CHAPTER 7

Investors Perception

Contents

7.1 Investors Perception

To study the performance of mutual funds in terms of efficiency and the methods of improving it is of crucial importance. In general, Net Asset Value (NAV) is taken as criteria for the performance measurement and it is based on the risk return trade off. Apart from risk, mutual fund schemes possess several characteristics or attributes that might affect their performance. It is essential to know which attribute results in efficient performance and which deteriorates it.

Indian mutual fund industry is still lacking far behind in terms of total assets with respect to other developed nations. One of the main reasons for poor growth is the lack of awareness, investors' trust on companies and policy makers. Therefore, for promoting the growth of Indian mutual fund industry, it is very crucial to understand the investors' behaviour towards investment in mutual funds. For motivating investors towards the investment in mutual funds, companies must know the factors which influence the investment options.

From the above discussion, it can be concluded that Indian mutual fund industry is in its growth phase and possesses a tremendous scope for development. So it is needed to investigate the behaviour of investors towards mutual funds.

7.2 Research Methodology

7.2.1 Sampling

The analysis is based on primary data and stratified random sampling has been used in this research. In first stage of sampling total population is divided in four categories that are Government Sector, Private sector, Business and professionals. After that all four category are sub divided in ten categories. Thirty respondents are selected from each sub category on random basic. The Questionnaire was used for data collection containing 26 questions eighteen question are research related and remaining are general question. Five point Likert scale used for response measurement.

7.2.2 Collection of Primary Data

The study based on primary data and questionnaires are used for data collection. Before collection of data, questionnaire was discussed with experts. The reliability and internal consistency of data are tested by Cronbach Alpha. Its value is .72 indicating good to apply factor analysis. Sampling adequacy is tested by Kaiser Meyer Olkin test and Sphericity tested by Bartlett's test.

Therefore, the questionnaire was found to be valid and reliable enough to proceed for the study. A total of 300 questionnaires were mailed/ distributed in NCR region and out of that 263 responses were received. While editing the questionnaire, 258 were found usable for analysis.

7.2.2.1 Reliability Test of Questionnaire

A pilot survey was done to test the reliability of questionnaire and 30 questionnaire distributed to the respondent. The questionnaire containing 28 questions out of it 20 questions are study specific. On the basic of response of respondent Cronbach Alpha test was employed to test the reliability of questionnaire. The result of SPSS reliability test was .61 (Table.7.2.2.1) that was less than .70 of standard value. After deleting the 2 questions out of 20 questions the Cronbach Alpha value increases to .72 (Table.7.1)that shows questionnaire is reliable and use for data collection and analysis.

Table 7.2.2.1 Cronbach's Alpha Reliability Test for Pilot survey.

Reliability Statistics

Cronbach's Alpha	N of Items
.61	20

7.2.2.2 Data Analysis

Factor Analysis is employed with the help of SPSS to analyze primary data for studying the investors' behaviour.

7.2.3 Factor Analysis

Factor analysis is employed to reduce the variables and variables came after reduction are capable to explain the observed variance from large number of variables. Table 7.4 explains percentage of extracted variance of each variable represented in communalities. The principal component analysis used for extraction and higher extraction value of variable show better one. Return from investments, investments safety, funds/schemes information, Capital Appreciation, Reputation of Sponsor, Sponsor's Expertise (in managing money), Favorable Credit Rating of Scheme/Fund, Liquidity of investment, Fringe Benefits, NAV updates, Promptness in Service, Charges (Entry Load and Exit Load), Redressal of Investor's Grievances, Early Bird Incentives, SEBI regulation, Peer group, experts opinion, advisor convincing power, Annual income of investors, and Knowledge about financial instruments are the variables included in Factor analysis.

7.3 Finding and Results

Cronbach Alpha

As per commonly accepted rule of thumb the minimum acceptable score of alpha is 0.70 (George and Mallery 2003). In the present study it is found to be 0.72 (Table 7.3.1) which is sufficient enough to proceed the study.

Table 7.3.1 represents KMO value that is .853 it's greater than minimum acceptance level of .50 and Bartlett's test for sphericity also less than .05 both values are good and permits factor analysis

Table 7.3.1 Cronbach's Alpha Reliability Test

Reliability Statistics

Cronbach's Alpha	N of Items
.72	18

Table 7.3.2 KMO and Bartlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.853
Bartlett's Test of Sphericity	Approx. Chi-Square	589.182
	df	153
	Sig.	.000

Table 7.3.3 Communalities for PCA on Eighteen Items

Communalities

Parameters	Initial	Extraction
In mutual funds investment investor focus only in return from investments	1	0.691
Investing in mutual funds investor more concern about full disclosure of information regarding scheme / fund	1	0.688
Investor of mutual funds never needs capital appreciation.	1	0.737
Investing in mutual funds investor always tries to find out the reputation of sponsor	1	0.596
Investor of mutual funds always not concern to sponsor's expertise	1	0.618
Investor more emphasize on Favorable credit rating of scheme / fund in investing in mutual funds.	1	0.605
Liquidity of investment is only motive of mutual fund investor.	1	0.619
Mutual funds investor always needs Regular Updates on every trading day (regarding investment, NAV etc.).	1	0.563
Investor of mutual funds needs fringe benefits from mutual funds investment.	1	0.776
Investor of mutual funds does not require prompt service by mutual funds investment.	1	0.69
Investor of mutual funds does not expect any charges (Brokerage) on mutual funds investment.	1	0.654
Prime objective of investors of mutual funds is redress of Investor's grievances.	1	0.602
Investor of mutual funds does not consider market timing during investment.	1	0.67
Investment in mutual funds guided by SEBI regulation investor need to go through during investment.	1	0.7
Peer group affect the decision but in case of mutual funds investment its not applicable.	1	0.77
Mutual funds investment is a crucial financial decision it required experts opinion.	1	0.606
Annual income of investors do not plays important role in mutual funds investment	1	0.495
Knowledge about financial instrument helps to investor in selection of investment in mutual funds.	1	0.656

Extraction Method: Principal Component Analysis.

Table 7.3.4 Total Variance Explained by All Eighteen Factors

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.442	13.569	13.569	2.442	13.569	13.569	1.928	10.713	10.713
2	1.854	10.3	23.868	1.854	10.3	23.868	1.721	9.563	20.275
3	1.613	8.961	32.829	1.613	8.961	32.829	1.518	8.431	28.706
4	1.364	7.579	40.408	1.364	7.579	40.408	1.394	7.743	36.449
5	1.223	6.795	47.203	1.223	6.795	47.203	1.379	7.663	44.112
6	1.106	6.146	53.349	1.106	6.146	53.349	1.347	7.485	51.596
7	1.077	5.984	59.333	1.077	5.984	59.333	1.267	7.04	58.637
8	1.054	5.856	65.189	1.054	5.856	65.189	1.179	6.552	65.189
9	0.893	4.963	70.152						
10	0.817	4.537	74.689						
11	0.768	4.269	78.958						
12	0.711	3.95	82.908						
13	0.697	3.87	86.778						
14	0.617	3.426	90.204						
15	0.538	2.988	93.192						
16	0.457	2.54	95.732						
17	0.451	2.505	98.238						
18	0.317	1.762	100						

Extraction Method: Principal Component Analysis.

Figure 7.3.1 Scree Plot of Eigenvalues for Factors 1 Through 18

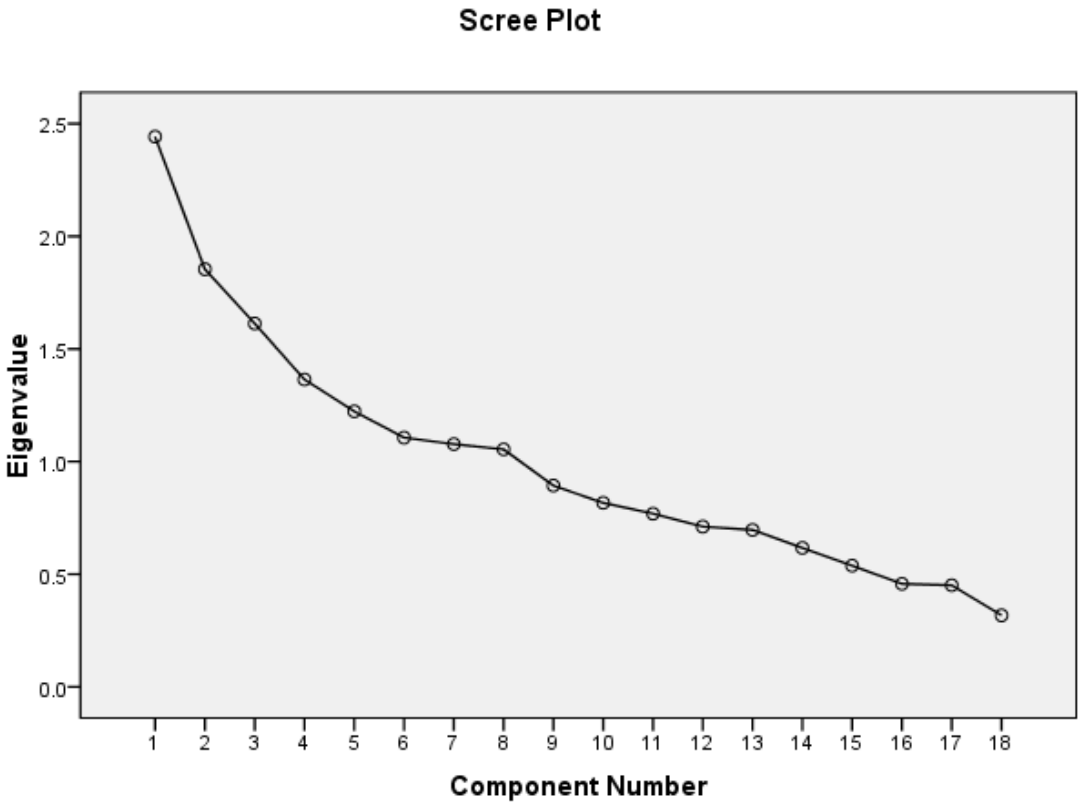

Table 7.3.5 Rotated Component Matrix on Factors 1 to 18

Rotated Component Matrix[a]

Parameters	Component							
	1	2	3	4	5	6	7	8
In mutual funds investment investor focus only in return from investments.								0.813
Investing in mutual funds investor more concern about full disclosure of Information regarding Scheme / Fund.	0.568							
Investor of mutual funds never needs capital appreciation.				0.818				
Investing in mutual funds investor always tries to find out the reputation of sponsor.			0.589					
Investor of mutual funds always not concern to sponsor's expertise.			0.571					
Investor more emphasize on favorable credit rating of Scheme / Fund in investing in mutual funds.						0.501		
Liquidity of investment is only motive of mutual fund investor.		0.745						
Mutual funds investor always needs regular updates on every trading day (regarding investment, NAV etc.).	0.600							
Investor of mutual funds needs fringe benefits from mutual funds investment.							0.856	
Investor of mutual funds does not require prompt service by mutual funds investment.		0.638						
Investor of mutual funds does not expect any charges (Brokerage)on mutual funds investment.					0.759			
Prime objective of investors of mutual funds is redress of investor's grievances.				0.541				
Investor of mutual funds does not consider market timing during investment.		0.537						
Investment in mutual funds guided by SEBI regulation investor need to go through during investment.	0.780							
Peer group affect the decision but in case of mutual funds investment its not applicable.						0.831		
Mutual funds investment is a crucial financial decision it required experts opinion.	0.504							
Annual income of investors do not plays important role in mutual funds investment.				0.499				
Knowledge about financial instrument helps to investor in selection of investment in mutual funds.			0.741					

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 15 iterations.

Table 7.3.6 Factor analysis with Parameters (Cumulative % of variance and Eigenvalues)

Factor analysis with Parameters(Cumulative % of variance and Eigenvalues)				
Factor Name	**Parameters**	**Eigen values**	**% of Variance**	**Factor loadings**
Factor 1 Mutual Funds information	Investing in mutual funds investor more concern about full disclosure of Information regarding Scheme / Fund.	2.442	13.569	0.568
	Mutual funds investor always needs regular updates on every trading day (regarding investment, NAV etc.).			0.600
	Investment in mutual funds guided by SEBI regulation investor need to go through during investment.			0.780
	Mutual funds investment is a crucial financial decision it required experts opinion.			0.504
Factor 2 Investment Strategic	Liquidity of investment is only motive of mutual fund investor.	1.854	10.3	0.745
	Investor of mutual funds does not require prompt service by mutual funds investment.			0.638
	Investor of mutual funds does not consider market timing during investment.			0.537
Factor 3 Sponsor's Attributes	Investing in mutual funds investor always tries to find out the reputation of sponsor	1.613	8.961	0.589
	Investor of mutual funds always not concern to sponsor's expertise.			0.571
	Knowledge about financial instrument helps to investor in selection of investment in mutual funds.			0.741
Factor 4 Grievance Redressal	Investor of mutual funds never needs capital appreciation.	1.364	7.579	0.818
	Prime objective of investors of mutual funds is redress of investor's grievances.			0.541
	Annual income of investors do not plays important role in mutual funds investment			0.499
Factor 5 Funds loads	Investor of mutual funds does not expect any charges (Brokerage) on mutual funds investment.	1.223	6.795	0.759
Factor 6 Funds Selection Decision	Investor more emphasize on favorable credit rating of Scheme / Fund in investing in mutual funds.	1.106	6.146	0.501
	Peer group affect the decision but in case of mutual funds investment its not applicable.			0.831
Factor 7 Funds Value Added Services	Investor of mutual funds needs fringe benefits from mutual funds investment.	1.077	5.984	0.856
Factor 8 Funds Capital Appreciations	In mutual funds investment investor focus only in return from investments.	1.054	5.856	0.813
	Cumulative %		65.189	

Communality for Each Item Based on Eight Retained Factors

Table 7.3.3 reports that communalities for each of the eighteen variables at two different stages in the analysis. The values are in the first column (Initial), depicting the variance that predicted from each predictor variable. Note that in Principal Component analysis, a value of the communalities for the initial model set to 1.00 for all variables. The second column, headed Extraction, tell us what proportion of variance in each variable is explained after we extract ten factors and decide to retain only eight factors. (Information about the number of factors retained appears in table 7.3.4). The communalities for each variable are obtained by squaring and summing the loading of that variable across the retained components. The variance explained by variables across all component in extraction column are Return on Mutual Funds 69.1%, Full discloser 68.8%, Capital appreciation73.7%, Sponsor reputation 59.6% , Sponsor's expertise 61.8%, Credit rating 60.5%, Liquidity 61.9%, Regular Updates 56.3%, Fringe Benefits 77.6, Prompt Service 69.0%, Brokerage 65.4%, Investor's grievances 60.2%, Market timing 67.0%, SEBI regulation 70.0%, Peer group 77.0%, Experts opinion 60.6%, Annual income 49.5%, Knowledge about financial instrument 65.6%.

Variance Reproduced by Each of the Eight Components

Table 7.3.4 explains the extent to which variance and correlation in the set of p=18 (Factor 1, Factor 2 ……. Factor18) variables could be reconstructed. In the left hand panel under the heading Initial Eigenvalues, for each of the Eighteen Factors, there is an eigenvalue .The Factors are rank ordered by the size of their eigenvalue, thus, Factor 1 has the largest eigenvalue, factor 2 has second largest eigenvalue and so forth. The sum

of eigenvalues in the column under the heading Initial Eigenvalues will always be denoted by p, the number of measured variables. In the table, the sum of the eigenvalues (2.442+1.854+1.613+ 1.364+1.223+1.106+1.077+ 1.054) =18, because there are eighteen measured variables. We converted each eigenvalue into a percentage of explained variance by dividing each eignvalue by the sum of the eigenvalues and multiplying this by 100.Thus in the initial set of eighteen factor, Factor 1 explain 13.569% of the variance, Factor 2 explain 10.300% of the variance and Factor 8 explain 5.856% of the variance . In the analysis eight out of eighteen initial factors retained for interpretation. The number of retained factors can be based on conceptual model. However, in present analysis, as in many analysis, the decision was based on the size on the eigenvalues and eight factors selected which eigenvalues are greater than 1.00. The right hand side of table 7.3.4shows the SSls for Factor 1 to Factor 8 and other ten factors are dropped from the model. After limiting the model to eight factors, Factor 1 predicted for about 13.569% of the variance and Factor 8 account 5.856% of variance and all eight factor predicting 65.189% of variance in the data.

Component Matrix

The component matrix not showing the clear pattern we would like to "name" each latent variable by identifying a set of measured variable with which it has high correlation; and we differentiate two or more latent variable or factors by noticing that they correlated with different group or set of measured variables Component Transformation Matrix shows the correlations among components before rotation and after rotation. The extraction is done through Principal Component method and rotation done on varimax Kaiser Normalization test.

In rotation, we simply move the factor axes to a different location in the imaginary plane and then recalculate the correlation of each X measured variable relative to these rotated axis. In the right hand columns of table 7.3.5 the rotated factor axis is labeled F1 to F8.A factor is most easily interpretable if variables tend to either have very large loading or near 0 – that is we can say clearly that the factor either is or is not related to each variable.

The following are factors and their corresponding variables:

Factor –I ***Mutual Funds Information***

It is represented by four variables viz. investing in mutual funds investor more concern about full disclosure of information regarding scheme / fund, mutual funds investor always needs NAV updates, investment in mutual funds guided by SEBI regulation investor need to go through during investment, mutual funds investment is a crucial financial decision it required experts opinion. It's naming as scheme/funds information related attributes.

Factor-II ***Investment Strategy***

It consider three variables viz. liquidity of investment is only motive of mutual fund investor, investor in mutual funds does not require prompt service by mutual funds investment, investors of mutual funds do not consider market timing during investment. It's named as funds investment strategy.

Factor-III ***Sponsor's Attributes***

It represents three variables viz. investing in mutual funds investor always tries to find out the reputation of sponsor, investor of mutual funds always not concern to sponsor's expertise, knowledge about financial instrument helps to investor in selection of investment in mutual funds. It's named as sponsor's attributes.

Factor-IV ***Grievance Redressal***

It includes three variables viz. investor of mutual funds never needs capital appreciation, prime objective of investors of mutual funds is redress the investor's grievances, annual income of investors do not plays important role in mutual funds investment. It may be named as funds return and grievance handling attributes.

Factor-V ***Funds Loads***

It includes one variable that is investor of mutual funds do not expect any charges (brokerage) on mutual funds investment. It's naming as funds load attribute.

Factor -VI ***Funds Selection Decision***

It considers two variables viz. investor more emphasize on favorable credit rating of scheme / fund in investing in mutual funds, peer group affects the decision but in case of mutual funds investment it's not applicable. It's naming as funds decision influencing attributes.

Factor-VII ***Funds Value Added Services***

It represents one variable that is Investor in mutual funds needs fringe benefits from mutual funds investment. It may be named as funds value added services**.**

Factor-VIII ***Funds Income Appreciations***

It includes one variable that is in mutual funds investment investor focus only in return from investments. It may be named as funds capital appreciations attribute.

Summary

Mutual Fund's information related attributes play an important role in investment most of the investor are given high attention. Investor of mutual fund requires liquidity, quick service and good timing related with investment. Investors of mutual fund are more concern with sponsor reputation and expertise to take decision for investment. Investor are very much concern about return from investment in mutual fund which may be capital appreciation or dividend or both. The analysis of investor perception towards mutual fund helps to achieve the fifth objective and result of study rejects the null hypothesis number four.