Original Article

Journal of Social Welfare and Management
Volume 10 Number 3, September - December (Special Issue) 2018
DOI: http://dx.doi.org/10.21088/jswm.0975.0231.10318.6

Impact of Psychological Factors in Trading Behaviour of Individual Investors in Derivative Markets

Urmila R. Menon[1], E.K. Satheesh[2]

Abstract

Risk, a common feature of any investment which paves way to a new financial instrument which are known as derivatives. Derivatives are those instruments, which does not have any value of its own, but derives value from an underlying asset. The underlying asset can be Commodities, gold, stock, index etc. The last two to three decades have witnessed many changes in the area of trade and commerce prior to New Economic Policy and globalisation, which has led to rapid and unpredictable variations in the assets price, interest rates and exchange rates, thus exposes the individuals, corporate world and economy to an unpredictable and multidimensional level of risks. Moreover, the element of risk in the avenues are unavoidable, rather its effect can be minimized. Here comes the role of derivatives to hedge and manage risk, an effective and less costly solution to the problem of risk. As human beings most investment decisions are irrational, there comes to analyse the bias they have while making investment which can be either cognitive on the basis of thoughts or can be emotional or affective on the basis of feelings. The researcher takes into account four cognitive biases such as, Herd behaviour, Conservatism, Availability bias and Over confidence bias to analyse the trading behaviour of individual investors.

Keywords: Psychological factors; Herding Behaviour; Conservatism; Over Confidence; Availability Bias

Introduction

Derivatives are those financial instruments which does not have value of its own but derives value from an underlying asset. It is considered to be a tool to manage risk and reduce its impact on the economy as a whole. Being an investment avenue, making investment in derivative is influenced by many factors such as social, psychological, demographic, economic and subjective norms. Classical financial theorists have stated many theories such as CAPM, EMH where all the information will be reflected in the market prices of the stock. But these assumptions of the classical theorists have been questioned by the behavioural theorists by questioning the rational thinking of the investors. As human beings' investment decisions are irrational, there comes a need to analyse the bias they will make while making investment which can be either cognitive on the basis of thoughts and affective on the basis of feelings.

Author's Affiliation: [1]M.Phil. Scholar, Department of Commerce and Management Studies, University of Calicut, Kerala. [2]Dean and Professor, Department of Commerce and Management Studies, University of Calicut, Thenhipalam, Kerala 673635, India.

Coressponding Author: E.K. Satheesh, Dean and Professor, Department of Commerce and Management Studies, University of Calicut, Thenhipalam, Kerala 673635, India.

E-mail: eksatheesh@gmail.com

Received on 28.11.2018, **Accepted on** 31.12.2018

Significance of the study

Role of Derivatives in the capital market is growing ahead due to unpredictable movements and investors intention to minimize risk and maximise the returns. Derivatives are considered as a strategic tool which helps investors to get heavy returns by taking safe position. The mood swings of investors do influence their trading behaviour in derivatives. The researcher here analyses the impact of bias on the trading behaviour of individual investors as these are having an unavoidable role.

Review of literature

Various studies have been conducted in the field of behavioural finance to analyse the impact of behavioural biases in the capital market and investment decisions. But previous research

work shows minimal effort to study the impact of psychological factors in trading behaviour of individual investors in derivative markets. So, this study intends to measure the role of biases in making investment decisions.

Bakar and Chui Yi (2016) [1] has conducted on 'The impact of psychological factors on investors decision making in Malaysian stock market: A case of Klang Valley and Pahang' used multiple regression to analyse the factors such as overconfidence, conservatism, herding and availability bias. Data were collected from 200 respondents and applied quota sampling for the purpose. Overconfidence has a positive significant impact on investors decision making, Conservatism has a negative significant impact on investors decision making, Herding is found to have no significant impact on investors decision making, Availability bias behaviour has a positive significant impact on investors decision making and psychological factors are dependent of individuals gender.

Arifuzzaman et al. (2012) [2] conducted a study on ' Investors stock trading behaviour: perspective of Dhaka stock exchange' and concludes that majority of the traders have an average holding period of less than a month, target for a minimum profit of 0% to 40% before selling stocks, can tolerate a maximum loss of 0% to 40% before selling their stocks, prefer to maximum amount of their investment money in the banks and financial institutions, invest more than 50% of their money in the most preferred industry. It also finds some differences in trading behaviour if they are categorized by gender, age group and highest educational level.

Kengatharan and Kengatharan (2014) [3] studies the influence of behavioural factors in making investment decisions and performance and the behavioural factors considered are herding, heuristics, prospect and market. Most of the variables from all factors have moderate impacts whereas anchoring variable from heuristic factor has high influence and choice of stock variable from herding factor has low influence on investment decision. The study tries to find out the influence of behavioural factors on investment performance choice of stock has negative influence which is from herding factor. Overconfidence from heuristics factor has negative influence on investment performance. Anchoring from heuristics factor has positive influence on investment performance. All other variables which volume of stock are, buying and selling and herding factor, loss aversion and regret aversion, variables of prospect factor and market information and customer preference variables of market factor do not have influence on investment performance.

Trehan and Sinha (2013) [4] studied the existence of overconfidence biases among investors and its impact on investment decision. The study concludes that overconfidence exists in investors while taking investment decision and it was evident that investors were overconfident about their knowledge, ability to pick stocks, holding of stocks, optimism, control over portfolio and other factors. The investors take credit for their success, assume to have fuller control over their portfolio, trade frequently and are quite optimistic about Indian stock market. Self-attribution, knowledge about the stock market and movements, ability to pick stocks, trading frequency, optimism and control over portfolio came out to be the most prominent factors leading to overconfidence.

Objectives and Scope of the study

The present study covers the individual investors of the derivatives who resides in Palakkad district. The study totally excludes institutional and corporate investors and the study only takes financial derivatives into account. The study helps us to analyse the impact of psychological bias in the trading behaviour of investors and helps to relate the same.

The research questions formulated by the researcher, after framing out the research gap are:

What are the behavioural factors that influence the trading behaviour in derivative markets?

What is the role of bias (psychological factors) in making investment decisions?

The objective that has been formulated on the basis of the research questions are:

1. To evaluate the impact of psychological factors that influence the trading behaviour of individual investors in derivative markets.

Hypotheses of the study

The hypotheses of the study formulated are:

$H_{01:}$ There is no significant relationship between Psychological factors and Trading Behaviour.

$H_{01a:}$ There is no significant relationship between Herd behaviour and Trading Behaviour.

$H_{01b:}$ There is no significant relationship between Conservatism and Trading Behaviour.

$H_{01c:}$ There is no significant relationship between Overconfidence bias and Trading Behaviour.

$H_{01d:}$ There is no significant relationship between Availability bias and Trading Behaviour.

Proposed Methodology

This section describes the research design for the study, that is, sources of data, sample size, methodology and the research software that has been used by the researcher.

The research design is considered to be an empirical one and descriptive one. The primary data has been collected using the structured questionnaire among the individual investors of Palakkad district who make investment in financial derivatives. Journals, Research articles and Thesis has been used by the researcher to get authentic information. The data will be collected from 100 individual investors who resides in Palakkad district. Convenience sampling technique will be used for the purpose of collecting data from the respondents. The researcher uses SPSS IBM 21 for analysis purposes. The researcher uses Correlation and Regression for analysing the relationship between the psychological factors and Trading Behaviour.

Analysis and Interpretation

The Psychological factors consist of Herd Behaviour, Conservatism, Availability bias and Over confidence bias. The statistical tool Correlation is used here, it is used to measure the relationship between variables. It indicates the strength and direction of a linear relationship between two variables. The Correlation Coefficient gives a mathematical value of measuring the strength of linear relationship between two variables. It is a measure that determines the degree to which two variable's movements are associated. The following table indicates the relationship between Herd Behaviour, Conservatism, Availability bias and Over confidence with Trading Behaviour.

Variables	Correlation	Sig. (2- tailed)	N
Herd Behaviour	0.765	0.000	100
Conservatism	0.786	0.000	100
Over confidence	0.617	0.000	100
Availability bias	0.596	0.000	100
Psychological factors	0.730	0.000	100

Source: Primary Data

From the above table, it is clear that the relationship between the psychological factors and Trading Behaviour are highly correlated with r value of 0.730. The Psychological factors such as Herd behaviour and Conservatism are also highly correlated with r values of 0.765 ad 0.786, where as the factors such as Over confidence and Availability bias are moderately correlated with r values of 0.617 and 0.596 respectively. It can also be concluded that the correlation fails to accept the null hypothesis as the p value is less than 0.05. All the null hypotheses set up by the researcher is rejected and concludes that there exists significant relationship between Psychological factors and Trading Behaviour.

Effect of Relationship between Psychological factors and Trading Behaviour

Regression analysis is used to measure the study of effect of relationship between Psychological factors and Trading Behaviour. Here, we fit a predictive model to our data and use that model to predict values of dependent variable from one or more independent variable. It says how much a variable is explained by another variable. Following table provides the summarised result of Regression:

Variable	R	R Square	Sig. value
Psychological	0.730	0.533	0.000

Source: Primary Data

The Trading Behaviour is taken as the dependent variable and Psychological factors as independent variable. From the table, it is clear that value of r is 0.730 which shows a high correlation between Psychological factors and Trading Behaviour. R square shows the proportion of variance. That is 53% of the Trading Behaviour is explained by Psychological factors and remaining by other factors.

Findings and Suggestions

1. Herd behaviour, Conservatism, over confidence and Availability bias are having positive correlation with Trading Behaviour and there exists a significant relationship between Psychological factors and Trading Behaviour.
2. By applying Regression, it can be easily drawn out that 53% of the Trading Behaviour is explained by Psychological factors and remaining by other factors.
3. Behavioural factors should be given due importance along with Fundamental and Technical analysis while making investment decisions.
4. Keep emotional factors at the end, while making investment decisions.
5. Reduce the follow the crowd concept and being over confident while making investment decisions. Collect and analyse as

much information as possible, to get updated and for creating profitable avenues.

6. Ask the investors to review their investment decisions regularly and educate them about the bias that revolves around their investment decision and provide ideas to overcome these biases.

References

1. Aravind. Customer preference towards financial derivatives with reference to South Kerala market. (Doctoral Dissertation), Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya. 2011.
2. Arifuzzaman, Chowdhury Mohammad Noman Hossain, Shahed Abdus. Investor's stock trading behaviour: Perspective of Dhaka Stock Exchange, IOSR Journal of Business and Management, 2012;1(3):8-15.
3. Bakar and Chui Yi. The impact of psychological factors on investors decision making in Malaysian Stock Market: A case of Klang valley and Pahang. Science Direct (2016) Economics and Finance.
4. Kengatharan Lingesiya, Kengatharan Navaneethakrishnan. The influence of Behavioural factors in making investment decisions and performance: study on investors of Colombo Stock Exchange, Sri Lanka. Asian Journal of Finance and Accounting, 2014;6.
5. Kothari C.R. Research Methodology, New Age International Limited., New Delhi. 2014.
6. Manish, Bansal Navneet. Derivatives and Financial Innovations, Tata McGraw- Hill, New Delhi. 2007.
7. Singh and Sharma. Individual investment behaviour: An approach to Indian Securities market. International Journal of Business, Economics and Management Research. 2017.