

## An Empirical Study on Perception and Behaviour of Investors towards Equity Market Investments

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### Abstract

Perception and Behaviour of Investors' towards the performance of equity indices in the stock market were meticulously examined in this study. By delving into their perceptions, we aim to provide valuable insights to help investors make informed decisions that lead to financial success. As part of a research study, the required data has been gathered from 415 individuals who invest in the equity market. The study aimed to investigate how investors' decision-making behavior, whether rational or irrational, affects their perceptions of movements in equity stock indices. The data was analyzed using the Structural Equation Model approach. The study revealed that the model had an excellent fit to the suggested values, indicating that investors use both rational and irrational approaches in their investment decision-making process. Although they collect complete financial information, they also use shortcuts to make investment decisions.

**Keywords:** Perception, Behaviour of Investors, Investments, Equity Stock Markets.

### 1. Introduction

Investing in equity markets offers the opportunity to own a part of a business and receive regular income through dividends and capital appreciation. When making an investment decision, investors need to consider the level of risk they are willing to take. Such decisions involve both subjective and objective risk assessments. As per traditional investment theory, investors should gather sufficient and accurate information for making informed investment decisions; hence, such information should lead to a precise equity share price that reflects the company's fundamental value. Any movements up or down should occur only in response to unexpected events.

Investors are sometimes rational. Behavioral finance theories suggest considering fundamental and technical analysis when making investment decisions. This theory examines how investors acquire and interpret information, weighing facts against emotions and mental biases affecting investment decisions. Advocates of behavioral finance argue that investors often behave irrationally when making investment decisions and this process of decision-making by investors is subjective by heuristics such as bullishness, representativeness bias, attachment bias, gambler's fallacy, expertise bias, and prospects such as herding behavior, aversion to risk, aversion to losses etc. As a result, many individual investors tend to buy and sell stocks based on the ups and downs of stock prices. However, various factors can adversely influence the equity market, including domestic and international instability, fraudulent activities, political unrest, war crimes, terrorist attacks, scandals, and high oil prices. Therefore, it is crucial for investors to thoroughly analyze both technical and fundamental information about the stock market to make informed investment decisions.

The equity market can be affected by several factors such as an increase in inflation rate, a decrease in interest rate, or a decrease in consumer spending, which can lead to lower business profits. As a result, the company's stock value may decrease, and individual investors become less willing to take risks, leading them to sell their stocks. Although numerous studies have delved into investor behavior in the stock market, there still needs to be a gap in our comprehension of the interaction between traditional and behavioral finance aspects and how investors' rational and irrational conduct affects their perceptions of stock market indices. This research aims to investigate how investors' views of stock market indices

are pretentious by investors decision-making behavior, as the investors behave differently on the basis rationality or irrationality.

**2. Research Objectives:**

1. To assess whether all available criteria meet the suggested value with the available data, we need to evaluate the fit between the hypothesized model and the sample statistics.
2. To investigate how investors' behavior dimensions relate to their perceptions of stock index performance.

**2.a. Hypothesis:**

- H<sub>1</sub>: Positive impact of the irrational behavior of investors on the process of making decisions regarding equity investment.
- H<sub>2</sub>: Positive impact of the rational behavior of investors on the equity investment decision-making process.
- H<sub>3</sub>: Positive affect on Equity stock indices performance due to Investors irrational behaviour.
- H<sub>4</sub>: Positive affect on Equity stock indices performance due to Investors rational behaviour.
- H<sub>5</sub>: Positive affect on Equity stock indices performance due to Investors' Decision-making process.

**3. Research method**

This study aims to examine how investors' behavior affects the performance of the stock market. The study employs a causal-logical approach and collects primary data by surveying individual equity investors. The survey seeks to gather their opinions and experiences in the investment decision-making process, as well as their perceptions of stock market performance. To study stock investors' behavior, decision-making, and perceptions, we used a five-point scale and primary/secondary sources for data.

As the stock market is invested in by individuals who form a part of the population. To calculate the appropriate sample size for a pilot study., one would use the formula  $n = (ZS/E)^2$ . In this formula, Z represents the standardized value that corresponds to a confidence level of 95%, which is 1.96. The test standard deviation, denoted by S, is determined from a pilot study of 50 tests and is equal to 0.52. E represents the acceptable error of 5%, which is 0.05. Therefore, based on these values, the sample size is calculated as  $(1.96*0.52/0.05)^2 = 415.51$ , rounded to 416. Out of the 500 surveys distributed, only 435 fully completed surveys were collected, making up an 87% response rate. Among the 435 fully completed surveys, 416 were used for analysis. The samples were collected using the convenience sampling method.

**3.1 Method of Enquiry**

The study employed Structural Equation Modeling (SEM) and the AMOS software to test theories 1 to 6. The Structural Equation Modeling analyzes the relationship between stock market records and measurements of investors using the Basic Condition Display analysis.

**4. Data Analysis and Test for Reliability**

We administered the Cronbach alpha reliability test to ensure the survey instrument's dependability in collecting primary data. This test determines the consistency of different categories and estimates score variations across several factors. A coefficient of 0.60 or greater is generally considered a good indicator of construct reliability. We conducted the test on a sample size of 50 and obtained a coefficient value of 0.60 or more. The overall significance level of Cronbach's alpha was 0.884, indicating a reliability of 88.4%. Therefore, the instrument can be considered reliable and used further in the research. The study factors were also deemed reliable (Hair et al., 2010). The results of the reliability testing of the study factors are presented in Table 1.

**Table 1:** Dimensions of Perceptions and Behavior of Investors-Reliability Analysis Results

Dimensions	No of Elements	Cronbachs' Alpha
Investors Profile	7	0.641
Behavioural factors that influence investment decisions	22	0.812
Rational factors influencing investment decisions	40	0.910
Decision Making process of investors I Equity segment	4	0.599
Performance of Equity indices and Perception	9	0.701
Equity investors behaviour/Equity indices performance and reliability factors	59	0.910

**4.1. Modelling Approach and Fit Assessment**

SEM is a statistical modelling technique that employs several statistical methods to establish a set of relationships between one or more independent variables, which can be continuous or discrete in nature, and one or more dependent variables that can be measured (Hair et al., 2006). The primary objective of using SEM is to elucidate the pattern of interrelated dependence relationships that exist among a set of latent factors, which can be estimated by one or more observed factors (McDonald & Ho, 2002).

In order to analyze the model's inclination based on the obtained samples, SEM was employed. First, we analyzed the measurement model to test survey instrument's reliability and validity, following Anderson and Gerbing's (1988) recommendation and the structural model was examined using AMOS-V18. To determine the model fit, null and alternative hypotheses were formulated and tested.

Table2: Structural Equation Model Fit Assessment

Criteria	Results	Values	Description
Chi-Square Value	44.128		Good
Chi Square Degree of Freedom	1.452	<= 5	
P Value	0.091	> 0.05	
AGFI	0.913	>0.09	
GFI	0.918		
CFI	0.964		
NFI	0.961		
RMR	0.080	<= 0.80	
RMSEA	0.040		

Source: primary data

Null hypothesis is accepted since the proposed model satisfies all suggested values, indicating suitability for further analysis.

**4.2. Assessments, Results and Discussion**

The limited relationship between the exogenous and endogenous factors has been established by the auxiliary model, while the path coefficient of above factors and their differences of the latent factors, loading coefficients, and error variances, were reassessed using AMOS-V 18 for improved accuracy. The endogenous variables observe the selected parameters and factors used in auxiliary conditions, such as, (a) Heuristic, (b) Prospect, (c) Herding, (d) Financial and Personal needs, (e) Image of the Firm, (f) Information of the firms, both Financial and Accounting, (g) Analyst Ratings and Recommendations, (h) Decisions involved in finalising the investment process, (i) Performance of the Equity Stock Indices

On the other hand, the exogenous variables that are un-observed for the study are, (a) Investors irrational behaviour, (b) Investors rational behaviour, (c) e<sub>1</sub>. Heuristic error, (d) e<sub>2</sub>. Prospect error, (d) e<sub>3</sub>. Herding error, (e) e<sub>4</sub>. Financial and Personal Need, (f) e<sub>5</sub>. Image of the Firm, (g) e<sub>6</sub>. Information on Firms' Financials and Accounting, (h) e<sub>7</sub>. Neutral errors. Therefore, there are 22 variables in the model, 10, 12 observed, unobserved variables and 10, 12 exogenous and endogenous variables each under consideration in the SEM analysis are

**4.3 Behavioural Patterns**

Behaviourally, buying or selling of the equity shares on the market without analysing the available financial data or lack of fundamental analysis, but merely on the basis of street information is considered as irrational. Le Phuoc Luong et al. in 2011, in their research work have identified seventeen statements of nine measured variables and three hidden factors to measure irrational behaviour. The three latent variables are:

1. Heuristic includes five indicators: overconfidence, representativeness, anchoring, gambler's fallacy, and acquaintance bias.
2. The three indicators that make up the concept of prospect are aversion to risk aversion, aversion to losses, and mental accounting.
3. Herd behavior is influenced by the decision of other investors, stock volume, and reactions to market changes.

Analyzing economic, industry, and company information is crucial in rational investing to maximize expected utility. Researchers have identified five latent variables and 31 measured variables to categorize rational investor behavior. These variables are personal needs (8), firm images (8), accounting and financial information (7), neutral information (4), and stock analyst recommendations (4).

**4.4. Investment Decision process and Performance of Equity Stock indices**

Investing in the stock market involves several stages, including determining one's investment needs and preferences, gaining knowledge about various investment options, conducting research to obtain information, evaluating available options, and ultimately selecting the most suitable option. Salman A. Q. et al. (2012) have used the Likert scale to measure the decision-making process, with scores ranging from 1 (strongly disagree) to 5 (strongly agree).

Benchmark indices are often used to evaluate the stock market's performance as a whole. The two most commonly used benchmark indices in India are the S&P CNX Nifty Index and the BSE-Sensex. These indices are evaluated using a Likert scale, which measures the factors affecting their performance from 1 to 5. A rating of 5 indicates strong agreement, while a 1 indicates strong disagreement.

**4.5. Testing of Hypothesis**

In the SEM examination, Hypothesis-1 to Hypothesis-5 were tested. While Hypothesis-2 to Hypothesis-5 were found to be significant at a 1 percent level, Hypothesis-1 was found to be significant at a 5 percent level. Table 3 presents all the evidence in support of these findings. As per the measurement taken by a financial specialist, the coefficient of irrational behavior positively influences the decision-making process while keeping other factors constant. The coefficient value is 0.105, which indicates the fraction of irrational behaviour's impact. Statistically, at a 5% significance level, the coefficient value 0.105 is expected to increase by 0.105 for every unit increase in the investors' irrational behavior.

Investor's rational behavior has a coefficient of 0.301 in the decision-making process. This means that when other factors remain constant, an investor's sensible behavior positively impacts the decision-making process. The positive sign indicates that for every unit increase in rational behavior, the decision-making process will increase by 0.301. Moreover, this coefficient value is statistically significant at the 1% level.

TABLE 3: Structural Equation Model Variables and Estimations

Variables		Unstandardized co-efficient		standardized co-efficient	t-Value	P Value	Hypothesis (Description)
		B	S.E	Beta			
Decision Making Process	Irrational Investors Behaviour	0.152	0.071	0.133	2.101	0.030*	H <sub>1</sub> (Significant)
	rational Investors Behaviour	0.310	0.080	0.250	3.192	<0.001**	H <sub>2</sub> (Significant)
Equity indices Performance	Irrational Investors Behaviour	0.566	0.111	0.312	4.124	<0.001**	H <sub>3</sub> (Significant)
	rational Investors Behaviour	0.501	0.110	0.310	4.756	<0.001**	H <sub>4</sub> (Significant)
	Decision Making process	0.199	0.081	0.129	2.177	0.004**	H <sub>5</sub> (Significant)

The coefficient of speculators' essential leadership process behavior on stock list performance is 0.210. This means that investors' primary decision-making behavior partially impacts stock list performance while holding other factors constant. The positive sign indicates that the impact is specific, and for every unit increase in investors' primary decision-making

behavior, stock list performance would increase by 0.210. This coefficient value is significant at a 1% level, highlighting the strong correlation between investors' decision-making and stock list performance.

The coefficient of irrational behavior on stock performance has been calculated to be 0.535. This coefficient value represents the partial impact of irrational behavior on stock performance while holding other factors constant. The positive sign of the coefficient indicates that irrational behavior has a positive impact on stock performance. This means that for every unit increase in irrational behavior, stock performance would increase by 0.535. Moreover, this coefficient value is significant at a 1% level, which means that it is highly reliable.

The coefficient of rational behavior on stock list performance is 0.489. This indicates that rational behavior positively impacts stock list performance while holding other factors constant. The coefficient value is significant at a 1% level. A positive sign suggests that stock list performance would increase by 0.489 for every unit increase in rational behavior.

## **5. Discussions**

Constructed on the research findings, Hypothesis-1 suggests that irrational behavior of an investor have positively influences on their decision-making process. As per the study, despite the availability of intrinsic value information in the equity's market, investors' intention to buy, hold, or sell securities can be altered by the influence of irrational dynamics. However, irrational investors tend to skip reading, analyzing, and interpreting the information and often rely on shortcuts for investment. As a result, the decision-making process is impacted. The evidence strongly supports Hypothesis-1.

Hypothesis 2 shows that rational behavior positively affects investors' decision-making and motivates them to change their beliefs or intentions. Rational investors analyze financial statements and other information, leading to investment decisions based on shares' intrinsic value. Traditional finance suggests that investors should carefully scrutinize all available information before investing.

Based on the evidence presented, we firmly accept Hypothesis 2. Hypothesis 3, on the other hand, explores the performance of equity indices as a result of perception on the basis of irrational behaviour. Analysing results from the test conducted, reveals a positive influence by irrational behaviour on the performance of benchmark equity indices. Investor attitudes toward equity stock index performance can be shaped by their personal experiences knowledge, as well as the experiences of others, regulators, observers, etc. If an investor perceives the performance of stock indices positively, but their friends or other investors do not share the same view, their perception may change. Hence, investors' irrational behavior can significantly affect stock index performance.

Based on the available evidence, we can confirm that irrational behavioral factors genuinely impact the performance of benchmark stock indices in the Indian stock market, thereby accepting Hypothesis 3. Hypothesis 4 explores the effect of investors' rational behavior on their perception of stock indices performance. As investors receive varying information, their ability to interpret it may differ, impacting their perception of stock indices' performance. We can confirm Hypothesis 4 based on the available evidence.

The study examines the impact of decision-making on stock index performance. Hypothesis 5 suggests that investors' decision-making positively affects stock index performance investors use traditional or behavioral finance to make investment decisions, which can impact their perception of stock index performance. Therefore, Hypothesis 5 is accepted.

## **6. Conclusion**

The main objective of this research was to analyze how investors' behavior affects their perception of benchmark stock indices, such as BSE-SENSEX and NSE-Nifty. The study examined various aspects of investors' behavior, including rational and irrational decision-making and other factors influencing their stock choices. The findings showed that investors' behavior positively impacted stock indices, and there was a strong correlation between investor behavior and their perception of stock indices' performance. The study also revealed that investors were rational and irrational in their decision-making process. They gathered complete financial information but also used shortcuts.

The research suggests that investors can improve their behavior by controlling psychological biases and emotions, leading to better stock indices performance. These findings can be applied not by the investors, but as well by professionals, asset managers etc. in selecting optimal investment strategies to make safe and profitable investments in the equities market.

The research studied how investors' behavior affects their perception of benchmark stock indices like BSE-SENSEX and NSE-Nifty. Findings show a positive correlation between perception and investor behavior and, equity indices performance.

A recent study found that investors use rational and irrational decision-making processes. While they gather complete financial information, they also use shortcuts. It is suggested that controlling emotions and psychological biases is essential to improve their behavior. This can lead to better stock index performances, which can be helpful for professionals such as stock brokers, asset managers, and investors, enabling them to make informed decisions and select appropriate investment strategies. The study's results offer valuable insights into achieving safe and optimal returns in the stock market.

The research aimed to explore the impact of investors' behavior on how people perceive benchmark stock indices such as BSE-SENSEX and NSE-Nifty. The study analyzed various aspects of investors' behavior, including rational and irrational behavior and the stock decision-making process. The findings indicated that investors' behavior positively impacts the performance of stock indices, and there is a strong correlation between investor behavior and the perception of stock indices. The research also found that investors display rational and irrational behavior when making investment decisions. They tend to gather complete financial information but also rely on shortcuts. The study suggests that controlling psychological biases and emotions can help investors improve their behavior, leading to improved stock index performance. These results can provide valuable insights to stock brokers, professionals, asset managers, and investors for making informed investment decisions and achieving safe and optimal returns in the stock market.

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