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INVESTMENT EXPERIENCE & BIASES: A STUDY OF INVESTORS OF GUJARAT

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ABSTRACT

The objective of the research was to identify the behavior of individual investors while making investment decision. Investor psychology has been one of the important factors affecting the stock market. This makes investigation of behavioral biases very important and its role in shaping the investment decisions. This research seeks to find the influence of certain identified behavioral finance concepts (or biases), namely, Overconfidence, Representativeness, Herding, Anchoring, Cognitive Dissonance, Regret Aversion, Mental Accounting, and Hindsight Bias, on the decision-making process of individual investors of Indian Stock Market. Primary data for analysis was gathered by distributing a structured questionnaire among investors of India who were categorized as (i) young, and (ii) experienced. Results obtained through discriminant analysis of sample of 237 respondents, revealed that mental accounting bias was a significant factor that differentiated young and experienced investors behavior while taking investment decision.

Key words:

I. INTRODUCTION

Brief about Behavioral Finance

Sewell (2007) has defined behavioral finance as "the study of the influence of psychology on the behavior of financial practitioners and the subsequent effect on markets". Another brief definition of behavioral finance by Shefrin (2001) is "Behavioral finance is the study of how psychology affects financial decision making and financial markets". As these definitions indicate, the behavioral finance involves psychological impact on investment decisions. The investors' psychology significantly affects the market imperfections in view of the information asymmetry and the ability of investors to discount the information available at a specific point of time at a specific place.

Economists of University of Chicago primarily developed the traditional finance model also known as standard finance model in mid 1950's with central

assumption that the people are rational. However, psychologists argued upon rationality and claimed that people are influenced by cognitive and emotional biases and they act in an irrational manner. For example, people fail to update beliefs correctly (Tversky and Kahneman, 1974) and have preferences that differ from rational agents (Kahneman and Tversky, 1979). People suffer from limited capacity when it comes to processing information and solving complex problems (Simon, 1955). Also people suffer from limitations in their attention capabilities (Kahneman and Tversky, 1973). Rational traders are bounded such that markets will not always correct 'non-rational' behavior (Barberis and Thaler, 2003).

Stock Market and Behavioral Finance

Stock market is considered to be yardstick for economic strength and development of a country. So an upward stock market movement signifies healthy economy and downward movement signifies unhealthy economy. The rise in share price is an outcome of increase in investment which in turn leads to growth of company and economy in general (Jaswani, 2008). Stock markets not only play an important role as a source for financing investment in an economy but it also performs a function of a signaling mechanism to managers regarding investment decisions, and a catalyst for corporate governance (Samuel, 1996). Stock market enables efficient allocation of resources and better utilization of resources which gives a push to the development of an economy (Supat, 1998).

Since recent years the equity markets are observing increased volatility and fluctuations. Technology has integrated the market and has increased the speed of information which has exposed the financial markets to macroeconomic shocks which affect markets on a global scale. From an investor's point of view, the vulnerability of markets has led to increased uncertainty and unpredictability, as market conditions cannot always be judged with the help of standard financial measures and tools. For a considerable period of time market participants had relied on the notion of efficient markets and rational investor's behavior while making financial decisions. However, the idea of fully rational investors who always maximize their utility and demonstrate perfect self-control is becoming inadequate. During the recent years, examples of market inefficiency in the form of anomalies and irrational investor behavior have been observed more frequently.

Behavioral finance is posed with a major challenge to establish a relation between investor behaviors and aggregate market wide effects. It has to prove that investors behavior has effects on market (Shleifer (2000), Hirshleifer (2001), Barberis and Thaler(2003)). Behavioral asset pricing researches recently have demonstrated the relationship between stock price and trading volume and investor systematic behavioral biases. Research shows sign of influence of behavioral biases on prices and trade volume of stock. (Odean (1998), Barberis, Huang, and Santos(2001), Barberis and Huang(2008)). Behavioral mechanisms can generate high levels of market risk premium and even induce mispricing of market stocks such that it could create bubbles in the market at more aggregate level (Benartzi and Thaler,1995).

Individual Investors

Households and individual investors supply a pool of capital that creates liquidity in the market and make it dynamic. The participation in stock markets from individual investor is playing a dominating and important role in market price formation and efficient mechanism. This is evident from the data in Chart 1, where clients (consisting of individual investors) have more than 50% trades than NRIs, IFIs, DII, Proprietary and Insurance at BSE. Sustained research in the field of behavioral finance at individual investor level thus becomes imperative in order to understand the patterns of investment which has onus of deciding the fate of stock market efficiency in our country.

<Chart 1>

Need for the study

Behavioral finance is accepted as a feasible model to explain how investors of financial markets make decisions and then these decisions influence the financial markets (Kim and Nofsinger, 2008). Behavioral finance helps investors in stocks and mutual funds to avoid common mental mistakes and design effective investment strategy (Ricciardi and Simon, 2000). Knowledge of behavioral finance should enable investors to become aware of how potential biases can affect investment performance and their decisions and thereby to avoid such errors. Some evidences conclude that Asian investors usually suffer from cognitive biases more than people from other cultures (Kim and Nofsinger, 2008). Therefore, we cannot afford to ignore the presence of behavioral elements in factors influencing

the Indian investors' decision-making. Behavioral finance studies have been carried out popularly in developed markets of Europe and the USA ((Caparrelli, Arcangelis & Cassuto, 2004); (Fogel & Berry, 2006) and many others). However, very limited studies using behavioral finance have been conducted for emerging markets such as India. In this study, behavioral finance is used for Indian Capital market, an emerging stock market of Asia, to recognize the driven factors of individual investors' behavior from India.

Economy and stock market are positively correlated, a rise in stock market will have positive effect on economy and a fall in stock market will have negative effect on economy. The rise and fall of stock market is dependent on the decisions and actions taken by investors. It is desirable to find suitable explanations for decisions of individual investors. Thus it necessitates understanding and exploring behavioral factors influencing the decisions of individual investors of India and how these factors impact their investment performance. Investors can then understand their common behaviors and then alter/align for better returns. Understanding biases and overcoming it will be reflected through rational decisions and in turn stock markets will become more efficient. Broking firms may also use this information for better understanding their client and to provide accurate forecasts about market and give better recommendation.

II. LITERATURE REVIEW

Behavioral Biases

The investors would prefer to gamble and hold on to the loosing stock in the hope that the prices will increase. This shows investors were risk lovers when confronted with losses. The investors chose to sell a winning stock early, which shows their risk aversion in gains. Majority of the investors feel that market would either show a similar trend or reverse its direction if the Sensex had been bullish or bearish for three days in a row (Sahni, 2012)

A day trader should not be insisted to become an investor, and an investor should not fall prey to quick profits in the short run. One could set aside 10%-15% of his assets for trading, however this percentage depends a lot on his personal situation, standard of living risk, and his risk appetite. (Suresh, 2013)

Psychological heuristics and biases were identified as the factors influencing Indian individual investor behavior in stock market. (Chandra and Kumar, 2012). In Lithuania Individual investors biases such as anchoring, herd behavior, mental accounting and overconfidence had stronger influence on their financial decision-making process than other basic biases which they suffered.

(Sunitha Kumaran, 2013) in her study undertook to investigate whether locus of control predicts hot-come effect and its converse gambler's fallacy, when making personal investment decisions. 144 investors with prior investment experience and 124 new investors completed the Rotter's (1954) LOC and the adopted version of an Investment Survey Questionnaire in the Kingdom of Saudi Arabia. Results suggested that hot-outcome heuristic, trend length, trend valence and prior investment experience were factors that influence personal financial decision making. Results affirmed that novice investors tend to utilize the hot-outcome heuristic regardless of the reference groups, while experienced investors from both reference groups apply gambler's fallacy heuristics to decide on investments.

Behavioral Biases and Personality

Huei-Wen Lin (2011) in his study showed that investment biases of individual investors are significantly related to four personality traits (Neuroticism with Disposition and Herding, Extraversion with Herding and Overconfidence, Openness with Herding and Overconfidence, Conscientiousness with Disposition and Overconfidence) as well as some demographics (Gender with Overconfidence, Age with Disposition and Overconfidence, Residential area with Herding).

Similarly Muhammad Zubair Tauni (2012) in his study concluded that there is a positive relationship between overconfidence bias and Personality type's such as Agreeableness, Extroversion & Consciousness); and negative relationship between Overconfidence bias and Personality type such as Neuroticism. The results also showed that there is an association between investment experience and overconfidence bias. The results showed that there is no significant relationship between demographic factors such as age, education with overconfidence. But there was significant association between investment experience and overconfidence bias.

Behavioral Biases and Demographics

Demographics factors such as gender, age, education and income have effect on investment instrument selection and risk attitude (Verma, 2008). Moreover, it should be noted that the influence of factors forming irrational individual investors' behavior depends on their personal characteristics such as age, experience, gender and profession (Kartsova, 2013).

Demographics factors such as marital status, gender, age, education and income have effect on savings and risk attitude (Prabha, 2011). Male respondents has tendency to show more financial behavior than female respondents in their investment decisions. There is a positive relationship between the levels of individual savings and overreaction. There is no interaction between age and behavioural biases (overreaction, herding, cognitive bias, irrational thinking, overconfidence and media effect) (Gunay and Demirel, 2011).

While measuring the effect of Demographics factors on Emotional Risk Tolerance and Time Horizon, a significant relationship was found between Emotional Risk Tolerance on one hand and Work status and Life stages on other hand. Also significant relationships were found between Time Horizon on one end and Qualification, Life Stage and Financial resources on other hand. (Dharmaja, Ganesh and Santhi, 2012)

Evidence of no significant difference between the responses of male and female decision making regarding overconfidence bias are also documented. (Bashir, Rasheed, Raftar, Fatima & Maqsood, 2013)

Behavior finance approach investigates and tries to understand how patterns guide investment decisions. The result shows that retail investor's decision making regarding investment differs with respect to their demographic factors. (Purohit, Satija & Saxena, 2014).

Most of the previous research has focused only on demographic factors, behavioral biases and its effect on decision making. We extend this previous research by testing the discriminant analysis of young and experienced investors with respect to various biases.

III. RESEARCH METHODOLOGY

This study is conducted to analyze behavior biasness of individual investors. We intend to identify the differentiating bias better between young and experienced investor. In order to conduct the research Cross sectional research of single sample under descriptive research was carried out. Target population was investors of India aged above 18 years and 237 sample size was selected using convenience sampling. Primary Data was collected using structured questionnaire which was administered through email. Secondary Data was collected from various research papers, websites and books.

VI. FINDINGS and ANALYSIS

In order to identify the bias of investors of India descriptive statistic such as mean was used.

<Table: 1>

If the mean score is less or equal to 1, it suggests investor is highly bias. If the mean is greater than 1 and below 2 than investor is moderately bias, and if mean is greater than 2 it means investor are less bias. Table 4 suggests that investors of India are moderately bias with respect to all the biases except Hindsight bias where they are less biased.

In order to identify the differentiating bias better between young and experienced investor, Chi-Squared tests was performed. On the basis of literature review person who have an experience of 7 or more years in Indian stock market was categorized as experienced investor and less that 7 years was categorized as young investor.

Chi Square Test

Overconfidence Bias

H_0: Both investor types are equally likely to exhibit overconfident bias

H_1: Young investors are less likely to be overconfident than experienced investors

The p-value (Ref Table 1.2) is 0.296 which is greater than 0.05. Thus null hypothesis is accepted and it can be said that Investors experience has an influence on overconfident bias while making investments decision.

<table: 2>

Similarly hypothesis were tested for representativeness bias, herd behavior, anchoring bias, cognitive dissonance bias, regret aversion bias, mental accounting bias, and hindsight bias.

Normality Test

In statistics, normality test is used to determine if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed.

<Table: 3>

In above table 3 we can observe that sample data for the study is more than 30. Generally sample size of more than 30 is assumed to be normal, but for the further study skewness of different biases was observed. Skewness of most of the biases is in the range of -0.5 to +0.5. So it can be concluded that data is normal and discriminant analysis test can be applied on this data.

Preliminary Analysis: Multicollinearity Check

The 3-point Likert scale responses were arithmetically combined to form 8 variables, each representing a bias analyzed in this report. It had to be checked whether there was a problem of multicollinearity between the variables. Following table 4 shows the correlation matrix between the bias variables.

<Table: 4>

According to above table, the highest correlated variables were overconfident and hindsight bias with a coefficient of 0.710. To double-check, further multicollinearity testing was done with both overconfident and hindsight bias as dependent variables. The results are shown in below table 5.

<Table 5>

We can see that in above both table VIF (Variance Inflation Factor) is below 3 so that it can be summarize as multicollinearity was not a problem for the sample.

All the variables correlated fairly well without any of them having high correlation coefficients. The decision was made to retain all the variables for further analysis.

Discriminant Test

Basically discriminant analysis is helpful to study or differentiate behavior pattern of young and experienced investor while making investment decision.

<Table 6>

The two groups (young/experienced) are to be compared on the basis of eight biases like overconfident, Representativeness, Herding behavior, Cognitive Dissonance, Regret Aversion, Mental Accounting, Hindsight Biasness. It will be useful to compute their mean values to get an idea of the differences in their mean score. The mean score alongwith the standard deviation of young and experienced investor for different biasness is mentioned in table 6. Here we can see that there is no significant difference between young and experience people's biases except mental accounting bias. In mental accounting mean and SD of young investor is respectively 1.83 and 0.732 and mean and SD of experienced investor is respectively 1.33 and 0.555 so we can say that Mental Accounting is only bias who differentiate behavior pattern of young and experienced investors.

<Table 7>

Tests of Equality of Group Means

However to know for which of the characteristics a significant difference exist between the means of the group (Young & Experience), a one way ANNOVA is carried out for each of the predictor variable (Overconfident, Representativeness, Herding behavior, Cognitive Dissonance, Regret Aversion, Mental Accounting, Hindsight Biasness) is treated as independent variable and two (Young & Experienced investor) are taken as dependent variable.

<Table 8>

In test of equality of group means, it shows significant level. If sig. value is less than 0.05 than it can be said that there is relationship between independent and dependent variables. Here we can see that in above table in mental accounting Sig value is 0.02, which is less than 0.05 so it can be concluded as only mental accounting bias is differentiating young and experienced investor pattern.

Box M Test

<Table 9>

A key assumption in Discriminant Analysis is that the variance-covariance matrices are identical for the groups formed by the discriminator. Box's M test tests the null hypothesis that matrices do not differ between groups of the dependent variable. Here in above table we found significant value is 0.237 which shows that there is no difference or low level of difference in behavior pattern of investors.

Canonical Discriminate

Basic principle of the discriminant analysis is that the variance between group variable relative to the variance within the group should be maximized.

<Table 10>

The Ratio between group variance to within group variance is given by eigenvalues. A higher eigenvalue is always desirable. The eigenvalue is mentioned in table no.1.10 that shows eigenvalue is only 0.247 which is very less that showing that difference between group variance is very less it means variance of young and experience on different biases is very less. As we early discussed that mental accounting is major factor only for differentiating behavior pattern of different group.

The last column of table 10 indicates canonical correlation which is simple correlation coefficient between the discriminant score and their corresponding group membership (young/experienced). The value is 0.445, the square of that value is (0.445^2) = 0.20, which means 20 per cent of the variance in discriminating model between young and experienced is due to the changes in the predictor variable overconfident, Representativeness, Herding behavior, Cognitive Dissonance, Regret Aversion, Mental Accounting, Hindsight Biasness.

Wilk's Lamba Test

<Table 11>

The value of 0.802(Table 11) suggested that 80.20% of the variability was unexplained by the discriminator. This result implied that there is no statistically significant difference between the behavioral patterns of young and experienced

investors for the whole set of biases considered together. The following hypotheses were tested:

H_0: Both investor categories are equally affected or unaffected by the Behavioral Biases

H_1: Young investors are more affected by Behavioral Biases than experienced investors are

Standardized Discriminant Function Coefficient

We can interpret the discriminant coefficient exactly in the same way as regression coefficient. This means that each coefficient reflects the relative contribution of each of the predictor variable on the discriminant function.

<Table 12>

Table 12 gives Standardized Canonical Discriminant Function coefficients. The higher values of coefficients indicate increasing importance of those variables in predicting the differences between the groups. Here we can see that mental accounting bias have f value is 0.747 that suggest that it is major factor for differentiating behavior pattern of experience and young investors.

Assessing Classification Accuracy

<Table 13>

This result implied that there is no statistically significant difference between the behavioral patterns of young and experienced investors for the whole set of biases considered together. The result shows that while doing independent test we found that by applying this test independent variables can predict 90% of dependent variable in case of young investor but for experienced investor it enables to predict on 37%.

V. CONCLUSION

Individual Investors of India are moderately effected by overconfident, representativeness, herding behavior, anchoring, cognitive dissonance, regret aversion, mental accounting. They are less affected by hindsight bias.

The results of discriminant analysis reveal that only mental accounting is single factor that differentiate the behavior pattern of the investors while making investment decision. From the analysis it was evident that only 20 per cent of the variance in discriminating model between young and experienced is due to the changes in the predictor variables such as Overconfident, Representativeness, Herding behavior, Cognitive Dissonance, Regret Aversion, Mental Accounting, and Hindsight Biases.

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List of Tables

Table 1.1 Behavior bias mean

Behavior Biases	Mean
Overconfidence	1.74
Representativeness	1.46
Herding behavior	1.80
Anchoring Bias	1.72
Cognitive Dissonance	1.60
Regret Aversion	1.98
Mental Accounting	1.69
Hindsight Bias	2.46

Table 2 Testing of Hypothesis

Hypothesis	P value	Result w.r.t Null
Null : Both investor types are equally likely to exhibit Overconfidence Bias Alternate : Young investors are less likely to be overconfident than experienced investors	0.296	Accept
Null : Both investor types are equally likely to exhibit Representativeness Bias Alternate : Young investors are more likely to have high Representativeness Bias than experienced investors	0.388	Accept
Null : Both investor types are equally likely to exhibit Herd Behavior Alternate : Young investors are more likely to have high Herd Behavior than experienced investors	0.17	Accept
Null : Both investor types are equally likely to exhibit Anchoring Bias Alternate : Young investors are more likely to have high Anchoring Bias than experienced investors	0.09	Accept
Null : Both investor types are equally likely to exhibit Cognitive Dissonance Bias Alternate : Young investors are more likely to have high Cognitive Dissonance Bias than experienced investors	0.636	Accept
Null : Both investor types are equally likely to exhibit Regret Aversion Bias Alternate : Young investors are more likely to have high Regret Aversion Bias than experienced investors	0.776	Accept
Null : Both investor types are equally likely to exhibit Mental Accounting Bias Alternate : Young investors are more likely to have high Mental Accounting Bias than experienced investors	0.007	Reject
Null : Both investor types are equally likely to exhibit Hindsight Bias Alternate : Young investors are more likely to have high Hindsight Bias than experienced investors	0.534	Accept

Table 3 Descriptive Statistics

	N	Min	Max.	Mean	Std. Deviation	Skewness	
						Statistic	SE
Overconfident	237	1	3	1.75	0.612	0.199	0.243
Representiveness	237	1	3	1.46	0.54	0.539	0.243
Herding Behavior	237	1	3	1.81	0.955	0.396	0.243
Anchoring	237	1	3	1.73	0.767	0.512	0.243
Congnitive biasness	237	1	3	1.61	0.603	0.435	0.243
Regret Averson	237	1	3	1.99	0.678	0.012	0.243
Mental Accounting	237	1	3	1.7	0.721	0.529	0.243
Hindsight Biasness	237	1	3	2.46	0.54	-0.253	0.243
Valid N (listwise)	237						

Table 5 Collinearity Statistics: Overconfidence

	Collinearity Statistics	
Model (Constant)	**Tolerance**	**VIF**
Representiveness	0.817	1.224
Herding Behaviour	0.899	1.113
Anchoring	0.632	1.582
Congnitive biasness	0.867	1.154
Regret Averson	0.702	1.425
Mental Accounting	0.953	1.049
Hindsight Biasness	0.777	1.288
a. Dependent Variable: **Overconfidence**		

Table 6 Collinearity Statistics: Hindsight Bias

	Collinearity Statistics	
Model	**Tolerance**	**VIF**
Overconfidence	0.682	1.465
Representiveness	0.817	1.224
Herding Behaviour	0.914	1.094
Anchoring	0.628	1.593
Congnitive biasness	0.861	1.161
Regret Averson	0.695	1.438
Mental Accounting	0.871	1.148
a. Dependent Variable: **Hindsight Biasness**		

Table 4 Correlations

		Over confidence	Represe-ntativeness	Herding Behavior	Anchoring	Cognitive Dissonance	Regret Aversion	Mental Accounting	Hindsight Biasness
Over confidence	Pearson Correlation	1	0.15	0	0.48	0.25	0.32	0.29	0.71
	Sig. (2-tailed)		0.13	0.99	0	0.01	0	0	0
	N	237	237	237	237	237	237	237	237
Represen-tativeness	Pearson Correlation	0.15	1	-0.25	0.26	0.18	0.31	-0.06	0.16
	Sig. (2-tailed)	0.13		0.01	0.01	0.07	0	0.53	0.11
	N	237	237	237	237	237	237	237	237
Herding Behavior	Pearson Correlation	0	-0.25	1	-0.07	0.01	0.02	0.07	-0.14
	Sig. (2-tailed)	0.99	0.01		0.51	0.96	0.81	0.46	0.17
	N	237	237	237	237	237	237	237	237
Anchoring	Pearson Correlation	0.48	0.26	-0.07	1	0.32	0.47	0.07	0.45
	Sig. (2-tailed)	0	0.01	0.51		0	0	0.47	0
	N	237	237	237	237	237	237	237	237
Cognitive Dissonance	Pearson Correlation	0.25	0.18	0.01	0.32	1	0.25	0.09	0.16

		Over confidence	Represe-ntativeness	Herding Behavior	Anchoring	Cognitive Dissonance	Regret Aversion	Mental Accounting	Hindsight Biasness
	Sig. (2-tailed)	0.01	0.07	0.96	0		0.01	0.39	0.1
	N	237	237	237	237	237	237	237	237
Regret Aversion	Pearson Correlation	0.32	0.31	0.02	0.47	0.25	1	-0.09	0.29
	Sig. (2-tailed)	0	0	0.81	0	0.01		0.37	0
	N	237	237	237	237	237	237	237	237
Mental Accounting	Pearson Correlation	0.29	-0.06	0.07	0.07	0.09	-0.09	1	0.07
	Sig. (2-tailed)	0	0.53	0.46	0.47	0.39	0.37		0.48
	N	237	237	237	237	237	237	237	237
Hindsight Biasness	Pearson Correlation	0.71	0.16	-0.14	0.45	0.16	0.29	0.07	1
	Sig. (2-tailed)	0	0.11	0.17	0	0.1	0	0.48	
	N	237	237	237	237	237	237	237	237

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 7 Group Statistics

Experienced		Mean	Std. Deviation	Valid N (listwise)	
				Unweighted	Weighted
Young	Overconfident	1.81	0.62	171	171
	Represen-tiveness	1.44	0.554	171	171
	Herding	1.75	0.931	171	171
	Anchoring	1.64	0.718	171	171
	Cognitive	1.62	0.592	171	171
	Regret Aversion	1.97	0.691	171	171
	Mental Accounting	1.83	0.732	171	171
	Hindsight	2.5	0.531	171	171
Experienced	Overconfident	1.59	0.572	66	66
	Represe-ntiveness	1.52	0.509	66	66
	Herding	1.96	1.018	66	66
	Anchoring	1.96	0.854	66	66
	Cognitive	1.56	0.641	66	66
	Regret Aversion	2.04	0.649	66	66
	Mental Accounting	1.33	0.555	66	66
	Hindsight	2.37	0.565	66	66
Total	Overconfident	1.75	0.612	237	237
	Represent-iveness	1.46	0.54	237	237
	Herding	1.81	0.955	237	237
	Anchoring	1.73	0.767	237	237
	Cognitive	1.61	0.603	237	237
	Regret Aversion	1.99	0.678	237	237
	Mental Accounting	1.7	0.721	237	237
	Hindsight	2.46	0.54	237	237

Table 8 Tests of Equality of Group Means

	Wilks' Lambda	F	df1	df2	Sig.
Overconfident	0.976	2.413	1	236	0.124
Representiveness	0.996	0.366	1	236	0.546
Herding	0.99	0.977	1	236	0.326
Anchoring	0.964	3.6	1	236	0.061

	Wilks' Lambda	F	df1	df2	Sig.
Cognitive	0.997	0.258	1	236	0.612
Regret Aversion	0.998	0.178	1	236	0.674
Mental Accounting	0.904	10.352	1	236	0.002
Hindsight	0.988	1.131	1	236	0.29

Table 9 Test Results

Box's M		47.519
F	Approx.	1.159
	df1	36
	df2	8.67E+03
	Sig.	0.237
Tests null hypothesis of equal population covariance matrices.		

Table 10 Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.247[a]	100.0	100.0	.445

Discriminant Analysis: Canonical Discriminate

a. First 1 canonical discriminant functions were used in the analysis.

Table 11 Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.802	20.555	8	.008

Table 12 Standardized Canonical Discriminant Function Coefficients

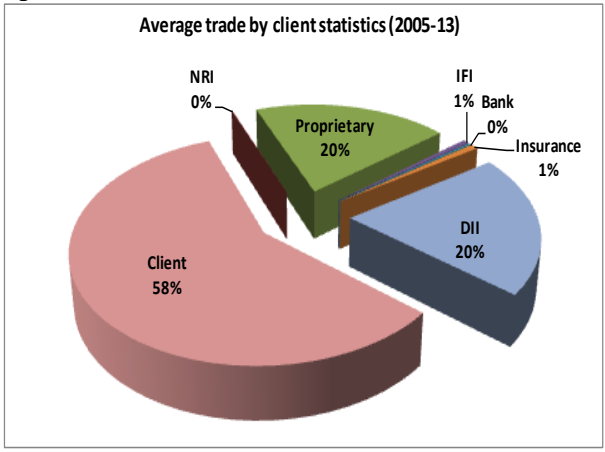
	Function
	1
Overconfident	0.278
Representiveness	-0.072
Herding Behavior	-0.258
Anchoring	-0.749
Congnitive biasness	0.213
Regret Averson	0.229
Mental Accounting	0.747
Hindsight Biasness	0.31

Table 13 Classification Results[b,c]

		Experienced	Predicted Group Membership		Total
			Young	Experienced	
Original	Count	Young	159	12	171
		Experienced	38	28	66
	%	Young	92.98	7.02	100
		Experienced	57.58	42.42	100
Cross-validated[a]	Count	Young	154	17	171
		Experienced	40	26	66
	%	Young	90.06	9.94	100
		Experienced	23.39	15.20	100
a. Cross validation is done only for those cases in the analysis. In cross validation, each case is classified by the functions derived from all cases other than that case.					
b. 78.8% of original grouped cases correctly classified.					
c. 75.8% of cross-validated grouped cases correctly classified.					

List of Chart

Chart: 1 Average trade



Source : www.bseindia.com/markets/equity/EQReports/StckPrcHistori.aspx?expandable=7&flag=1

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