financial Sustainability, Risk Tolerance. 14(17). 10575. https://doi.org/10.3390/su141710575
- Vaibhav, J., & Mehak, K. (2020). Impact of personality on risk 58. tolerance. The International Journal of Indian Psychology, 8(4), 8. https://doi.org/10.25215/0804.106
- Wasiuzzaman, S., & Edalat, S. (2016). Personality, risk tolerance and 59. social network use: An exploratory study. Managerial Finance, 42(6), 536-552. https://doi.org/10.1108/MF-05-2015-0159
- 60. Wong, A., & Carducci, B. (2016). Do sensation seeking, control orientation, ambiguity, and dishonesty traits affect financial risk tolerance? Managerial Finance, 42(1), 34-41. https://doi.org/10.1108/MF-09-2015-0256



Published By:

& Sciences Publication (BEIESP)

### **APPENDIX**

CITATIONS	CODE No.	CITATIONS	CODE No.
(J. E. Grable, 2000)	FC03	(Dhiman & Raheja, 2018)	FC34
(Finke & Huston, 2003)	FC04	(Dickason & Ferreira, 2018)	FC35
(Hallahan et al., 2004)	FC05	(Pinjisakikool, 2018)	FC36
(Dohmen et al., 2005)	FC06	( <u>Rahman et al., 2019</u> )	FC37
( <u>Anic, 2007</u> )	FC07	(M. Sadiq & Amna, 2019)	FC38
(J. E. Grable et al., 2008)	FC08	(Thanki & Baser, 2019)	FC39
( <u>Faff et al., 2008</u> )	FC09	( <u>Ferreira, 2019</u> )	FC40
( <u>Hammitt et al., 2009</u> )	FC11	(De Bortoli et al., 2019)	FC41
( <u>Faff et al., 2009</u> )	FC12	(Mathur & Nathani, 2019)	FC42
( <u>Eker &amp; Anbar, 2010</u> )	FC13	( <u>Rahman, 2019</u> )	FC43
( <u>Gilliam et al., 2010</u> )	FC14	(M. N. Sadiq & Akhtar, 2019)	FC44
( <u>Sadi et al., 2011</u> )	FC15	(Lawrenson & Dickason-Koekemoer,	FC45
		<u>2020</u> )	
( <u>Sulaiman, 2012</u> )	FC16	( <u>Shah et al., 2020</u> )	FC46
(Pan & Statman, 2012)	FC18	(Nidhi Jain & Dr. Bikrant Kesari, 2020)	FC47
( <u>Gibson'' et al., 2013</u> )	FC19	(Basheer & Siddiqui, 2020)	FC48
( <u>Mabalane, 2015</u> )	FC20	( <u>Bayar et al., 2020</u> )	FC49
(ayuub et al., 2015)	FC21	(Hendrawaty et al., 2020)	FC50
( <u>Pak &amp; Mahmood, 2015</u> )	FC22	(Vaibhav & Mehak, 2020)	FC51
(Wasiuzzaman & Edalat, 2016)	FC23	(Samanez-Larkin et al., 2020)	FC52
(Kannadhasan, 2015)	FC24	( <u>Rai et al., 2021</u> )	FC53
( <u>Thanki, 2015</u> )	FC25	(Istiqomah & Krisnawati, 2021)	FC54
(Kubilay & Bayrakdaroglu, 2016)	FC26	(Hermansson & Jonsson, 2021)	FC55
( <u>Wong &amp; Carducci, 2016</u> )	FC27	( <u>ÇiFçi &amp; ReiS, 2021</u> )	FC56
(Mishra & Mishra, 2016)	FC28	(Jameel & Siddiqui, 2019)	FC57
( <u>Awais et al., 2016</u> )	FC29	(Hussain & Rasheed, 2022)	FC58
( <u>Shusha, 2017</u> )	FC30	( <u>Singh et al., 2022</u> )	FC59
( <u>Chiang &amp; Xiao, 2017</u> )	FC31	( <u>Thanki et al., 2022</u> )	FC60
(Reddy & Mahapatra, 2017)	FC32	( <u>Nurhidayah, 2022</u> )	FC61
(Silvia Sutejo et al., 2018)	FC33	( <u>Şen, 2022</u> )	FC62

#### **Table No. 7: List of Citation Supports Statistical Tools**

#### **AUTHOR PROFILE**



Prasenjit Roy is currently pursuing his Ph.D. from the School of Commerce and Business Studies, Jiwaji University, Gwalior. His areas of interest are "Financial Technology", "Risk Management" and "Financial Risk Tolerance". He has completed his Master's Degree from Vinoba Bhave University, Hazaribagh. He was awarded

a UGC-NET Junior Research Fellow Fellowship. He has several research publications to his name in various international journals and edited books. He presented many research papers at global conferences. He has guided research projects for seminars in MBA Hospital Administration. He is a Lifetime Member of the Indian Accounting Association and the Indian Commerce Association. He was a part of the organizing group of the 44th Indian Accounting Association International Conference in 2022



Professor S. K. Singh received his M. Com. (Gold-Medal), M. Phil.., and Ph.D. from Jiwaji University, Gwalior. He is a professor at the School of Commerce & Business Studies, Jiwaji University, Gwalior. His areas of expertise include probability theory, inferential statistics, and consumer behaviour. He has published 43 research papers. He has written/edited eight books. Forty-

four PhDs have been conferred under his supervision. In 2007, he won the prestigious title for Best Business Academic of the Year at the Golden Jubilee All India Commerce Conference. Additionally, he has held a variety of administrative and academic positions at the university.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of the Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP)/ journal and/or the editor(s). The Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions, or products referred to in the content.

Blue Eyes Intelligence Engineering

Published By:

& Sciences Publication (BEIESP)