







# Impact on the Risk Attitude of Investors towards Stock Market Investment

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**Abstract** .This study explores the risk tolerance attitudes of investors in the context of stock market investments. Comprehending investors' perceptions and reactions to risk is essential for making sound financial decisions, as the stock market is naturally volatile. The research aims to analyse various factors influencing investors' risk tolerance and how these attitudes impact their stock market investment decisions. The study employed a descriptive approach, quantitative surveys used to gather comprehensive insights from 160 samples. A diverse sample of investors, ranging from novice to experienced, will be surveyed to assess their risk tolerance levels. Risk preferences, investing experience, and demographic data will all be gathered through the surveys. In addition to educating financial advisors, legislators, and investors on the nuances of risk tolerance, the research findings are intended to provide a valuable contribution to the body of knowledge already available on investor behaviour.

**Keywords:** Risk appetite, risk capacity, risk-tolerance, investment decision

## 1 Introduction

According to [5 & 8], the efficient market hypothesis the modern portfolio theory, and other traditional financial theories all make the assumption that financial markets are fully capable and that investors are logical when making investments. According to [3], the prospect theory suggests that investors make irrational judgments due to their subjective opinions about their own value swaying them and their failure to analyse all available information, which is in opposition to conventional theories of [1]. The prospect theory also states, according to [2], that people select profits over losses when given the choice and that prospective gains and losses influence people's decisions [3]. Investors base their decisions more on anticipated profits than on potential losses [4].

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The corpus of behaviour finance research to date has shown that investors make decisions based on a complex combination of factors such as emotions, risk tolerance, and personal characteristics. According to [4], marketplaces, and associated factors. However, personality qualities have been found to be the most significant factor determining an individual's behaviour [6]. In a research, personality plays a critical role in understanding the process of making investment decisions and contributes to the development of a logical finance theory based on behavioural principles [3].

However, the authors were unable to locate any research that clarifies how investor risk mind-set influences stock market investments. Investigation on "how risk appetite, risk capacity, and risk-tolerance impact on investment among Indian stock market investors" is therefore worthwhile. The overall goal of present research is to investigate investor risk attitude in relation to stock market investment decisions. Thus, the present study will investigate the subsequent research issues:

RQ1: How do investors in the Indian stock market perceive risk in terms of appetite, capacity, and toleration?

Question 2: How do Indian stock market investors' risk tolerance and investment decisions relate to each other?

RQ3: How do Indian stock market investors use their risk tolerance while making investments in the stock market?

## 2 Statement of the Problem

Investors choose their stocks in the stock market based on a wide range of considerations in a dynamic and intricate financial environment. Investors' risk tolerance is a crucial factor in determining investing choices. It is imperative for financial analysts and policymakers to comprehend the ways in which exogenous events influence investors' capital market investment risk aversion.

## 3 Literature Review

### 3.1 Risk tolerance

Risk tolerance is a personal gauge of how you feel about taking on risk and how willing you are to lose money on an investment in the hopes of making more. An investor's risk tolerance is the level of risk or uncertainty they can tolerate.

Age, income, and financial objectives all frequently influence one's level of risk tolerance. Numerous techniques are available to ascertain the amount at which an investor can make investments and yet get a good night's sleep. Compared to people with lesser risk tolerance, those with higher risk tolerances can handle market volatility and uncertainty better.

"Risk-tolerance behaviour" is the term used to describe a person's attitude towards taking a chance [1] Risk tolerance is a necessary characteristic for investors to succeed in the stock market [2], as evidenced by the considerable impact it has been discovered to have on investors' financial decision-making [7]. [3] found a correlation between

investors' cognitive characteristics and variations in risk assessment and uncertainty. The literature on behaviour finance makes evident the close relationship between a person's risk tolerance and their tendency to make biased investment decisions. Moreover, heuristic bias in investing is more common among high risk-tolerance individuals, according to [5]. On a similar note, [1] discovered that investors who are capable of taking on a lot of risk also tend to be more overconfident and biased. The following theory is put out in light of the research:

H1: To assess how risk-tolerance behaviours affect stock market investing.

### 3.2 Risk Capacity

The level of risk that investor is willing to accept in order to meet their financial objectives is referred to as their risk capacity. After taking time horizons and income requirements into account, one can calculate the rate of return required to achieve these objectives. Furthermore, information on rate of return can assist the investor in determining the type of investments to make and the level of risk to assume.

An objective assessment of the level of risk you must accept to achieve your predetermined financial objectives is known as your risk capacity. It can also be used to evaluate how any risk event will affect your portfolio's capacity to pay your debts.

Several risk concepts are used in risk assessment when emotions interfere and objective risk computation is not feasible. These include risk perception, risk tolerance, risk attitude, risk propensity, preference, risk aversion, and risk-seeking. According to [5], perception of risk refers to an individual's subjective assessment of the kind and intensity of threat. Risk tolerance is defined as both an individual's psychological reactivity to uncertainty and the greatest level of uncertainty they are ready to bear, according to [6]. When viewed from this perspective, risk preference is more ordinal and specific, while risk attitude is more generic and interval. Finally, it should be noted that choosing the option with no risk is the definition of risk aversion, whereas choosing the option with no risk is the definition of risk-seeking [4]. The following theory is put out in light of the research:

H2: There is no significant difference between risk capacity and stock market investments among Indian stock market investors.

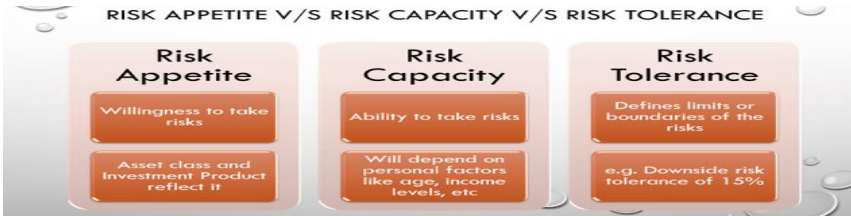
### 3.3 Risk Appetite

An investor's "risk appetite" refers to the level and type of risk they are willing to accept in order to reach their financial objectives. A variety of factors will determine an investor's level of risk tolerance. There are various risk appetites, and these can fluctuate over time.

Even though everyone's definition of risk appetite is unique, a well-articulated risk appetite statement can actively assist investors in reaching their objectives and promoting sustainability. It has been demonstrated that traits like risk tolerance, herding behaviour, and social connections have a significant influence on investment intention in

the stock market. Stock market involvement is influenced by these aspects [7]. Based on the research, the following hypothesis is framed:

H3: The impact on risk appetite, risk capacity, and risk-tolerance towards investment among Indian stock market investors.



Source:<https://blog.investyadnya.in/risk-capacity-risk-appetite-risk-tolerance-overall-risk-profile/>

Fig. 1. Overall Risk Profile

### 3.4 Conceptual Model

In order to create a new model with risk appetite, risk capacity, and risk tolerance (n.d, risk profile) towards investment among Indian stock market investors, the prior literature is helpful in understanding the risk attitude of investors towards stock market investment. The conceptual and theoretical framework that is created based on earlier research is examined in this paper.

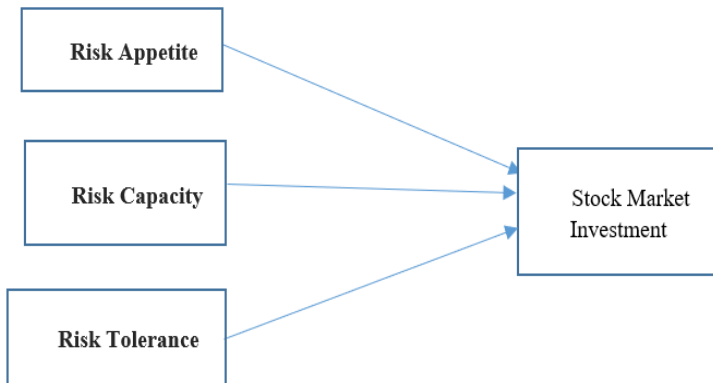


Fig.2 Proposed model (Author source)

## 4 Research Methodology

The questionnaire method of data collection in this study employed convenience sampling and descriptive research approaches. 160 respondents provided the data, which was gathered using an established scale. The stimulus-response model served as the foundation for the suggested model. Using the available data set, empirical tests of regression and anova were conducted.

## 5 Results and discussion

Thirty-four percent of respondents are under the age of fifty-one, thirty-five percent of investors save five to ten percent of their monthly income, and the majority of respondents—34 percent—have been investing for at least three to five years. As a result of this model's improvements in fit, the sample data and the model are shown to fit together.

H1: To assess the impact of risk-tolerance behaviour on stock market investment among Indian stock market investors.

Table.1 Correlation matrix

	Y	X <sub>1</sub>	X <sub>2</sub>
Y	1	0.249071	-0.0927692
X <sub>1</sub>	0.249071	1	0.0612967
X <sub>2</sub>	-0.0927692	0.0612967	1

Table. 2 ANOVA

Source	DF	Sum of Square	Mean Square	F Statistic	P-value
<b>Regression</b> (between $\hat{y}_i$ and $\bar{y}$ )	1	8.324915	8.324915	10.450058	0.00149303
<b>Residual</b> (between $y_i$ and $\hat{y}_i$ )	158	125.868835	0.796638		
<b>Total</b> (between $y_i$ and $\bar{y}$ )	159	134.19375	0.843986		

Table. 3 Coefficient Table Iteration 1 (adjusted R-squared = 0.062)

	Coeff	SE	t-stat	lower t0.025(157)	upper t0.975(157)	Stand Coeff	p-value	
b	3.1162	0.3806	8.1876	2.3645	3.868	0	0.00	
X1	0.2522	0.0759	3.323	0.1023	0.4021	0.2557	0.00111	1.0038
X2	-0.104	0.0737	-1.409	-0.25	0.0417	-0.108	0.16075	1.0038

	Coeff	SE	t-stat	lower t0.025(158)	upper t0.975(158)	Stand Coeff	p-value	
b	2.7451	0.2756	9.9606	2.2007	3.2894	0	0	
X1	0.2456	0.076	3.2327	0.0956	0.3957	0.2491	0.00149	

Relationship between Y and X: We have R square (R2) = 0.0620365. In other words, 6.2% of the variance of Y may be explained by the predictors (Xi). 0.0561001 is the adjusted R-square, or the multiple correlation coefficient, is equal to 0.249071. It denotes a poor correlation between the actual data (y) and the projected data ( $\hat{y}$ ).

**Fit Quality:** Regression overall: p-value = 0.00149303, right-tailed, F (1,158) = 10.450058. We reject H0 because p-value < (0.05). A better fit is obtained by the linear regression model  $Y = b_0 + \epsilon$  than by the model without the independent variables,  $Y = b_0 + \epsilon$ . Inter correlations between the predictors (Xi) constitute multicollinearity. Since each VIF value is less than 2.5, there is no reason to worry about multicollinearity.

**Priori power: the total model's two predictors:** It is necessary to compute the priori power before to doing the regression. There is a strong ability to test the complete model: 0.9984%. The power to test the complete model is always greater than the capacity to demonstrate the significance of each predictor individually.

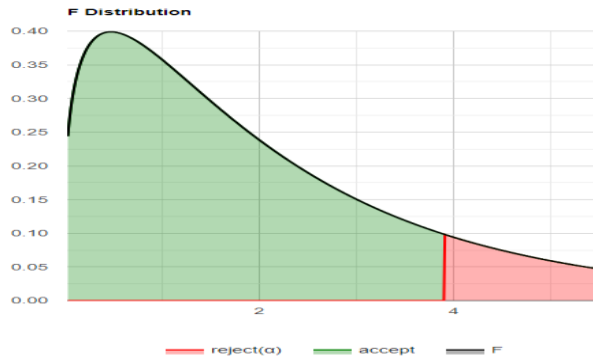


Fig. 2. F distribution

H2: There is no significant difference between risk capacity and stock market investments among Indian stock market investors.

Table 1. Mean comparison between risk capacity and stock market investment

source	DF	Sum of Square	Mean Square	F Statistic	P-value
Groups (between groups)	2	1.2542	0.6271	0.6327	0.5316
Error (within groups)	477	472.7376	0.9911		
Total	479	473.9917	0.9895		

F distribution df(2,477) (right tailed) in a one-way ANOVA test

The acceptance of H2 is indicated by the p-value being greater than  $\alpha$ . All group averages are taken to be equal. Put otherwise, the disparity between the means of every group is insufficient to warrant statistical significance.

P-value:  $P(x \leq F) = 0.468419$ ; p-value = 0.531581. It indicates that there would be an excessively high likelihood of a type 1 error—rejecting a valid  $H_0$ —if we rejected  $H_0$ : 53.16%, or 0.5316. The greater the p-value, the more strongly  $H_0$  is supported.



**Fig. 3.** F distribution

The figures 0.632737 is the test statistic F, and it falls inside the 95% acceptable range.  $[-\infty; 3.0146]$

Size of effect: There is not much of an effect size (0.052) as seen. This suggests that the averages' difference is not very large. We get 0.0026 for the  $\eta^2$ . As with R2 in a linear regression, it indicates that the group accounts for 0.3% of the variance from the average.

Kramer / HSD Tukey

Between the means of any pair, there is no discernible difference.



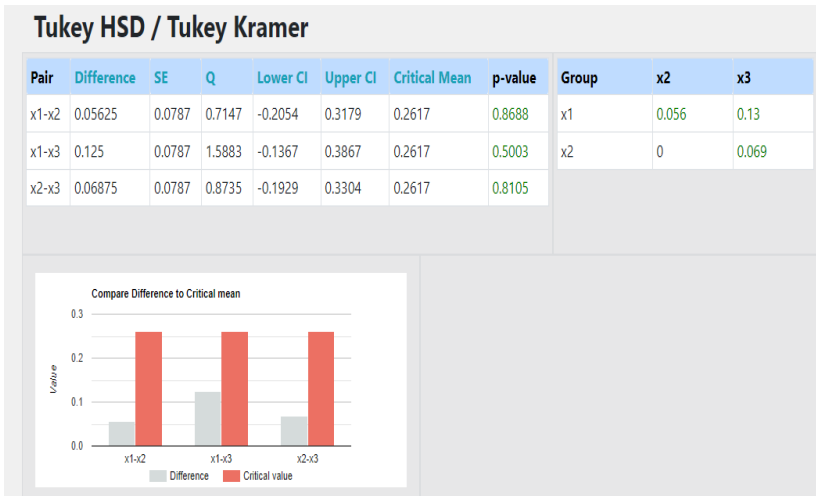


Fig.5 Means score

H3: The impact on risk appetite, risk capacity, and risk-tolerance towards investment among Indian stock market investors.

**Table 2.** Model Summary

Mode	Adjusted R	Std. Error of
1		
R	R Square	Square
1	.364 <sup>a</sup>	.133
		.110
		the Estimate
		2.27846
		Durbin-Watson
		1.761

**Table.6 ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	123.239	4	30.810	5.935	.000 <sup>b</sup>
Residual	804.661	155	5.191		
Total	927.900	159			

The linear regression R value for the model fitness analysis is 0.364. The dependent variable of investment is influenced by 13.3% by risk-tolerance, risk appetite, and risk capacity, indicating a substantial association between risk attitude and investment ( $R^2 = .133$ ). There is no autocorrelation in this data, as indicated by the Durbin Watson value of 1.761, which falls between 1.5 and 2.5. There is no multicollinearity in this data

because the VIF value, which is 1.059, is less than 5. As a result, the model appears to fit the data well in theory. The dependent variable,  $F(4,155) = 5.935$ ,  $P < 0.05$ , is statistically significantly predicted by these independent variables.

## 6 Conclusion

Putting into practice a clear risk management plan is essential for reducing potential losses and optimising profits because the stock market is naturally volatile and prone to various dangers. In the stock market, risk management is crucial because it helps investors accomplish their investing goals and stay in control of their portfolios while navigating the market's intricacies. Long-term financial success and return optimisation can be attained by investors by giving risk management top priority in their investment strategy.

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