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# INFLUENCE OF FRT ON RETAIL INVESTOR'S DECISION MAKING: A BEHAVIOURAL FINANCE PERSPECTIVE

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## ABSTRACT

In recent years, Indian investors have put up with a slow economy, abrupt market declines brought on by diminishing revenues, and changes in the global economy. The outcomes of the stock market are not only influenced by obvious features; they are also affected by psychological and personality traits, the effects of which continue to baffle analysts. But, the reality, however, is quite different; every investor is not sufficiently intelligent, and there are a variety of factors that may influence their choice of investment instruments. One of them is financial risk tolerance (FRT). FRT stands for people who are prepared to tolerate the greatest amount of uncertainty while choosing an investment.

**Purpose:** The purpose of this paper is to investigate the relationship between factors and demographic factors with investment variables and to investigate how investors' risk tolerance influence investor's risk investing choices.

**Methodology:** In carrying out this research study a descriptive design is used. A sample of 487 respondents (retail investors) were selected as part of a sample utilizing the snowball (chain referral) method of sampling. The instrument used for collecting primary data is a well-structured questionnaire and it consists of demographic profiles of respondents.

**Findings:** The findings indicated a substantial link between every dimension. The study's findings showed a significant correlation between gender and annual income, with male investors making larger investments than female peers. It was also discovered that men take greater risks than women, with women taking moderate risks. Investors in the middle age group were moderate risk takers and invested more than younger investors. The findings also indicated that a person's ability to take risks declines with age.

**Implications:** These results emphasize the significance of individual propensities in determining a person's level of financial risk tolerance. This study will help financial advisors to better understand the attitudes and behaviours of their clients and also be significant for financial institutions, given to positive economic effects of development of financial sector.

**Keywords:** Retail Investors, Financial Risk Tolerance, demographic Characteristics, Socio-economic Factors, Risk aversion

## 1. INTRODUCTION:

This is one of the most crucial questions in the world of investing. "No suffering, no gain" Investment activities, regrettably, entail some risk, and with that risk, there is a chance for both gain and pain. Any type of investment aims to maximize profits while also building wealth. The proverb states that there can be no reward without risk. Naturally, every economic decision involves some level of risk. "The unexpected variability of returns" is a definition of risk.

Stock market trading can be risky for individual investors. As a result, an individual's financial risk tolerance (FRT) determines the time horizons, investment patterns, and amounts they make in addition to reflecting their attitude toward risk. Risk in gambling, risk in physical danger, and danger in routine events are only a few of the approaches to study the concept of risk tolerance (Bromiley and Curley, 1992; Byrnes, Miller, and Schafer, 1999). The majority of studies or research on risk tolerance concentrates on the financial decisions made by individual or retail investors. Risk tolerance (RT) can be defined as the range of variation that is acceptable or undesirable to the achievement of a particular goal or the overall appetite for risk. Financial risk tolerance, or FRT, is a measure of an individual's maximum amount of uncertainty or risk while making an investment or other financial decision. (Grable & Lytton, 1999), (Grable, 2000), and (Finke and Huston, 2003), or alternatively, it refers to the situation in which individual retail investors are prepared to accept unfavorable changes in their investment's return or deviation from their anticipated return. Therefore, in the context of emerging countries like India, understanding FRT behavior is crucial for the creation and implementation of policies. Investors, researchers, and financial planners/advisors should all be aware of their personal risk tolerance before investing in riskier assets such as stocks. Additionally, investors' socioeconomic and demographic traits play a significant role in determining how they take risks. Finding out how the aforementioned elements impact Indian retail investors' fair return (FRT) and, consequently, their perception of risk, is the aim of this study.

Over the past few decades, there has been an increase in the amount of research focusing on forecasting investors' risk tolerance using different demographic and socioeconomic data. But when it comes to pinpointing relevant demographic traits or the strength and direction of the relationships that have been discovered, the results of these studies have not always been consistent. One of the few studies that has examined key investor demographics is this one, which focuses on home ownership and birth order in particular. The study aims to ascertain how these characteristics affect Indian investors' levels of risk tolerance (as measured by their self-esteem, personality type, sensation seeking, financial knowledge, financial satisfaction, speculative risk, and risk control) and, in turn, their risk attitudes.

## 2. LITERATURE REVIEW

Grable (1997) investigated the possibility of using the following characteristics alone or in combination to distinguish between the various risk tolerance levels: age, gender, marital status, occupation, income, race, and education. The findings showed that the three levels of risk tolerance's variance could be largely explained by the demographic factors, with an approximate

20% variance. The most important and optimizing element was found to be the respondents' educational attainment. The study came to the conclusion that an investor's risk tolerance can only be determined in part by their demographics.

Financial risk tolerance is not the only factor that influences the decision to allocate assets; other factors, such as financial risk perception, can also affect investor decision-making, according to Grable et al. (2000), who studied financial risk tolerance and additional factors that affect risk taking in everyday money matters. In fact, it is thought that perception of risk plays a crucial role when making risky decisions. The results of this study also showed that determining a person's financial risk tolerance is a multifaceted process that involves considerations other than socioeconomic, demographic, and attitude variables.

According to Terrence et al. (2004), who looked at the subject's financial risk tolerance, risk tolerance is one of the key elements that determines the right mix of assets to be allocated in a portfolio. They went on to say that the main determinants of risk tolerance include demographics including wealth, gender, education, and income. The findings indicated that age and risk tolerance, as well as marital status and risk tolerance, are negatively correlated. The study came to the conclusion that women are less risk-tolerant than males are, and that determining an investor's risk profile is crucial to building a suitable investment portfolio.

Bailey and Kinerson (2005) looked into the influence of regret on a person's risk tolerance and, in turn, how it affects their behavior while making investment decisions.

They discovered that while regret over a certain investment kind lessens the likelihood that the investor will make another one identical to it, personal risk tolerance is a predictor of investment decision behavior independent of regret.

According to research by Rahmawati et al. (2015) on risk tolerance determinants, an investor's decision to make an investment is based on their own risk tolerance as well as their ability to absorb a certain amount of loss when making stock investments. The findings showed that men are less able to accept danger than women are, and that men's ability to endure risk declines with age. Furthermore, they came to the conclusion that changes in wealth also affect an investor's decision-making process because wealthier people are more able to bear risk while making investment decisions.

In a financial advisory setting, Nguyen (2015) investigated why two significant but frequently misunderstood constructs—risk tolerance and risk perception—cooperate to influence client investment decisions. The study's findings showed that risk perception, which is a direct and indirect effect of financial risk tolerance, affects asset allocation. Additionally, there was a significant correlation found between financial risk tolerance and the choice of which assets to allocate, indicating that investors with higher risk tolerance are more inclined to do so. Additionally, the author discovered that risk perception plays a mediating function and proposes that risk tolerance effects clients' perceived risk and their ability to make decisions.

## 2.1 A REVIEW OF RISK TOLERANCE AND HOW IT RELATES TO INVESTORS' PERCEPTIONS OF RISK

Grable (2008) looked at risk-taking in daily financial concerns and other characteristics that influence financial risk tolerance. "The maximum amount of uncertainty someone is willing to accept when making a financial decision" is how the author characterizes the risk tolerance of investors. The author disclosed that there is potential to broaden the scope of elements influencing financial risk-taking and risk tolerance beyond the evaluation of simply psychological aspects like attitude, socioeconomic status, and demographic traits.

Gender, age, occupation, income, education, financial literacy, and expectations regarding the economy were shown to be strongly correlated with risk tolerance levels in the study's findings.

(2010) Lucarelli and Brighetti examined the emotional aspects of risk-taking behavior with an emphasis on risk tolerance. The findings showed that the unbiased danger is far greater than the risk that is taken in everyday life.

Bashir et al. (2014) looked into how demographic traits and risk tolerance affected risk perception and portfolio management. According to the author, a key consideration when making investing selections is risk tolerance. People ought to be required to be realistic about their abilities and ready to withstand fluctuations in the investment's value. In a similar vein, investors who take on excessive risk might not lose heart and sell at the wrong moment. Tolerance for failure in investing decisions is a component of risk tolerance. In a similar vein, risk-averse investors might take a chance with their money. The study's conclusion showed that risk tolerance and perception were substantially and favourably supporting one another. Additionally, there is a substantial but negative association between risk tolerance and portfolio management; nevertheless, there is a significant and positive relationship between gender and portfolio management, as well as a significant but negative relationship between age, education.

Literature revealed that the combined effects of socioeconomic, investment, and demographic variables were absent. Thus, it was suggested that the current research look at how demographic, socioeconomic, and investment factors affect investors' and their ability to tolerate it, and how they make investment decisions. We also discovered from the literature review that, with regard to the behavioral aspects taken into account for this investigation, very few studies had been done in India. Thus, the goal of this study is to examine how investors' tolerance for risk affect their investing choices.

## 3. RESEARCH METHODOLOGY:

### 3.1. OBJECTIVES OF THE STUDY

1. To investigate the relationship between factors and demographic factors with investment variables.
2. To investigate how investors' risk tolerance influence investor's risk investing choices.

### 3.2. SAMPLING DESIGN

#### 3.2.1. Sample size

A total of 550 people have been questioned for the purpose of filling up the questionnaire but 487 respondents revert it back properly.

#### 3.2.2 Sampling method

The method used for collecting the observations from the target population is snowball sampling (chain referral sampling). This method is used when the study is very rare or limited to a particular small subgroup of the population. It is used for collecting the study data and for understanding the role of financial risk tolerance and investor sentiments among retail investors. The sampling frame used for this study is based on demographic characteristics of the retail investor.

**3.2.3. Sample locale**

The research was carried out in U.P. (West), Delhi NCR, Punjab, and Haryana.

**3.2.4. Sample selection**

The respondent that is accessible to this study are retail investors, who have substantial experience, both male and female investor respondents.

**3.3. STATISTICAL DESIGN:**

Primary data is a source that is used to collect data and in analyzing the research study.

The tool or instrument used for collecting primary data is a questionnaire.

The questionnaire consists of demographic data of the respondents, and it also consists of questions that are related to factors of financial risk tolerance.

And for recording the responses, the Likert scale is used to measure the influence of many factors on retail investors' attitudes towards financial risk tolerance. Ratings are given on a 1-5 Likert type response scale

Where,

1= "Highly Disagree", 3= "Neutral", 5= "Highly Agree".

Questionnaires were distributed to the investors (contacted via stockbrokers, and relatives) through the mail, Facebook, Whatsapp, and in hard copy as well in the region of UP (west), Delhi NCR, and Punjab and Haryana.

**3.4. OPERATIONAL DESIGN**

**3.4.1. Hypothesis for the study:**

Ha1: There is a significant association between demographic and socio-economic variables with investment variables.

Hb1: There is a significant influence of risk tolerance on investment decisions.

**4. DATA ANALYSIS & INTERPRETATION:**

4.1: To investigate the relationship between investment variables and demographic variables

**4.1.1 ANNUAL INVESTMENT AND GENDER**

The cross-classification results of gender and yearly investment are displayed in table 4.1.1. Compared to other investment categories, it was found that, for male investors, 63.48% and female investors, 36.52% of annual investments were for less than fifty thousand rupees. Furthermore, the chi-square value (55.345, df 4) demonstrated a substantial correlation between investors' yearly investment and gender. The table below makes it clear that male investors make larger investments than female investors.

**Table 4.1.1: Investors cross classification: Annual Investment & Gender**

| GENDER | INVESTMENT (annually) |
|---|---|

| | Rs. 50000 | Rs. 50001-1Lakhs | Rs 100001-150000 | 150001-200000 Rs | Above Rs. 200000 |
|---|---|---|---|---|---|
| FEMALE | 136 (42.12), 68.63 | 101 (32.66), (89.91) | 41 (12.66), (95.47) | 9 (2.78), (100.1) | 27 (8.68), (100) |
| MALE | 77 (86.7), (32.36) | 9 (12.23), (8.10) | 2 (2.21), (4.67) | 0 | 0 |

Source: SPSS

### 4.1.2 YEARLY INVESTMENT AND AGE

The cross-classification of investors' yearly investment and age is displayed in table 4.1.2. An analysis revealed that investors between the ages of 31 and 40 make larger annual investments, with less than 50,000 rupees being invested annually. Furthermore, it was evident from the chi-square value (44.123, df 8) that the age of investors and the amount they invested annually were significantly correlated.

**Table 4.1.2: Investors cross classification: Annual Investment & Age**

| AGE | INVESTMENT (annually) | | | | | Total |
|---|---|---|---|---|---|---|
| | Rs. 50000 | Rs. 50001-1Lakhs | Rs 100001-150000 | 150001-200000 Rs | Above Rs. 200000 | |
| **LESS THAN 30** | 84(64.50) -44.09 | 34(26.20) 31.53) | 11(8.08) -26.19 | 0 | 6(5.51) -22.22 | **136** |
| **31-40** | 107(52) -51.92 | 57(26.52) -53.35 | 12(5.20) -27.67 | 8(5.00) -86.78 | 15(9.50) -53.55 | **200** |
| **41 & ABOVE** | 19(28.23) -8.96 | 20(31.77) -19.01 | 19(29.23) -43.23 | 1(2.53) -12.11 | 6(8.23) -22.22 | **65** |

Source: SPSS

### 4.1.3 EDUCATION AND ANNUAL INVESTMENT:

The cross-classification of investors' education and annual investments is presented in table 4.1.3. It was found that, of investors who invested up to rupees fifty thousand annually, 50.00 % had PG & above qualification, 45.65 % were graduate, and 4.3 % were undergraduate. Additionally, the chi-square value (19.218, df 8) indicated a significant correlation between the investors' education level and annual investment.

**Table 4.1.3: Investors cross classification: Annual Investment & Education**

| EDUCATION | INVESTMENT (annually) | | | | | |
|---|---|---|---|---|---|---|
| | Rs. 50000 | Rs. 50001-1Lakhs | Rs 100001-150000 | 150001-200000 Rs | Above Rs. 200000 | |
| **UG** | 9(63.28)# (4.12)* | 3(31.43) (3.70) | 0 | 0 | 2(15.29) (8.41) | **14** |
| **GRADUATE** | 97(58.88) (46.75) | 46(29.39) (42.44) | 14(7.64) (34.33) | 0 | 5(4.09) (19.31) | **162** |
| **PG &ABOVE** | 107(46.11) (51.00) | 62(28.56) (56.85) | 28(13.44) (67.66) | 9(5.00) (100) | 20(9.89) (75.07) | **225** |
| **Total** | **212*** | **111** | **42** | **9** | **27** | **401** |

Source: SPSS

### 4.1.4 ANNUAL INVESTMENT AND OCCUPATION

Table 4.1.4 displays the cross-classification of the yearly investments made by investors based on their occupation. An analysis revealed that 24% of independent contractors invest up to Rs 50,000 in equities annually, whereas 44.44% of government employees invest up to Rs 2 lakh. Up to Rs 1 lakh is invested annually by investors from private sector occupations (40.54%), of which 31.60% were employed in private employment and 16.03% were business owners. In addition, the chi-square value (43.106, df 12) demonstrated a strong correlation between the annual investment and the various occupations of investors.

**Table 4.14: Investors cross classification: Annual Investment & Occupation**

| OCCUPATION | INVESTMENT (annually) | | | | | Total |
|---|---|---|---|---|---|---|
| | Rs. 50000 | Rs. 50001-1Lakhs | Rs 100001-150000 | 150001-200000 Rs | Above Rs. 200000 | |
| **SELF-EMPLOYED** | 51(63.96) (23.06) | 17(21.99) (16.31) | 5(7.17) (12.90) | 2(3.47) (23.22) | 6(8.40) (23.22)* | **81#** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **GOVT-JOB** | 60(64.93)<br>(27.30) | 18(29.78)<br>(17.22) | 7(8.69)<br>(17.67) | 4(5.39)<br>(45.44) | 2(3.20)<br>(8.40) | **91** |
| **PVT-JOB** | 67(41.15)<br>(32.60) | 45(24.35)<br>(40.44) | 10(6.63)<br>(24.80) | 3(3.29)<br>(32.33) | 6(5.58)<br>(23.22) | **131** |
| **BUSINESS** | 34(33.69)<br>(17.04) | 31(32.63)<br>(28.93) | 20(19.4)<br>(46.62) | 0 | 13(14.26)<br>(49.15) | **98** |
| **Total** | **212** | **111** | **42** | **9** | **27** | **401** |

Source: SPSS

### 4.1.5: ANNUAL INVESTMENT AND OCCUPATION:

An analysis revealed that 24% of independent contractors invest up to Rs 50,000 in equities annually, whereas 44.44% of government employees invest up to Rs 2 lakh. Up to Rs 1 lakh is invested annually by investors from private sector occupations (40.54%), of which 31.60% were employed in private employment and 16.03% were business owners. In addition, the chi-square value (43.106, df 12) demonstrated a strong correlation between the annual investment and the various occupations of investors.

**Table 4.1.5: Investors cross classification: Annual Investment & Occupation**

| **INCOME** | INVESTMENT (annually) | | | | | **Total** |
|---|---|---|---|---|---|---|
| | Rs. 50000 | Rs. 50001-1Lakhs | Rs 100001-150000 | 150001-200000 Rs | Above Rs. 200000 | |
| **Less than 5 Lakh** | 66(82.48)<br>(32.13) | 15(17.52)<br>(14.51)* | 0 | 0 | 0 | **81#** |
| **5-7 Lakh** | 84(72.79)<br>(38.62) | 17(13.52)<br>(14.32) | 9(8.69)<br>(22.42) | 3(3.56)<br>(34.33) | 4(4.42)<br>(15.81) | **117** |
| **7-9 Lakh** | 53(41.77)<br>(26.00) | 56(42.07)<br>(51.45) | 15(12.54)<br>(35.41) | 3(3.30)<br>(34.33) | 3(3.31)<br>(12.11) | **130** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **9-11 Lakh** | 9(18.31)<br>(5.24) | 22(43.30)<br>(20.82) | 16(31.77)<br>(39.09) | 0 | 5(8.62)<br>(19.51) | **52** |
| **11 Lakh & Above** | 0 | 1(5.76)<br>(0.80) | 2(8.52)<br>(6.76) | 3(15.28)<br>(34.33) | 15(72.43)<br>(56.55) | **21** |
| **Total** | **212*** | **111** | **42** | **9** | **27** | **401** |

Source: SPSS

**4.1.6: TYPE OF INVESTOR AND GENDER**

According to an analysis, 65.47% of males and 34.52% of women took moderate risks. Additionally, there is a strong link between investors' yearly investment and gender, as indicated by the chi-square value (46.930, df 16). Furthermore, it was evident that relatively few women were prepared to take big chances.

**4.1.7: TYPE OF INVESTOR AND AGE**

In addition, the Chi-square value (19.530, df 8) clearly indicated that there was an association between different age groups and investor type categories. The results indicate that investors in the age group of 31 to 40 took moderate risks, and that as they grew older, they became less willing to take on more risk. Very few investors in the sample were extremely conservative, but those under 30 were, perhaps due to their lack of stock market knowledge, very cautious.

**4.1.8 TYPE OF INVESTOR AND LEARNING**

The chart made it clear that education and the ability to take risks were associated. Individuals with postgraduate degrees are well educated and have a great tolerance for taking risks. Additionally, the Chi-square test result (22.512, df 8) indicates that there was a strong correlation between investors' investor risk type category and education level.

**4.1.9 TYPE OF INVESTOR AND OCCUPATION:**

Results regarding occupation and investors' willingness to take risks were not entirely consistent. Based on the table, we may infer that the individuals in our sample are private sector workers who are moderate risk-takers. Furthermore, a strong correlation was found between the investor type and the various occupations of the investors, as indicated by the Chi-square value (29.00, df 12).

**4.1.10 TYPE OF INVESTOR AND ANNUAL INCOME**

An analysis revealed that 50.00% of investors with an annual income of 9-11 lakh were high risk-takers, and 61.53% of investors with an income of 7-9 lakh were of moderate risk-taking capacity. Similarly, the annual income of 61.90% of extremely conservative investors was less than 5 lakh. Furthermore, there is a substantial correlation between the various investor types and the chi-square value (95.783, df 16) of annual income of investors.

**4.1.11 A COMPLETE RECAP OF THE CHI-SQUARE INDEPENDENCE TEST**

In essence, the correlation between the pertinent variables—which had previously been shown to be somewhat related in the literature—was examined. The findings of the chi-square test of

independence demonstrated a substantial correlation between every pair of socio-economic and demographic traits and investment factors as well as between each pair of characteristics and investment variables.

## 5 FINDINGS

Some noteworthy conclusions have been drawn from the study's results:

First, the data was represented graphically, revealing that 78% of the sample's investors were men and 22% were women. Age-wise, the largest proportion of investors falls into the 31–40 year old range. Of the sample, 32% of investors were employed in the private sector, and 56.11 percent of investors were post-graduates. Of the 401(k) participants, the largest percentage of respondents invested less than Rs 50,000 yearly, and 52.9% had an annual income of less than Rs 5 lakh. The data representation also showed that 55.4% of respondents were moderate risk-takers, 47.13 percent of respondents reviewed their assets on a monthly basis, and the companies' success records were the biggest determinant of their investment decisions. Therefore, this data's graphical depiction showed that the sample is made up of intelligent people with sound financial knowledge. With the use of the Chi-square test, the first goal of the study examined every dimension the researcher had evaluated with reference to investment, demographic, and socioeconomic variables. The findings indicated a substantial link between every dimension. The study's findings showed a significant correlation between gender and annual income, with male investors making larger investments than female peers. It was also discovered that men take greater risks than women, with women taking moderate risks. Investors in the middle age group were moderate risk takers and invested more than younger investors. The findings also indicated that a person's ability to take risks declines with age. In a similar vein, investors under 30 were exceptionally cautious; it's possible that they don't know as much about the stock market and they prefer to be safe. Investment and education were shown to be related, with the data indicating that those with higher levels of education make larger investments due to their market awareness and willingness to take on risk. Our study's findings also demonstrated that investors with jobs in the private sector made larger investments and were more willing to take on risk. Even though the investors in our sample have yearly incomes of less than Rs 5 lakh, those in the 7-9 lakh annual income range invest more since they have extra cash and are major risk-takers.

## 6. CONCLUSION:

The research employed a behavioral finance methodology, acknowledging the impact of behavioural elements such as risk perception and tolerance on investors' investment decision-making procedures. Based on the results, the study emphasized the significance of behavioral factors in investing, contending that people's decisions vary based on how they view the risk involved in an investment, which is influenced by underlying factors like risk tolerance and risk perception. Thus, it is essential to comprehend the basic psychology of humans as it relates to investors' long-term financial planning and investment objectives. Even though behavioral biases are unavoidable, people might attempt to lessen their impact on financial decision-making by seeking the advice of investment specialists. As a result, it's critical to understand an investor's level of risk tolerance and perception in order to tailor an investing plan appropriately. Therefore,

we can draw the conclusion that, in contrast to the rational investors assumed by classical finance theory, individual investors need financial literacy programs to be intervened in order to mitigate the distortion in their decision-making that arises from their cognitive constraints.

## 7. LIMITATIONS

Since the results are solely dependent on the data collected from the respondents, respondent bias and inadvertent mistakes on their side may have a negative impact on the accuracy of the conclusions.

The results of the study cannot be broadly applied because it focused on investors located in Delhi NCR, and the characteristics of interest are likely to vary significantly across investors based on their geographic location.

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