EMOTIONAL DECISION MAKING – TESTS FOR PREVALENCE AMONG DAY TRADERS

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ABSTRACT

Decision making has been an important arena of study for all the researchers. The parameters involved in decision making, the methods of evaluation have been deliberated on many seminars and platforms. But decision making cannot be categorized as an activity that takes place only using a set of factors. It is an activity that is often driven by emotions and other factors. This study is an attempt to find whether decision making in stock investment too is driven by emotional factors. The findings indicate that the investors are driven by emotions when they take crucial investment decisions. By employing Simple random sampling technique, 123 investors were studied across the Indian subcontinent using a structured questionnaire. The investment process were divided into two and they were the Pre-investment stage and Post-investment stage. The role of emotions on these two stages were studied separately and compared for the influence of emotions on decisions. It was found that emotions do play a significant role in both the stages of investment thus proving the salient role of emotional reasoning (i.e. understanding and regulation of emotions) on decision making. However, emotions alone need not remain a decisive factor in stock investments

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BACKGROUND

Investment is a common word used in all walks of life. Investment is generally understood as sacrificing the present for some future return. The element of sacrifice determines the element of return. This process involves judicious planning and decision making. Ever since Herbert Simon defined decision making as a fully rational process of finding an optimal choice with the given information available, labeling man as a rational human being has been continuing. The Investment pattern and purpose behind investment depends upon ones requirement and time. The magnitude of success and failures in investment is totally dependent on Decision making skills. Investment is often driven by emotions. Psychological literature have proved that emotional state can significantly affect decision making (Elster 1998; Hermalin and Isen 2000). In contrast to studies by some financial economists, there exist studies that proved the enhancing capacity of emotions in an individual's ability to make rational choices (Frank 1988; Damasio 1994; LeDoux 1996; Elster 1998; Isen 1999). Emotion is believed to have allowed people to transcend the details, prioritize, and focus on the decision to be made. Emotion can elicit a behavior in an investor that is consistent with economic predictions. This led the pathway to analyze the process of decision making in terms of role played by emotions in decisions. Emotion is definitely an important aspect of human psychology though it is not fully understood.

The specific impact of emotions on stock investments has been studied by various researchers in the past. A special branch of study named Behavioural Finance attempts to relate human psychology to stock investments. It also evaluates the rationale behind certain specific behavioural traits seen in investors and tries to relate it to stock market movements and volatility.

Research objectives

The objective of this study is to extract driving factors for making decisions. This is also done to analyze whether the respondents indulge in emotional decision making. As a related objective, the Investment Pattern and Risk Perception of investors in Chennai and Kota are also studied to view the similarities and differences in the views and thinking perceptions of investors of both places which are geographically situated in South and North of India.

Review of Literature

Before conducting the survey, a thorough background study was conducted. This was done both on Emotional Decision Making as well as on Investment Management. Kayezad E. Adajania (August2003) has framed ten questions and the answers to these questions usually decide an investor's investment pattern. Prof. M. Subramanian made a study on Emotional Investment-The wits of Investments and found out that -Investors place different weights on gains and loses and on different ranges of probability, few investors are willing to take risk to avoid loses than to realize gains. Alexander Green (2007) said that investment is more based on EQ than IQ. Myeong- Gu Seo and Lisa Fieldman (2007) in "Being Emotional During Decision Making— Good or Bad? An Empirical Investigation." has found that better decision making occurred if the respondents' feelings (negative or positive) were intense. Brian M. Lucey1School of Business Studies and Institute for International Integration Studies, Trinity College and Michael Dowling (2001) investigated whether variations in feelings that are widely experienced by people influence investor decision-making and, consequently, lead to predictable patterns in equity pricing. They also conclude by suggesting a number of directions for future empirical and theoretical research. Loewenstein et al. (2001) feelings affect the general decision-making of individuals, especially under conditions of risk and uncertainty. Roberto Frota, Decourt Andre, Accorsi José Madeira Neto (2007) found out that investment decisions is based on "behavioural economics". Nygren and White (2002) developed the decision making inventory (DMI) which determines decision maker type: analytical, intuitive, or regret based emotional. Salovey and Mayer (1990) defined Emotional Intelligence as "the ability to monitor one's own and others feelings and emotions to discriminate among them and to use this information to guide ones thinking and actions." Ram Charan and Geoffrey Colvin (1999), Fortune cover article on "Why CEOs fail", concluded that CEOs was able to excel due to their emotional intelligence and not due to their efficiency in planning or finances. According to Mayer,"there is evidence that emotions are a motor activity, as well .emotions then bridge thought, feeling, and action-they operate in every part of a person, they affect many aspects of the person, and the person affects many aspects of the emotions.

Research methods

The authors followed random sampling technique for data collection. Both in Chennai and Kota, the questionnaire was circulated at random to various investors who were trading on line.

The broking houses too were selected at random. Since the investors were selected from the broking houses, the question of they not being investors is also ruled out. Investors totaling up to 120, sixty from each place were selected. A structured Questionnaire was employed to measure the opinions of the investors.

RESULTS AND DISCUSSIONS

The data collected were put to analysis for finding out whether these groups under study engage in emotional decision making. The entire analysis was done in two phases. Phase I contained the primary analysis on the demographic profile of the two groups studied. The results are discussed in the forthcoming paragraphs.

PHASE I

TABLE 1

SOCIO-DEMOGRAPHIC PROFILE OF THE SAMPLE

STATUS	NO. OF PERSON		PERCENTAGE	
	CHENNAI	KOTA	CHENNAI	KOTA
SINGLE	21	22	32	33
MARRIED	35	38	53	58
SENIOR CITIZEN	10	6	15	9
TOTAL	66	66	100	100
NATURE OF INVESTMENT				
Long Term	24	36	23	35
Medium Term	29	44	27	41
Short Term	13	20	16	24
OCCUPATIONAL STATUS				
SALARIED	12	21	17	32
PROFESSIONAL	13	9	24	14
BUSINESS	35	33	52	50
RETIRED	6	3	7	5
TOTAL	66	66	100	100

TABLE 2

RANKING OF SOURCES OF FUND

PARTICULARS	RANK	
SOURCES OF FUND	CHENNAI	KOTA
SALARY	4	3
SAVINGS	1	2
LOANS	5	4
PROFITS FROM SALE OF ASSETS	3	5
PROFITS FROM BUSINESS	2	1

PHASE II

TABLE 3

RISK PERCEPTION OF RESPONDENTS

Particulars	Chennai	Kota
Risk Is A Gap Between Actual Return And Expected Return	37%	27%
Risk Is A Possibility Of Getting Back Only A Fraction Of What I Invested.	15%	9%
Risk Implies A Possibility Of Losing What I Invested.	48%	64%

When asked about their perception about risk majority of investors both from Chennai-48% and Kota-64% described it as a possibility of losing what was invested. Whereas 37% of investors from Chennai and 27%of investors from Kota felt it was a gap between actual return and expected return. When the same was tested with F test to find out whether they represent same population, it returned the following matrix

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TABLE 4

F TEST RESULT FOR TESTING "RISK PERCEPTION

F-Test Two-Sample for Variances		
	Variable 1	Variable 2
Mean	0.333333	0.333333
Variance	0.028233	0.078633
Observations	3	3
df	2	2
F	0.35905	
P(F<=f) one-tail	0.264192	
F Critical one-tail	0.052632	

The F test statistics shows that there is no difference in the risk perception. Now, the next step becomes analyzing whether there is any consensus on the selecting a suitable measure for quantification of risk. A person's perception towards risk is based on the way he quantifies risk. One person may feel an investment risky that unless his loss has taken his entire investment. But other person may not feel the same. The table numbered 8 describes the classification or risk on the basis of quantification.

TABLE 5

OPINION ON SUITABLE MEASURE OF RISK

PARTICULARS	CHENNAI	KOTA
A Decline Of More Than 20% In Dividends	10%	12%
A Decline Of More Than 20% In Share Prices	16%	21%
Both A & B	61%	57%
Risk Cannot Be Defined	13%	10%

61% of Chennai respondents and 57% of Kota respondents are of the opinion that a risk is a decline of more than 20% in dividends and a decline of more than 20% in share prices.   The same was tested with F statistics for finding out whether they come from the same population. It revealed the following matrix.

TABLE 6

F TEST FOR QUANTIFICATION OF RISK MEASURE

F-Test Two-Sample for Variances		
	Variable 1	Variable 2
Mean	0.333333	0.333333
Variance	0.028233	0.078633
Observations	3	3
df	2	2
F	0.35905	
P(F<=f) one-tail	0.264192	
F Critical one-tail	0.052632	

INFERENCE

From the F statistics, it could be inferred that although the respondents' perception towards risk is the same, their perception towards quantification of risk is different. Every investment is guided using a person's risk bearing capacity. This is regarded as a fundamental truth in investment science. So it will be useful, if the risk perception is compared with the investment decisions to arrive at a conclusion.

There is no significant difference among the respondents of Chennai and Kota with respect to type of investors, their status, frequency of trading, nature of investment, etc. The investors of both Chennai and Kota had similar views on risk perception but had dissimilar views in the real measure of risk. The similarities between the investment pattern and risk perception makes this study very interesting. The data was further analysed to find whether there is any significant difference in the ways of taking decisions. To be specific, the data was further tested to find whether the respondents indulge in emotional decision making.

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TABLE 7

DECISION MAKING IN STOCK INVESTMENT

	PARTICULARS	CHENNAI				KOTA			
1	Age	17	20	44	19	20	29	35	17
2	Financial Commitments	52	24	17	00	29	45	21	05
3	Knowledge/ Experience	17	31	26	26	17	32	24	27
4	Rating Of Company	76	22	00	00	71	23	03	03
5	Tax Liability	13	19	11	57	12	17	20	52
6	Company's Performance	69	22	9	0	67	30	3	0
7	Company's Future Performance	81	19	0	0	91	9	0	0

TABLE 8

F TEST FOR DIFFERENCES IN DECISION MAKING

F-Test Two-Sample for Variances		
	Variable 1	Variable 2
Mean	39	37.28571429
Variance	674.3333	526.9047619
Observations	7	7
df	6	6
F	1.279801	
P(F<=f) one-tail	0.38609	
F Critical one-tail	4.283866	

TABLE 9

PARAMETERS FOR EVALUATING DECISIONS

PARTICULARS	CHENNAI					KOTA				
Equity Evaluation	Most	Fairly	Significant	Less	Least	Most	Fairly	Significant	Less	Least
Self Guidance	11	9	13	15	52	6	6	20	21	47
Dividend History	6	9	17	22	46	13	6	24	42	17
Advice Of Broker	22	20	20	24	13	23	17	29	12	20
Market Price	56	28	11	4	2	53	30	14	2	2
Evaluation Of Future Growth	74	19	7	0	0	62	27	11	0	0
Consistency In Growth	56	26	19	0	0	59	26	15	0	0
Past & Present Performance Of Co.	48	33	19	0	0	45	38	17	0	0

TABLE 12

F TEST FOR EVALUATING DECISION

F-Test Two-Sample for Variances		
Parameters	Variable 1	Variable 2
Mean	21	24.4285714
Variance	196.3333	239.952381
Observations	7	7
df	6	6
F	0.818218	
P(F<=f) one-tail	0.406893	
F Critical one-tail	0.233434	

The data was further analysed to find out whether the respondents differ in evaluating their decisions, or rather on the parameters on the basis of which the respondents evaluate their decisions. Unlike the parameters on which they take decisions, there is significant difference in the variance of the two groups in the parameters on which they evaluate their differences.

The two groups showed variance in quantification of risks and the parameters based on which they evaluate their decisions. Both these aspects differ from one person to another based on his way of taking decisions. One takes decisions in stock investment based on his perception towards risk as well as the maximum that he can "afford" to take. Further these parameters and the basis of the selection too were put to test.

The evaluation pattern of their decisions was influenced by certain factors. These factors were brought to light when further probe was conducted. The frequency of certain thoughts coming to their mind, while taking decisions on stock market investment was tested. They were of opinion that very often, they were governed by "heavy optimism". Some were of opinion that they were governed by heavy pessimism. Similarly very often, some of the respondents had a flash of a "rich neighbour" while taking decisions. Some even admitted that their family came to their mind, when they take decisions. The parameter that had maximum influence up to 9.8 is "peer pressure".

CONCLUDING REMARKS

The authors feel that the decisions taken by the respondents are definitely governed by emotions. But it has to be statistically tested and proved. Similarly, comparisons could be made on other aspects of life, where "emotions –led-decisions" are quite common. The sample size too could be increased to accommodate the maximum and a cross-sectional comparison between genders, age, profession, marital status too could be done. Training on emotional intelligence seems to activate mechanisms that help people to use their knowledge in the right direction in order to make better decisions in life. It would be interesting too to find whether any particular aspect of decision-making aspect is entirely driven by emotions for emotional influence could be apparently seen during economic turmoil, where investors are driven to a new situation of not knowing what to do.

However it is seen from this study that investors who can assess the emotional state of other traders can gain the informational advantage in stock market. Watching and listening to public can also alert them of a future probable event. At the same time, emotional decision making can cause dramatic swings in stock markets. But emotional decision-making can cause dramatic swings in stock valuations and stock markets that could create disastrous consequences in the portfolios if emotional trends are not properly monitored and checked. Heavy concentration on emotional aspects of decision making could even make people ignore other tools of analysis that have produced commendable results. The first stage of the study has given the platform for a massive research work to be done in future.

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