



**INDIVIDUAL INVESTMENT BEHAVIOR: AN APPROACH FOR INDIAN SECURITIES MARKET**

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**ABSTRACT:**

The study aims to focus on the *Individual Investment Behavior* for Indian Securities Market instruments. The instruments for investment available in Indian securities market being complex in nature requires a sound understanding and in-depth knowledge to channelize the decision making process for a favorable and return oriented instruments. This study review and analyze this decision making process of individual investors through data collected with the help of structured questionnaire filled by individual investors of Indian securities market interacted during *National Stock Exchange* seminar in Delhi. The study concludes by interpretation of certain significant factors hierarchy and relevance which plays a crucial role investors decision making process.

**KEYWORDS:** Individual Investors, Decision Making, Securities Market, Investment Behavior

## **INTRODUCTION:**

Investor behavior derives from psychological principles of decision making to explain why people buy or sell stocks. These factors will focus upon how investors interpret and act on information to make investment decisions. Investors commonly perform investment analysis by making use of fundamental analysis, technical analysis and judgment. Behavioral finance is defined by Shefrin, (2000) as “a rapidly growing area that deals with the influence of psychology on the behavior of financial practitioners” No matter how much an investor is well informed, has done research, studied deeply about the stock before investing, he also behaves irrationally with the fear of loss in the future. This irrational behavior arises out based on various significant and insignificant variables and factors which directly or indirectly influence the investor’s decision making process. Individual investments behavior is concerned with choices about purchases of small amounts of securities for his or her own account (Nofsinger and Richard, 2002).

The research findings by Nagy and Obenberger, (1994) which examined factors influencing investor behavior, suggested that classical wealth – maximization criteria are important to investors, even though investors employ diverse criteria when choosing stocks. Research in behavioral finance has developed rapidly in recent years and provides evidence that investors' financial decisions are also affected by internal and external behavioral factors (Shefrin, 2000; Shleifer, 2000; Warneryd, 2001). In this research study the investment behavior of individual investors is analyzed to review the impact of various factors and dimensions which influence the investment pattern.

## **LITERATURE REVIEW:**

Bhalla (1978) investigated the effects of sources of income and investment opportunities on the saving behavior of farm households in India. He used the survey data collected by National Council of Applied Economic Research (NCAER) during the three years starting from the year 1968-1969 and found that the propensity to save out of non-agricultural income was higher than the propensity to save out of agricultural income. The permanent income hypothesis (PIH) offers an explanation for this difference in propensity. He also found that investment opportunities increase saving, *ceteris paribus*, for the subsistence group of household and had a negative effect for the non-subsistence group.

*Market over-or under reaction* (DeBondt and Thaler, 1985), is the consequence of investors putting too much weight on recent news at the expense of other data. People show overconfidence. They tend to become more optimistic when the market goes up and more pessimistic when the market goes down. Hence, prices fall too much on bad environment.

Panickar (1992) studied the rural household saving and investment pattern in selected villages in Kerala and Tamilnadu. The study was conducted with the objective of looking into the levels of saving and the manner of its disposition and in-depth analysis of factors underlying the rates of saving. From the study, it was found that a high proportion of saving was absorbed in unproductive assets leading to a vicious cycle of low income saving.

Boyed et al. (1994) explored customer behavior in relation to the selection of a financial service provider. They examined customers' scores on selection criteria, such as reputation and friendliness, by taking into account the customers' demographic characteristics, for example, size of household, household income, age and gender of household head, and so on. The results revealed that factors such as reputation, interest charged on loans and interest paid for savings accounts were critical, while less important were friendliness of employees and the modern facilities.

Morrison and Roberts (1998) highlighted the significance of product channel interactions and the need to consider the degree of congruence between a product and a channel when evaluating the factors influencing the decision to adopt or use a channel for a purchase.

Black et al. (2002) examined customers' choice of financial services distribution channels. They showed that customer confidence, lifestyle factors, motivations and emotional responses influence the customer's choice, while product, channel and organizational factors such as image and reputation are also significant.

It has long been recognized that a source of judgment and decision biases, such as time, memory, and attention are limited, human information processing capacity is finite. Therefore, there is a need for imperfect decision-making procedures, or heuristics (Simon, 1955, Tversky and Kahneman, 1974) Hirshleifer (2001) argues that many or most familiar psychological biases can be viewed as outgrowths of heuristic simplification, self-deception, and emotion based judgments. Study done by Kent, Hirshleifer and Subrahmanyam (2001) had found the evidence for systematic cognitive errors made by investors and these biases affect prices.

#### **THEORIES OF INVESTORS' BEHAVIOR:**

##### **REGRET-THEORY:**

It deals with the emotional reaction people experience after realizing they've made an error in judgment. Faced with the prospect of selling a stock, investors become emotionally affected by the price at which they purchased the stock. So, they avoid selling it as a way to avoid the regret of having made a bad investment, as well as the embarrassment of reporting a loss. Regret theory can also hold true for investors who find a stock they had considered buying but did not went up in value. Some investors avoid the possibility of feeling this regret by following the conventional

wisdom and buying only stocks that everyone else is buying, rationalizing their decision with "everyone else is doing it" (Pareto, 1997).

#### **THEORY OF MENTAL ACCOUNTING:**

It states that humans have a tendency to place particular events into mental compartments, and the difference between these compartments sometimes impacts our behavior more than the events themselves. An investing example of mental accounting is best illustrated by the hesitation to sell an investment that once had monstrous gains and now has a modest gain. During an economic boom and bull market, people get accustomed to healthy, albeit paper, gains. When the market correction deflates investor's net worth, they're more hesitant to sell at the smaller profit margin. They create mental compartments for the gains they once had, causing them to wait for the return of that gainful period (Thaler, 2001).

#### **PROSPECT/LOSS-AVERSION-THEORY:**

It suggests that people express a different degree of emotion towards gains than towards losses. Individuals are more stressed by prospective losses than they are happy from equal gains. An investment advisor won't necessarily get flooded with calls from her client when she's reported, say, a \$500,000 gain in the client's portfolio. But, you can bet that phone will ring when it posts a \$500,000 loss! A loss always appears larger than a gain of equal size - when it goes deep into our pockets, the value of money changes. Prospect theory also explains why investors hold onto losing stocks: people often take more risks to avoid losses than to realize gains. For this reason, investors willingly remain in a risky stock position, hoping the price will bounce back. Gamblers on a losing streak will behave in a similar fashion, doubling up bets in a bid to recoup what's already been lost. So, despite our rational desire to get a return for the risks we take, we tend to value something we own higher than the price we'd normally be prepared to pay for it. The loss-aversion theory points to another reason why investors might choose to hold their losers and sell their winners: they may believe that today's losers may soon outperform today's winners. Investors often make the mistake of chasing market action by investing in stocks or funds which garner the most attention. Research shows that money flows into high-performance mutual funds more rapidly than money flows out from funds that are underperforming (Kahneman and Tversky, 1979)

#### **OVER/UNDER REACTING THEORY:**

It says that investors get optimistic when the market goes up, assuming it will continue to do so. Conversely, investors become extremely pessimistic amid downturns. A consequence of anchoring, placing too much importance on recent events while ignoring historical data, is an over- or under-reaction to market events which results in prices falling too much on bad news and rise too much on

good news. At the peak of optimism, investor greed moves stocks beyond their intrinsic value (Hong and Stein, 1999).

#### **THEORY OF OVERCONFIDENCE:**

It says that people generally rate themselves as being above average in their abilities. They also overestimate the precision of their knowledge and their knowledge relative to others. Many investors believe they can consistently time the market. But in reality there's an overwhelming amount of evidence that proves otherwise. Overconfidence results in excess trades, with trading costs denting profits, (Tapia and Yermo, 2007).

#### **OBJECTIVES OF THE STUDY:**

- To identify the determinants of investment behavior and their relative importance in shaping the behavior of individual investors.
- To analyze the different aspects impacting the investors behavior for Indian securities market.

#### **RESEARCH METHODOLOGY:**

Research in the study is descriptive and causal in nature based on dependency of different variable on certain independent variables.

Primary data was collected from 60 respondents with help of structured questionnaire filled by individual investors of Indian Securities Market interacted during *National Stock Exchange* Investors meet organized in New Delhi.

Five point Likert scale was used to review the investors profile and determinants of investor behavior. With the help SPSS, spreadsheet and *Analytic Hierarchy Process (AHP)* data was analyzed and the relative importance of different behavioral traits of the investors in contributing overall investment behavior was analyzed. AHP is one of Multi Criteria decision making method that was originally developed by Prof. Thomas L. Saaty. In short, it is a method to derive ratio scales from paired comparisons. The study identified four broad dimensions of investor behavior that could have an impact on their investment decisions (*Overconfidence, Investor Optimism, Investor Involvement*) that were further divided into different factors and respondents were asked to rate each factor. On the basis of the overall responses of the investors and the ratings that they assign to the factors of the each dimension AHP determine the relative weights for each dimension of the investment behavior and priorities them in terms of their level of contribution in the formation of behavior of the investor.

**ANALYSIS & INTERPRETATION:**

The analysis was based on the data collected from respondents using questionnaire. The various demographic and economic factors regarding the respondents were as follows:

**Gender ratio of respondents:** Of the total respondents, 65.64 % were males and 34.36 % were females.

**Age distribution of respondents:** Age of respondents varied between 25 to 55years. It was aimed to include investors from all categories so that the pattern will get an equitable distribution. Majority of respondents were under 35-45 year age group (44.62%) followed by 45-55 year age group (38.21%). Investors less than 35 years of age group were 17.17%.

**Occupational distribution of respondents:** The occupational distribution of respondents included Salaried individuals (46.41%), Government employed (33.08%), Private organizations (20.51%).

**Education level of respondents:** The majority of investors are having a Bachelor’s degree (42.56%) followed by Master’s Degree (36.15%) and only (21.29%) below graduation respondents were there.

**Investment experience of respondents:** From the analysis of investment experience of investors, it was found that majority of respondents have an experience of 5-10 years (51.02%), followed by investors, having an experience of less than 5 years (48.98%).

**ANALYSIS OF DETERMINANTS OF INVESTOR BEHAVIOR:**

**1. FREQUENCY ANALYSIS OF OVERCONFIDENCE:**

Question	S.D(1)	D(2)	N(3)	A(4)	S.A(5)	Total
I am confident of my ability to do better than others in picking stocks ( <i>Stock Picking Ability</i> )	2	8	12	15	23	60
	3.3%	13.3%	20%	25%	38.3%	100%
I am fully responsible for the results of my investment Decisions. ( <i>Self-Control</i> )	3	7	11	17	22	60
	5%	11.6%	18.3%	28.33%	36.66%	100%
I have complete knowledge of stock market ( <i>Market Knowledge</i> )	7	6	8	15	24	60
	11.6%	10%	13.33%	25%	40%	100%

**AHP Analysis of Overconfidence**

Feature	Stock Picking Ability	Self-Control	Market Knowledge
Stock Picking Ability	1.00	4.00	2.00
Self-Control	0.25	1.00	0.50
Market Knowledge	0.50	2.00	1.00

**Normalized Matrix for Overconfidence**

Feature	Stock Picking Ability	Self-Control	Market Knowledge	Average
Stock Picking Ability	0.52	0.52	0.52	0.52
Self-Control	0.18	0.18	0.18	0.18
Market Knowledge	0.30	0.30	0.30	0.30
Total	1.0	1.0	1.0	1.0

The Analytical Hierarchical Process determined the relative weights of each factor of the dimension of Overconfidence. In the overall dimension of Overconfidence the most prominent factor was the Stock Picking Ability that result in successful investment, (approx. 52%) followed by Market knowledge with approximate weights of 30% and Self Control ability with 18% .

**2. FREQUENCY ANALYSIS OF INVESTOR OPTIMISM:**

Question	S.D(1)	D(2)	N(3)	A(4)	S.A(5)	Total
I plan to increase my investment in the stock market in next 12 months (Increased Investments)	7	11	12	15	15	60
	11.6%	18.33%	20%	25%	25%	100%
The prices of stocks will increase in next 12 months (Price Increase Expectation)	6	9	15	13	17	60
	10%	15%	25%	21.66%	28.33	100%
If the BSE index drops by < 3% tomorrow, I would suggest that it will recover most of its losses in a few days (Index Recovery)	7	10	13	17	13	60
	11.6%	16.66%	21.66%	28.33	21.66	100%

### AHP Analysis of Optimism

#### Pair wise Comparison Matrix for Optimism

Feature	Increased Investments	Price Increase Expectation	Index Recovery
Increased Investments	1.00	0.22	0.50
Price Increase Expectation	3.00	1.00	2.00
Index Recovery	2.00	0.50	1.00

#### Normalized Matrix for Optimism

Feature	Increased Investments	Price Increase Expectation	Index Recovery	Average
Increased Investments	0.16	0.18	0.14	0.16
Price Increase Expectation	0.52	0.57	0.56	0.55
Index Recovery	0.32	0.25	0.30	0.29
Total	1.0	1.0	1.0	1.0

**INTERPRETATION:** The second determinant *Investor Optimism* was measured in terms of investor's outlook of the stock market. AHP analysis assigned the highest rank to the factor *Price Increase Expectation* (55%), followed by Recovery of the Index 29%. Only 16% of respondents are interested in *Increasing Investments*. On the whole the optimism among the investors is very low.

### 3. FREQUENCY ANALYSIS OF INVOLVEMENT:

Question	S.D(1)	D(2)	N(3)	A(4)	S.A(5)	Total
I am actively involved in trade activity (Trade Activity)	3	1	15	19	22	60
	5%	1.66%	25%	31.66%	36.66%	100
I make investment for making money quickly (Quick Money)	5	7	10	20	18	60
	8.33%	11.66%	16.66%	33.33%	30%	100

Analyzing responses it could be inferred that 63.33% of the respondents are involved in trade activity to make *Quick Money*.

### AHP Analysis of Involvement

#### Pairwise Comparison Matrix for Involvement

Feature	Trade Activity	Quick Money
Trade Activity	1.00	2.00
Quick Money	0.50	1.00

#### Normalized Matrix for Involvement

Feature	Trade Activity	Quick Money	Average
Trade Activity	0.75	0.75	0.75
Quick Money	0.25	0.25	0.25
Total	1.00	1.00	1.00

Investors in stock trading two factors namely level of Trade Activity and motive towards making Quick Money were analyzed. On the basis of the responses of the investors AHP determined Trade Activity has the highest weights approximately 75% while the attitude of making Quick Money weights 25% approx.

#### FINDINGS:

In this paper the investment behavior of individual investor is analyzed in terms of three broad behavioral dimensions viz; Overconfidence, Investor involvement, Optimism which are measured in terms of different factors. From the analysis the key findings suggests that the role of overconfidence is highly crucial and important in comparison to other dimension such as investor's involvement and optimism. In this study *overconfidence* bias is measured in terms of four factors: self-control, market knowledge, stock selection ability and specific skills. It's clearly found that majority of investors believe that they have better stock picking ability than other investors. They also believe that they have complete knowledge of market particularly those investors who have many years of investment experience. They are found to be confident of their specific c skills that lead them to earn profits over their investments. When studied the level of *optimism* among investors in terms of their outlook of future of the stock market, we found that investors are not much optimistic about the future of market. It's found that some investors want to keep their investments in the stock markets only because the stock prices have declined and they do not want to sell their stocks at a loss. Very few showed willingness to increase their investments in the stock market in next 12 months because they do not believe that stock market will not scale up immediately. The dimension of *investor involvement* is measured in terms of their trade activity and



tendency to make quick money. It was found that investors having short term profit seeking objectives are found to have greater level of involvement as compared to those with long term investment objectives as they have greater tendency to make quick money in short time periods.

#### **CONCLUSION:**

Investment behavior of individual investors relies heavily on various inputs for making a successful investment in securities market. The idea of investment is fully rational based on maximizing their utility and demonstrating perfect self-control is not realistic and the market inefficiency in the form of anomalies and irrational investor behavior has been observed more frequently during the past decades. The results obtained from the study suggest that the behavior of individual investors is irrational to a greater extent. Study revealed that individual investors have high level of involvement and overconfidence while they are not much optimistic about the future outlook of market and moreover they have an aversion to risk.

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