SYNOPSIS OF THE THESIS

The Relationship between Risk Profile and Investment Behaviour of investors

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IN

MANAGEMENT

BY

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1. INTRODUCTION

The aspect of risk is very subjective and varies from person to person and from time to time. Many a time we tend to look at the past, search for some confirmation and accordingly adjust for the future. Time and again we come across many uncertain events which end in an unfavourable experience even though the probability of its occurrence is very small.

Traditional finance was based on various finance theories and principles based on investor's rationality and market efficiency like the *T*heory of Arbitrage Principles of Miller and Modigliani, Markowitz' Portfolio Theory, Sharpe's *Capital Asset Pricing Mode*l, and *Option Pricing Theory* of Black, Scholes and Merton.According to traditional finance theories, markets and its agents are efficient and systematic. The Efficient Market Hypothesis states that because the market is efficient, the true value of the security is priced by incorporating all the available information (Fama, 1970).Despite all the theories and suppositions of traditional finance on rationality and efficiency, behavioural researchers reason that both investorbehaviour and market behaviour need not be rational and efficient.

The risk tolerance test in investment advisory is a tool to measure the risk-taking ability of an individual. The individual is faced with two outcomes, a less favourable outcome and a favourable outcome. Risk tolerance is the extent to which the individual will choose the former over the latter where there always exists an uncertainty on the outcomes. Assessing risk tolerance is very complex as it is domain-specific. Over the last 30 years, risk tolerance and risk tolerance testing has been the topic for various studies and research.

2. RESEARCH MOTIVATION

The investment scenario in India before the liberalisation was limited to very few products and services. The most sought-after investment avenues were gold, real estate, fixed income products, insurance policies etc. These products had the element of safety with mostly assured returns and minimal capital appreciation. The investors at those times were little exposed to understanding the impact of inflation on their returns. Post-liberalisation, with the government of India opening the door for investments, the investor was flooded with a lot of other investment opportunities.

However,thisincreasedcompetitioninthefinancialservicesectorhasledtoan investment product overload, where the Indian investor is indefinitely exposed to a range of investment products to choose from, but investors have limited skills and financial knowledge to evaluate and understand these financial products. In India there have been few regulations to streamline the sale of financial products and protect the investor’s interest.

The investment advisory in India is still in the nascent stage and is also a very urgent necessity. An investment advisor needs to understand the risk attitude of the investor by using psychometric tools and suggest appropriate products as per their needs.

Another challenge for the advisor is to deal with investment bias. This to a large extent jeopardizes the advisor’s plan because for certain goals there needs to be a trade-off between risk and returns to achieve a goal. Due to these biases they may have set opinions on certain investment avenues.

The beliefs and preferences of the individual exhibit result in a systematic deviation from rational behaviour and are termed as biases/heuristics. Biases / heuristics are the beliefs and preferences individualsexhibit which results in a systematic deviation from the rational behaviour. Identifying these biases and their impact on investment decisions is a subject of on-going research in understanding the psychology behind investment behaviour.

Thus, it is essential to assess the risk tolerance and identify these behavioural biases that affect the investment decisions of individual investors inChennai.

3. REVIEW OF LITERATURE

In the current study, a detailed research work was done on the various behaviour theories, the concept of risk and the impact of risk on socio-demographic factors. Behavioural finance concepts were researched extensively, and different biases were identified to be used in this study. Mediation analysis using various methods was reviewed to find out the appropriate method to be used in this model.

Hallahan*et al*. (2004)stressed the need to do risk profiling and **Sulaiman (2012)**states that risk tolerance need not be very complex. As such, many research studies, **Hanna et al (2001)**, **Blanco et al (2012)**, **Barsky et al (1997)**, have been done to understand the role of risk-taking ability in investment decision. **Sultana and Pardhasaradi (2011)**posted that socio-demographic factors income, occupation and marital status are influenced by the risk-taking capacity of the investor.

Deshmukh and Joseph (2016)state that “The concept of Behavioural finance is an integration of social, economics, and psychology.” **Gilowich and Griffin (2002)** state that the study of behaviour finance is needed when investors make irrational decisions applying in their investing, spending and borrowing.**Barberis and Thaler (2003)** indicated that markets are divided between rational and irrational investors.

4. RESEARCH GAP

The following gaps in the existing studies were identified while reviewing the literature. The gaps found in the literature of behavioural finance and risk profiling studies serve as a strong base for undertaking the present study.

1. Most behavioural finance studies have been conducted in developed countries. There are also studies conducted in developing countries including India, but they are very few. The literature on behavioural finance and risk profiling conducted in developing economies specifically in India is limited. Thus, the findings of these studies may differ in the Indian context especially in Chennai which is considered to be conservative. This is mainly because of differences in culture, lifestyle, saving and spending habits of individuals, risk attitude etc. Therefore, it presents ample scope to examine the relevance of risk profiling and behaviour biases theories in emerging markets.

2. Literature review indicates that major focus has been given to the study of risk profiling limited to investment behaviour in the stock market. This is the same with the study of behaviour biases limited to the stock market behaviour both globally as well as in India. Few studies have been undertaken involving other investment avenues.

3. From the literature review on behavioural finance, a lot of studies were reviewed on biases that affect the investment decision. It has been observed individual biases were studied with their impact on stock market decisions like overconfidence bias, disposition effect, herding, home, loss aversion, and anchoring

and regret aversion bias. These biases were more frequently empirically tested because these behavioural biases usually affect individual investor's behaviour. Studies on other biases like familiarity, mental accounting, availability bias, self-control were very limited. Therefore, there is scope to explore the effect of these additional biases along with the frequently tested behavioural biases in investment decision making.

4. As mentioned, these biases were studied individually and there are but a handful of studieson emotional bias and cognitive bias together. Thus,there exists an opportunity to identify which group of bias either emotional or cognitive is more influential in investment decision making.

5. The review of the literature points out to many of the studies investigating the influence of various demographical factors (gender, age, income, experience, education) on risk profiling and behavioural biases in investment decision making It will be interesting to study if these investment decision influencing socio-demographic variables are in norm with the existing study.

6. A majority of studies on behavioural biases and socio-demographic variables is done with secondary data from institutions. In the United States of America, the Survey of Consumer finance helps to identify the type of risk profile and investor behaviour. This study aims to investigate primary data with a self-constructed questionnaire designed with the help of investment experts.

7. Few studies have been done to investigate the relationship between risk profile and behavioural bias of the individual investor. Very few studieshave been done to explore the mediating relationship of risk in the decision-making process in Chennai. Thus, it will be useful for academicians and investment experts if the

study brings out this relationship.

5. RESEARCH OBJECTIVES

The present study aims to assess the risk tolerance level and the behaviour bias of Individual investors in Chennai and their impact on investment decision. The present study aims to establish the extent of the mediating effect of risk in the decision-making process.

The study of individual investors is incomplete without a descriptive study of the socio-demographic status of individual investors. Therefore, the present study also analyses socio-demographic variables such as gender, age, occupation, income, investment experience while studying the behaviour of individual investors.

More specifically, the present study intends to achieve the following objectives:

1 To assess the level of risk Tolerance among individual investors in Chennai, India

2 To identify the existence of behavioural biases among individual investors in Chennai, India

3 To explore the effect of socio-demographic variables on behavioural biases among individualinvestors

4 To analyse the influence of socio-demographic variables on the Risk Tolerance of individualinvestors

5 To establish the mediating relationship between Risk Tolerance and behaviour bias of individual investors in Chennai

6 To analyse the influence of investor's risk tolerance when choosing investment products

6 RESEARCH HYPOTHESES

The hypothesis is an uncertain proposition or assumption on the expected relationship between two or more variables. These assumptions are made and tested to accomplish the objectives identified in the study. The theoretical model framed by the researcher forms the base for developing the hypothesis.

- Socio-demographic factors like Age, Gender, Income, Occupation do not influence the risk-taking ability of the investor
- Socio-demographic factors like Age, Gender, Income, Occupation haveno influence on the behaviour bias of the investor
- Socio-demographic factors like Age, Gender, Income, Occupation do not determine investor behaviour
- Relationship between behaviour biases and investor behaviour
- Relationship between risk profile and investor behaviour (based on their investment choice)
- Relationship between behaviour biases and the risk profile of the investor
- The Mediating role of independent variables on the dependent variable

7 SCOPE OF THE RESEARCH

The research work is done within the limits of Greater Chennai and does not include the suburbs and surrounding areas of Chennai. Also, this study is limited to respondents who are employed and above 21 years of age.

Post-liberalisation, the investors have a variety of investments to choose from. The study looks into only simple and common investments which are available to the respondents. Speculative investments and exotic investment options are left out of this study.

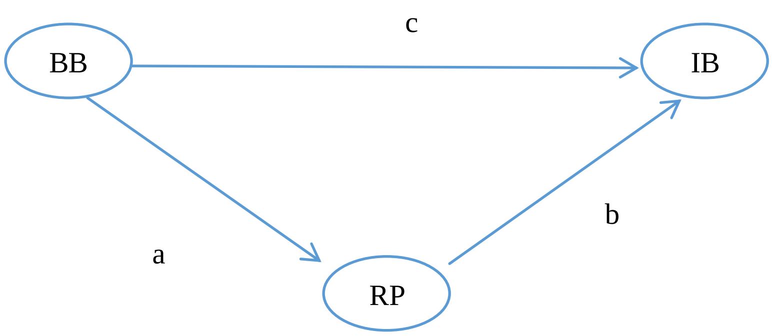
The study focuses on the risk-taking ability and biases of retail individual investors. Though there are a several methods to assess the risk tolerance of the individual, the study adopts the simple ranking method adopted by most investment advisors across the world to assess the risk-taking ability of the respondent. The questionnaire tries to be generic in including most of the domains to assess the overall risk-taking ability of the respondent.

Though there are many biases present when making investment decisions, only ten biases are taken to assess the bias score of the respondent.

8 RESEARCH METHODOLOGIES

The present study proposes to use a mixed-method approach to achieve the stated objectives. It is established that the mixed approach is appropriate when researchers know little about the subject and as such, it should be examined as to what variable need to be used using qualitative research. The variables thus identified can then be used to study the target sample using quantitative research. Therefore, to develop the research instrument and to identify the risk profile and bias present in the investor, a pilot study was first conducted and then a detailed survey was conducted with the sample size to identify the risk profile and bias of individual.

Mediating effect model for the current study



Note: BB=behaviour bias, IB =investor behaviour, RP=risk profile, c= Total effect, a and b = indirect effect

9 RESEARCH DATA ANALYSIS FRAMEWORK

After data collection, the data wereanalysed using SPSS 22. Apart from obtaining measures of central tendency and variation using descriptive statistics, correlation and factor analysis (exploratory factor analysis, EFA using SPSS 22) were used to understand the variability among the observed and the correlated factors. Mediation analysis using Sobel's test was carried out to understand the effect of risk as the moderating variable between behaviour bias and investment decisions.

10 RESEARCH CONTRIBUTIONS

Academic: Apart from the findings, this paper will help further researchers by way of the literature survey and review done. Based on the research methodology, design, data survey, data analysis and interpretation, further research can be started from the results of this study.

Financial Planners and Advisors: This research will help the advisors in this profession to understand the various behaviour biases, the risk classification and how they affect the investor's decision-making capability. This will help them to adjust and adapt according to their client needs.

Investors: This paper will serve as a reference to all the investors as to what bias and risk tolerance are and how they affect their investment decisions. Once it is understood, the investors can shed off their biasness in a significant manner so that they can make rational investment decisions according to their needs.

11 LIMITATIONS OF THE RESEARCH

The current study was done in urban Chennai and the sub urban areas were left out. Hence to generalize the findings of the study to PAN India, it needs to be done cautiously. Thus there is enormous scope to extend the study to suburban and rural parts of India.

12 SCOPE FOR FUTURE RESEARCH WORK

This study took only a few social demographic factors for analysis. There are some other factors like education, marital status etc., which can be taken for further study and find out their relationship with the risk profile and behavioural bias.

This study took only ten biases for analysis. Further studies can be done using the other biases that are not taken in this study.

The risk profiling done in the study was done using a simple method of assigning scores to each response and finding the risk tolerance. Thus more advanced techniques and tools need to be explored and used to classify the risk tolerance of investors.

This study can be used for further research on behaviour bias affecting the risk-taking capacity of the investor.

The components extracted and identified in the factor analysis can be used in further studies on risk profile and behavioural bias.

13 FINDINGS

Influence of Behaviour Biases onInvestor behaviour

In the current study, bivariate regression was done with bias being the predictor and investor behaviour as the criterion variable. It was found that biases have a significant influence in determining investor behaviour.

Influence of Risk profile on Investor behaviour

In the current study, bivariate regression was done with risk being the predictor and investor behaviour as the criterion variable. It was found that risk has a significant influence in determining investor behaviour.

Influence of Behaviour biases on Risk profile

In the current study, bivariate regression was done with bias being the predictor and risk as the criterion variable. It was found that bias has a significant influence in determining Risk.

Mediating role of independent variables and the dependent variable

In the current study, the bias score is taken as the independent variable and the investment decision score which determined the investor behaviour is taken as the dependent variable. Risk is taken as the variable which mediates the cause and effect relationship between bias and investment decisions. By using meditational analysis, risk is established as the mediating variable with a partial effect on the causal relationship between bias and investor behaviour.

Dominant Bias influencing Investor behaviour score

The current study aimed to find out the dominating bias which influences investment decisions. It was found that emotional bias is the dominant bias influencing the investment decision of Investors in Chennai. Familiarity bias is the dominating bias whereas self-control bias and mental accounting bias are the least affecting biases.

Correlation between Bias, Risk and Investor behaviour

In the current study, Pearson correlation test was done with the three variables to find out the correlation among the variables. It was found that all three variables under study have a positive correlation with each other significantly.

14 CONCLUSION

Before liberalisation in India, investment in assets more or less involved in investing in properties, gold, fixed deposits among all the classes with the rich and affluent investing in shares of publicly listed companies. With the introduction of risky asset classes like MFs, ULIPs, there is a compelling need to understand investment in the area of risk capacity and behaviour bias of the investor.

The current study attempts to analyse the risk-taking capacity and bias present among the retail investors in Chennai. The findings of the study proved that biases present in the investor significantly influence the decision of the investor when making an investment decision.

The model established in the study also proved conclusively the risk-taking capacity of the investor also affects the investor's decision when making investment decisions.

Also, the study takes a detailed view of the behaviour biases present in the investor along with the risk-taking capacity of the investor. The study is highly relevant in the current investment scenario as it throws insight into the risk propensity and biases along with the cross-sectional relationship with socio-demographic factors like age, gender, income, occupation. Researchers in the investment domain can use this study to do further studies and investment advisors can use this study to understand behaviour bias and risk propensity to give appropriate advice to their clients.

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