A STUDY ON FACTORS INFLUENCING BEHAVIOR OF INVESTORS TOWARDS MUTUAL FUNDS (With Special Reference to IT Company Employees in Bengaluru City)

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Abstract

A mutual fund is a fund managed by an asset management company with the financial objectives of generating growth. These asset management companies collect money from investors and invest in different stocks, bonds and other financial instruments in a diversified manner. Before investing they perform a thorough research and detailed analysis of market trends of stock and bond prices. The aim of savings and investment by any IT company employee is to maximize the return from their savings and investment with minimum risk. The study aims to make an analysis of the factors influencing behavior of IT company employees through the data collection from the sources of information on the various schemes of savings, their income level of savings. Random sampling method was adopted in the current study as there is no uniformity in the population distribution. The total number of sample respondents is restricted to 384 as per Krejice Morgan's table. The select IT company employees in Bengaluru had been taken for the study; the tools such as Reliability analysis, Factor analysis and Regression analysis have been used to analyze the data. Hence, it is concluded that the way forward for the next couple of years for the mutual fund industry would be influenced hugely by the journey undertaken till this point of time and the changing factors influencing behavior of investors towards mutual funds.

Keywords: *Investors, IT company employees, behavior, return and Factor analysis.*

Introduction

A mutual fund is a company, corporation, trust, partnership that combines the assets of all of its shareholders or partners into one common investment for the purpose of providing diversification and professional management. It is financial intermediaries, which pools savings of several individuals and invest money thus raised in equity shares, debentures, bonds, government securities and other such instruments. An investor can invest either directly in securities or can invest through Mutual funds. Mutual funds provide benefits of professional management, portfolio management, diversified investment opportunities, collective sharing of burden, collective sharing of profit earned and less transaction cost. These are some of the reasons why mutual funds have gained popularity over the years. Mutual funds represent the most appropriate investment opportunity for most investors. As financial markets become more sophisticated and complex, investors need a financial intermediary who provides the required knowledge and professional expertise on successful investing. Here mutual funds act as an intermediary.

Review of Literature

Brahmabhatt and P.S.Raghu Kumari (2012)[1] had analyzed to determine the investment behaviour of investors and investment preferences in Mumbai Fenil. 100 sample respondents were taken for the study and the data collected from the help of structured questionnaire. The tools used were correlation, regression

and cluster analysis. Hence, the study concluded that the awareness of investment knowledge, investment opportunities was high. Investors felt that they are having sound knowledge of financial market and economic condition of India yet they lack the edge above the others as this field is very unpredictable and vast.

K.Sellappan, et al, (2013)[2] had conducted a research to gain knowledge about key factors that influence investment behaviour and ways these factors impact investment risk tolerance and decision making process among women while selecting the securities to invest. Hence, the concluded that the married women are more curious in making investment than the unmarried, as well as the younger are mostly like to invest in shares, mutual funds, insurance and fixed deposits than the older women.

Sandeep Bansal (2014)[3] had studied the risk factors which involved in mutual funds and the investors' perception and awareness regarding mutual funds and investment tools. The sample size was 30 investors and selected through convenient sampling. The data were collected with the help of structured questionnaire. However, most of the investors are not aware about various investment plans but still they invest, said they don't have the time to spend over collection of information regarding particular investment tools. Hence, the study concluded that still people are not very technical they have no knowledge about various tools of information.

K.Parimalakanthi and M.Ashok Kumar (2015)[4] found that the behaviour of individual investors of Coimbatore city. For this study the primary data had been collected by making use of a structured questionnaire, by adopting convenient sampling, 107 customers had been selected. Friedman test, Garratt ranking and factor analysis were used for this study. Therefore, it concluded that most of the investors prefer Bank deposits savings A/c followed by gold and silver investments in the study area.

Ankit Joel and Rajendra K.Khatik (2017)[5] they studied the investors' awareness and preference towards mutual funds as an investment option. The study found that the investors are to save and beat inflation. Majority of them also want to save tax and increase their wealth. Balance funds and tax relief schemes are most preferred schemes among the respondents. Hence, it is suggested that companies and Government should come forward in getting investors more literate and train advisors in a way so to build more confidence among investors for taking initiative to invest in Mutual Funds.

Statement of the Problem

In the dynamic and competitive environment, marketing of financial services has become challenging. It is the responsibility of the persons involved in marketing of financial services to understand the factors influencing behavior of Information Technology sector employees in order to be successful in their affairs. Though a variety of investment options available, majority of them still depend on the banking to invest their income using the surplus liquidity on the banking system, banks have steadily reduced the interest payable on deposits. Hence it would be more useful to study the mutual funds for getting better returns on one's hard-earned savings from the organized system. So, the present study is such an attempt has been made by the researcher to know, how far Information Technology employees behavior towards mutual funds in India.

This research work intends to find answers for the following question

1. What are the factors influencing behavior of Information Technology sector employees towards mutual funds?

Objectives of the Study

- To identify the factors influencing behavior IT company employees towards mutual funds.
- To analyze the reasons for attitude and to develop a regression model for factors influencing behavior of IT company employees towards mutual funds.

Hypothesis of the Study

- There is no significant effect of Factors Influencing Behavior on Attitude.

Methodology of the Study

The present study is descriptive in nature.

Collection of data

The study is based on primary data. The primary data of this study were collected from the investors of IT Company employees in Bengaluru City with the help of well structured questionnaire. This study is developed to understand the factors influencing behavior of the respondents towards mutual funds.

Sampling method

Purposive sampling method was adopted to analyze the behavior of investors towards mutual funds in Bengaluru city. By applying Krejice Morgan's sample determination method, 384 respondents were selected.32 investors from 12 mutual fund companies make the total sample size of 384.

Data Analysis

The following statistical tools were used to analyze the data Reliability analysis, Factor analysis and Regression analysis.

Analysis and Interpretation

Factor Analysis

A Factor is basically a linear combination of variables. A predominant and important concept in factor analysis is the rotation of the factors. The concept of varimax rotation has been used to simplify the factor structure. Only the factors having Eigen values greater than unity have considered. An Eigen value is a column sum of the squares of a factor and represents the variance of a factor. Those factor loadings greater than 0.5 have been chosen and loaded on the extracted ones.

Table - 1 Reliability Analysis for variables of Factor Analysis

Cronbach's Alpha	N of Items
.774	15

Table - 2 List of Variables used for Factor Analysis

X1	Mutual Funds are useful for small investors
X2	Mutual Funds give higher return than other investments
X3	Mutual Funds are healthy for Indian financial environment
X4	ELSS schemes are good for tax saving - 80 C
X5	Mutual funds with large corpus perform better
X6	Mutual funds having diversified portfolio gives better returns
X7	Mutual Funds with low NAV is good for investment
X8	Investing for longer term is safe
X9	Mutual Fund investment is an asset for future
X10	Mutual fund investments are the substitutes for share investment
X11	New Fund will offer low price than existing fund
X12	Growth option is good for long term
X13	Dividend payout option is good in tax saving schemes
X14	Bearish market is good for Investment
X15	Bulky investment is not advisable in bullish market

Factor Analysis on Factors Influencing Behavior towards Mutual Funds

Table - 3 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.716
Bartlett's Test of Sphericity	Approx. Chi-Square	2890.297
	Df	105
	Sig.	.000

The above table reveals the two tests which indicate the suitability of the data for factor analysis. Two tests, namely Kaiser-Meyer-Olkin measures of sampling adequacy (KMO) & Bartlett's Test of

Sphericity have been applied to test whether the relationship among the variables has been significant or not. Bartlett's Test of Sphericity is used to test whether the data are statistically significant or not. With the value of test statistic and the associated significance level, it shows that there exists a high relationship among the variables (Not >0.05). The value of KMO measure of sampling adequacy is 0.716, which shows that the factor analysis may be considered an appropriate technique for analyzing the data. The value of chi-square = 2890.297, df = 105 is significant (p< 0.000) which further shows the appropriateness of data for factor analysis.

Table - 4 Communalities

	Initial	Extraction
X1	1.000	.798
X2	1.000	.815
X3	1.000	.787
X4	1.000	.554
X5	1.000	.713
X6	1.000	.675
X7	1.000	.885
X8	1.000	.841
X9	1.000	.666
X10	1.000	.647
X11	1.000	.770
X12	1.000	.755
X13	1.000	.543
X14	1.000	.761
X15	1.000	.642

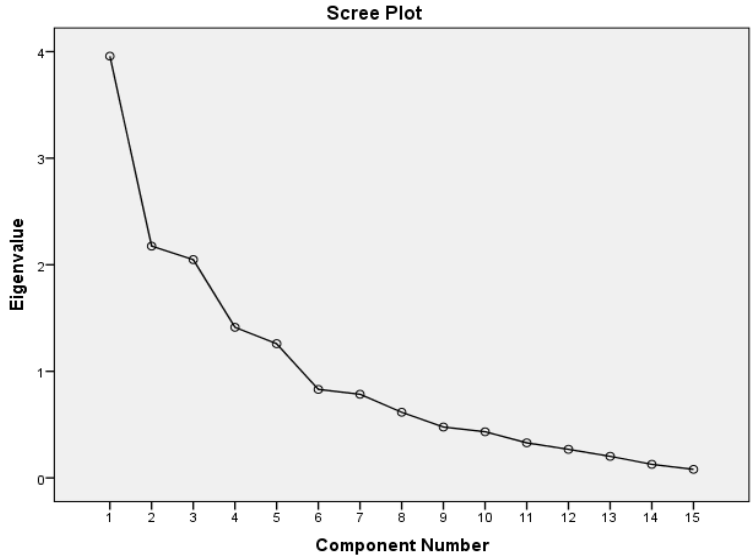
Extraction Method: Principal Component Analysis.

Table - 5 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.958	26.384	26.384	3.958	26.384	26.384
2	2.175	14.500	40.884	2.175	14.500	40.884
3	2.048	13.653	54.537	2.048	13.653	54.537
4	1.413	9.420	63.958	1.413	9.420	63.958
5	1.259	8.394	72.352			
6	.830	5.536	77.888			
7	.785	5.232	83.120			
8	.616	4.105	87.225			
9	.477	3.180	90.406			
10	.433	2.887	93.293			
11	.329	2.193	95.485			
12	.268	1.786	97.271			
13	.203	1.350	98.621			
14	.127	.848	99.469			
15	.080	.531	100.000			

Extraction Method: Principal Component Analysis.

The above table depicts the principal component analysis (PCA) method which provides the relationship between the extracted factors and the variables included in the analysis. It is technically termed as the factor loadings. The value of the factor loadings though indicates the relationships clearly but it is unable to group all the variables clearly identified with the factors. Fourth factor consists of higher variance i.e.63.958. Hence, researcher is unable to extract the orthogonal factors. By continuing with these extractions researcher is not able to fully eliminate the problem. So, the unrotated and rotated matrix is performed.



Scree Plot is a graphical criterion to determine the number of factors. It has been plotted in the figure. With the Scree Test (Cattell, 1966), the Eigen value associated with each factor and look for a break between the factors with relatively large Eigen values and those with smaller Eigen values. The factors that appear before the break are assumed to be meaningful and the retained for rotation; those appearing after the break are assumed to be unimportant and are not retained. In the figure, component numbers are listed on the horizontal axis while Eigen values are listed on the vertical axis. The figure clearly shows that after component 4, the plot shows a clear break, hence, corroborate our earlier result of the extraction of four factors.

Table - 6 Rotated Component Matrix[a]

	Component			
	1	2	3	4
X12	**.780**	-.257	-.269	
X11	**.728**		-.169	-.386
X5	**.695**	-.292	-.146	
X10	**.693**		.112	.381
X15	**.639**	.205	-.193	-.297
X7	**.550**			.383
X1		**.889**		
X6		**.601**	-.396	-.346
X2	-.441	**.579**	.486	.281
X9	.490		**.740**	.191
X8		.440	**.665**	-.406
X14	.417		**.683**	-.335
X4	.456	.455	-.305	**.785**
X3	.123	.556	-.439	**.641**
X13	-.533	.166	.221	**.712**

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Above table explains that the principal components analysis and rotated factor loading method is used to identify the factors. From the above table, it is observed that out of 15 variables, 4 factors namely Investments, Return, Future and Tax Savings, were identified by the rotation method.

Table - 7 Factors Influencing Behavior

Factors	Label	Statements	Loadings
INVESTMENT	X12	Growth option is good for long term	**.780**
	X11	New Fund will offer low price than existing fund	**.728**
	X5	Mutual funds with large corpus perform better	**.695**
	X10	Mutual fund investments are the substitutes for share investment	**.693**
	X15	Bulky investment is not advisable in bullish market	**.639**

	X7	Mutual Funds with low NAV is good for investment	**.550**
RETURN	X1	Mutual Funds are useful for small investors	**.889**
	X6	Mutual funds having diversified portfolio gives better returns	**.601**
	X2	Mutual Funds give higher return than other investments	**.579**
FUTURE	X9	Mutual Fund investment is an asset for future	**.740**
	X8	Investing for longer term is safe	**.665**
	X14	Bearish market is good for Investment	**.683**
TAX SAVINGS	X4	ELSS schemes are good for tax saving - 80 C	**.785**
	X3	Mutual Funds are healthy for Indian financial environment	**.641**
	X13	Dividend payout option is good in tax saving schemes	**.712**

The above table shows the cluster of statements in to factor 1. The statements 'Growth option is good for long term' with the loadings of .780, 'New Fund will offer low price than existing fund' with the loadings of .728, 'Mutual funds with large corpus perform better' with the loadings of .695, 'Mutual fund investments are the substitutes for share investment' with the loadings of .693, 'Bulky investment is not advisable in bullish market' with the loadings of .639 and 'Mutual Funds with low NAV is good for investment' with the loadings of .550 were grouped into first factor Investment and indicates the clustered statements of factor 2. 'Mutual Funds are useful for small investors' with the loadings of .889, 'Mutual funds having diversified portfolio gives better returns' with the loadings of .601 and 'Mutual Funds give higher return than other investments' with the loadings of .579 were grouped in to the second factor Return.

It reveals the clustered statements of factor 3. 'Mutual Fund investment is an asset for future' with the loadings of .740, 'Investing for longer term is safe' with the loadings of .665 and 'Bearish market is good for Investment' with the loadings of .683 were grouped in to the factor Future and also it presents the clustered statements of factor 4. 'ELSS schemes are good for tax saving - 80 C' with the loadings of .785, 'Mutual Funds are healthy for Indian financial environment' with the loadings of .641 and 'Dividend payout option is good in tax saving schemes' with the loadings of.712 were grouped in to the factor Tax Savings.

Regression Analysis

Regression is a statistical measure that attempts to determine the strength of the relationship between one dependent variable (usually denoted by Y) and a series of other changing variables (known as independent variables). Regression analysis is widely used for prediction and forecasting. Linear regression uses one independent variable to explain and / or predict the outcome of Y, while multiple regression uses two or more independent variables to predict the outcome. The objective of multiple regression analysis is to use the independent variables whose values are known and to predict the single dependent variable selected. The general form of each type of regression is:

Linear Regression: $Y = a + bX + u$
Multiple Regression: $Y = a + b1X1 + b2X2 + b3X3 + \ldots\ldots + btXt + u$

Where, 'a' is constant, 'b1'the beta coefficient, i.e., change in the dependent variable associated with X1 independent variable and 'u' is the prediction error (residual).

Regression Analysis on the Attitude and Factors Influencing Behavior

Table - 8

Model summary of Attitude and Factors Influencing Behavior

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.800[a]	.640	.636	.30889	2.537

a. Predictors: (Constant), Tax Savings, Future, Return, Investment
b. Dependent Variable: Attitude

The above table depicts model summary for impact of Factors Influencing Behavior on Attitude. When Attitude is a dependent variable, R = 0.800 which means that there is a very strong relationship. R-

square is 0.640 indicating that 64.0 per cent of performance variation is accounted for the combined linear impact of independent variables. Adjusted R square value is 0.636, implying that the model has accounted for 63.6 per cent of the variance in the criterion variable. The value of Durbin-Watson statistic is 2.537 representing that the model is suffering from auto-correlation.

H_0: There is no significant effect of Factors Influencing Behavior on Attitude.

Table - 9

ANOVA of Factors Influencing Behavior on Attitude

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	64.157	4	16.039	168.109	.000[b]
	Residual	36.160	379	.095		
	Total	100.318	383			

a. Dependent Variable: Attitude

b. Predictors: (Constant), Tax Savings, Future, Return, Investment

The above table explains the ANOVA for Attitude and Factors Influencing Behavior. The significant value for the above model is less than 0.000 which considers Attitude as dependent variable and four factors namely Investment, Return, Future and tax Savings as independent variables. Hence, the null Hypothesis is rejected. It is concluded that there is significant effect of Factors Influencing Behavior on Attitude.

Table - 10

Coefficients of Factors Influencing Behavior on Attitude

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.511	.016		159.313	.000
	Investment	.154	.016	.302	9.777	**.000**
	Return	.007	.016	.014	.460	.646
	Future	-.008	.016	-.016	-.515	.607
	Tax Savings	.379	.016	.740	24.008	**.000**

a. Dependent Variable: Attitude

The above table shows the coefficients for impact of Factors Influencing Behavior on Attitude. It implies that Investment and Tax Savings are significant at 5 per cent significance level. Beta value shows that Investment, Return and Tax Savings have positive relationship with Attitude. Tax Savings has positive impact on Attitude which means the tax savings cause impact in Attitude. Return has minimum relationship with Attitude which implies there is low response between the changes in the Mutual funds having diversified portfolio gives better returns and Mutual Funds give higher return than other investments.

Findings

i. The statement 'Growth option is good for long term' with the highest loadings of .780 in the factor "Investment".
ii. Mutual Funds are useful for small investors' with the highest loadings of .889 in the factor "Return".
iii. Mutual Fund investment is an asset for future' with the highest loadings of .740 in the factor "Future".
iv. ELSS schemes are good for tax saving - 80 C' with the loadings of .785 n the factor "Tax Savings".
v. Beta value shows that Investment, Return and Tax Savings have positive relationship with Attitude.
vi. Tax Savings has positive impact on Attitude which means the tax savings cause impact in Attitude.

Suggestions

- SEBI should encourage organizing investor associations, so that they can contribute more to the development of mutual fund industry. This helps in providing necessary assistance to the needy investors.
- To educate the investors, asset management companies and SEBI can organize seminars, training programmes, etc., to investors especially in the time of market fluctuation, economic recession, new

products introduced in the market etc. It reduces the confusion of investors and creates a confidence about the market.

- Government should give more tax concession to ELSS schemes and extent the tax benefits to other schemes also. This will attract the investors to invest more in mutual funds.

Conclusion

In today's volatile market environment, mutual funds are looked upon as a transparent and low cost investment vehicle, which attracts a fair share of investor attention helping spur the growth of the industry. AMCs therefore need to reorient their business towards fulfilling investors' needs. This requires creating a collaborative network of experts in funds management and financial advice, innovative product offerings, efficient service delivery and supporting technology. The mutual fund industry today needs to develop products to fulfill investors' needs and help investors' to understand about Mutual funds. Performance of the industry has been strong and it is well-placed to achieve sustainable growth levels. The way forward for the next couple of years for the mutual fund industry would be influenced hugely by the journey undertaken till this point of time and the changing factors influencing behavior of investors towards mutual funds.

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