Influence of Behavioural Biases on Decision Making process while making investment in Insurance in Indian context

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Abstract- The perception of people at large towards any insurance product is need for everyone but it is seldom kept on priority. Insurance holds a considerable importance in layman's life as it caters the financial security needs contributing to social welfare. Insurance plays the vital role in social welfare as it is recognised by the government for providing tax benefits in India. The changing life style in this era has resulted into increased risk of life and in addition spending habits have also been influenced. Under this situation, Insurance for life cover and inculcating habit of saving out of disposable income has proved to be an effective and trustworthy instrument. But being non-priority commodity from the many people's perception, Insurance is sold using aggressive marketing techniques or is it made mandatory in some schemes, due governmental interference. Since Insurance hedges risk, emotions of the buyers are associated with it. It was found that emotions arising out of fear and risk have significant influence on decision making process. These emotions are called as behavioural biases and comes under the domain of behavioural finance. There are many behavioural biases which are studied. This paper aims to study two such behavioural biases viz.. Framing bias and Mental Accounting bias which have significant influence on decision making process while making any investment in insurance.

Key words: Behavioural Finance, Investor's Behaviour, Insurance, Decision making, Framing Bias, Mental Accounting Bias.

I. INTRODUCTION

There are many studies carried out in the field of behavioural biases under the domain of psychology. These biases play substantial role in making the humans prone to commit errors as they have capacity to alter the decision making process. The application of these biases in various fields have been studied largely globally. When it comes to investment, these biases are instrumental in altering the decision making process of the investor. The biases are different for investment in various instruments like bank deposits, mutual funds, shares and insurance. Many studies were conducted across many countries to assess the role of behavioural biases while investing in mutual funds and shares. Insurance is such an instrument which is said to be the business of uncertainty. In Indian context it is still a topic of debate whether an insurance policy is a medium for investment or it is a cover of risk. This is an all-time conundrum for people in India especially the employed one. Very few studies were conducted to assess the influence of behavioural biases while making an investment in insurance. Also the studies conducted are in different parlance and the application of these studies is a bit different in Indian context. This paper is an attempt to assess the influence of selected behavioural biases on decision making process while investing in Insurance especially in Indian context.

India stands 2^{nd} in the world, population-wise, China being the first. If developed, trained and utilised properly, the population of any country becomes the asset for that country. But on the other hand huge population poses the challenges related to Social Security, Financial Security, Security from man-made and natural disasters, cost of medical expenses and many more to list.

Insurance is supposed to be the business of uncertainty globally. The business of insurance stands on the presence of uncertainty and organisations take advantage of this uncertainty by selling insurance policies to gain profits. Insurance is not the only tool to hedge risk and uncertainty as Risk Management domain has some other tools for hedging. But for negative consequences, Insurance is most useful tool. Risk is any fear of loss of assets, loss of health, accidents, loss of life etc. Insurance serves as a formal contract between the insured and the insurer. The policy can be redeemed for money in the event of whatever is covered under policy, occurs. Insurance premium is the cost of insurance policy. Investment in Insurance

is to be made prior to happening of specific risk events. Insurer pays the insured in the event of losses suffered from risk events covered by the policy.

Mortality, Health and property and liability are the 4 major type of risks any person faces. To cater these 4 risks, Insurance is the only effective tool available as on date. The physical needs like automobile, electronic equipments, housing etc are also required in high volume for huge and immensely dense population. These facilities are always under threat of being stolen or damaged in accidents or natural calamities. The single and effective solution to all above issues is provided by Insurance by hedging the financial risk. In Indian context, Insurance industry is coming up with different products of insurance to cater the needs of Indian customers in Rural as well as Urban segment.

Insurance Industry works on the principle of providing the financial security when it is needed most. Indian Insurance Industry has many companies offering various insurance products. There are total of 58 Insurance Companies in India. Out of 58, there are 24 Life Insurance Companies and remaining 34 are Non-Life Insurance Companies. Life Insurance Corporation (LIC) is the only public sector company operating in Life insurance sector. In non-life Insurance sector there are 6 public sector companies. In addition, there is a company General Insurance Corporation of India (GIC) which is a sole national reinsurer.

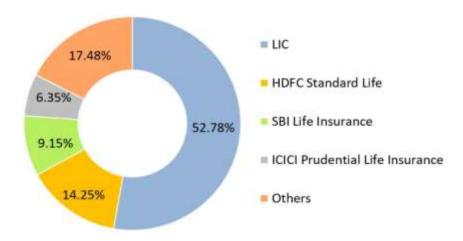
Market Size

The overall market size of the Indian Insurance Sector in the year 2020 was US \$280 Trillion. Governmental intervention has pushed the insurance penetration and facilitated the proliferation of insurance schemes.

Gross premium collection by Life Insurance companies in India has shown substantial growth over years. It has jumped from Rs. 2.56 trillion (US\$39.7 Billion) in the year 2012 to Rs 7.31 Trillion (US\$ 94.7 Billion) in the year 2020. During the years 2012-2020, the business of Indian Life insurance companies has surged to 15% to reach Rs. 2.13 Trillion (US\$ 37 Billion). Overall insurance penetration in India has reached to 3.71% in the year 2019 since the year 2002 when it was 2.71%.

During the year 2020, Health insurance companies in Non-life insurance sector shown grown from 15% in 2001 to 56% in the year 2020. Whereas in Life Insurance Sector private players enjoyed the market share of 31.3% in the year 2020.

On y-o-y basis, in the year October 2020, health insurance witnessed an increase of Rs. 4074.8 Crore (US\$ 553.93 million) in premiums as compared to Rs 3840.6 Crore (US\$ 554.29 million) recording a growth of 6%. Retail health also witnessed a 30% increase in premiums to Rs. 1,982.6 crore (US\$ 269.69 million).



Market share of Life insurance companies during year 2019 (Source - Investyadnya)

Behavioural factors affecting decision making while making investment in Insurance

Working of human psychology is a complex process to understand. It will not appreciate the risk in future even if it is aware of that and will not relate it to self unless it is experienced by some near one. Hence it

fails to realise that Insurance is the instrument to hedge the financial risk and can provide long term financial solution. As a result, it is not kept on priority. Human Psychology appreciates it after someone invests into it as an outcome of some mis-happening.

Perception of risk is different to each individual investor and individual investors make decision as per their own perception. After examining the need, objective, constraint and aspirations the investor becomes aware of risk involved. Psychology starts to work once it perceives the risk, aspirations, financial security and other factors. Here at this point, the behavioural biases come into picture and emotions start to play their role while making decision regarding investment in Insurance. There are many such biases recognised which alter decision making process. Two of such biases are Mental Accounting bias and Framing Bias.

Mental Accounting Bias

Mental accounting tend to assign subjective value to the money, usually in ways that violate basic economic principles. Although money has a consistent objective value, the way it is spent is often subject to different rules, depending on how the money was earned, how it was intend to be used, and how it makes feel.

The money set aside to purchase something is spent according to the mental accounts which are framed by marketers/salesperson of insurance connecting it to the mental accounts. This results in decision making of buying insurance products on priority. People fail to consider the real picture of their financial situation and respond in a quaint manner to gaining or losing money depending upon the situation presented. This results in the extravagant spending and efforts to save money are proved futile. This mostly happens when salesperson misleads and take undue advantage of mental accounting and framing bias.

Insurance reflects investor's current expenditure patterns as against their own assessment of risk. People tend to allocate mentally, their planned expenditure into different accounts. This in turn results into feeling of being constrained while spending on some other attributes. In a research carried by a multinational firm Microsave Consultants it was found that, the low income households strike the balance between their income and expenditure by segregating their expenses according to certainty and negotiability of the item. In parlance to Insurance people show tendency to refrain from their commitments of paying premiums in time. This may be due to the following facts

- 1. Absence of Risk Protection Account in their mental model
- 2. Exhaustion of account for some other commitments
- 3. Premiums are uncertain and negotiable type of the expense, which is mentally mapped to be met from regular income.

Framing Bias (Goal Based Motivations)

People often tend to make decisions on the basis of the way the information is presented to them. The information can be presented in such a way that it may contradict the actual facts. Even the actual facts when presented in 2 distinct ways results in people making different decisions in different situation. Insurance investors react to a particular opportunity differently depending upon the way it is presented.

If the framing is done in judicious manner by analysing the mental accounts of the investors, the purchase of insurance product happens.

Decision making meets multiple goals. When the goals meet in favour of Insurance investment over goals of not purchasing, the investment in insurance happens. Following are some of the known goals which end up in investment in insurance.

Requirement Satisfaction – many insurance products are sold mandatorily while purchasing products. Eg. Motor insurance is sold mandatorily while purchasing an automobile. In this case purchasing insurance is perceived as secondary goal for meeting the main goal.

Investment goals – Insurance is perceived as an investment that is useful to be redeemed at an appropriate time i.e. when it is claimed. Unclaimed period/year is perceived as waste of investment.

Emotional Goals – Investment in insurance is subject to emotional goals also. It is made in anticipation to:

- Mitigate the stress and anxiety of experiencing financial losses
- Averting the regret of not investing in insurance when the untoward incident happens
- Find solace in the event the asset is lost.

Since the emotional attachment is strong in such situation, the severity of outcome as opposed to probability is the centre point.

Satisfaction of Social and cognitive conditions - Investment in insurance decisions are highly affected by the act of individual's social circle. The purchase happens in accordance to socially accepted information.

II. LITERATURE REVIEW

Plethora of psychological biases have been studied, discussed and described in depth in behavioural finance and behavioural economics literature. Some of the important biases that have been identified to influence the Insurance investors are namely Representativeness heuristic (Tversky and Kahneman (1974) which further results into biases like framing (Tversky and Kahneman (1974), mental accounting (Hirshleifer (2001), Kahneman and Lovallo, (1993), prospect theory (Tversky and Kahneman (1979) and the resulting loss aversion and disposition effect (Shefrin and Statman (2000) Odean (1999), cognitive dissonance (Goetzmann and Peles,1997), Status quo bias (Samuelsons and Zeckhauser (1988), the endowment bias (Kahneman et.al. (1990) and Self-control Bias (Hersh Shefrin and Richard Thaler, 1998).

The concept of Mental Accounting was developed by Thaler (1980, 1985) and Tversky and Kahneman(1981). Thaler enunciated mental accounting as "the set of cognitive activities that makes individuals and households to organise, evaluate and keep track of financial activities and engage in to serve the same function that regular accounting serves in organization."

Kahneman and Tversky's (1979) in prospect theory advocated that, "framing effects are physiological factors that challenges rationality assumption of traditional finance theory." According to Kahneman and Tversky, framing effect comes into picture when different imagery and descriptions of same problem highlight different aspects of outcomes. The frame adopted by decision maker is controlled by the norms, habits and personal characteristics of decision maker.

Kahneman and Tversky (1981) promulgated that each decision choice has two different and clear phases: (i) an initial phase where acts, related contingencies, and outcome for each decision choice are framed; and (ii) a second phase where acts, related contingencies, and outcome for each decision choice are evaluated. Changing the reference point can affect an outcome to be positive or negative, and consequently change the preference order between options. Individuals exhibit a tendency to frame decisions in narrow or specific contexts and ignore broader considerations.

Shefrin and Statman (1985) opined upon the concept of Kahneman and Tversky's approach of loss aversion to loss realization. The authors discussed this phenomenon into wider theoretical framework, which included elements of mental accounting, regret aversion, self-control and tax consideration.

Thaler's(1985)advocated that mental accounting is a psychological phenomenon where individuals divide transactions into separate accounts and treat payoffs differently across these accounts, despite the fungibility of money.

Shiller (1998) propounded that the main idea underlying mental accounting is that decision –makers tend to separate the different type of gambles they face into separate accounts, and then apply prospect theoretic decisions rules to each account by ignoring possible interaction between the accounts. Mental accounts can be isolated not only by content, but also in respect of time. Frames and mental accounting is part of the prospect theory. Mental accounting describes the tendency of people to place particular events into different mental accounts based on superficial attributes.

Research Objectives

- To study behavioural biases in parlance to investment in Insurance in Indian scenario.
- To Study the impact of behavioural biases on various demographic variables like Age, Gender, Marital Status and Educational Qualifications while making investment in Insurance.

- To study whether Mental accounting bias can alter the process of decision making while making investment in Insurance.
- To study whether Framing bias can alter the process of decision making while making investment in Insurance.

III. METHODOLOGY

To study behavioural finance applicability, the research is being carried with the use of primary data in which structured questionnaire was used as a tool for data collection. A sample survey was conducted for the investors of Insurance.

Most quantitative research falls into two areas: studies that describe events and studies aimed at discovering inferences or causal relationships. This is also called as conclusive research as conclusive research is divided in 2 parts viz.. Descriptive study and Causal/analytical study. The design adopted is conclusive research design in which descriptive as well as analytical studies are also incorporated.

The population from which sample is drawn comes from Insurance Investors. The sample size for the consumer survey is 470 (calculated using sample size calculation formula- William Zikmund, Business Research Methods, Thomson learning, 7th edition, pg no 426) and Random sampling method is applied for selection of samples.

Demographical information collected through Survey includes details of the respondents like Age, Gender, Educational Qualifications, and Marital Status. The research hypothesis was developed and this hypothesis was then formulated into 4 hypotheses for demographical variables. The data collected was coded as per convenience, edited and tabulated. The graphical analysis was also done for easy understanding of the data. Finally these research hypotheses were tested using statistical tools.

The research hypothesis was as put forward as under:

Decision Making Process is altered under the influence of behavioural biases while making investment in Insurance.

The above hypothesis was formulated for various demographical variables as under:

 H_0 : There is no significant variation in the decision making process while investing in Insurance under the influence of behavioural biases.

 H_1 : There is significant variation in the decision making process for investors of different age while investing in Insurance under the influence of behavioural biases.

H₂: There is significant variation in the decision making process for investors of different gender while investing in Insurance under the influence of behavioural biases.

H3: There is significant variation in the decision making process for investors of different Marital status while investing in Insurance under the influence of behavioural biases.

H₄: There is significant variation in the decision making process for investors having different Educational Qualifications while investing in Insurance under the influence of behavioural biases.

The above hypotheses were tested using 0.05 level of significance.

IV. RESULTS

A sample of 470 was taken to conduct the survey. The data so obtained from the survey was analysed for demographic variables viz.. Age, Gender, Educational Qualifications and Marital Status. The research hypothesis was tested for above variables to assess whether the behavioural biases play their role irrespective of gender, age, educational qualifications and marital status as against if any of the variables show variation in their decision making pattern while making investment in Insurance. The results are discussed as under. The hypotheses were tested using MS-Excel.

The demographic variable age was tested using ANOVA for various age groups. The respondents were categorised in various age groups viz.. 25 to 34, 35 to 44, 45 to 54, 55-65 and their sensitivity towards behavioural biases was marked and tabulated as highly influenced, not much influenced and not at all influenced. The ANOVA was then conducted for various age groups. The p value came out to be 0.110

which was higher than the significance level of 0.05. This showed that the null hypothesis was true and age was not a factor which can alter the decision making process of respondents under the influence of behavioural biases. In other words behavioural biases play their role irrespective of age.

The second hypothesis for Gender was tested using t test as there were only 2 groups. The Levene's test was conducted to check the homogeneity of variances. It showed that both the groups have equal variances (p = 0.2922, median was used to calculate absolute difference for Levene's test). The t test for equal variance was run and it showed the p value of 0.2277, which is higher than the significance level. Hence the null hypothesis was failed to be rejected. Gender of insurance investors cannot alter the decision making process under influence of behavioural biases. Behavioural biases play their role irrespective of Gender when it comes to investment in insurance.

The third hypothesis was tested for marital status. For sake of simplicity only 2 categories i.e. married and unmarried were taken for analysis purpose. The other known existing categories like divorced and window/widower were omitted. Since there were only 2 categories t test was employed. Levene's test was run to check the homogeneity of variance. Median was used to calculate absolute difference for the groups as required for Levene's test. The p value came out to be 0.3176 which showed that the groups have equal variances. Hence t test for equal variance was run. The p value showed as 0.05976. This is marginally more than significance level. Though marginally, it is more than significance level. Hence null hypothesis is accepted. The difference in variation in decision making process is not much significant in case of marital status. Unmarried people are less prone to fall prey to behavioural biases.

The fourth hypothesis was tested for educational qualifications. The education of the respondents was categorised as graduation, post-graduation and doctorate. Three categories were tested using ANOVA. The p value came out to be 0.0120 which is much less than the significance level of 0.05. Hence the null hypothesis was rejected and alternate hypothesis was accepted. There is a significant variation in the decision making process while making investment in insurance under the influence of behavioural biases when education comes into action. Post-graduates and doctorates were seen less prone to fall prey to behavioural biases.

V. DISCUSSION

Myriad of studies have been carried out on the behavioural biases. Humans are prone to these behavioural biases when decision making is performed under certain situation. While analysing the data so collected, figures confirmed this fact. This study has been focussed on Indian context for whenever a decision is made to invest in insurance. This study finds its application more immensely in post-Covid era in Indian scenario where most of the people are struggling to establish financial well-being despite adverse situation on financial front. People have lost their jobs, many are not getting paid for their work or are less paid than deserved. The three layers of society i.e. Lower Class, Middle Class and Upper Class are all facing financial crunch due to lockdowns and other miserable conditions. People do not tend to invest as their priorities have changed or have limited financial resources which are not enough to shell out disposable income. Those who wish to invest are most vulnerable to show these biases. These people may be of different demographic classification as have been already seen in result section as a result of hypothesis testing. The following section aims to throw detailed light on how these people tend to beheave under the influence of these biases.

Age Group

During the course of research and analysing the data it was found that those who belong to the age group of 35-45 are highly influenced by these biases. Benefits of Insurance are highly connected to the mental accounts of this age group. The people belonging to this age group have many priorities set for their future life. These priorities result in creation of various mental accounts in their mind. These mental accounts of the following type.

Health consciousness: The persons of the age group 35-45 plan the earnings keeping in view long term horizon. The major aspect in this is their health and their spouse's health in the old age as well as in present age. The people from these age group are often seen to purchase a medical insurance policy which covers own and family's medical expenditure. In the Covid era, many insurance companies in India have come up with Covid policies specially formulated to cover expenditure to be borne for treating Covid

infection which included hospitalisation also. This policy sold like a hot cake during the pandemic in India. This fact confirms the vulnerability of people towards the influence of behavioural biases.

Family responsibilities: Family comes first is the popular adage which is followed globally is also followed in India. Family responsibilities makes a person complete and responsible. Raising a home and maintaining it is the utmost duty of people of this age as this is the period when newness of the marriage is over and responsibility bearing phase starts. These people raise family which brings heavy expenditure. Housing is one of the most important basic need which a family comes across at some point of time. Likewise there are many more family responsibilities which are shouldered by the people of this age group. These family responsibilities form a mental account in the minds of the people.

Children education: This again an important aspect in a man's life. If a man raises his family then children education is top priority issue. Everybody wants that his child should get quality education. He constantly struggles for the education of his wards. In India schooling is getting costlier day by day. To cope up with the expenses of education, a man has to shell out large part of his income. This creates a mental account in the mind.

Asset Insurance: the people of age group35-45 are more prone to create assets as it is commonly thought that this age is the right time to create assets. These assets are costly also. For example purchasing a car of own choice calls for shelling out large amount as down payment in addition to EMI for loan taken to purchase the car. The expensive assets create a fear of damage to asset in the mind of the beholder. This damage may be manmade or due to a natural calamity. This creates a need to cover up the damage through insurance. This thereby creates a mental account in the mind of asset holder.

Insurance companies which sell insurance products are aware of these mental accounts. If they frame a product which can satisfy all these mental accounts of the people, the purchase of insurance product happens.

It was found that people belonging to other age groups also show the influence of bias but the proportion is lower. The people from age group 25-34 are not much under the influence or not at all under the influence. This is the age when a person gets a job or any how starts to earn money on his own. The very first thing a person do after starting to earn money is he spends it on his own desires and enjoyment. Marriages happen in this age where it is tradition in India to celebrate marriage with a fervour with profligate spending. After marriages comes the enjoyment, where most of the money earned is spent. The priorities are different for this age group. Hence mental accounts formation does not take place for this age group or take place but with low priority.

The people of age group 45-54 are also susceptible for mental accounts but as compared to the age group 35-44, the susceptibility is lower. This is the age when people start to think about retirement. For these people medical insurance carries more importance than any other aspect of life. Mental accounts does form but the intensity is lower and this mostly does not or very rarely results in purchase of insurance product, except for medical insurance. If the Insurance companies frame the products which can satisfy the mental accounts of the people of the age group 45-54, the purchase of insurance product happens.

The age group of 55-65 generally does not have mental accounts for insurance investment. People of this age group have already played their game and most of them start retirement life. This is the phase of life when posterity comes into force and people from this group enjoy retirement life. Most of them plan to travel with spouse. Hence travel insurance finds its opportunity to get sold. But here in Indian context, the concept of travel insurance is still in nascent stage. Hence the purchase of insurance product seldom happen.

Gender

India is still a male dominance country though woman emancipation is on the rise. Among the male and female gender, the decision makers are usually males in Indian context. Hence the mental accounts of the males play important role. The males and females of same age have generally same mental accounts. This is due to the fact that the priorities set in mental accounts come from the responsibilities and family culture, values. In this situation the onus of making decisions while making investment and other important aspects falls on the shoulders of the male. For this reason, significant variation in decision

making process was not seen. Hence, Gender does not play a significant role in altering the decision making process.

Marital Status

Marriage is the most important phenomenon in a man's life. It is said that real life starts after marriage as people tend to change in constitution after marriage as with marriage comes plethora of responsibilities. In Indian context, marriages are celebrated with great fervour. Married couples reel under many responsibilities. Emotional attachment with the family increases. Men start to pay attention more in home than outside. The increased emotional attachment serves as a creator for purchasing investment products. This demand creation serves as mental accounts. These mental accounts can be used for decision making for purchasing the investment products. The medium and long term requirements become the mental accounts. By analysing these mental accounts and framing the product benefits in-line with these mental accounts, results are favourable to insurance companies as purchase of insurance product happens.

The situation is quite different for unmarried people in Indian context. Bachelors and spinsters tend to receive low respect as compared to married people unless he or she is a celebrity or a public figure. Unmarried people have different mental accounts as their priorities are different. Also these mental accounts are not of much importance to insurance so as to convert them into a purchaser of insurance product.

Educational Qualifications

Insurance is a long term horizon investment product and risk covering instrument. Medium term investment requirements or investment having short horizon can be achieved more profitably and efficiently through other investment options like Mutual Funds, Shares and in Indian context Public Provident Fund (PPF). PPF is the designed to give compounding returns to the investors and almost every employee in either government job or working in private sector has taken advantage of this scheme by opening an account with governmental PPF organisation. It also offers higher interest rates than bank fixed deposits and is easy to maintain. It has a locking period also which has made it an excellent savings instrument for employees. Short term to medium requirements are very well catered by PPF.

Marketers use the Marketing Research Analysis which is mainly focussed on the mental accounts of the target segment resulting in innovative and creative development of the product. The products are marketed and sold highlighting the benefits satisfying the mental accounts of the target segment which ultimately results in sale of insurance product. Here, compounding and risk cover are two important paradigms.

Wise investor understands the investment requirement i.e. whether he needs medium term investment instrument or long term investment instrument. Those who become erudite by gaining knowledge or who are highly educated like post-graduation and doctorate are wise enough to know their investment horizon and usually do not fall prey to the framing bias posed by sales person. The most interesting part is that, these people are aware of their mental accounts and hence they set their priorities accordingly with analysing the actual requirement and the disposable income they have in their kitty. These people easily understand the benefits of various investment options available to them according to their investment horizon. These people don't make decision on framing by sales person. It was found that behavioural biases does not play their role when education comes into picture.

As against this, those having lesser knowledge or possess mere graduation degree are more prone to framing bias framed by the sales person. This is due to lack of knowledge and exposure to various options of investment. Also these people are not much aware of mental accounts they have and setting priority becomes herculean task for these people. In addition, these people fail to understand their horizon for making investment. Decision making is done under the framing by sales person. Hence these people easily fall prey to behavioural biases.

VI. Scope for Further Research

The scope of the study was limited to 2 main behavioural biases i.e. Mental Accounts and Framing. The scope for further research is open to examine and assess other behavioural biases and also to other investment options like shares, mutual funds etc. The context taken for study is India. Other context can be taken to assess the role of behavioural biases. Though the application of the research is generalised i.e. it is applicable in all situations, the profound application is seen in post-Covid era when finances available with people are limited and decision making is crucial.

REFERENCES

- 1. Prasanna Chandra, Investment Analysis and Portfolio Management,(2004) Tata McGraw-Hill publishing company ltd.
- 2. Kothari, C.R., Research methodology, 2nd edition.
- 3. William Zikmund, Business Research Method, 7th Edition, Cengage Learning, 2010
- 4. Levin Richard I, Rubin David S, Statistics For Management, Prentice Hall of India Pvt. Ltd., 2002, Seventh Edition
- 5. Ken Black, Business Statistics, South-Western Thompson Learning, 3rd Edition
- 6. Michael M. Pompian, Behavioral Finance & Wealth Management (2006) John Wiley & Sons, Inc.
- 7. Fromlet, Hubert "Behavioral Finance Theory and Practical Application"; Business Economics; Jul 2001.
- 8. Fama, Eugene F. "Market efficiency, Long-term returns, and Behavioral Finance"; Journal of Financial Economics, 1998; Pg. 283-306 Ritter, Jay R.; "Behavioral Finance"; Pacific-Basin Finance Journal, September 2003
- 9. Dr. Deepak Sahni Behavioral Finance: Testing applicability on Indian Investors International Journal of in Multidisciplinary and Academic Research (SSIJMAR) Vol. 1, No. 2, July-August (ISSN 2278 5973)
- 10.Dr. Vikram Bisen, Madhulika Pandey Applying Behavioural Finance by Analysing Investor Behaviour In Lucknow City, World wide journal, Volume: III, Issue: VI, June 2013.
- 11. Jurandir Sell Macedo Jr,Rosilene Marcon,Emílio Araújo Menezes, Patrícia Nunes Prospect Theory:
 A Study of the Endowment Effect
 http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.880.6127&rep=rep1&type=pdf
- 12. Chu Ying, & Qin Ping. (2007). An Empirical Study of Herding Behavior of Mutual Funds in China (Working Paper)
- 13. Tabassum Riaz & Haroon Iqbal Impact of Overconfidence, Illusion of control, Self Control and Optimism Bias on Investors Decision Making; Evidence from Developing Markets
- http://www.iiste.org/Journals/index.php/RJFA/article/viewFile/23358/24184
- 14.Dr. Abhijit Bobde, Dr. Pravin Bagde, Dr. Nitin Goje An Analytical Study of Psychological behavior of investors investing in Mutual Funds with reference to endowment bias & Self-control bias, 2017 IJEDR, Volume 5, Issue 4, ISSN: 2321-9939
- 15.Dr. Abhijit Bobde, Dr. Pravin Bagde, Dr. Nitin Goje Study of Behavioral Analysis of Investors investing in Mutual Funds with reference to Nagpur city, Journal of Advance Management Research, ISSN: 2393-9664 Vol.05 Issue-04, (October 2017)
- 16. https://en.wikipedia.org/wiki/Endowment_effect
- 17. http://www.indiainfoline.com/article/news-top-story/indian-mutual-funds-industry-aum-of-indian-mf-industry-crosses-rs-17-lakh-crore-in-fy2017-117041300472_1.html
- 18.https://www.amfiindia.com/research-information/mf-history
- 19. http://en.wikipedia.org

- 20.http://www.behaviouralfinance.net
- 21.http://www.mutualfundonline.com
- 22. http://economic times. in diatimes. com
- 23.https://thedecisionlab.com/biases/mental-accounting/