

**BEHAVIOR, PERCEPTION & PERFORMANCE OF INVESTMENT  
PROFESSIONALS IN MUTUAL FUND INDUSTRY**

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**DOCTOR OF PHILOSOPHY  
IN  
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# **BEHAVIOR, PERCEPTION & PERFORMANCE OF INVESTMENT PROFESSIONALS IN MUTUAL FUND INDUSTRY**

## **1. Introduction:**

The mutual fund industry in India has evolved over the years and getting matured with the economic developments taking place all around. The industry recorded growth in AUM (asset under management) from **470 million INR** approximately as on March 1993 to **8250 billion INR** as on 31 March 2014 to **10,513bn INR** as on December 2014. It has further reached a level of approx. **12,654 bn INR** as on June 2015.

In the present conditions of volatility and uncertainty in the market, this industry has also been facing many challenges in the form of investors' dissatisfaction and hesitation to invest their savings in mutual fund schemes.

In such a scenario, the role of the financial advisor or distributor is very crucial in fund distribution. They often convince the investors and advise them on scheme selection and asset diversification. Thus, they have a very important role to influence the investor's financial decisions and eventually, penetrate the mutual fund products in the financial market.

As we all know, there are a plethora of mutual fund schemes available in the market having different attributes, which can be suitable to different investor's needs. In such a situation, to choose between the given options according to one's own requirement becomes a tedious task. Thus, the role of investment advisor becomes crucial to guide the investor about the appropriate scheme which can fulfill his/her investment motive. These schemes may have some similar features as well, which can make the choice difficult. Eventually with the increased number of mutual fund schemes, it is important to find out the criteria behind the scheme selection as well as the perception of the investment professionals regarding these schemes.

Indian mutual fund industry, though, has evolved over the years but investment in mutual funds have been minimal as compared to other investment avenues, inspite of the savings rate in India been between 30-35 percent since last few years. Despite the efforts made by the distributors, still mutual fund continues to be a 'push' product rather than a 'pull' product.

## **2. Rationale of the Study:**

Witnessing the challenges facing the industry, it is imperative to evaluate the performance of mutual fund managers in terms of their market timing and selectively skills. This will also help the distributors in convincing & guiding the investors about using mutual funds as a financial tool to achieve their goals.

In addition to this, the financial service segment of India is witnessing a plethora of changes in its regulatory framework. In this situation, the asset management companies are experiencing a need to reorganize their business structure so that they are able to cater the requirements of their clients and give them an appropriate solution according to their investment appetite. To fulfill the above goal in an emerging market like India, it is the need of the hour to have a widely distributed and intelligent workforce of financial advisors, who can tap these avenues to fuel the growth of mutual fund industry.

This study is done to know the skills of investment advisors regarding mutual fund schemes. This will enable us to know whether the financial advisors' judgment and guidance to investors are based on their own preferences or it is as per the fundamental and technical analysis.

This study will also help us to gauge the importance of professional training and education to financial advisors.

### **3. Objectives :**

- Identification of combination of significant attributes that influence the investing behavior and decision making of investment professionals to invest.
  - To find out the attributes as well as the levels of these attributes as considered by the investment professionals.
  - To know the order of relative importance attached to the attributes with the preference order for each level.
  - To establish an ideal combination on the basis of preference order, which can be used to design mutual fund schemes.
  - To predict the preference for combinations that were not rated by the respondents.
- To understand the perception of mutual fund advisors regarding few selected funds in terms of identified attributes and to compare it with the real statistics to know whether the perception of mutual fund advisors is based on facts or personal preferences.
- Performance analysis of selected mutual funds and to judge the performance of the fund managers of the above selected schemes on their stock selectivity & market timing skills.

### **4. Literature Review:**

A number of research studies are available in the field of mutual funds in India as well as abroad. We are able to get an insight about the relevant studies by conducting a review of literature of these papers.

As mentioned above a plethora of international as well national studies are available in the areas related to the present research study. However, the most relevant and important studies have been reviewed in three different sections. In the first section, we have included the studies related to attribute considered for selection, the second one includes the work done on judging the perception of individuals and the last section deals with the research studies related to the performance evaluation of fund managers.

#### **4.1 Attribute Selection:**

The initial studies on past performance of mutual funds were contradictory to each other. Sharpe (1966) used the Sharpe ratio to measure fund performance. He ranked the funds over two periods 1944-1953 and 1954-1963, and found a positive relationship between these two ranking periods. Thus, past performance was able to predict the future performance.

On the contrary, Jensen (1968) measured the performance of 115 mutual funds in the 1945-1964 period using the Jensen alpha measure, and showed that they do not outperform over a period of time i.e. they did not show performance persistence.

Grinblatt & Titman (1992) found persistence in fund performances. They studied 279 funds for the period 1975-84 using 8 portfolio benchmarks with evaluation periods consisting of 5 years & found persistence for next five years. They found that funds which performed well in first half of the sample period continued to do so in the second half thereby suggesting that superior performance was predictable to a certain extent.

Ippolito (1992) says that fund/scheme selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds  
Goetzmann & Ibbotson (1994) analyzed 728 mutual funds in the US for the period between 1976-1988 and revealed that past mutual funds performances & relative rankings are useful in predicting their future performance. They evaluated style adjusted alphas on both absolute and relative basis and found that highest persistence was exhibited by funds whose alphas were greater than 10% & also by funds whose alphas ranked in the top 5% of the sample.

Grinblatt *et al.* (1995) remark that mutual funds have a tendency to buy stocks based on their past returns and that funds following momentum strategies obtain significant excess performance while contrarian funds do not present any alpha. This suggests that the positive results observed in previous studies may be a simple trading rule rather than better stock picking skills.

Ramasamy & Yeung (2003) focused on Malaysian mutual fund industry & the results pointed out 3 important factors which dominate the choice. These are past performance, size of funds and costs of transaction. In these past performance was considered as the most significant attribute.

Gozbasi Onur & Citak Levent(2010) used conjoint analysis to investigate the relative importance of the attributes considered by portfolio managers in selecting mutual funds in Turkey. The findings of the study indicated that the attributes that are considered the most important by them are expense ratio, past performance of the fund appears to be of moderate importance. Thus, they came with a conclusion that there are many factors that effect the selection of mutual funds.  
It has been observed in various studies that there is a strong negative relationship between expense ratios and fund returns.

Haslem, Baker & Smith (2008) examined 66 funds with very high & 27 funds with extremely high expense ratios. They examined the association of expense ratios to descriptive performance measures by morning star category. These measures are the Sharpe ratio, Jensen alpha, Morning star rating & five star annual results. Their results show that expense ratios have the expected general negative association with each of the performance measures.

Elton et-al (1993) suggest investors to select and invest in the funds with low expense ratio.

Chevalier & Ellison (1998) observed the relationship between the inflows in the fund & its performance. They have found the funds having a superior past records attract more investors but flows are less sensitive to past poor performance.

Ciccotello and Grant (1996) explored the relationship of equity fund size to performance. They examined 182 aggressive growth funds, 248 long term growth funds and 196 growth & income funds. Their annual returns & descriptive statistics are evaluated for the period from 1982-1992. The findings of the study suggest that once the equity funds grow large in size their performance goes down as compared to their peers.

Shukla and Singh (1994)<sup>13</sup> find that fund manager's professional education and experience may result in better fund performance. In developed countries, the data on mutual fund managers' is easily available to investors and investment advisors. In India lately, this information is made available to the investment advisors & thus, they consider such information in fund selection. Thus, on the basis of above studies attributes were selected for judging the investing behavior and perception of mutual fund advisors.

#### **4.2 Perception of advisors:**

Research papers on study of perception of individuals towards various objects were reviewed to have an insight on the topic.

A study on Perceptions of Advisors and Investors on Innovations in Indian Mutual Fund Industry by Metre and Parashar (2012) aims at studying the innovations in the Mutual Fund industry and perceptions of distributors on the same. The study concluded that there is a clear preference of the distributors for innovative products. But predominantly the preference is for service based innovations. The investors on the other hand prefer product based innovation.

Study by Padmaja R. (2013) explains about investors' awareness towards mutual funds, investor perceptions, their preferences and the extent of satisfaction towards mutual funds. Suggestions were also made to increase the awareness towards mutual funds and measures to select appropriate mutual funds to maximize the returns.

Maditinos, Theriou and Šević (2004) did the first survey study in Greece on users' perception and the practice of investment management in terms of stock market forecasting and stock selection. Their results indicate that individual investors rely more on newspapers/media and noise in the market, whereas the professionals rely more on fundamental and technical analyses and less on portfolio analysis.

The technique employed, to study the individual perception, was decided after going through the following literature: Research paper by Giguère (2006) aims at providing a quick and simple guide to using a multidimensional scaling procedure to analyze experimental data. First, the operations of data collection and preparation are described. Instructions for data analysis using the ALSCAL procedure found in SPSS, are detailed. Finally, useful commands, measures and graphs is provided.

An explanatory research article by Gebotys R.(2000) explains the importance and use of multidimensional scaling(MDS) in depicting the respondents' perceptions. MDS analyses the data in a way that illustrates the structure of the distance-like data as a geometrical picture.

A research study by Panda and Tripathy (2002) aims at providing the use of MDS in brand positioning of mutual funds. The study has attempted the survey of mutual fund working and the

perception of individual investors towards the mutual fund industry. It has also provided with the suggestions to change in the regulatory framework of the mutual fund industry to enhance the investors' confidence in future.

Another study by Ghosh and Chakraborty (2004) deals with the use of positioning models to understand the perceptual structure of markets and improve strategic planning. Its objective was to know the use of positioning models to understand, measure and manage brand uncertainty.

#### **4.3 Performance Evaluation:**

The earliest studies on performance of mutual funds showed different results. William F. Sharpe (1966) used the Sharpe ratio to measure the performance of mutual funds. He evaluated the performance over two time periods i.e. 1944-1953 and 1954-1963 and concluded that a positive relationship existed between these two periods.

On the contrary, Jensen (1968) measured the performance of mutual funds in a path-breaking study in which 115 mutual funds were evaluated in the period between 1945-1964. He derived a measure i.e. Jensen's alpha to evaluate them. It estimated the forecasting ability of the fund manager which contributes in the rate of return of the mutual fund. The conclusion of his study was quite different from the previous studies. He concluded that there was minimal evidence of any fund performing significantly better than expectations.

A number of studies show that market beta is sufficient to explain the expected return of the portfolio, but Fama & French (1992) proposed a three-factor model to include non-market risk factors i.e. size factor, SMB (the monthly return difference between the returns on small & big size portfolios) and a value factor, HML (the monthly return difference between the returns on the high and low book-to-market ratio portfolios) in addition to the market factor.

Carhart (1997) developed a four-factor model in which he included another factor known as a momentum factor constructed by the monthly return difference between the returns on the high and low prior return portfolios, to capture the cross-sectional return patterns.

Treynor and Mazuy (1966) examined 57 open-ended mutual funds for the period from 1953 to 1962 to investigate whether the fund managers can outguess the market. They came with a conclusion that the fund managers do not have the ability to outguess the market.

Henriksson and Merton (1981) developed a model quite similar to the one which was used by Treynor and Mazuy (1966) in which they developed a statistical framework to judge the market timing ability of fund managers with the help of parametric and non-parametric tests. Henriksson (1984) further evaluated 116 mutual funds from 1968 to 1980 and did not find any evidence of market timing ability of fund managers.

Kon S. (1983) proposed an empirical methodology for measuring the market timing performance of investment managers. The results of this study indicate that the fund managers have significant timing ability at the individual level but at the group level they do not have any extra information regarding the returns of the market portfolio.

Lee & Rahman (1990) by their study indicated that the fund managers have superior & significant micro and macro forecasting ability at the individual fund level.

Gupta and Sehgal (1998) studied 73 mutual fund schemes to evaluate the market timing abilities of fund managers and concluded that only 3 schemes out of 73 showed market timing abilities of fund managers.

Roy and Deb (2004) evaluated a sample of 89 funds by conditional performance evaluation method, a framework supported by Ferson and Schadt. The time period of the study was over the period of January 1999 to July 2003. The results indicate that the use of conditioning lagged information variables improves the performance of mutual fund schemes in the Indian context.

Chander (2006) evaluated the timing skills & stock selection abilities of 80 Indian mutual fund managers over a period of five years from January 1998 to December 2002 by using Fama (1992), TM (1966) and HM (1981) models. The conclusion of the research was that the Indian fund managers were not having the market timing ability although it revealed a significant stock selection abilities of fund managers as well as persistence of such skills.

Deb et al (2007) again examined the market timing skills, using traditional (TM, 1966; and HM, 1981) and conditional (Ferson & Schadt, 1996) models, of 96 Indian mutual fund managers. The study concluded the presence of stock selection abilities but lack of market timing abilities among the fund managers.

Sehgal & Jhanwar (2008) evaluated the performance of selected 59 equity based mutual funds during 2000-2004 in India. They suggested that multi-factor benchmarks provide better selectivity and timing measures compared to one factor CAPM. They showed the improved evidence of stock selectivity amongst Indian mutual fund managers by using daily returns i.e. high frequency data against monthly returns.

Shanmugham and Zabiulla (2011) studied the stock selectivity strategies of equity mutual fund managers in India using Jensen's measure. It concluded that conditional evaluation measurement techniques are relevant for assessing the selectivity performance of Indian fund managers.

## **5. DATA AND RESEARCH METHODOLOGY**

In this section, the research methodology used is explained, the attributes taken for analyzing the investing behavior of fund advisors, data used and its collection. Also the designing of questionnaire, sample and techniques employed for analyzing the data have been discussed in detail.

### **5.1 For Objective 1:**

#### **5.1.1 Attributes & Attribute levels:**

The attributes and attribute levels considered in the study for analyzing the investing behavior of fund advisors are selected after conducting an extensive opinion poll and discussing further with the investment professionals of the mutual fund industry. Initially, nine attributes were selected on the basis of literature review, which were further narrowed down to six attributes after consulting the experts in the industry. The levels were also selected after discussing the importance of various levels with the investment professionals. The attributes and attribute levels considered in the study are given in the table below.

The attributes and their levels represented in BLACK are the six attributes selected for the study and the remaining ones are those eliminated after consulting the experts.

ATTRIBUTES	ATTRIBUTE LEVELS	
PAST PERFORMANCE	Steady growth in last 5 years Impressive performance during last year Supernormal growth in last 3 years	
FUND MANAGER'S EXPERIENCE	0-3 years 4-7 years > 7 years	More than 4 years Less than 4 years
INVESTMENT STYLE OF FUND MANAGER	Cautious Moderate Aggressive	
FUND SIZE	Small Medium Large	More than Rs. 10000 cr. Less than Rs. 10000 cr.
EXPENSE RATIO	0-1 % >1-2 % > 2 %	
RATING	3 star 4 star 5 star	
PORTFOLIO TURNOVER	Frequent Moderate Rare	
FUND HOUSE REPUTATION	Bank Indian fund Foreign fund	
COMMISSION	Low Medium High	

### 5.1.2 Questionnaire Design

As seen in the table, three levels for three of the six attributes and two levels for other three attributes are identified to be used in fractional factorial design. Thus, considering all attribute levels, the possible number of profiles is  $3 \times 3 \times 3 \times 2 \times 2 \times 2 = 216$ . As respondents cannot possibly rate 216 mutual fund profiles, fractional factorial design was performed using SPSS 17.0, which gave the optimal number of profiles as twenty. The orthogonal design in conjoint analysis enables to measure the effect of changing each attribute level in the combination and separates it from the effects of changing other attribute levels. After generating the above combinations, the questionnaire designed & administered on investment professionals. (Appendix 1)

### 5.1.3 Sampling Method:

The present study has opted for both probabilistic and non- probabilistic sampling methods i.e. a combination of the two methods has been used which includes Judgment sampling and Random sampling. In judgment sampling, a sample of experts having knowledge in a particular field is used for the study. Hence, investment professionals having knowledge of mutual funds, are the

target population for this study. From this target population, the respondents are selected randomly by the researcher. Thus, this study is a combination of judgment and random sampling.

### **Primary Data Sampling :**

**Target Population:** All the investment advisors dealing with mutual funds working in Delhi-NCR constituted the target population of the study.

**Sampling Technique:** Judgment sampling followed by random sampling has been used for judging the behavior and perception of investment advisors.

**Area of Study:** Due to time and resources limitation, scope of the study has been limited to Delhi and National Capital Region.

**Sample Size:** Responses received from 45 such investment professionals and analyzed on SPSS.

#### **5.1.4 Data Collection:**

##### **Primary Data Collection:**

For judging the investing behavior of the investment advisors, they were asked to rank the given combination from 1-20, with rank 1 given to the most preferred combination and rank 20 given to the least preferred. To contact the investment advisors, we visited them personally and also sent the questionnaire through e-mail to few of them.

#### **5.1.5 Technique for Data Analysis:**

##### **Multivariate Data Analysis Technique:**

This study uses a multivariate data analysis technique known as **conjoint analysis** with a view to find out the attributes governing the investment decision making by the investment advisors and portfolio managers.

Conjoint analysis is a method of identifying consumer preferences for the features of a particular good or service that determines its demand. The method is usually used as a market research instrument to improve effective product design by determining the order of importance for the factors that consumers consider as significant when purchasing a product. Conjoint analysis helps not only to identify which attributes of a product are relatively significant or insignificant for consumers but also to determine which level of each attribute is the most or least preferred. Thus, respondents are asked to rate product or service profiles with combinations of different levels of all attributes.

#### **5.2 For Objective 2:**

##### **5.2.1 Attributes selection:**

From the first objective the attributes, which were considered important by the investment advisors, are selected for designing the questionnaire for the second objective. The investment style of fund manager was replaced by risk as the aggressive investment style was considered as the most preferred one by the

advisors in the study. Thus, the attributes selected were – expense ratio, ratings, past performance, fund size, fund manager’s experience and risk.

### **5.2.2 Selection of Top 15 mutual funds:**

The top 15 mutual funds were selected from the mutual fund research website [www.valueresearchonline.com](http://www.valueresearchonline.com) as it gives the comprehensive analysis of the performance of mutual funds in all the categories on an ongoing basis. In this study we have selected top rated equity mutual funds as on June 2013.

### **5.2.3 Questionnaire Design**

After attribute selection, the questionnaire was designed in which 15 top performing equity mutual fund schemes were placed in the rows on the left hand side and the attributes were put in the columns at the top. The respondents were asked to select an attribute level for each mutual fund scheme on the basis of their own perception. (Appendix 2)

### **5.2.4 Sampling Method:**

The present study has opted for both probabilistic and non- probabilistic sampling methods i.e. a combination of the two methods has been used which includes Judgment sampling and Random sampling. In judgment sampling, a sample of experts having knowledge in a particular field is used for the study. Hence, investment professionals having knowledge of mutual funds, are the target population for this study. Due to time and resources limitation, scope of the study is limited to the professionals present in Delhi-NCR. From this target population, the respondents are selected randomly by the researcher. Thus, this study is a combination of judgment and random sampling.

#### **Primary Data Sampling :**

**Target Population:** All the investment advisors dealing with mutual funds working in Delhi-NCR constituted the target population of the study.

**Sampling Technique:** Judgment sampling followed by random sampling has been used for judging the behavior and perception of investment advisors.

**Area of Study:** Due to time and resources limitation, scope of the study has been limited to Delhi and National Capital Region.

**Sample Size:** Responses received from 45 such investment professionals and analyzed on SPSS.

### **5.2.5 Data Collection:**

#### **Primary Data Collection:**

To know the perception of the mutual fund advisors, they were contacted through e-mails and personal visits. Responses were collected from the 45 respondents in which they were asked to rate each of the 15 mutual fund schemes on the 6 attributes selected for the study as given above. They were asked to select one level for each attribute based on their perception.

### **5.2.6 Technique for Data Analysis:**

The technique of **multidimensional scaling or perceptual mapping** is utilized in the present study to know the perception of investment advisors for the given mutual fund schemes on the selected attributes. As perceptual mapping can be useful in positioning new models of a product as well as repositioning old ones. It can be done by obtaining information from sample consumers, asking each of them to rank the set of available products on the given attributes according to his/her own preferences. Thus, this application will enable us to know the positioning of the mutual fund schemes in the minds of the investment advisors who can in turn strategically position them in the minds of the investors.

### **5.3 For Objective 3:**

#### **5.3.1 Selection of Top 15 mutual funds:**

A set of 15 top performing growth oriented equity mutual funds schemes, was identified from the website [www.valueresearchonline.com](http://www.valueresearchonline.com), which provides an online information of the top rated mutual funds of each category. In this study we have selected top rated equity mutual funds as on June 2013.

The rationale behind choosing the equity mutual funds, which are performing well in the market, is that we expect that the selectivity and timing skills of the fund managers should be most significant in these schemes.

#### **Time Period:**

The period chosen is between Jan 2008 to Mar 2014. This period is chosen because during this period Indian capital market has witnessed major upheavals as a result of occurrence of important events & turmoils at the domestic as well as international front. These were structural reforms and high volatility in the Indian mutual fund industry alongwith subprime crisis at the international level.

#### **5.3.2 Data Collection:**

##### **Secondary Data Collection**

The data set used for analyzing the performance of top performing equity mutual funds, is secondary in nature. The secondary data have been collected for a sample of fifteen top performing equity mutual fund schemes during the period Jan 2008 to Mar 2014. The data used in the study mainly comprise of the daily net asset values (NAV) from Jan 2008 to Mar 2014 of the schemes, which has been collected from the factsheets of mutual fund companies, brochures and the various websites, a number of research oriented websites like that of AMFI (<http://www.amfiindia.com>) has been used to download the NAV (net asset values) data as well as to select the top fifteen equity mutual fund schemes. The data related to benchmark indices like BSE Sensex and CNX Nifty has been collected from the websites of Bombay stock exchange (<http://www.bseindia.com>) and National stock exchange (<http://www.nseindia.com>) respectively. In this study 91 day treasury bill of GOI is used as a market proxy for risk-free rate.

The data for 91-day treasury bill has been obtained from the website of RBI (<http://www.rbi.org.in>)

### 5.3.3 Techniques for Data Analysis:

#### Performance of fund managers:

A brief description of the models used to test the selectivity & market timing skills of the mutual fund managers is given below:

**(a) Jensen's Model** – Jensen's model helps to evaluate the selectivity skills of fund managers i.e. their ability to identify undervalued or overvalued securities. The superior returns earned out of the ability of stock selection can be known from Jensen's alpha. Jensen's measure may be represented in the following equations:

$$R_{pt} - R_{ft} = \alpha_{pt} + \beta_{pt} (R_{mt} - R_{ft}) + \epsilon_{pt} \text{ ----- Equation 1}$$

Where  $R_{pt}$  = return of the fund 'p' for period 't'

$R_{ft}$  = risk-free return for period 't'

$R_{mt}$  = return on the benchmark (market) portfolio for period 't'

$\epsilon_{pt}$  = random error term

$\alpha_{pt}$ ,  $\beta_{pt}$  are the parameters of the model and are estimated by OLS techniques. A positive and significant value of  $\alpha_{pt}$  will indicate superior selectivity skills of the fund managers.

**(b) Treynor-Mazuy's Model** : Treynor and Mazuy (1966) added a quadratic term (squared term) to the excess - return version of the Jensen's single index model to detect the market timing skills of the portfolio managers. The model suggested by them can be represented in the following equation:

$$R_{pt} - R_{ft} = \alpha_{pt} + \beta_{pt} (R_{mt} - R_{ft}) + \gamma_{pt} (R_{mt} - R_{ft})^2 + \epsilon_{pt} \text{ ----- Equation 2}$$

Where  $\alpha_{pt}$ ,  $\beta_{pt}$ ,  $\gamma_{pt}$  are the parameters of the model.

The parameters can be calculated by using standard regression methodology. According to this model, if  $\gamma_{pt}$  has a statistically significant positive value, it indicates that the mutual fund manager possess market timing skills where as if it is negative valued, there is lack of market timing ability in fund managers. An insignificant value of  $\gamma_{pt}$  also indicates that the fund managers cannot time the market efficiently.

**(c) Henriksson- Merton's Model** : According to this model, the fund manager allocates the funds in risk-free assets and equities depending on its ability to forecast the excess market returns in future i.e. his market timing ability. Thus, he will select the assets with higher value of  $\beta$  when the market is expected to perform better i.e.  $R_m \geq R_f$  and similarly, will select those assets whose  $\beta$  value is low when the market is expected to go southwards i.e.  $R_m \leq R_f$ .

$$R_{pt} - R_{ft} = \alpha_{pt} + \beta_{pt} (R_{mt} - R_{ft}) + \gamma_{pt} [D (R_{mt} - R_{ft})] + \epsilon_{pt} \text{ ----- Equation 3}$$

- Where D is the dummy variable that is equal to ‘O’ for the period when  $R_{mt} \geq R_{ft}$  and -1 when  $R_{mt} \leq R_{ft}$ .
- $\alpha_p$ ,  $\beta_p$  &  $\gamma_p$  are the parameters of the above regression equation. The parameter  $\beta_p$  corresponds to the up-market (bullish) beta of the portfolio whereas  $(\beta_p - \gamma_p)$  indicates the bearish or down-market beta of the portfolio. Thus, it is clear that  $\gamma_p$  is the difference between the values of these two betas, indicating the market timing ability.

## 6. ANALYSIS AND INTERPRETATION

### 6.1 For objective 1:

Utility scores for each level of the attribute is the part worth utility function and it indicates the satisfaction level attained by the respondents (investment advisors) from the respective levels. Higher utility values indicate greater satisfaction and hence, greater preference for the attribute levels by the investment advisors.

#### Utilities

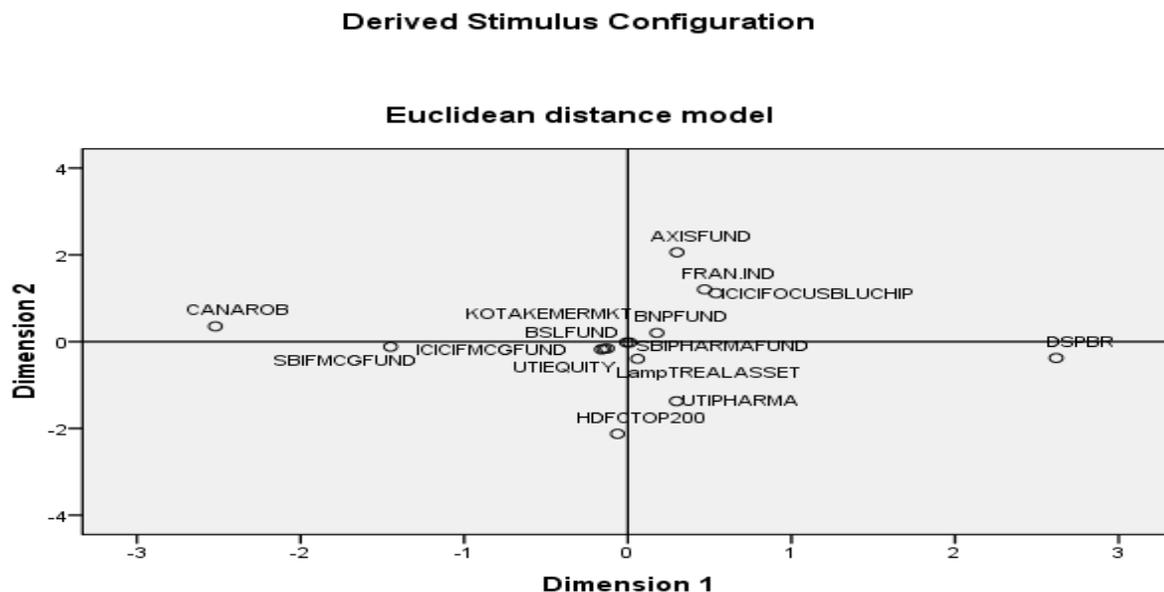
		Utility Estimate	Std. Error
perf	impressive growth in last year	.263	.481
	supernormal growth in last 3 years	.525	.962
style	cautious	.191	.290
	moderate	.382	.580
	aggressive	.573	.871
size	more than Rs. 10000 cr.	1.306	.481
	less than Rs. 10000 cr.	2.613	.962
experience	more than 4 years	-.325	.481
	less than 4 years	-.650	.962
ratio	0-1 %	-2.543	.290
	> 1-2 %	-5.086	.580
	> 2 %	-7.630	.871
rating	3 star	1.789	.290
	4 star	3.577	.580
	5 star	5.366	.871
(Constant)		7.621	1.547

The most important attribute that governs fund selection by the investment professionals is the expense ratio. As the utility score is highest for the lowest expense ratio i.e. 0-1%, it clearly proves that mutual funds with low expense ratios are preferred over those with higher expense ratios. The negative sign attached to the utility scores of expense ratio indicates the

dissatisfaction in the respondents by the presence of expense ratio in the scheme. The second most important attribute shown in the table is the ratings given by the rating agencies to the mutual funds on the basis of the various parameters. The highest utility scores (5.285) in this case, is for the level with highest rating (5 star). This shows that mutual funds with 5 star ratings are most preferred by the investment advisors and portfolio managers. After examining the utilities for all the attribute levels as a whole, it has been concluded that investment professionals prefer mutual funds with supernormal growth in last three years, aggressive style, less than Rs. 10,000 cr. of AUM, longest experience of fund manager, lowest expense ratio and highest rating by the rating agency.

## 6.2 For objective 2:

Data transformation was done by converting the response matrix of the 15 mutual fund schemes for each attribute into six separate square symmetry matrices. The analysis and interpretations of the data is done with respect to each attribute. The square symmetry matrices for each attribute is subjected to SPSS and analyzed by using multidimensional scaling technique. The graphs (visual depictions) obtained by using multidimensional scaling technique are showing the objects or points (mutual fund schemes) plotted in two-dimensional space. This is known as a perceptual map. The distances calculated by it shows how similar/dissimilar the objects are to each other. The graph given below is depicting the perception of financial advisors about the given mutual fund schemes with respect to expense ratio.



On these two dimensions we are able to view six clusters of mutual fund schemes. On the two extreme points of dimension1 we can see the positioning of the two mutual funds i.e. Canara Robecco and DSP Black rock whereas we can clearly view the clusters of various other mutual fund schemes at two other points. When these are compared to the real figures of expense ratios of the selected mutual fund schemes, it is observed that the expense ratios of Canara Robecco large cap regular fund (2.90%) and UTI Pharma funds (3.0%) are very high and close to each

other in reality as compared to the other schemes unlike the perceptual map which shows that Canara Robecco large cap fund is having an expense ratio quite different from that of UTI Pharma fund.

The analysis of the perception of financial advisors vis-à-vis the real statistics indicates that in most of the cases, it appears that their perception is based on personal preferences and preconceived notions rather than on technical and fundamental analysis of the various mutual fund schemes. It seems that they are not very objective and rational in their analysis as well as decision making process regarding the mutual fund schemes. They may be considering some other parameters while judging the schemes which might not be relevant and beneficial for the investors. Thus, to guide the investors in a professional way they should abide by the real figures rather than following their personal preferences and biases. However, the financial advisors are able to perceive the mutual fund schemes quite close to real figures on the basis of past performance and fund size. This shows that they are able to judge the schemes correctly to some extent on quantifiable attributes.

### **6.3 For objective 3:**

Performance of Indian managers of top fifteen growth oriented equity mutual fund schemes were analyzed in terms of their stock selectivity and market timing skills by applying three models namely Jensen Model TM model and the HM model. The empirical evidences indicate that most of the fund managers do not exhibit superior selectivity skill and market timing ability according to each of the three models adopted in this study.

EMPIRICAL	FINDINGS		OF		JENSEN'S		MODEL
TOP 15 MUTUAL FUNDS	$\alpha$	$t(\alpha)$	$p(\alpha)$	$\beta$	$t(\beta)$	$p(\beta)$	
SBI FMCG Fund	-0.00196	-4.15	0	0.646145	16.38458	0	
ICICI Pru. FMCG Fund	-0.00242	-10.9	0	0.483641	38.307	0	
Birla Sun Life Eq. Fund	-0.00763	-6.153	0	0.869256	86.71	0	
SBI Pharma Fund	-0.0024	-9.015	0	0.4988	33.678	0	
L&T Global Real Assets Fund	-0.00517	-9.485	0	0.0648	1.385	0.1668	
DSP BR Top100 Eq. Fund	-0.00114	-7.911	0	0.7692	93.412	0	
ICICI Pru.Focus Bluechip Eq Fund	-0.00087	-5.08065	0	0.780276	79.6653	0	
Franklin India Bluechip Fund	-0.0008	-6.3132	0	0.821008	113.9952	0	
UTI Pharma& Healthcare Fund	-0.00285	-13.3529	0	0.397644	32.82032	0	
Kotak Global Emerging Market Fund	-0.00268	-8.19153	0	0.509479	28.27249	0	
BNP Paribas equity Fund	-0.00132	-11.2231	0	0.755862	81.25805	0	
Axis Equity Fund	-0.00066	-8.64366	0	0.862915	139.535	0	
UTI Equity Fund	-0.00142	-10.9202	0	0.700421	94.70113	0	
Canara Robecco Large Cap Fund	-0.00136	-14.4668	0	0.751887	100.0195	0	
HDFC Top 200 Fund	-0.00089	-5.20589	0	0.808923	85.55886	0	

The stock selective skills of the mutual fund managers for the sample mutual fund schemes is calculated using equation (1) of the Jensen's model. The summary of stock selectivity is presented in the above given table. It is clearly seen from the results of this table that all the sample mutual fund schemes are characterized by negative alphas that are statistically significant at five percent level of significance. This indicated that the stock selection skills of fund managers of these schemes appear to be questionable. Thus, the results of selectivity based on Jensen's model reveal that the Indian mutual fund managers do not have superior selectivity skills during the period under consideration. Similar results are obtained using the other two models.

## 7. CONCLUSION & SUGGESTIONS:

After conducting the study for analyzing the investing behavior of the investment advisors, it was concluded that indicates that they consider expense ratio of the fund as the most valued attribute which is followed by the ratings given by the rating agency to a mutual fund scheme. Furthermore, the most appropriate combination as concluded by the above study can work as a model for the fund houses for designing their new fund schemes, which will be readily selected by the investment professionals.

The study conducted to know the perception of fund advisors shows that the future of the mutual fund industry depends to a great extent on the analysis and in-depth study of the financial advisors of various mutual fund schemes as it will make their perceptions close to reality as well as will increase the confidence of the investors in them. Moreover, it will also help the financial advisors to remove the biases from their analysis and make it more research oriented. This will also increase their professional efficiency and make the mutual funds as a favorable investment avenue for the investors.

The performance analysis of the fund managers concludes that even the fund managers of the top performing funds in India are not involved in efficient market timing and stock selection activities. They are more dependent on the market movements and do not provide any value addition to the portfolios of the mutual fund schemes, which they are supposed to manage.

The research findings of the present study suggest that the fund managers of Indian mutual fund industry should adopt proper investment research before selecting a particular security for investment and this would definitely help them out in enhancing their stock selection ability and thus, adding value to the portfolios managed by them.

#### **8. SCOPE FOR FURTHER RESEARCH:**

- Research can further be extended by incorporating more attributes which may be considered relevant in the Indian mutual fund industry.
- The study can be extended by examining not only open ended but also closed ended equity and dividend schemes. Thus, future research could be done by considering a larger sample over a longer time span.

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## Appendix – 1

COMBINATIONS								
Sno.	Card ID	Performance as comp. to peers	Investment style	Fund size	Fund manager experience	Expense ratio	Rating	Ranking
1	1	impressive growth in last year	aggressive	more than Rs. 10000 cr.	more than 4 years	0-1 %	3 star	
2	2	supernormal growth in last 3 years	aggressive	more than Rs. 10000 cr.	less than 4 years	0-1 %	5 star	
3	3	supernormal growth in last 3 years	cautious	less than Rs. 10000 cr.	less than 4 years	>2 %	3 star	
4	4	impressive growth in last year	cautious	less than Rs. 10000 cr.	less than 4 years	0-1 %	5 star	
5 <sup>a</sup>	5	supernormal growth in last 3 years	cautious	more than Rs. 10000 cr.	more than 4 years	0-1 %	5 star	
6	6	impressive growth in last year	aggressive	less than Rs. 10000 cr.	more than 4 years	>2 %	4 star	
7	7	supernormal growth in last 3 years	cautious	more than Rs. 10000 cr.	less than 4 years	0-1 %	4 star	
8 <sup>a</sup>	8	impressive growth in last year	aggressive	more than Rs. 10000 cr.	more than 4 years	>2 %	3 star	
9	9	supernormal growth in last 3 years	cautious	more than Rs. 10000 cr.	more than 4 years	> 1-2 %	4 star	
10	10	impressive growth in last year	cautious	more than Rs. 10000 cr.	more than 4 years	0-1 %	3 star	
11 <sup>a</sup>	11	supernormal growth in last 3 years	aggressive	more than Rs. 10000 cr.	more than 4 years	>2 %	3 star	
12	12	impressive growth in last year	cautious	less than Rs. 10000 cr.	more than 4 years	> 1-2 %	5 star	
13	13	impressive growth in last year	moderate	more than Rs. 10000 cr.	less than 4 years	> 1-2 %	3 star	
14	14	supernormal growth in last 3 years	moderate	less than Rs. 10000 cr.	more than 4 years	0-1 %	3 star	
15	15	impressive growth in last year	cautious	more than Rs. 10000 cr.	less than 4 years	>2 %	3 star	
16	16	impressive growth in last year	moderate	less than Rs. 10000 cr.	less than 4 years	0-1 %	4 star	
17	17	supernormal growth in last 3 years	moderate	more than Rs. 10000 cr.	more than 4 years	>2 %	5 star	
18	18	supernormal growth in last 3 years	aggressive	less than Rs. 10000 cr.	less than 4 years	> 1-2 %	3 star	
19 <sup>a</sup>	19	impressive growth in last year	moderate	less than Rs. 10000 cr.	more than 4 years	> 1-2 %	3 star	
20	20	supernormal growth in last 3 years	cautious	less than Rs. 10000 cr.	more than 4 years	0-1 %	3 star	

## Appendix- 2

<b>Select an attribute level for each mutual fund scheme</b>																
<b>ATTRIBUTE &amp; ATTRIBUTE LEVELS</b>																
Name Of mutual funds	Expense Ratio			Rating			Past Performance			Fund Size		Fund Manger Experience		Risk		
	Low	Medium	High	Low	Medium	High	Average	Good	Excellent	Small	Large	Low	High	Low	Medium	High
SBI FMCG Fund																
ICICI Pru. FMCG Fund																
Birla Sun Life Eq. Fund																
SBI Pharma Fund																
L&T Global Real Assets Fund																
DSP BR Top100 Eq. Fund																
ICICI Pru.Focus Bluechip Eq Fund																
Franklin India Bluechip Fund																
UTI Pharma& Healthcare Fund																
Kotak Global Emerging Market Fund																
BNP Paribas equity Fund																
Axis Equity Fund																
UTI Equity Fund																
Canara Robeco Large Cap Fund																
HDFC Top 200 Fund																