



EFFECT OF BEHAVIORAL BIASES ON INVESTOR PREFERENCES OF TAX SAVING INSTRUMENTS

Shalini Ojha ^{(a)1}, Amal Kumar Agarwala ^(b)

^(a)Research Scholar, Department of Commerce, Gauhati University, Guwahati, Assam, India.
ORCID: <http://orcid.org/0000-0002-3439-797X>

^(b)Associate Professor, Department of Statistics, Arya Vidyapeeth College, Guwahati, Assam, India.
ORCID: <http://orcid.org/0000-0002-9209-5507>

Article DOI: <https://doi.org/10.36713/epra11913>
DOI No: 10.36713/epra11913

ABSTRACT

The concept of rationality, has been studied in many theories till now but a new challenge in the field has emerged, Behavioral biases. The world today has recognized the relevance of behaviorism in decision making. The empirical evidence of stock market investors being influenced by Behaviorism is in abundance, but the database fails to present such information about behavioral impact on tax saving instruments. This study is an attempt to unveil the effect of biases on the part of investors while choosing tax saving instruments and add to the existing knowledge of literature on behavioral finance. A sample survey has been conducted through a structured questionnaire incorporating the convenience sampling technique. The biases selected from the behavior finance literature has been kept limited to Herd Behavior and Over Confidence pertaining to lack of literature. Chi square test has been used for the test of hypothesis. A significant association can be seen among age groups and their tendency to be biased. The findings of the study show an influence of biases in the selection of tax saving avenues which differ on specific demographic terms i.e., Age Group. Hence, a cogent argument can be placed on the relevance of behavior biases in tax saving decisions.

KEYWORDS: Behavioral Biases, Herd Behavior, Investment Behavior, Over Confidence, Taxation.

JEL Classification Code: D14, E20, H24, P30.

INTRODUCTION

Researches have confirmed that taxes significantly influence decision making, i.e., decisions for investment and financing (Blaufus & Chirvi, 2020). Behavioral response to an investment provides insights into perception of the individuals. Tax Misperception affects the reference point of an individual, they either overestimate or underestimate their tax burden. This yearly burden is dreaded, that ultimately leads to tax mismanagement. The percentage of overestimates is particularly high among farmers, freelancers and sole proprietors (>50%) compared to civil servants (35%) and employees (40%) (Schmölders, 1960). Low-income people overestimate whereas high income people underestimate their tax burden, meanwhile middle-income people's estimation are accurate to their tax burden (Auld, 1979). The afore mentioned studies are a brief insight into how merely estimating one's tax burden can be difficult for the taxpayers which ultimately attributes to the crude mismanagement of their taxes.

An individuals' income when exceeds from a designated limit leads to a tax liability, with options to reduce this liability with tax planning. A tax plan includes but may not be limited to the use of exemptions, deductions and salary restructuring. The former two are based on tax saving instrument selection. The intentions towards desiring an investment are driven by enumerable factors. When making investment decisions, investors can be biased (Gupta et al. 2021). Rational investors are very aware of optimized decisions which is a part of their decision making. Decision making for investments depends on intrinsic factors influencing investor's behavior.



Behavior finance is the study of how psychology affects financial decisions and financial markets. Since psychology explores human judgment, behavior and welfare, it can also provide important facts about how human actions differ from traditional economic assumptions. (Thaler, 1997) state that loss aversion bias has two implications. First, investors accept risks easier if they evaluate their investments less often. Secondly, when all payoffs will increase enough to remove losses, investors will accept more risk. When given the option to invest in an instrument with possible gains and possible losses, the investor will select the former. This is loss aversion theory. For instance, in long run, mutual funds will provide better returns but still people would go for a safe investment source. Mutual funds require time to fulfill the purpose of being a long-term investment at a locked time, but fixed deposits are a safe source of investment that creates a safety net for the investors with a yearly return on deposit. Investors accept risk easier if they evaluate investment less often. But with the advent of fintech, the availability of information has increased resulting in volumes of data for analysis. The data available will create heuristics and biases in the minds of the investor creating subconscious ideas that impacts the decision making. The idea that conforms to the behavior of others is among the most accepted principles of psychology. (Belsky, 1999). This explains the *Herd Mentality* bias. It is not fully clear what ultimately triggers forgoing tax planning opportunities, from a behavioral perspective, this might be explained by the lack of visibility of tax planning options for many economic agents.

BEHAVIORAL BIASES AND TAX PLANNING

Herd Behavior

One of the inspirations behind herding could be that if many people are performing it, it must be correct. Apart from this, the fear of creating wrong choice by going against the crowds also motivates people to replicate the action of others (Mehta, 2021). The investors feel disappointed if they have taken an investment decision which is opposite to the crowd (Prosad & Kapoor 2012).

Over Confidence

Over Confidence causes people to overestimate their knowledge, undervalue risks and believe their ability to control events is better than others. Razeq (2011) define overconfidence as an overestimation of the probabilities for a set of events. A mere knowledge of the market and its mechanism makes an individual overestimate their financial prowess. They even try to influence their acquaintances into getting into the same investment.

Only these biases have been identified for the purpose of the study considering the dearth of information around behavioral biases on tax saving avenues.

REVIEW OF LITERATURE

Though there exist enumerable ways to plan one's tax liability, most taxpayers depend on investments. From taxation point of view, long term as well as short term benefits from selected instruments are expected. The first-time investor cum taxpayer depends on premium paid on insurance benefits for tax saving, primarily due to the word of mouth. Most taxpayers have been advised on tax saving by family, peers & colleagues, spouses. With high-speed internet, the availability of information also has quadrupled. Keeping all this information under consideration, an individual gets overwhelmed. Kahneman and Tversky (1970) had identified the presence of certain mental rules of thumb people tend to follow while taking decisions. These rules are called heuristics that have disturbed the decision-making capacity of an individual primarily because they prefer a tailored solution for their problems.

The research around behavioral biases on tax saving avenues decision making are subliminal, still financial perspectives of an individual's behavior bias is evident from various studies. Blaufus and Chirvi (2020) have proposed a behavioral taxpayer response model that conceptualizes the impact of biases on the subjective decision making of an individual. Odean and Barber (2013) have argued that people are more willing to bet on their own judgments when they feel skillful or knowledgeable. The biases selected for this study are *Herd Behavior* bias and *Over Confidence* bias. These biases have appeared to have significantly affected the decision making of individuals in a number of studies.

Scharfstein and Stein (1990) state that lack of information creates the intention to herd amongst decision makers. Corporate decisions are dependent on market information, most companies follow the same pattern of investment as the others to 'share the blame'. Thus, lack of information leads to following of the herd i.e., following the path of people who have already chosen their options pertaining to their personal reasons.

Fochman and Hemmerich (2015) conducted an experimental study to identify the influence of emotions & cognition on tax perception and decision behavior. A negative relationship between the information level and the use



of heuristics. The willingness to take risk with capital gains tax is inversely related to the perceived risk or the cognition. Tax bias acts as a moderator in the use of decision heuristics for instrument selection.

Mittal (2018) conducted an extensive literature review to quantify the studies pertaining to influence of behavior bias on investment decisions. Studies across the globe have been taken forward in 1970- 2015 time period, where a total of 120 studies have been accumulated. Herd Behavior, Over Confidence and disposition effect have been the most identified biases.

These studies have helped in determining the biases relevant for the study.

OBJECTIVES

- (a) To study the impact of select biases on an individual’s choice of instrument for tax planning.
- (b) To determine the influence of age of individuals on their tendency to be behaviorally biased.

RESEARCH METHODOLOGY

The present study is empirical in nature. The area of the study is Kamrup (Metro) district of Assam. Google forms were administered among salaried employees and professionals for the purpose of data collection. Convenience Sampling was used to collect the data. The questionnaires were sent to 300 respondents out of which 260 responses were deemed to be suitable for the study. For Statistical computations SPSS package 25.0 has been used.

DEMOGRAPHIC PROFILE

Structured questionnaires were sent to the sampled individuals, comprised of 54.60 percent male respondents and 45.40 percent female. The respondents belong primarily to the age group between 39 to 48 years which accounts to almost 33.20 percent of the total. 75.70 percent are salaried employees and the rest are professionals. Most of them have completed under Graduation (37.60 percent) and post-graduation (45.30 percent) that vouches for the quality as well as reliability of the data.

DATA ANALYSIS AND INTERPRETATION

- (a) The following analysis is of the preferred avenues of tax saving and the prominence of biases while making tax saving decisions: - **Figure 1: Preferred Avenues for Tax Saving.**

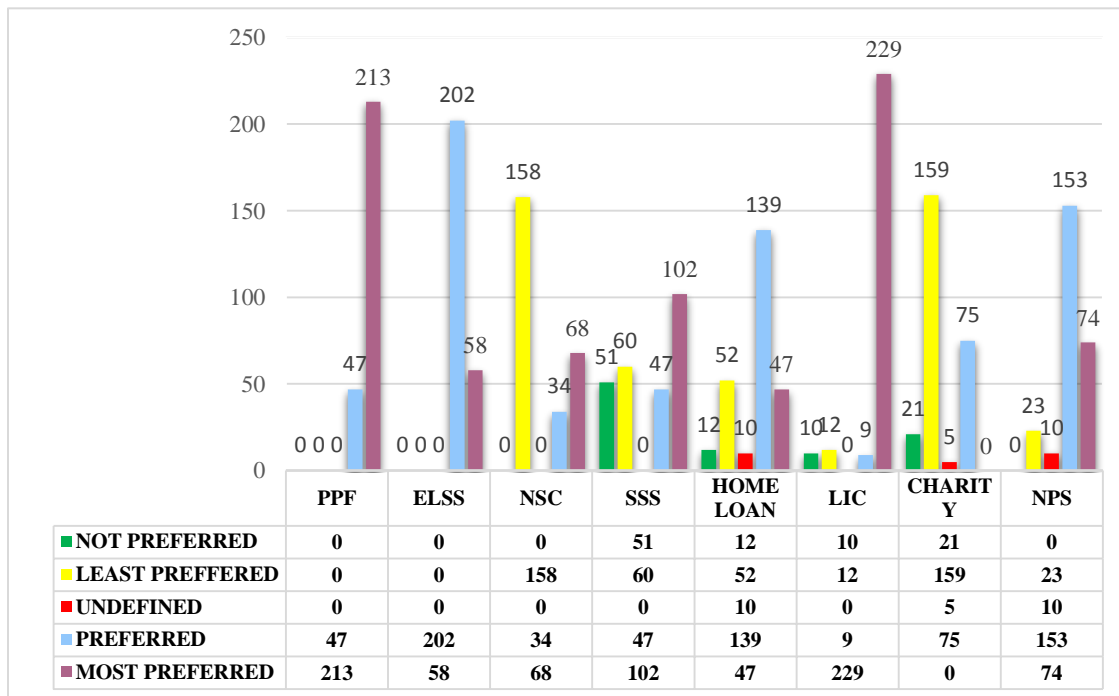




Figure 1 shows that the most preferred avenue for tax saving is paying premiums for Life Insurance Policies. Public Provident Fund is the second most preferred avenue followed by Sukanya Samriddhi scheme. Hence, the impact of the select biases will be tested on these three avenues. Statements representing the *Herd Behavior bias and Over Confidence bias* will be used to analyze the impact they create on the most preferred avenues of tax saving

The avenues along with the strongly agreed responses to the statements are shown below in the following table -

Table 1: Herd Behavior and tax saving avenues

STATEMENTS	PREMIUM PAID FOR LIFE INSURANCE POLICY	SUKANYA SAMRIDDHI SCHEME
	Strongly Agree	Strongly Agree
HB1: <i>I consult my family before taking tax saving decisions</i>	98 (37.1)	89 (34.0)
HB2: <i>I rely on my consultant's advice for tax saving decisions.</i>	153 (58.10)	121 (46.80)
HB3: <i>I like being at par with my friend's portfolio of tax saving avenues</i>	121 (45.40)	97 (36.80)
HB4: <i>Peers and Colleagues are an important source of information around tax saving instruments.</i>	150 (57.0)	115 (43.60)
HB5: <i>I feel secured knowing others are also invested in the same tax saving avenue.</i>	155 (58.10)	124 (46.80)
HB6: <i>I influence my peer and colleagues to invest in my portfolio of tax saving instruments.</i>	155 (58.10)	123 (46.50)

Note: Figures in parentheses indicate the respective percentages

Table 2: Over Confidence and tax saving avenues

STATEMENTS	PREMIUM PAID FOR LIFE INSURANCE POLICY	SUKANYA SAMRIDDHI SCHEME
	Strongly Agree	Strongly Agree
OC1: <i>I conduct complete analysis of tax saving instruments.</i>	120 (45.50)	102 (38.80)
OC2: <i>I choose good avenues of tax saving instruments.</i>	117 (44.40)	98 (37.10)
OC3: <i>My investments have always provided taxation benefits</i>	109 (41.30)	94 (25.40)
OC4: <i>I invest for long term benefits with regard to tax saving avenues.</i>	86 (25.40)	73 (27.70)

Note: Figures in parentheses indicate the respective percentages

Herd Behavior and *Over Confidence* biases are prominently seen in the two avenues of tax saving, Premium paid for Life Insurance policy and Sukanya Samriddhi scheme, the third preferred avenue i.e., Public Provident Fund has been dropped because it did not show inclinations towards herding or overconfidence biases. Same is the case for rest of the avenues.

(b) The following hypotheses have been formed to see whether the age of respondents has a significant effect on their tendency to be biased.

H₀₁: There is no significant association between Age and Herd Behavior bias.

H₁₁: There is significant association between Age and Herd Behavior bias

H₀₂: There is no significant association between Age and Over Confidence bias.

H₁₂: There is significant association between Age and Over Confidence bias.



Table 3: Association between Age of the respondents and tendency to be impacted by select biases

Items	Chi Square Value	P value
HB1	28.181	.000
HB2	47.468	.000
HB3	40.215	.000
HB4	48.540	.000
HB5	25.719	.000
HB6	37.380	.000
OC1	69.413	.000
OC2	44.813	.000
OC3	40.221	.000
OC4	39.219	.000

Compiled using SPSS package 25.0.

The results shown in Table 3 reflect a significant association between the age of the respondents and the selected biases. Statements ranging from HB1 and HB6 represent the herd behavior bias, whereas the statements ranging from OC1 and OC4 represent the over confidence bias.

All the statements of *Herd Behavior* have p value less than 0.05 and hence the null hypotheses H_{01} should be rejected. And thus, there is ample evidence of association between age of respondent and Herd Behavior bias so far the sample data is concerned.

Again, all the statements of *Over Confidence* have p value less than 0.05 and hence the null hypotheses H_{02} should also be rejected. Therefore, it can be concluded that there is association between age of respondents and *Over Confidence* bias.

DISCUSSIONS AND IMPLICATIONS

It is evident from the data that respondents are influenced by *Herd Behavior* and *Over Confidence* biases primarily towards Life Insurance premium and Sukanya Samriddhi scheme. It can be attributed to the nature of these instruments as they are government run schemes and the trust in these instruments are higher amongst individuals due to word of mouth. Most respondents are within the income range of 5 lakhs to 10 lakhs and that also explains the indulgence in herding and the overconfidence biasness that follows. Tax literacy varies on various factors like the availability of information and ease of acquiring that information. An instant search on digital platform provides information to the party regarding their interests. Some are genuine and others are rigged to an extent, to make one believe in its quality. This uncertain nature of information creates a heuristic in an individual's mind. The nature of Indian households is to cherish and not indulge in wrong decisions, hence they look for a group of people who are already in the same scheme and are reaping benefits. Thus, word of mouth handles a lot of financial information.

There is also a significant association between age and the extent of *Herd Behavior* as well as *Over Confidence* amongst the respondents as evident from the analysis. The respondents in the age group of 39 to 48 years are attributed to herding the most which is suggestive of the over dependence for decision making on outside factors like peer pressure or following the path of their colleagues. Though herding is least in the age group of 18 to 28 years, but this age group is affected by overconfidence bias most. This can be attributed to the availability of tax saving information on various platforms and familiarity amongst the members of this age group. Various social media handles today have taken over the responsibility to financially educate the users of these platforms. It would not be wrong to admit that most of these users are within the age group 18 to 28 years. This generation has an inclination towards having an individual choice, thus they are far away from herding.

CONCLUSION

Of late, rationality has been replaced by behaviorism. The world today has moved past theorizing mere assumptions and has taken the relevant matters in hand. With no lack of information for an individual, the world seems to have benefitted for decision making. This study puts forward the relevance of biases in decision making. Tax saving decisions are very complex. The decision to select an instrument for saving taxes have long been influenced by biases. This study identifies the two biases that significantly affect an individual *Herd Behavior* and *Over Confidence*. There exists a significant difference among age groups in being behaviorally biased that opens the scope of future studies in other demographics as well. These two biases that influence individuals in this study can be extended to several other biases pertaining to their significance, statistically and literally.



Author Contributions: Conceptualization, S.O. and A.K.A.; Methodology, S.O. and A.K. A Software, S.O.; Validation, S.O. and A.K.A; Formal Analysis, S.O. and A.K.A.; Investigation, S.O.; Resources, S.O.; Data Curation, S.O. and A.K.A.; Writing – Original Draft Preparation, S.O.; Writing – Review & Editing, S.O. and A.K.A.; Visualization, S.O.; Supervision, A.K.A; Project Administration, S.O. and A.K.A; Funding Acquisition, NONE. Authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement: Ethical review and approval were waived for this study, due to that the research does not deal with vulnerable groups or sensitive issues.

Funding: The authors received no direct funding for this research.

Acknowledgments: In this section you can acknowledge any support given which is not covered by the author contribution or funding sections. This may include administrative and technical support, or donations in kind (e.g., materials used for experiments).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

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