A Study of Stock Market Investors of Delhi -A Behavioural Finance Perspective

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People trade for both cognitive and emotional reasons. They trade because they think they have information when they have nothing but noise, and they trade because trading can bring the joy of pride. Trading brings pride when decisions turn out well, but it brings regret when decisions do not turn out well. Investors try to avoid the pain of regret by avoiding the realization of losses, employing investment advisors as scapegoats, and avoiding stocks of companies with low reputations.

Meir Statman

INTRODUCTION

Behavioral Finance is the application of psychology research to finance. It studies how investors behave while taking any financial action. Researches in context of behavioral finance have shown that financial markets are not fully efficient. Anomalies of prices and returns are usually seen and identified. The reason why this happens is due to investors' mental biases**.** Behaviour finance makes an attempt to study the irrational behaviour of investors in the market based on the said mental bias. It also explains the factors responsible for such behaviour. The established finance seeks to understand financial markets using models in which agents are "rational". Rationality for that purpose means that when investors receive new information, they update their viewpoint on any financial action efficiently. This traditional framework is theoretically simple, but **Shiller (2000)** advocates that stock markets are strongly governed by the market information, which directly influence the investment behaviour of the investor. It can be concluded that individual trading behavior cannot be understood in established traditional financial structure. Further, **Clark (1918)** rightly mentioned that the economist may attempt to ignore psychology, but it is sheer impossibility for him to ignore human nature.

Hence, Behavioral Finance is a new approach to financial markets that has emerged in the 1980s in response to the difficulties faced by the traditional models, which are blamed for the lack of realism in the assumptions on human behaviour. It examines financial phenomenon of investment through the dual lenses of finance and of psychology. It is a field of finance that proposes psychology-based theories to explain stock market anomalies. There have been many studies that have documented long-term historical phenomena in securities markets that contradict the efficient market hypothesis and cannot be captured plausibly in models based on perfect investor rationality. Behavioral finance attempts to fill the void. (http://www.investopedia.com/terms/b/behavioralfinance.asp, last accessed on 25/12/2007). **Lintner (1998)** defines behavioural finance as being 'the study of how humans interpret and act on information to make informed investment decisions'. **Olsen (1996)** asserts that behavioural finance does not try to define 'rational' behaviour or label decision making as biased or faulty; it seeks to understand and predict systematic financial market implications of psychological decision processes. It may be argued here that some financial phenomenon can be better understood using models in which some agents are not fully rational.

Thaler (1993) suggests that in a world inhabited by both rational and noise traders, assets widely held by noise traders may impound an additional risk premium. Consequently, rational traders may demand a risk premium to bear this additional risk. This may partly explain the close-end fund puzzle, whereby the market value of such funds is often at a notable discount to their underlying asset value. This risk factor is not considered in most asset pricing models. **DeBondt and Thaler (1985)** argued that because investors rely on the representativeness heuristic, they could become overly optimistic about past winners and overly pessimistic about past losers and that this bias could cause prices to deviate from their fundamental level. Anchoring and overconfidence may lead analysts not to adjust their earnings estimates sufficiently when surprises occur. This could lead to subsequent price adjustments as analysts revise their incorrect estimates.

Behavioural Finance is expected to look into the following possible behavioural patterns in financial markets:

- Reaction of an investor to a price change
- Reaction of an investor to a news
- Extrapolation of past trends into the future
- Focus on some popular stocks and lack of attention to fundamentals
- Seasonal price cycles etc.

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On a theoretical level, if exploitable pricing anomalies exist in the market, the credibility of the Efficient Market Hypothesis **(Fama, 1970)** is diluted. Efficient market emerges when new information is quickly reflected into the price. In other words, the current market price reflects all available information and the current market price in any market could be the best-unbiased estimate of the value of the investment.

According to **Shleifer and Summers (1990),** Behavioral Finance rests on the two pillars of limits to arbitrage and investor psychology.

LIMITS TO ARBITRAGE

In the traditional framework, agents are rational. And a security's price equals its "fundamental value". As discussed earlier also, the hypothesis that actual prices reflect fundamental values is the Efficient Markets Hypothesis (EMH). Under this hypothesis, "prices are right". In an efficient market, there is "no free lunch" i.e. no investment strategy can earn excess risk-adjusted average returns. Behavioral finance argues that asset prices deviate from their fundamental value, and that these deviations are caused by the presence of traders who are not fully rational. **Friedman (1953)** has earlier objected to this view that rational traders will quickly undo any dislocations caused by irrational traders. When there is a deviation from fundamental value, an attractive investment opportunity is created, and rational traders will immediately take up the opportunity, thereby correcting the mispricing. Rational traders are known as "arbitrageurs". While irrational traders are often known as "noise traders", an arbitrage is an investment strategy that offers riskless profits at no cost. Seemingly, the rational traders in Friedman's fable are taken as arbitrageurs because of the assumption that an undervalued stock immediately creates an opportunity for riskless profits. It is argued in Behavioral Finance that this is not true; the arbitrages are often very risky and costly and allowing the mispricing to survive.

Known implementation costs such as commissions can make it less attractive to exploit a mispricing. **Merton (1987)** said that the cost of finding and learning about a mispricing, as well as the cost of the resources needed to exploit it be taken into account. **Abreu and Brunnermeier (2002**) study a particular type of risk, which they label synchronization risk, that the elimination of a mispricing requires the participation of a sufficiently large number of separate arbitrageurs. Then, arbitrageurs may hesitate to exploit the mispricing because they don't know how many other arbitrageurs have heard about the opportunity, and therefore how long they will have to wait before prices revert to correct values. **Summers (1986)** also argued that real world arbitrage has both costs and risks, which under some conditions will limit arbitrage and allow deviations from fundamental value to persist. Presence of Noise trader risk is another aspect. This idea was introduced by **De Long et al. (1990a)** and studied further by **Shleifer and Vishny (1997**). This is the risk that the mispricing being exploited by the arbitrageur worsens in the short run. Noise trader risk matters because it can force arbitrageurs to liquidate their positions early, bringing them potentially steep losses. In the words of **Shleifer and Vishny (1997),** there is "a separation of brains and capital". Investors, lacking the specialized knowledge to evaluate the arbitrageur's strategy, may simply evaluate them based on their returns. If a mispricing (that the arbitrageur is trying to exploit worsens in the short run) generates negative returns, investors may decide that he is incompetent, and withdraw their funds. If this happens, the arbitrageur will be forced to liquidate his position prematurely. Fear of such premature liquidation makes him less aggressive in combating the mispricing in the first place. The presence of noise trader risk or implementation costs will limit arbitrage.

De Long et al. (1990a) show that noise trader risk is powerful enough, that even with this single form of risk, arbitrage can be limited. It may be assumed that there are no implementation costs, only noise trader risk remains. Here arbitrage will be limited if:

(i) Arbitrageurs are risk averse and

(ii) Noise trader risk is systematic

If it is costly to learn about a mispricing, or the resources required to exploit it are expensive, that may be enough to explain why a large number of different individuals do not intervene in an attempt to correct the mispricing.

INVESTOR PSYCHOLOGY

Few of the patterns described by Cognitive psychologists are produced as under:

HEURISTICS

Heuristics are "rules of thumb", educated guesses, intuitive judgments or simply *common sense.* Heuristics, or rules of thumb, make decision-making easier. But they can sometimes lead to biases, especially when things change. These can lead to irrational investment decisions. **Benartzi and Thaler (2001**) have documented that many people follow the 1/N rule. When faced with N choices for how to invest retirement money, many people

allocate using the 1/N rule. If there are three funds, one-third goes into each. If two are stock funds, two-thirds goes into equities. If one of the three is a stock fund, one-third goes into equities.

OVERCONFIDENCE

People are overconfident about their abilities. **Barber and Odean (2001)** analyzed the trading activities of people with discount brokerage accounts. They found that the more people traded, the worse they did. Entrepreneurs are especially likely to be overconfident. An overconfident person's portfolio may not be much diversified.

DISPOSITION EFFECT

It relates to the tendency of investors to sell shares whose price is increasing, while keeping assets that have dropped in value. The disposition effect shows up in aggregate stock trading volume. During a bull market, trading volume tends to grow. If the market falls, trading volume also falls.

OBJECTIVE OF THE STUDY

To analyse the Behavior of Individual Investor in Delhi Stock Market.

RESEARCH METHODOLOGY

Research methodology of the study is presented as under:

Time dimension

This cross sectional study was carried out in the months of January and February 2008.

Method of Data collection

The primary data was collected through questionnaire served to 300 investors in city of Delhi. Initially-thirty brokers were selected on the basis of convenience, running their offices in Delhi. Later, a pretested questionnaire was served to their regular client, again on the basis of convenience, in their offices during trading interactions. Brokers were advised not to influence the respondents at all.

Data analysis

To analyse the data and to derive results from it, percentage method is used. This method is easy to use and taken as a suitable method to compare, keeping in view the objective of the study.

Limitations of the Study

1.The study is restricted to Delhi only.

2.The sample is limited , it may not represent the behaviour of all investors in India and

3.This study was not conducted for an extended period of time.

FINDINGS OF THE STUDY

Findings of the study are as under. The tables are formed on the basis of questions contained in the questionnaire.

Question no.: 1.

Do you agree that the golden rule to invest in stocks is 'Security first and don't loose money."

Table No 1

	Options	Response	percentage
1	Agree as the security of investment is first priority; returns come later	175	58.33
2	Disagree as the higher returns and magnitude of risk are positively associated	93	31.00
3	Can't say	32	10.67
	Total	**300**	**100**

It can be seen in above table that majority (58.33%) of investors have claimed that security of investment is a first priority, returns come later. 31% respondents are of the view that higher the risk, higher the return. It is amazing to see that 10.67% of investors are not in a position to either accept or to reject the statement in question. Their confusion about the golden rule to invest may give rise to an irrational behaviour.

Question no. 2.

What was the most crucial factor in making a decision to purchase the stock(s) that **earned a profit**?

In table no 2, the response of the investors is skewed for option number three, that is when profit is earned on any stock, it is due to their own analysis and evaluation. As much as 68.33% respondents opted for this alternative. Other options are almost equally taken by the respondents, as 5% investors opine that they follow a friend's advice when they earn profit. Almost same percentage of respondents are of the view that they earned a profit when they follow media advice (5.33%) or crowd behaviour (5.67%). 4.00% of the respondent investors also have earned profit by just following intuitive wits.

Table No 2

	Options	Response	percentage
1	Friend's advice	15	**5.00**
2	Broker's/Professional advice	35	**11.67**
3	Your own analysis and evaluation	205	**68.33**
4	Advice made in media	16	**5.33**
5	Crowd Behavior (Bullish scenario of market)	17	**5.67**
6.	Your intuitive wits	12	**4.00**
	Total	**300**	**100**

Question no. 3.

What was the most crucial factor in making a decision to purchase the stock(s) that **incurred a loss**?

Table No 3

	Options	Response	percentage
1	Friend's advice	41	**13.67**
2.	Broker's/Professional advice	45	**15.00**
3.	Your own analysis and evaluation	118	**39.33**
4.	Crowd behaviors (Bullish scenario of the market)	25	**8.33**
5.	Advice made in media	39	**13.00**
6.	Your intuitions	32	**10.67**
	Total	**300**	**100**

The results of the table no 3, are surprisingly different from the results of table no 2. It can be seen in this table, that only 39.33% of investors find their analysis and evaluation wrong enough to lead them to loss. It is further noted that that investors are almost equally divided on the other options. Friend's advice (13.67%), broker's advice (15.00%), crowd behaviour (8.33%), advice in media (13.00 %) and intuition (10.67 %) are opted by the investors respondents.

Question no. 4

What do you think is the role of your emotions when it comes to investing in equity?

Table No 4

	Options	Response	percentage
1	They are little effective	14	**4.67**
2	They are effective	5	**1.67**
3	They are very effective	1	**0.33**
4	They are not effective	198	**66.00**
5	It depends on the situation	52	**17.33**
6	Can't say	30	**10.00**
	Total	**300**	**100**

Table no 4 depicts the emotions of the investors while investing in equity. Vast majority (66%) clearly mention that emotions are not effective at all when it comes to investing. Another group of 17.33% respondents opine that behaving emotionally depended on the situation, while 10% investors are undecided on the role of emotions in investing. Rest of them (6.67%) accepted the role of emotions with higher or lesser degree.

Question no. 5.

In a period of uncertainty in the stock market, if you are to sell stocks, which group of stocks would you give the priority to sell?

Table No 5

	Options	Response	percentage
1	The one which yielded a profit	232	**77.33**
2	The one which yielded a loss	68	**22.67**
	Total	**300**	**100**

This table clearly depicts the behaviour of investors in the stock market. 77.33% of investors say that during stock market uncertainty, they prefer to sell shares that show profit and hold back shares that show losses. Response of rest of the investors (22.67%) is opposite to the response of the majority.

Question no. 6.

In a period of uncertainty in the stock market, if you are to purchase stocks, which group of stocks would you give

priority to buy?

Table No 6

	Options	Response	percentage
1	The one which yielded a profit earlier	198	**66.00**
2	The one which yielded a loss earlier	102	**34.00**
	Total	**300**	**100**

To check the priority to buy in uncertain market, this question was asked. The table clearly provides a wide gap between the responses. 66% of total investors say that they prefer to buy shares, which have given profit earlier. Just 34% opine otherwise.

Question no. 7.

How do you find yourself when find plenty of attractive options to invest in :

Table No 7

	Options	Response	percentage
1	Become confused	**93**	**31.00**
2.	I think I can make better and more rational decisions acting upon the opportunities properly	**196**	**65.33**
3.	My intuitive wits enable me act wisely in this situation	**11**	**03.67**
	Total	**300**	**100**

Table no 7 reveals that 65.33% investors believe that they take rational decisions once they find attractive options to invest, while the other 31% say they get confused with plenty of attractive options. Remaining 3.67% rely on intuitive wits, once they find the same.

Question no. 8.

After investing in some equity, you regret for your investment decision. What shall be your course of action?

Table No 8

	Options	Response	percentage
1	You will quickly revert your decision (i.e., sell those shares immediately)	**33**	**11.00**
2.	You will observe "wait and watch" policy anticipating upward correction in near future	**32**	**10.67**
3.	Holding/disinvestment decision depends upon the goodwill of the company	**235**	**78.33**
	Total	**300**	**100**

Table no 8 gives a very interesting information. It provides that 78.33% investor's exit decision will depend on the goodwill of the company. The other 11% will certainly revert the decision, if they make a wrong investment choice. Another group of 10.67% of total respondents will observe a wait and watch policy, then take a decision.

Question no. 9.

You will feel gratification of a rise (say 50%) and regret of a drop (say 50%) in the price of the stock you have purchased?

Table No 9

	Options	Response	percentage
1	Joy of gratification is greater than the pain of regret	112	**37.33**
2	Pain of regret is greater than the joy of gratification	139	**46.33**
3	Pain of regret is equal to the joy of gratification	49	**16.33**
	Total	**300**	**100**

Table no 9 gives another behavioural aspect of investing. Almost half (46.33%) of the total investors confess that pain of regret is greater than the joy of gratification. Another group of investors (37.33%) claim otherwise that joy of gratification is greater than pain of regret. Remaining 16.33% are quite neutral to the issue.

Question no. 10

The stocks of big companies are less risky than the stocks of small companies.

Table No 10

	Options	Response	percentage
1	I strongly agree.	73	**24.33**
2	I agree.	53	**17.67**
3	I disagree.	68	**22.67**
4	I strongly disagree.	78	**26.00**
5	I have no opinion.	28	**09.33**
	Total	**300**	**100**

(Cont. on page 38)

Elections should be conducted regularly. The Boards should be given freedom with regard to decision-making and steps should be taken to overcome political interference.

To make the cooperative societies more efficient, management audit should be conducted every year. Cooperative societies should be encouraged to avail loans from outside financial institutions.

Quick sanctioning of loan is very essential for the societies to face the competition from private banks and commercial banks. Loan sanctioning formalities may be reduced to facilitate the societies to sanction loan within a few days.

The present study concludes that the performance of the Employees Cooperative Thrift and Credit Societies are better than other cooperative societies. If the problems are properly rectified by the concerned authorities, the prospects of these societies will be exemplary.

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(cont. from page 26)

Table no 10 shows a disagreement on the treatment of stock of small companies riskier than the stock of big companies. It is viewed that 26 % investor respondents strongly disagree that stock of big companies are less risky than the stock of small companies.22.67% also disagree with less degree. But 42 % respondents agree with the statement. Again 9.33 % people have no opinion to share.

SUMMARY AND CONCLUSION

The behaviour of markets, which are composed of both rational and noise traders, is not well understood. Behavioural Finance studies the irrational behaviour of investors in the market based on a mental bias. It also explains the factors responsible for such behaviour. Behavioral finance rests on the pillars of limits to arbitrage and investor psychology.

It is observed that majority of the investors believe that security of the investment is the first priority. Further if investors make profits, they relate the profit with own analysis and evaluation but if they loose money in the market, they try to make the other person responsible for the loss. They also claim that emotions are not effective while making investment decision. Investors also prove the disposition effect, when wide majority claim that in case of uncertainty, they prefer to sell profit making stocks. They also believe that under uncertain market conditions they buy a share, which remained profitable for them in past also. Majority of investors also believe that in case of availability of plenty investment options, rational decision making is a better option. Reverting of any investment decision should be based on the goodwill of the company, and a vast majority accepts it. Investors are more or less divided on two different issues of dealing with the emotions of joy of gratification and regret of loss and believing that big companies are less risky than smaller companies. Investors at various places acknowledge the role of emotions and irrational behavior and accepted that some time they are not fully logical. It is finally concluded that behavioural aspect of investors is evident in the survey analysis.

> Only two things are infinite, the universe and human stupidity, and I'm not sure about the former.
>
> *Albert Einstein*

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