



## **Behavioural factors implications on the stock market volatility and investors' investment decisions**

**Rekha DM<sup>1</sup>, Dr. H Prakash<sup>2</sup>**

<sup>1</sup> Research Scholar, Department of Commerce, Bangalore University, Bangalore, Karnataka, India

<sup>2</sup> Research Guide, Associate Professor, Department of Commerce, Maharani's Arts, Commerce and Management College for women, Bangalore, Karnataka, India

### **Abstract**

Behavioral finance encompasses the research that emphasis on the traditional stock market assumptions of expected returns or income from investments is maximized with rational investors' decisions in efficient markets. There are two aspects of behavioral finance which are assumed to be a pillar investment patterns in stock market are cognitive psychology like how people think about their investments and stock market performance and on the other hand limits to arbitrage that is when markets will be inefficient what would be the decisions taken by investors. The growth of behavioral finance research has been focused and given more importance to make a comparison between the inabilities of the traditional framework existence in the stock market to explain many empirical patterns, including stock market performance. Behavioral finance is the paradigm where financial markets are studied using certain models that are based on the modern theory and arbitrage assumptions.

**Keywords:** behavioral finance; arbitrage; psychology; market efficiency

### **Introduction**

The Investment decision of Individual investors plays a significant role in influencing the volatility of stocks and shares of the financial securities in stock exchanges. Behavioral finance attempts to explain the anomalies that prevail in the market when conventional market theories in the capital asset pricing and efficient market conceptual models fail to explain the factors that are influencing investment decision making. As the capital market of India, especially in Bangalore when the stock market, has been developing rapidly since the last decade with an expanding investor population in Bangalore where the demographic dimensions has been considered and also the Indian statistics has highlighted that the saving pattern of population has increased tremendously and also the priority is given to savings rather than expenditure people who are not financially literate, is aiming to save their funds in various investment avenues.

This paper is to emphasize the behavioral factors which affect the investment decision of the individual investors in Bangalore and also to identify the relationship between their socio-economic cultures and its impact on investments of stock market through previous research studies conducted on individual investors as a whole. The study has also provided genuine evidence for a significant presence of behavioral bias in the investment decision of the investors and statistical analysis also reveal that there is a significant relationship between the behavioural factors and investment decisions.

Stock market investment is making it mark on global scenario as its contribution towards the development of financial market is in the upward trend. Recently the saving and investing part of the investors in Bangalore has tremendously showed an higher growth rate people and getting financially literate and also concentrated on the trading aspect but also carefully investing to earn better

returns in future on a long term basis, on the other hand people who are not financially literate are also opting for various investment avenues which linked to equity investment for their future financial security.

The individual investors who are investing in equity market either opting primary source of investment or secondary source of investment but investment are opting this investment opportunities. At the same time certain changes and decisions taken by the investors has a cause behind it as major factors influence their behavioural changes and also the sudden shift may be because of certain factors affecting their construction of portfolio. In the recent trend the portfolio of individuals has tremendously changed and the focal length has also shifted from irrational behaviour to rational behaviour.

The risk factor in investment is accepted by investors and they are also analyzing the pros and cons of the investment made by them before making investment decisions, this in turn shows that people are becoming financially educated in order to make their own investment decisions. In conventional theories of financial market these factors are not focused and analyzed for investment portfolios. Whereas the modern theory of financial market clearly explains the factors influencing investment decisions of individual investors.

### **Behavioural factors influencing the stock market volatility**

Psychologists have found several judgment biases but it remains unclear which biases affect economic decisions of retail investors or whether these biases affect economic behavior at all. Behavioural finance studies the behaviour of an agent in the financial market, influence by psychological factors which influence the decision making while buying and selling in the market, thus affecting the prices. There are various theories propounding in this regard. The present

theoretical study is restricted to Heuristics Theory and Prospect theory.

### **Heuristics Theory**

Heuristics are the rules of thumb which makes decision making easier in uncertain and complex environment by reducing the complexity of assessing probabilities and predicting values to simpler judgment. These heuristics are useful when time is limited but sometimes lead to biases.

### **Representativeness**

Representativeness is applied when investors buy hot stock instead of poorly performed ones. This behavior is an explanation for investor overreaction.

### **Gamblers Fallacy**

Gamblers' fallacy arises when people predict inaccurately the reverse points which are considered as the end of good (or poor) market returns.

### **Anchoring**

Anchoring makes investors to define a range for a share price or company's income based on the historical trends, resulting in under-reaction to unexpected changes.

### **Overconfidence**

Overconfidence results in high volume of trade as observed in speculative market. Investors and analysts are often overconfident in areas that they have knowledge.

### **Availability**

Availability bias comes into play when people make use of easily available information excessively.

### **Prospect theory**

Theory describes some states of mind affecting an individual's decision-making processes including Regret aversion, Loss aversion and Mental accounting.

### **Regret Aversion**

Regret with people's emotional reaction to having made an error of judgment.

### **Loss Aversion**

Loss aversion refers to the difference level of mental penalty people have from a similar size loss or gain.

### **Mental Accounting**

It is a set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities. It is also referred as process by which people think about and evaluate their financial transactions.

### **Review of Literature**

Nicholas Barberis & Richard Thaler in the survey of behavioural finance is of the opinion that the existing financial paradigms is based on the traditional finance paradigm which is a handbook to understand financial markets using models in which agents are rational in nature by 2 behavioural factors namely new information availability in the market and Acceptable of information taking into consideration based on its consistency in earnings expected returns.

Shleifer & Hirshleifer in their survey states that the

theoretical and empirical work on limits to arbitrage and its closer to financial paradigms in terms of materials covered in assets pricing and corporate financing and also investor behaviour based on their investment model. They mention that when agents are rational and there are no frictions a securities price equals to its fundamental values and the study is on the expected future cash flow and also explains their stated hypothesis.

Daniel *et al.* (1993) tries to explain by constructing a model of investors sentiments aimed at reconciling the empirical findings of over reactions and under reaction to the market information. Here he discusses about the psychology of investors which motivates them to identify the various portfolios on which various theories has been constructed.

Bernard (1992) <sup>[11]</sup> deals with behavioural factors such as under reaction and over reaction of stock prices to the announcement of companies earnings which shows the results like when the stocks are sorted in to groups based on how much of a surprise is contained in their earnings, the one naïve way is to measure an earnings surprise to look at SUE (Standardized Unexpected Earnings), which is defined as the difference between the company earnings in a given quarter and its earnings during the quarter year. Another way to measure an earnings surprise is by the stock price reactions to an earnings announcement. But the finding is that stocks with the positive earnings announcements has public information about earnings is incorporated into prices and also a stock with higher earnings surprises then that also earnings higher returns in the period after portfolio formations.

Bernard and Thomas (1990) <sup>[2]</sup> summarize evidence on the actual properties of the time series of earnings and provide an interpretation for their findings. The relevant series is changes in a company's earnings in a given quarter relative to the same calendar quarter in the previous year and they also find that the series exhibit an auto correlation of about 0.34 at a lag of 1 quarter, 0.19 at two quarters, 0.06 @ three quarter and -0.24 at four quarters which states that the earnings also depend on the performance of company based on the investment pattern and past actions and reactions.

Fama and French (1992, 1996) argue that glamour stocks are in fact less risky and value stocks are more risky, once risk is properly measured and have distinguished risk and overreaction sorts stocks on the basis of long-term growth rate forecasts made by professional financial analysts and finds evidence that analysts are excessively bullish about the stocks they are most pessimistic about based on the paradigms of the stock market.

La porta *et al.* (1997) evidence of overreaction in glamour and value stocks defined using accounting variables. They finds that the paradigms which are existing in the market specifically shows that the glamour stocks earn negative returns on the day of their future earnings announcements and value stocks earn positive returns. The market learns when earnings are announced that its valuations have been too extremes.

**Andressen and Kraus:** provide basic findings for the investors to behave in a certain ways. So they say that the track price –Sell when the prices rise and buy when prices fall, even when the series they are offered is a random walk which is fairly a universal mode of behavior, which is consistent with the reaction to the new in the market. However when subjects are given a series of data with a ostensible trend, they reduce tracking, that is they trade less

in response to price movements.

De Bondt (1993) finds strong evidence that people extrapolate past trends. In one case, he asks subjects to forecast future stock price levels after showing them past stock prices over a period of time and he also analyzed a sample of regular forecasts of the Dow Jones index from a survey of members of the American Association of Individual Investors. In both cases, the forecasts change in price level is higher following a series of previous price increases than following price decreases suggesting that investors indeed chase trends once they think they see them.

According to De Long *et al.* (1990) and Shleifer and Vishny (1997), there is a risk for the investors about the mispricing of stocks which can be exploited by the arbitrageurs which worsens in the short run. They state that the noise trader risk matters a lot to liquidate their positions early, bringing them potentially steep losses. So they are of opinion that there is 'a separation of brains and capital'.

According to Harris and Gurel (1986) and Shleifer (1986) when a stock is added to the index, it jumps in price by an average of 35% and much of this jump is permanent. The fact that a stock jumps in value upon inclusion is once again clear evidence of mispricing, the price of the share changes even though its fundamental value does not change.

### Objectives of the study

The main objectives of this study are:

1. To identify the behavioural factors influencing the stock market volatility.
2. To conduct a review of literature on the topic.
3. To know the relationship between the investors' decisions and stock market performance.

### Statement of the Problem

The stock market volatility and its indices are based on performance of the organizations where investors would have invested and many investors will do fundamental analysis before making investment in companies and this analysis is depending on individual perception and opinions which shows the psychological behaviour towards their investments. This anomaly is studied in modern financial theory of investment which is very much considered to evaluating efficient market hypothesis.

### Limitation of the study

1. This research is based on previous studies made on market anomalies.
2. The research is purely based on the secondary source of data information.

### Analysis and interpretation

Barber and Odean (1999) highlighted two common mistakes investors make is about excessive trading and the tendency to disproportionately hold on to losing investments. They argue that these systematic biases have their origins in human psychology. The tendency for human beings to be overconfident causes the first bias in investors, and the human desire to avoid regret prompts the second.

Daniel, Hirsh Leifer, and Subramanyam (1998) explained event-related security price anomalies according to the cognitive biases of investor overconfidence and self-attribution which will show a related impact because of the close relationship between the two. Daniel and Titman (2000) explained the superior returns of a momentum

investing strategy over the past 35 years as the result of investors' overconfidence bias has influenced their investment decisions.

Dremen and Lufkin (2000) presented evidence that investor under and overreactions exist and are part of the same psychological process. Chan (2001) found that a large stock price change, unsupported by news, on average was followed by a statistically anomalous price trend reversal over the next month and also illustrated the price trend reversals often occur when a majority of market agents follow the same investing strategy (buying or selling), unsupported by new information through the statistical support for the idea of a general conformity in investors' behavior preceding price trend reversals ("contrarianism").

Schacter, Ouellette, Whittle and Gerin (1987) demonstrated investors' tendencies to reinforce existing price trends and brief price reversals. Barberis and Thaler (2001) confirmed that the data does indeed show anomalous corrective activity following earnings announcements from these companies. These are the evidential proof which shows that there is a significant relationship between behavioural factors and stock market volatility in financial market.

It is obvious that future returns cannot be predicted on the basis of existing information in the efficient market. Now everyone argues that the market can be predictable to an extent on the basis of past performance and past experience of investors. Even past experience of investors would also contribute to behavior considering biases while building portfolio. In this rational world prices of the stocks change when there is new information or any news about the performance of the companies and the economy will have an impact on the index of the stock market.

The economists say that the aggregate stock prices change or fluctuate based on the changes in the present value of future returns to be paid or dividends to be paid on investments. But to conclude prices of equity and debt in the financial market are more volatile than it is predicted. Modern financial market with the financial economic theory is based on the assumption that the representative agent in economy is rational in two ways that is where investors make unbiased forecasts of the future and also make decisions according to the axioms of expected utility theory. So it is meant to say that the investors assume the stock market before investing or trading

### Conclusion

The trend of investment portfolio has changed from traditional approach to modern rational approach wherein there is an existence of financial paradigms for investors which influence the investor's investment behaviour which in turn leads to performance of index in the stock market as well.

Investors' analysis depends upon various factors which influence to build their portfolio as well as impacts on stock market. This decision leads to a lot of fluctuations in the market and any sort of information to investors which has been made with thorough investigation before investing in the stock market also influences the volatility in the markets and keeping in mind the paradigms of market decisions are to be taken by the investors.

Many researchers and experts in the field of finance say that many respectable financial economists work in the field called Behavioural finance as it is an agnostic approach to study financial market and also economists become

accustomed to think the role of human behaviour in driving the stock prices. The existence of financial paradigms and behavioural finance in the financial models shows it has redundant phrase where it is enlightenment to financial agents and economists to know more about behavioural paradigms when it comes to financial market performance as a whole.

## References

1. Fama, Eugene F. Market efficiency, Long term Returns, and Behavioural finance, *Journal of Financial Economics*. 1998; 49:283-306.
2. Russell, Thomas, Richard Thaler H. The Relevances of Quasi- Rationality in competitive markets, *American Economics Review*. 1985; 75:1071-82.
3. Thaler Richard H, Eric Johnson J. Gambling with the house money and trying to break even, 1990.
4. Werner F, De Bondt M, Richard H. Thaler, Does the stock Market Overreact? *Journal of Finance*. 1985; 40:793-808.
5. Werner F, De Bondt M, Richard Thaler H. Further Evidences on Investor Overreaction and Stock Market Seasonality, *Journal of Finance*. 1987; 42:557-81.
6. Kamath RR. Long-term Financing Decisions views and practices if financial Managers of NYSE firms, *Financial Review*. 1997; 32:331-56.
7. Lee I. Do Firms knowingly sell overvalued equity, *journal of Finance*/ 1997; 52:1439-65.
8. Kahneman D, Tversky A. prospects theory: An Analysis of decision under risk, *Econometrica*. 1979; 47:263-91.
9. Kothari SP, Sloan RG. Information I prices about future earnings: Implications for earnings response coefficient, *Journal of Accounting and Economics*. 1992; 15:143-71.
10. DeBondt W, Thaler R. Financial decision making in markets and firms: A behavioral perspective, 1995.
11. Abarbanell J, Bernard V. Tests of analysts overreaction/Underreaction to earnings information as an explanation for anomalous stock price behaviour, *journal of finance*. 1992; 47:118j-1207.
12. Loughran, Tim, Jay Ritter R. The new issues puzzle, *Journal of Finance*. 1995; 50:23-51.
13. Barber BM, Odean T. Trading is hazardous to your wealth: The common stock investment performance of individual investors. *Journal of Finance*. 2000; 55(2):773-806.
14. Handbook of the Economics of Finance, Vol. 1, Part 2 (North-Holland, Amsterdam), 1053-1128.
15. DeBondt, WFM, Thaler R. Does the stock market overreact?. *Journal of Finance*. 1985; 40(3):793-805.
16. Filbeck G, Hatfield P, Horvath P. Risk aversion and personality type. *Journal of Behavioral Finance*. 2005; 6(4):170-180.
17. Garner M, Wagner C, Kawulich B. Teaching research methods in the social sciences. Surrey, UK: Ashgate Publishing Ltd, 2009.
18. Hirshleifer D. Investor psychology and asset pricing. *Journal of Finance*. 2001; 56(4):1533-1597.
19. Hirshleifer D, Teoh SH. Herd behaviour and cascading in capital markets: A review and synthesis. *European Financial Management*. 2003; 9(1):25-66.
20. Kahneman D, Tversky A. Prospect theory: An analysis of decision-making under risk. *Econometrica*. 1979; 47(2):263-291.
21. Shefrin H, Statman M. The disposition to sell winners too early and ride losers too long: Theory and evidence. *Journal of Finance*. 1985; 40(3):777-790.