International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 03, 2020
ISSN: 1475-7192

Impact of Cognitive Biases on Mutual Fund Investors In Delhi & NCR Region

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ABSTRACT

The current study "Impact Of Behavioural Biases On Mutual Fund Investors In Delhi And NCR Region" become involved with the functions to consider the degree of mutual fund information through investors in decided on pattern and to bear in mind the effect of cognitive biases in decided on pattern. The cognitive biases included representativeness bias, cognitive dissonance bias, and framing bias changed into taken into consideration. For meeting the purposes, the vital records were comprised of hundred fifty mutual fund investors who have been chosen via convenience sampling technique. It changed into found that adult males have a high degree of statistics while prominent with female as far as understandings and running of mutual finances. Investors have been located significant bias in the case of cognitive dissonance bias, representative bias and framing bias regarding the proportion of financial savings invested in mutual fund.

Keywords: *Representativeness Bias, Cognitive Dissonance Bias, Framing Bias.*

I. INTRODUCITON

Mutual funds have opened new vistas to a huge number of small financial specialists by practically taking the investment to their entrance. Mutual Funds are viewed by individual investors as financial intermediary /portfolio managers who process data, recognize venture openings, plan investment techniques, invest fund and watch progress with ease. Along these lines the accomplishment of MFs is the consequence of the combined efforts of competent fund managers and alert investors.A fund manager ought to dissect financial specialist conduct and comprehend their necessities and viewpoint, to equip the exhibition to meet investor requirement. In the traditional finance paradigm, agents are considered as “rational”.

Behavioural Finance is the field of finance that suggests psychology-based theories to explain market irregularities. It is assumed that the information construction and the profile of market participants systematically encourage individuals’ investment decisions as well as market outcomes. Behavioural Finance attempts to better understand and clarify how emotions and cognitive errors affect investors and the decision-making process. Most of the researchers consider that behavioural finance, a study of the markets that draws on

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Received: 03 Dec 2019 | Revised: 21 Jan 2020 | Accepted: 18 Feb 2020

psychology, is throwing more light on why people buy or sell the stocks they do have and even why they do not buy stocks at all.

In the words of **Meir Statman**, Santa clara University, "People in standard finance are rational. But people in behavioural finance are normal."**Statman** further added in his excellent research work in the field in 2014, "Behavioural finance substitutes normal people for the rational people in standard finance. It substitutes behavioural portfolio theory for mean-variance portfolio theory, and behavioural asset pricing models for the CAPM and other models where expected returns are determined only by risk".

Investors exhibit number behavioural biases in selection making. Behavioural biases are incorrect moves due to unsuitable choices or mistakes due to irrational or now not utterly rational intellectual processes. Behavioural biases fall into two wide categories, cognitive and emotional, with each yielding irrational judgments. A cognitive bias can be technically described as a basic, statistical information-processing or reminiscence error frequent to all human beings. They can be thinking of as missing perception or some distortions in the human mind. On the different cease of the spectrum, there are emotional biases. Emotions are expressions, regularly involuntary, associated to feelings, perceptions, or beliefs about elements, objects, or members of the family between them, in reality, or the imagination. Cognitive biases originate from misguided reasoning so; higher records and recommendation can frequently right them. Conversely, due to the fact emotional biases originate from impulse or instinct as an alternative than mindful calculations, they are challenging to rectify.
Cognitive bias is a sample of deviation in judgment that takes place in precise situations. Some are possibly adaptive, for example, due to the fact they lead to extra superb movements or allow quicker decisions. Others possibly end result from a lack of fabulous intellectual mechanisms, or from the misapplication of a mechanism that is adaptive below one of a kind circumstances. Cognitive biases are cases of advanced intellectual behaviour. Some of the distinguished cognitive biases encompass heuristics such as representativeness bias, cognitive-dissonance bias and framing bias.

Representativeness bias takes one profile of an object and extends it to different elements of the same. The representativeness heuristic is a propensity the place humans have a tendency to see patterns in random sequences. Representativeness bias takes place as an end result of a wrong perceptual framework when processing new information. To make new statistics simpler to process, some buyers mission results that resonate with their pre-existing ideas. An investor may view a precise stock, for example, as a cost inventory due to the fact it resembles an before price inventory that used to be a profitable funding however the new funding is now not a fee stock.
Another end result of representativeness is a tendency to anticipate that correct corporations are correct investments. Good companies are frequently viewed as representing properly investments. The problem of whether or not a share is an excellent funding relies upon upon whether or not it is over-, under-, or fairly-priced. Shares of a right agency may additionally be overpriced, and as a result would no longer characterize an excellent investment. Shares of a susceptible employer may also be under-priced, and as a result are alluring as

an investment.

Cognitive-Dissonance bias encompasses the response that arises as human beings fighting to harmonize the cognitions and thereby relieve their intellectual pain e.g. traders frequently go to notable size to rationalize choices on prior investments mainly failed investments. In psychology, cognitions symbolize attitudes, emotions, beliefs or values. In a couple of cognitions intersection, a character tends to trust in something solely to locate out if it is true, he tries to ease their soreness by way of ignoring the fact and rationalizing their selection to pass the truth. Investors will from time to time exhibit this behaviour when making their very own funding decisions.
Cognitive dissonance is an uncomfortable feeling precipitated by means of maintaining two contradictory thoughts simultaneously. The "ideas" or "cognitions" in query might also encompass attitudes and beliefs, and additionally the cognizance of one's behaviour. The concept of cognitive dissonance proposes that human beings have a motivational force to minimize dissonance through altering their attitudes, beliefs, and behaviours, or by using justifying or rationalizing their attitudes, beliefs, and behaviours. Cognitive dissonance concept is one of the most influential and appreciably studied theories in social psychology.

Framing bias is the tendency of traders to reply to quite number situations otherwise based totally on the context in which a desire is introduced (framed). Often, buyers centre of attention on one or two factors of a funding situation, except essential considerations. e.g. how the framed scenarios/questions have an impact on the behaviour of traders (if the preference is made between two portfolios A and B, the place A has 70 percentage hazard of accomplishing the monetary aim and B has 30 percentage threat of now not accomplishing the economic goal; most humans are probable to pick A). The idea of framing bias tells how the preference of humans gets influenced by means of the way some thing is presented. This concept is necessary due to the fact it is opposite to the central idea of rational desire theory. According to this theory, people usually try to make the most rational preferences possible. Thus, rational choosers need to constantly make the equal selection when given the identical data. But the scan carried out by way of Hahnemann and Tversky (1984) with undergraduate college students advised something else for some, however, the selection was once phrased in tremendous phrases as a desire between a positive achieve and an unsure gamble. The majority chose the positive achieve option, a tendency referred to as "risk aversion." For others, the identical picks have been phrased in poor phrases as a desire between a sure-loss choice and the unstable gamble. Here the majority selected the unstable gamble, a tendency referred to as risk-seeking.

II. REVIEW OF LITERATURE

An awesome examine of the literature related to the prevailing examine has been summarized to perceive the gaps that exist in literature in this area.

Received: 03 Dec 2019 | Revised: 21 Jan 2020 | Accepted: 18 Feb 2020

Kahneman and Tversky (1984) studied framing bias in a pattern population of medical practitioner by way of way of posing inquiries to every taking component health practitioner. Human beings answered them in some other way primarily based on how they are framed—either positively or negatively.

Goetzmann and Peles (1997) examine the tendency of traders to "stick," irrationally, with suffering mutual budget. Their idea was that cognitive dissonance achieved an extensive position in compelling buyers to keep losing fund positions.

Richard (2002) set up a dating between investor psychology and security pricing round predicted activities. Taking a multidisciplinary method, he pulled collectively lookup inside the finance, psychology, and neuroscience literature.

Shiller (2002) research in psychology and behavioural finance is surveyed for evidence to what volume professionals such as expert investment managers or endowment trustees also can behave in one of these way as to assist perpetuate speculative bubbles in monetary markets.

Friesen and Weller (2006) evolved a formal mannequin of analyst earnings forecasts that discriminates between rational behaviour and that delivered about thru cognitive biases. In the version, analysts are Bayesians who trouble sequential forecasts that combine new statistics with the records contained in preceding forecasts.

Mittal and Vyas (2009) installed that investor behaviour and asset fee deviate from the predictions of simple rational fashions. The proponents of behavioural finance agree with that funding choice making isn't always a definitely rational manner. People' investment decisions are guided through their goals, desires, prejudices and feelings. Gender, age, earnings, schooling, wealth and marital reputation of people additionally have an impact on their investment choices.

III. DATA & METHODOLOGY

The existing find out about is based on the objectives to learn about the extent of know-how through mutual fund buyers and presence of cognitive biases in them and the association of these biases with investors' demographic profile. To recognize the understanding of investors, they were asked questions associated to mutual fund returns, dangers related with them, encashment of mutual funds, SEBI pointers related to mutual funds etc. The find out about also aims to discover they have an effect on of cognitive biases in mutual fund investors of DELHI & NCR Region. Therefore, the research layout used was exploratory in nature. The important cognitive biases are representativeness bias, cognitive dissonance bias and framing bias. Presence of each cognitive bias used to be determined with the aid of the use of diagnostic tests as given through Pompian (2006). These assessments had been modified in accordance to Indian investors. For each bias, 2- three questions had been requested and ratings had been provided to the responses. Thereafter, scores have been totalled for all the questions constituting one bias.

The populace for this find out about consists of all the mutual fund investors in DELHI &NCR Region. For this purpose, pattern of a one hundred fifty investors was once studied. Primary facts were gathered with the assist of well-structured and non-disguised questionnaire. Structured questionnaire, thus obtained, was used to

collect data from the respondents and used to be administered personally. The questionnaire contained close ended questions and questions based totally on Likert scale. The questionnaire was once divided into three parts. First part contained demographic profile of the investors. Variables in demographic profile have been along with age, gender, educational qualification, occupation, annual gross household income and annual gross family saving. Second part contained questions related to the extent of information by mutual fund investors. Third phase contained questions related to investor's behaviour in mutual fund investments. In this part, questions were normally pertaining to cognitive biases- representativeness bias, cognitive dissonance bias, and framing bias.

IV. RESULTS AND DISCUSSION

Sample size of this examination was taken to be 150.Demographic factors included gender, age, occupation, annual gross income, savings, percentage of savings invested and investor's qualification as depicted in the table.

Demographic profile of investors (n=150)

Demographic profile	Type	Number
Gender	Male	104
	Female	46
Age	Young (<40)	88
	Old (>40)	62
Occupation	Student	8
	Service	120
	Business	22
Annual gross income	up to 5 lacs	106
	5 lacs to less than 10 lacs	20
	More than 10 lacs	24
Annual gross savings (in Rs.)	up to 2 lacs	105
	2 lacs to less than 5 lacs	39
	More than 5 lacs	6
Percentage of savings	Less than 10%	15

invested	10% to less than 30% 30% to less than 40% More than 40%	90 23 22
Qualification	Student Graduate Post graduate	12 72 66

Table: 1

Table above is a report of demographic variables of investors. Of all of the respondents, 104 have been males and forty six were females. Age of the sample became categorised into 2 categories –young (forty). 88 humans have been younger and 62 had been old. Inside the career class, eight were college students, 120 belonged to service class and 22 had been businessman. Respondents with annual gross income of as much as five lacs had been 106, 5 lacs to 10 lacs have been 20 and respondents with earnings of more than 10 lacs were 24. Respondents with annual gross savings of up to two lacs have been one hundred and five, 2 lacs to less than 5 lacs were 39 and more than five lacs had been 6. 66 respondents have been submit post graduates have been 72, 12 had been graduates and eight have been students.

In this segment degree of information measured by different mutual fundinvestors was resolved. For the consummation of this goal, survey included 10 announcements intending to test the information on investors. Table underneath shows the aftereffects of degree of information shared collection financial specialists have.

Result of knowledge controlled by mutual fund investors

S. No.	Statements	Frequency	
		Accurate	Wrong
1	Mutual funds pay a sure rate of return	128	22
2	Mutual funds and shares mean the same	126	24
3	Long term funds are showing to minimum risks	96	54
4	Does buying a company stock offers a safer return than mutual funds	99	51

Received: 03 Dec 2019 | Revised: 21 Jan 2020 | Accepted: 18 Feb 2020

5	In mutual funds, investors are not made conscious where their money is deployed	120	30
6	SEBI has eliminated entry load on all mutual funds	45	105
7	Tax saving schemes are always close ended	105	45
8	Only debt schemes are excused from tax	105	45
9	Mutual funds spread the risks by investing in a number of companies across various industries and sectors.	55	95
10	Mutual funds can't be encased simply	119	31

Table: 2

In this section, presence of three cognitive biases namely Representativeness, Cognitive Dissonance and Framing bias were studied among mutual fund investors. The investors were asked 2 questions for every cognitive bias and scores were provided to the responses. Each question was provided a maximum score of 5. Thereafter, scores were totalled for all the questions constituting one bias. It can be seen from the table that the maximum score for Representativeness, Cognitive dissonance and Framing bias comes out to be 10.

Table below shows that the mean score for Representativeness bias comes out to be 5.98 (Standard Deviation=1.73), for Cognitive dissonance it is 8.35 (Standard Deviation = 1.72) and for Framing it is 9.85 (Standard Deviation = 2.05). Mean scores were further compared with 75%of maximum marks and one tailed t-test was applied to test the significance of their presence in the investors. Null hypothesis was that mean score of each bias is equal to 75% of maximum score.

Presence of Cognitive bias among investors (n=150)

Bias	Maximum score	Mean score	Standard Deviation	t-values	p-values
Representativeness	10	5.98	1.73	-45.161*	.000
Cognitive Dissonance	10	8.35	1.72	-16.38*	.000
Framing	10	9.85	2.05	-7.250*	.000

(*at 5% level of significance) Table: 3

Tableshows the significant presence of Representativeness (t= -45.161, p<.000), cognitive dissonance biasness (t= -16.38, p <.000) and framing biasness (t= -7.250, p <.000) in the behaviour of investors. Hence, investors are significantly biased with respect to Representativeness, Cognitive dissonance and Framing bias i.e., Cognitive bias.

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Received: 03 Dec 2019 | Revised: 21 Jan 2020 | Accepted: 18 Feb 2020

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