
A study on investors' attitude towards mutual funds as an investment option

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Abstract

In this paper, structure of mutual fund, operations of mutual fund, comparison between investment in mutual fund and bank and calculation of NAV etc. have been considered. In this paper, the impacts of various demographic factors on investors' attitude towards mutual fund have been studied. For measuring various phenomena and analyzing the collected data effectively and efficiently for drawing sound conclusions, Chi-square (χ^2) test has been used

and for analyzing the various factors responsible for investment in mutual funds, ranking was done on the basis of weighted scores and scoring was also done on the basis of scale.

Key words: Hypothesis, Chi-square (χ^2) test, Rank, Weighted score and Scaling.

Author Profile

I did **Ph.D. (Statistics)** from Faculty of Science, **Banaras Hindu University** and **Diploma in Information Technology** from R.C.S.M. I had seven years of teaching experience. Seven of my papers were published in International and eleven were published in National Journal. I have attended number of international conferences. I have been nominated **Member Editorial Board** for the **Journal of Bioinformatics and Sequence Analysis (JBSA)**, **African Journal of Business Management (Impact factor 1.015)** and **International Journal on Business Management, Finance, Human Resource, Marketing and Economics (ISI Index Journal)**, **Asian Journal of Marketing (ISI index journal)**, **Research Journal of Business Management (ISI index journal)**, **Asian Journal of Mathematics and Statistics (ISI index journal)**, **Singapore Journal of Scientific Research (ISI index journal)** and **Journal of Economics & International Finance, ISSN:2006-9812 (ISI index journal)**. **Vice-Chancellor of Central University of Jharkhand, Ranchi** has been nominated me to act as an **expert member** in the selection committee meeting for the post of **Jr. System Executive**. I have been selected in the panel of experts in a round table discussion held on 10 February 10, 2010, entitled "**Denmark: Better, Faster, Stronger - Leading the Way in Translational Medicine**". I have been also selected in the panel of experts in a round table discussion held on 10 December 2008, entitled, "**State of the Nation: Science in Ireland**." My thrust areas are **Statistics, Quantitative Methods, Marketing Research, Research Methodology and Operation Management**. I am associated with **Amity Global Business School, Patna** as **Faculty Member**.

INTRODUCTION

A Mutual Fund pools the money of people with certain investment goals. The money invested in various securities depending on the objectives of the mutual fund scheme and the profits (or loss) are shared among investors' in proportion to their investment. Investments in securities are spread across a wide cross-section of industries and sectors. Diversification reduces the risk because all stocks may not move in the same direction in the same proportion at the same time. Mutual fund issues units to the investors' in accordance with quantum of money invested by them. Investors' of mutual funds are known as unit holders. The profits or losses are shared by the investors' in proportion to their investment. The mutual funds normally come out with a number of schemes with different investment objectives which are launched from time to time. A mutual fund is required to be registered with Securities and Exchange Board of India (SEBI) which regulates securities markets before it can collect funds from the public.

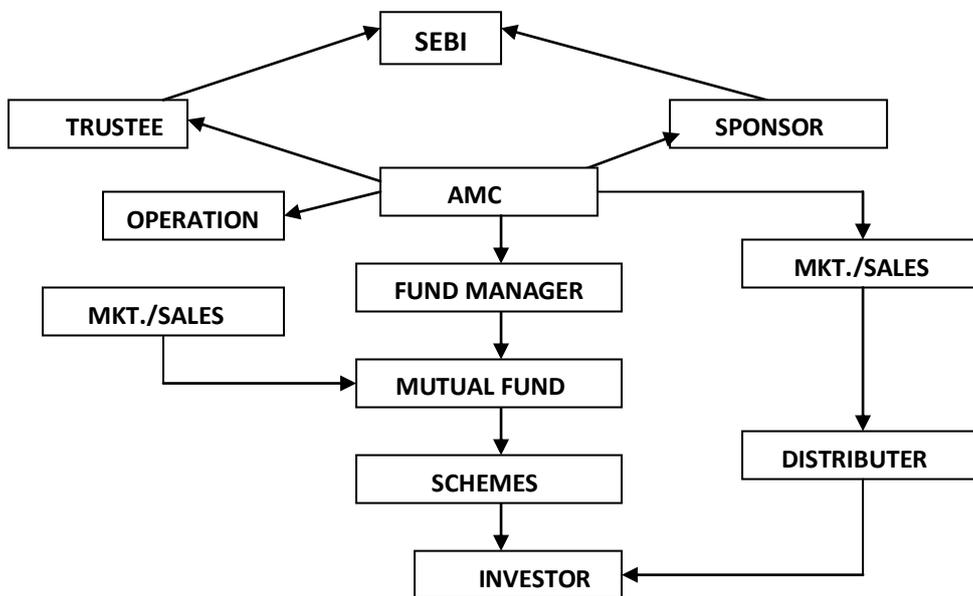
A Mutual fund is a trust that pools the savings of a number of investors' who share a common financial goal. The money collected from investors' is invested in capital market instrument such as shares, debentures and other securities. The income earned through these investments and the capital appreciations realized are shared by its unit's holder in proportion to the number of units owned by them. Thus a Mutual Fund is the most suitable investment to the common man as it offers an opportunity, to invest in a diversified, professionally managed basket of securities at relatively low cost.

Mutual funds can be invested in many different kinds of securities. The most common are cash, stock, and bonds, but there are hundreds of sub-categories. Stock funds invest primarily in the shares of a particular industry, such as technology or utilities. These are known as sector funds. Bond funds can vary according to risk (e.g., high-yield or junk bonds, investment-grade corporate bonds), type of issuers (e.g., government agencies, corporations, or municipalities), or maturity of the bonds (short- or long-term). Both stock and bond funds can invest in primarily U.S. securities (domestic funds), both U.S. and foreign securities (global funds), or primarily foreign securities (international funds). Most mutual funds' investment portfolios are continually adjusted under the supervision of a professional manager, who forecasts the future performance of investments appropriate for the fund and chooses those which he or she believes will most closely match the fund's stated investment objective. A mutual fund is administered through a parent management company, which may hire or fire fund managers. Mutual funds are liable to a special set of regulatory, accounting, and tax rules. Unlike most other types of business entities, they are not taxed on their income as long as they distribute substantially all of it to their shareholders. Also, the type of income they earn is often unchanged as it passes through to the shareholders. Mutual fund distributions of tax-free municipal bond income are also tax-free to the shareholder. Taxable distributions can be either ordinary income or capital gains, depending on how the fund earned those distributions.

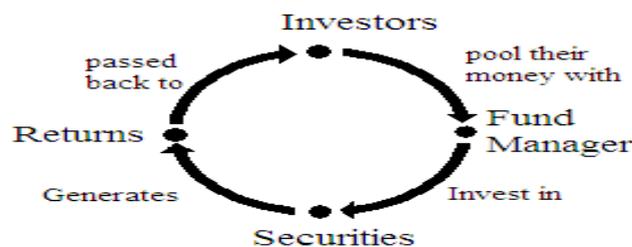
A mutual is a set up in the form of trust, which has sponsor, trustee, assets management company (AMC) and custodian. Sponsor is the person who acts alone or in combination with another body corporate and establishes a mutual fund. Sponsor must contribute at least 40% of the net worth of the investment managed and meet the eligibility criteria prescribed under the Securities and Exchange Board of India (Mutual Funds) regulations, 1996. The sponsor is not responsible or liable for any loss or shortfall resulting from the operation of the schemes beyond the initial contribution made by it towards setting up of Mutual Fund. The Mutual

Fund is constituted as a trust in accordance with the provisions of the Indian Trusts Act, 1882 by the Sponsor. Trustee is usually a company (corporate body) or a board of trustees (body of individuals). The main responsibility of the trustee is to safeguard the interest of the unit holders and also ensure that AMC functions in the interest of investors' and in accordance with the Securities and Exchange Board of India (Mutual Fund) Regulations 1996 the provisions of the Trust deed and the offer Document of the respective schemes. The AMC is appointed by the Trustees as the investment Manager of the Mutual Fund. The AMC is required to be approved by SEBI to act as an asset management company of the Mutual Fund. The AMC if so authorized by the Trust Deed appoints the Registrar and Transfer Agent to agent the mutual fund. The registrar processes the application form, redemption requests and dispatches account statements to the unit holders. The Registrar and Transfer agent also handles communications with investors' and updates investor records.

STRUCTURE OF MUTUAL FUND



MUTUAL FUND OPERATION FLOW CHART



COMPARISION BETWEEN INVESTMENT IN BANK AND MUTUAL FUND

| Factors | Bank | Mutual Fund |
|----------------------|--|-------------------|
| Returns | Low | Better |
| Administrative Exp. | High | Low |
| Risk | Low | Moderate |
| Investment Options | Less | More |
| Network | High penetration | Low but Improving |
| Liquidity | At a cost | Better |
| Quality of Assets | Not transparent | Transparent |
| Interest Calculation | Minimum balance between 10 th & 30 th of every month | Everyday |
| Guarantee | Maximum Rs. 1,00,000 on deposits | None |

NET ASSET VALUE

The net asset value, or NAV, is the current market value of a fund's holdings, usually expressed as a per-share amount. For most funds, the NAV is determined daily, after the close of trading on some specified financial exchange, but some funds update their NAV multiple times during the trading day. Open-end funds sell and redeem their shares at the NAV, and so process orders only after the NAV are determined. Closed-end funds (the shares of which are traded by investors') may trade at a higher or lower price than their NAV; this is known as a premium or discount, respectively. If a fund is divided into multiple classes of shares, each class will typically have its own NAV, reflecting differences in fees and expenses paid by the different classes. Some mutual funds own securities which are not regularly traded on any formal exchange. These may be shares in very small or bankrupt companies; they may be derivatives; or they may be private investments in unregistered financial instruments (such as stock in a non-public company). In the absence of a public market for these securities, it is the responsibility of the fund manager to form an estimate of their value when computing the NAV. How much of a fund's assets may be invested in such securities is stated in the fund's prospectus.

CALCULATION OF NAV

The most important of the calculation is the valuation of the assets owed by the funds. Once it is calculated, the NAV is simply the net value of assets divided by the number of units outstanding. The detailed methodology for the calculation of the asset value is given below.

Net Asset value = Sum of market value of shares/debentures + Liquid assets/cash held (if any) + Dividends/interest accrued - Amount due on unpaid assets - Expenses accrued but not paid

REVIEW OF LITERATURE

Singh and Jha (2009) conducted a study on awareness & acceptability of mutual funds and found that consumers basically prefer mutual fund due to return potential, liquidity and safety and they were not totally aware about the systematic investment plan. The invertors' will also consider various factors before investing in mutual fund.

Desigan et al (2006) conducted a study on women investors' perception towards investment and found that women investors' basically are indecisive in investing in mutual funds due to various reasons like lack of knowledge about the investment protection and their various investment procedures, market fluctuations, various risks associated with investment, assessment of investment and redressal of grievances regarding their various investment related problems. Savings is a habit specially embodied into women. Even in the past, when women mainly depended on their spouses' income, they used to save to meet emergencies as well as for future activities. In those days, women did not have any awareness about various investment outlets. But as time passed, the scenario has totally changed.

Ramamurthy and Reddy (2005) conducted a study to analyze recent trends in the mutual fund industry and draw a conclusion that the main benefits for small investors' due to efficient management, diversification of investment, easy administration, nice return potential, liquidity, transparency, flexibility, affordability, wide range of choices and a proper regulation governed by SEBI. The study also analyzed about recent trends in mutual fund industry like various exit and entry policies of mutual fund companies, various schemes related to real estate, commodity, bullion and precious metals, entering of banking sector in mutual fund, buying and selling of mutual funds through online.

Anand and Murugaiah (2004) had studied various strategic issues related to the marketing of financial services. They found that recently this type of industry requires new strategies to survive and for operation. For surviving they have to adopt new marketing strategies and tactics that enable them to capture maximum opportunities with the lowest risks in order to enable them to survive and meet the competition from various market players globally.

OBJECTIVES

1. To study and analyze the impact of various demographic factors on investors' attitude towards mutual fund.
2. To study about the factors (on the basis of rank) responsible for the selection of mutual funds as an investment option.

RESEARCH METHODOLOGY

The study is basically an analytical study based on primary research as well as also related to the analysis of the attitude of investors' towards mutual funds. In order to conduct this study, 250 investors' in Ranchi region have been selected by sampling method and mainly questionnaire has been used for collecting the data.

All the data required for this analytical study has been obtained mainly from primary sources, but at times, secondary sources of data have also been considered.

The data collection method used to obtain the desired information from primary sources has been through direct interview and questionnaire has been used as an instrument.

Basically, targeted populations belong to the Ranchi region and considering an individual investor as a sampling unit. Judgment sampling has been used for collecting the sample.

For measuring various phenomena and analyzing the collected data effectively and efficiently to draw sound conclusions, a number of statistical techniques basically Chi-square test for testing of hypothesis has been used and for analyzing the various factors responsible for

investment in mutual funds, ranking was done on the basis of weighted scores and scoring was done on the basis of scale. Chi- Square test of goodness of fit has been used. It is a powerful test for testing the significance of the discrepancy between theory and experiment as given by Karl Pearson. It enables us to find if the deviation of the experiment from theory is just by chance or it is really due to the inadequacy of the theory to fit the observed data. If O_i , ($i=1, 2, \dots, n$) is a set of observed(experimental) frequencies and E_i ($i=1, 2, \dots, n$) is the corresponding set of expected(theoretical or hypothetical) frequencies, then Karl Pearson's Chi-Square is given by

$$\chi^2_{(n-1)} = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i} \quad \text{where } \sum_{i=1}^n E_i = \sum_{i=1}^n O_i \text{ follow Chi-Square distribution with } (n-1) \text{ d. f.}$$

This is an approximate test for large values of n .

TESTING OF HYPOTHESIS

The following hypotheses have been taken for the study of investors' attitude towards mutual funds.

- There is no association between age and the attitude towards mutual funds.
- There is no association between sex and the attitude towards mutual funds.
- There is no association between income and the attitude towards mutual funds.
- There is no association between educational qualification and the attitude towards mutual funds.
- There is no association between occupation and the attitude towards mutual funds.

FINDINGS

The Study was aimed at identifying the level of attitude towards the mutual funds. The study shows that out of 250 respondents 71 respondents have a positive attitude, 117 respondents have a neutral attitude and 62 respondents have a negative attitude towards the mutual funds.

The **table-I** explains the association between age and attitude towards the mutual funds. The calculated value of chi-square is less than tabulated value of chi-square at 5% level of significance. Hence it is not significant and the null hypothesis is accepted at 5% level of significance. Hence there is no association between age and the attitude towards mutual funds. About 35 respondents having age group (25-35), 28 respondents having age group (35-45) and 8 respondents have age above 45 have a positive attitude towards the mutual funds. There is a highest positive attitude towards the mutual funds in the age group (25-35) against the others.

The **table-II** explains the association between gender and attitude towards the mutual funds. The calculated value of chi-square is greater than tabulated value of chi-square at 5% level of significance. Hence it is highly significant and the null hypothesis is rejected at 5% level of significance. Hence there is association between gender and the attitude towards mutual funds. About 61 male respondents and 10 female respondents have a positive attitude towards the mutual funds. There is a highest positive attitude towards the mutual funds in male against the female.

The **table-III** explains the association between income and attitude towards the mutual funds. The calculated value of chi-square is greater than tabulated value of chi-square at 5% level of significance. Hence it is highly significant and the null hypothesis is rejected at 5% level of significance. Hence there is association between income and the attitude towards mutual funds. About 12 respondents have monthly income upto 15,000, 36 respondents having monthly income between 15,000-25,000 and 23 respondents having monthly income above 25,000 have a positive attitude towards the mutual funds. There is a highest positive attitude towards the mutual funds having monthly income above 25,000 against the others.

The **table-IV** explains the association between level of education and attitude towards the mutual funds. The calculated value of chi-square is greater than tabulated value of chi-square at 5% level of significance. Hence it is highly significant and the null hypothesis is rejected at 5% level of significance. Hence there is association between level of education and the attitude towards mutual funds. About 6 respondents having qualification upto matric,12 respondents having qualification upto intermediate,33 respondents having qualification upto graduate and 20 respondents having qualification upto post-graduate have a positive attitude towards the mutual funds. There is a highest positive attitude towards the mutual funds among the graduate respondents against the others.

The **table-V** explains the association between occupation and attitude towards the mutual funds. The calculated value of chi-square is less than tabulated value of chi-square at 5% level of significance. Hence it is not significant and the null hypothesis is accepted at 5% level of significance. Hence there is no association between occupation and the attitude towards mutual funds. There is a highest positive attitude towards the mutual funds among the respondents whose occupation is service against the others. About 36 respondents whose occupation is service, 13 respondents whose occupation is business and 14 respondents whose occupation is professional were positive attitude towards the mutual funds.

During the study, it was found that the investors' basically invested in mutual funds due to high return potential, transparency, liquidity, flexibility and affordability (see table –VI). Respondents were asked to rank these factors according to the preference and assigned ranked from 1 to 5(see table-VII).For analyzing the various factors responsible for investment in mutual funds, ranking is done on the basis of weighted scores and scoring is done as given below:-

| Rank | Weight assigned |
|------|-----------------|
| 1 | 5 |
| 2 | 4 |
| 3 | 3 |
| 4 | 2 |
| 5 | 1 |

In case of the factors responsible for investing in mutual funds is concerned return potential has got first rank, liquidity has got second rank, flexibility, transparency and affordability have been ranked third, fourth and fifth respectively.

CONCLUSION

The study shows that most of respondents are still confused about the mutual funds and have not formed any attitude towards the mutual fund for investment purpose. It has been observed that most of the respondents having lack of awareness about the various function of mutual funds. Moreover, as far as the demographic factors are concerned, gender, income and level of education have significantly influence the investors' ' attitude towards mutual funds. On the other hand the other two demographic factors like age and occupation have not been found influencing the attitude of investors' ' towards mutual funds. As far as the benefits provided by mutual funds are concerned, return potential and liquidity have been perceived to be most attractive by the invertors' followed by flexibility, transparency and affordability. Apart form the above, in India there is a lot of scope for the growth of mutual fund

companies provided that the funds satisfy everybody's needs and sharp improvements in service standards and disclosure.

REFERENCES

- Anand, S. and Murugaiah, V. (2004), **Marketing of financial services: strategic issues**, SCMS Journal of Indian Management.
- Avadhani, V. A. (2003), **Investment management**, Saujanya Books Ltd, New Delhi.
- Desigan et al (2006), **Women Investors' Perception Towards Investment: An empirical Study**, Indian Journal of Marketing.
- Pandian, P. (2003), **Security Analysis & Portfolio Management**, Vikas Publication Pvt. Ltd.
- Ramamurthy, B. M. and Reddy, S. (2005), **Recent Trends in Mutual Fund Industry**, SCMS Journal of Indian Management.
- Singh, B. K. and Jha, A.K. (2009), "An empirical study on awareness & acceptability of mutual fund", 49-55, Regional Student's Conference, ICWAI.

APPENDIX: TABLES

Table I. Association between age and attitude towards the mutual fund

| Age | Attitude Level | | | Total |
|----------|----------------|---------|----------|-------|
| | Positive | Neutral | Negative | |
| 25-35 | 35 | 62 | 22 | 119 |
| 35-45 | 28 | 42 | 28 | 98 |
| Above 45 | 08 | 13 | 12 | 33 |
| Total | 71 | 117 | 62 | 250 |

The calculated value of $\chi_4^2 = 5.924$ and tabulated value of $\chi_4^2 = 9.488$ at 5% level of significance

Table II. Association between gender and attitude towards the mutual fund

| Gender | Attitude Level | | | Total |
|--------|----------------|---------|----------|-------|
| | Positive | Neutral | Negative | |
| Male | 61 | 69 | 46 | 176 |
| Female | 10 | 48 | 16 | 74 |
| Total | 71 | 117 | 62 | 250 |

The calculated value of $\chi_2^2 = 15.959$ and tabulated value of $\chi_2^2 = 5.991$ at 5% level of significance

Table III. Association between income and attitude towards the mutual fund

| Income (Monthly) | Attitude Level | | | Total |
|---------------------|----------------|---------|----------|-------|
| | Positive | Neutral | Negative | |
| upto15,000 | 12 | 31 | 15 | 58 |
| 15000-25000 | 36 | 79 | 29 | 144 |
| Above 25,000 | 23 | 07 | 18 | 48 |
| Total | 71 | 117 | 62 | 250 |

The calculated value of $\chi_4^2 = 25.839$ and tabulated value of $\chi_4^2 = 9.488$ at 5% level of significance

Table IV. Association between level of education and attitude towards the mutual fund

| Education | Attitude Level | | | Total |
|-----------|----------------|---------|----------|-------|
| | Positive | Neutral | Negative | |
| Matric | 06 | 20 | 11 | 37 |
| Inter(12) | 12 | 20 | 26 | 58 |
| Graduate | 33 | 42 | 20 | 95 |
| P.G. | 20 | 35 | 05 | 60 |
| Total | 71 | 117 | 62 | 250 |

The calculated value of $\chi_6^2 = 25.963$ and tabulated value of $\chi_6^2 = 12.592$ at 5% level of significance

Table V. Association between occupation and attitude towards the mutual fund

| Occupation | Attitude Level | | | Total |
|---------------|----------------|---------|----------|-------|
| | Positive | Neutral | Negative | |
| Service | 36 | 39 | 20 | 95 |
| Business | 13 | 23 | 15 | 51 |
| Professionals | 14 | 22 | 12 | 48 |
| Others | 8 | 33 | 15 | 56 |
| Total | 71 | 117 | 62 | 250 |

The calculated value of $\chi_6^2 = 10.638$ and tabulated value of $\chi_6^2 = 12.592$ at 5% level of significance

Table VI. Various factors responsible for investment in mutual funds

| Rank factors | No. of respondents | | | | | Total |
|------------------|--------------------|-----|-----|-----|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | |
| Return potential | 146 | 59 | 17 | 22 | 6 | 250 |
| Transparency | 26 | 36 | 35 | 71 | 82 | 250 |
| Liquidity | 41 | 52 | 68 | 42 | 47 | 250 |
| Flexibility | 20 | 71 | 78 | 46 | 35 | 250 |
| Affordability | 17 | 32 | 52 | 69 | 80 | 250 |
| Total | 250 | 250 | 250 | 250 | 250 | - |

Table VII. Ranking of various factors

| Factors | Weighted score | Percentage | Rank |
|------------------|----------------|------------|------|
| Return potential | 1065 | 28.41 | 1 |
| Transparency | 603 | 16.09 | 4 |
| Liquidity | 748 | 19.96 | 2 |
| Flexibility | 745 | 19.87 | 3 |
| Affordability | 587 | 15.67 | 5 |
| Total | 3748 | 100 | - |