ABSTRACT

PERFORMANCE OF MUTUAL FUNDS IN INDIA:
A STUDY ON SELECT MUTUAL FUNDS

Abstract of the Thesis Submitted to Assam University in Partial Fulfillment of the
Requirement for the Degree of Doctor of Philosophy in Commerce

By
RAJAT SHARMACHARJEE
PhD Registration No: PhD/1036/10 dated 29/10/09

DEPARTMENT OF COMMERCE
MAHATMA GANDHI SCHOOL OF ECONOMICS & COMMERCE
ASSAM UNIVERSITY
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INTRODUCTION

Investment implies pooling of funds in real assets or financial assets but it involves risk as well as return. The idea behind investing fund is to earn more return and minimize risk of investment (Donald & Ronald, 1994). In the present competitive financial environment searching the suitable investment avenues are of great relevance as there are a wide variety of investment avenues. An investor having sufficient skills of investment may choose the right and profitable avenue of investment. In fact, the investment activity may be successful and profitable if the investors possess knowledge and ability to invest the right amount, in the right avenue of investment and at the right time.

Investor may invest in real assets or financial assets. But as compared to financial assets, real asset are less liquid and returns on real assets are more difficult to measure accurately due to lack of ready and active market. On the other hand, there are many options before the investor to invest their money in a wide variety of financial assets. Of course, all financial assets are risky, but the degree of risk and return differs from each other. It is the skill, experience and ability of the investor to choose the right type of investment.

The Indian financial system comprises of financial institutions, financial services, financial instruments and financial markets. All the four elements are closely related and work complementary to each other. They are playing a significant role for the mobilization and allocation of funds. (Bhatia & Batra, 2008) The Indian financial system aims at developing an active capital market. There has been remarkable growth of Indian capital market since the first generation reform started in 1991 with the concept of LPG (Liberalization, Privatization and Globalization). The second generation reform started in 1997 with the package of financial sector reforms, fiscal policy reforms, industrial policy reforms, public sector policy reforms, foreign investment policy reforms etc. have accelerated the pace of development of the Indian financial sector as well as of the capital market. Accordingly, new financial institutions and instruments were developed with the objective of modernizing the financial sector. ‘Mutual Funds, Discount and Finance House of India, Money Market Mutual Funds, Certificate of Deposit, Commercial Paper, Factoring, Venture Capital, Treasury Bills etc. are serving the needs of individuals, institutions and companies’(Narasimham, 1992)
A country’s financial services sector has a great role to play in the process of its economic development. A financial service signifies the various types of services and functions provided by different financial institutions. Leasing Companies, Mutual Funds, Merchant Bankers, Issue Managers, Portfolio Managers, Discount and Acceptance Houses etc. are the well known financial service providers in different countries. During recent years, the Indian financial sector has undergone revolutionary changes and has become broad based with size and resources so as to meet diverse needs of the economy. In fact, the spread of the banking system is noteworthy in promoting financial intermediation in the economy as well as the notable growth of financial savings. However, due to lack of professional expertise and knowledge about capital market and also pros and cons of investment, the small investors hesitate to invest their hard earned money in corporate securities. This type of common investors may rely on mutual funds as such funds are managed by professional experts who are able to minimize the risk of investment and help earning a steady return.

**STATEMENT OF THE PROBLEM**

The mutual fund industry is a fast growing sector of the Indian capital market Mutual funds entered the Indian Capital market in 1964 with a view to provide the retail investors the benefit of diversification of risk, assured returns, professional management etc. (Singh & Singh, 2001) Since then they have grown phenomenally in terms of number, size of operations, investor’s base and scope. Also the liberalization, privatization and globalization (LPG) measures have stimulated its growth in India.

Mutual fund industry in India had its origin with the establishment of Unit Trust of India (UTI) in 1964. Public Sector Banks and Financial Institutions began to establish mutual funds in 1987. The Private Sector and Foreign Institutions were allowed to set up mutual funds in 1993. ‘The Indian mutual fund industry has grown tremendously in the last decade and it is a very important and dynamic sector in India’s capital market’ (Singh, 2000). The industry has become one of the fastest growing sectors in the countries capital and financial markets. They offer some unique benefits to investors. They offer instantaneous liquidity, they offer professional management, they offer a diversified portfolio. They also provide tax benefits to investors. The popularity of funds has soared so have their diversity and complexity.
Moreover, in the era of globalization, competition has emerged and so the various mutual funds are expected to perform better not only in terms of better return but also better services. ‘In recent years, mutual funds are considered as ideal investment vehicle particularly for small investors who are lacking professional expertise and knowledge about investing today’s complex capital market’ (Bansal, 1996). Mutual funds are expected to serve those investors who have the willingness to invest but lack the skill, expertise and ability to diversify the investment risks. In fact the Indian Mutual Fund Industry has gained momentum in 1993 when the industry is opened for private sector. Also the SEBI (Mutual Funds) Regulations 1996, provides a boost to the development of mutual funds in India.

Thus in the context of the increasing significance of mutual funds in Indian economy, it becomes imperative to assess and analyze the performance of mutual funds and various schemes offered by mutual funds.

**OBJECTIVES OF THE STUDY**

- To analyze the growth of mutual fund industry in India.
- To study the accounting and disclosure practices of mutual funds in India.
- To evaluate the financial performance of selected mutual funds in India.

**RESEARCH QUESTIONS:**

The study seeks to find answers of the following questions:

- Is there any significant growth found in Indian mutual fund industry during the period of study?
- Is the Indian mutual fund industry making a consistent growth?
- Is there any particular accounting practice existing for mutual funds?
- Are mutual funds disclosing their Net Asset Values (NAVs) regularly?
- How is the performance of open ended mutual fund schemes in India?
- Are mutual funds able to out-perform the market in terms of risk-adjusted performance?
METHODOLOGY OF THE STUDY

Sources of data

The study is based on secondary data. Necessary data have been collected from books, investment periodicals such as capital market bulletin, RBI bulletin, newspapers like Economic Times, Financial Express and other financial magazines. Data have also been collected from various websites such as websites of SEBI, AMFI, RBI, ICRA online, SMC online and respective websites of the selected mutual funds. For the purpose of performance evaluation of sample schemes, Net Asset Value (NAV) data during April 2001 to March 2011 were collected from websites of AMFI, ICRA online and SMC trade online.

Period of Study

The performance evaluation of selected mutual funds covers a period of 10 years i.e. the study covers the period from April 2001 to March 2011.

Sampling frame

The study attempts to analyze the performance of five (5) selected mutual funds. Also thirty (30) schemes have been chosen for performance evaluation purpose taking six (6) schemes each from those five selected mutual funds.

The sample of five (5) mutual funds has been taken from a population of 28 mutual funds through systematic random sampling. For this purpose the study considers only SEBI registered mutual funds in India and those mutual funds are selected which were registered before 2001. The reason for this is that 10 years data might be collected and analyzed for performance evaluation. There was 47 SEBI registered mutual funds as on March 31, 2011. Out of these 47 mutual funds, 28 mutual funds were registered before 2001. Out of these 28 mutual funds 5 mutual funds have been selected. Thus the sample consists of about 18% of the mutual funds. For this purpose all the 28 mutual funds were arranged alphabetically putting serial number 1 to 28 and then taking the 5th number at random, the next 5th numbers were selected. Thus the sample includes the following mutual funds:

- DSP Black Rock Mutual Fund
- ICICI Prudential Mutual Fund
- Kotak Mahindra Mutual Fund
The schemes of these five selected mutual funds have been chosen on the basis of their existence during the period April 2001 to March 2011. For this purpose only open ended schemes were considered because of their wide acceptability. The schemes have been selected on the basis of their existence during the study period and commonality of feature (i.e. growth, income, balanced). However, Reliance Mutual Fund had no balanced schemes and Kotak Mahindra Mutual Fund had only one option in balanced scheme. Therefore two liquid schemes have also been considered, assuming that the liquid schemes covered a period of more than one year maturity. Schemes providing weekly dividend, quarterly dividend, monthly dividend and half-yearly dividend were ignored. Thus, out of 59 schemes covering the entire study period, 30 schemes (50.85%) were considered for the purpose of study. So the selected schemes included the income, growth, balanced and liquid schemes which were open ended and were existing on 1st April 2001 and continuing during the study period.

**TOOLS USED FOR PERFORMANCE ANALYSIS**

The performance evaluation of selected mutual fund schemes has been done by analyzing the important parameters like risk, return, asset under management (AUM), resource mobilized and transactions done by mutual fund in the stock market.

1. **Return**: Monthly adjusted Net Asset Value (NAV) data are used in order to calculate return of the schemes. The formula used for this purpose is as follows:

\[ R_p = \frac{NAV_t - NAV_{t-1}}{NAV_{t-1}} \]

\[ R_p = \text{Portfolio Return} \]

\[ NAV_t = \text{Net Asset Value at the end of the period} \]

\[ NAV_{t-1} = \text{Net Asset Value at the beginning} \]

2. **Market Return**: It is the difference between the market indices of the two consecutive periods divided by market index for the beginning period. In this study BSE 100 index has
been used as benchmark as it is a board based index consisting of 100 shares representing more than 70% of the total market capitalization. Though several indexes are available at present, but BSE 100 has data availability from 1983-84 onwards and hence it represents market portfolio. For two FMCG schemes, separate index is not used as the study does not relate to sector mutual funds. Also, specific index for the schemes was not existing covering the study period. Hence, common index was used. Market return is calculated as follows:

\[ R_m = \frac{M.Ind_t - M.Ind_{t-1}}{M.Ind_{t-1}} \]

\[ R_m = Market\ Return \]

\[ M. Ind_t = Market\ index\ at\ the\ end \]

\[ M. Ind_{t-1} = Market\ index\ at\ the\ beginning \]

3) **Risk Free Return (Rf):** It is the rate of return generated on risk-free instruments like bank deposits, government bonds and treasury bills. Bank fixed deposit rate has been taken as the risk free rate of return. Hence the risk free rate is taken as 9 % p.a. as the public sector banks in India was providing it on fixed deposits on an average during the period under the study.

4) **Risk**: Risk is the potential for variability in returns. It means the possibility of incurring a loss in a financial transaction. In an investment, total risk consists of:

\[ \text{Total risk} = \text{Systematic risk} + \text{Unsystematic risk} \]

Systematic risk is measured by Beta (β) which indicates the sensitivity of a scheme’s return in relation to market return.

Unsystematic risk is unique peculiar to a company or industry and it is diversifiable. It is firm specific and it consists of business risk and financial risk. Standard deviation has been used to measure risk in the present study.

5. **Standard deviation (σ)**

It measures the variation in returns of a mutual fund scheme from its average expected return over a certain period of time. It evaluates the volatility of the fund. Higher SD indicates higher volatility and higher risk of the schemes.
6. Beta (β)

Beta measures the volatility of returns from an investment in response to its market return (systematic risk). It is calculated by relating the return of a portfolio with return for the market.

\[
\beta = \frac{r_{pm} \cdot \sigma_p \cdot \sigma_m}{\sigma_m^2}
\]

A beta of more than 1 indicates that the investment is more volatile than the benchmark index. It is an aggressive fund. If beta is less than 1, it indicates that the investment is less risky, than the market. It is defensive. If beta is 1, it indicates that the fund will move in same direction as that of benchmark index. A negative beta means that the stock moves in opposite direction to the market. If the market return is negative, the stock return is positive. A zero beta means that stock returns have no relation to the market. This is rare.

7. Co-efficient of Determination (R^2)

R-squared measures the correlation between beta and its benchmark index. It is the square of the correlation co-efficient and is an indication of the degree of diversification. R^2 ranges between 0 and 1, where 0 represents no correlation and 1 represents full correlation. If R^2 value lies between 0.75 and 1, the beta of the fund should be trusted. Again if R^2 value is less than 0.75, it indicates that beta is not particularly useful and fund will not give similar returns to their benchmark index. The lower the R-squared, the less reliable is the beta and vice versa.

8. Correlation co-efficient (r)

It measures the extent of relationship between mutual funds scheme’s return and the market return. It ranges between -1 and +1. If the correlation coefficient is +1, it implies that there is perfect positive correlation i.e. as one security moves, either up or down, the other security will also move in the same direction. Perfect negative correlation (coefficient -1) implies that securities are moving in opposite direction. If correlation is 0, it means that the movement of the securities has no relation at all.
9. Compound Annual Growth Rate (CAGR)

CAGR helps in comparing performance across different funds and schemes of the same fund. It reduces the effect of volatility on fund’s NAV. It assumes that the investment is growing at steady rate. It is applicable if the holding period is more than one year.

\[ CAGR = \left( \frac{LV}{IV} \right)^{\frac{1}{n}} - 1 \]

\( LV = \text{Later Value of units} \)

\( IV = \text{Initial Value of units} \)

\( n = \text{Number of years} \)

10. Sharpe Ratio (SR)

Sharp ratio or the reward to variability ratio was developed by William Sharpe. The higher the Sharpe ratio, the better a fund’s return relative to the amount of risk taken. Again a negative Sharpe ratio is an indicator of low return generated by a portfolio.

\[ \text{Sharpe Ratio (SR)} = \frac{\text{Effective Return}}{\text{Standard Deviation}} \]

\[ = \frac{R_p - R_f}{SD} \]

11. Treynor Ratio (TR)

Treynor ratio also called the Reward to Volatility ratio was developed by Jack Treynor. A high and positive Treynor ratio indicates a better risk adjusted performance of a fund while a low and negative Treynor ratio indicates a poor performance.

\[ \text{Treynor Ratio (TR)} = \frac{\text{Portfolio Return} - \text{Risk Free Rate of Return}}{\text{Portfolio Beta}} \]

\[ TR = \frac{R_p - R_f}{B_p} \]

12. Jensen Measure (\( \infty \))

This is a measure of absolute performance on a risk-adjusted basis. This measure is developed by Michael Jensen and popularly known Jensen's Alpha. A positive alpha indicates that the funds have earned a better return due to superior management skills. A
negative alpha indicates that the fund is not performing well. When alpha is equal to zero (0), it indicates neutral performance.

Jensen’s Alpha (Differential Return) = Actual Return – Expected Return

\[ \text{Jensen’s Alpha} = \text{Rp} - \{\text{Rf} + \beta (\text{Rm} - \text{Rf})\} \]

13. Sharpe’s Differential Return (SDR)

It measures fund managers skill and ability is selection of securities and diversification. Differential Return is the difference between the portfolio return and expected return relating portfolio risk with market risk. A smaller SDR indicates that portfolio is not well diversified and there is poor performance.

\[ \text{SDR} = \text{Rp} - \{\text{Rf} + \frac{(\text{Rm} - \text{Rf}) \sigma_p}{\sigma_m}\} \]

14. Fama’s Decomposition of Performance

Fama’s Net Selectivity = Rp – [Rf + \frac{\sigma_p}{\sigma_m} (Rm – Rf)]

\[ \text{Rf} = \text{Risk Free rate} \]

\[ \text{Rm} = \text{Return on market index} \]

\[ \sigma_p = \text{Standard deviation of portfolio return} \]

\[ \sigma_m = \text{Standard deviation on market return} \]

Fama’s decomposition of total return is useful in indentifying the stock selection ability of fund managers. If net selectivity is positive, it indicates that the manager has superior selection ability and if it is negative, it indicates that the fund has not earned better returns due to poor stock selection.

15. M-Squared (M\(^2\)):

M-squared (M\(^2\)) is a risk-adjusted performance evaluation measure developed by Franco Modigliani and Lea Modigliani in 1997. M\(^2\) is calculated by the following formula:
M² = Standard Deviation of the Market/ Standard Deviation of the Scheme
*(Scheme Return—Risk Free Rate of Return) + Risk Free Rate of Return

M² = SDm/SDp (Rp-Rf)+Rf

Higher M² indicates that the scheme has outperformed the market portfolio while lower M² is a sign of underperformance.

CHAPTER SCHEME

The research work is organized into seven chapters as mentioned below:

Chapter 1: Introduction

Chapter 2: Concept and History of Mutual Funds

Chapter 3: Regulatory Framework of Mutual Funds in India

Chapter 4: Growth of Mutual Funds in India

Chapter 5: Accounting and Disclosure Practices of Mutual Funds in India.

Chapter 6: Performance of Indian Mutual Funds.

Chapter 7: Summary of Findings, Suggestions and Conclusion.

LIMITATIONS OF THE STUDY

The study is based on secondary data which may not be bias free. So the finding of the study is limited to the authenticity and accuracy of secondary data. Also, the study is limited in the sense that entry load, exit load, brokerage commission etc. were not considered. Risk free interest rates are different from period to period. But for the purpose of the study a particular rate is taken as standard which may not be appropriate. In this study bse-100 is taken as proxy for the market which consists of top 100 companies. Again mutual funds have wide investment opportunities. They can invest largely in small sized companies and IPOs. In this case bse-100 may not be an ideal benchmark for
performance evaluation. Moreover, the impact of mergers and consolidation of mutual funds and schemes is not taken into consideration in this study.

MAJOR FINDINGS OF THE STUDY

Findings based on Objective No. 1

1) The Indian mutual fund industry has registered significant growth in AUM. The total amount of AUM which was only Rs 25 crores in 1964 increased to Rs 5,92,250 crores by the end of March 2011 with a CAGR of 23.9% over the period. However, during the study period the industry maintains almost the same CAGR (21.77%).

2) Consistent growth was not found in respect of AUM in Indian mutual fund industry during the period of study. There was consistent growth in AUM up to 2007-08 (AUM Rs. 5,05,152 crores). It declined by 17.39% in 2008-09 (AUM Rs.4,17,300 crores) because of the impact of global financial meltdown. The situation was improved gradually in 2009-10 (AUM Rs.6,13,979 crores), but again there was a fall of 3.53% in 2010-11(AUM Rs. 5,92,250) because of strict regulatory norms.

3) It is noticed that the Private sector mutual funds acquired the lion’s share in AUM (80.87%) than the Public sector mutual funds (19.13%) during the period under study. The share in AUM of Public sector mutual funds was less because of delayed decision making on various important matters, UTI split up in 2003, global financial crisis and etc.

4) In regard to AUM, consistent growth was noticed in case of all the selected mutual funds except in the year of financial crisis (2008-09). This is observed that DSP Black Rock Mutual Fund, ICICI Prudential Mutual Fund, Kotak Mahindra Mutual Fund, Reliance Mutual Fund and Tata Mutual Fund maintained a CAGR of about 30%, 29%, 36%, 55% and 47% respectively in AUM during the period of study.

5) It is found that open ended funds (56.26%) outperformed closed-ended funds (18.62%) and others (25.12%) during the period of study. This is because of the preference of open ended funds by the investors due to its liquidity over closed-ended and other funds.

6) Net resource mobilization by mutual funds has increased significantly over the years. UTI enjoyed monopoly in respect of resource mobilization up to 1986-87 before the entry of Public sector and Private sector in the industry. The UTI’s growth index (G.I)
was greater than unity (>1) except in 1974-75 (G.I 0.74), indicating that the UTI has gained confidence of the investors. The UTI lost its ground after the entry of Public sector and Private sector into the industry. Gradually, the private became the leader of the industry holding the maximum share in net resource mobilization (90.71%) followed by the public sector (9.79%) and UTI (-0.50%). During the study period, positive growth was found in respect of resource mobilization up to 2007-08. But it declined in 2008-09 and again in 2010-11 because of financial meltdown leading to high redemptions.

7) In respect of net resource mobilization, open ended schemes (70.47%) out-performed closed-ended schemes (31.58%) and interval schemes (-2.05%) during the period of study. Also income/debt oriented schemes (67.28%) performed better than the other types of schemes.

8) Significant growth has been noticed in respect of volume of transactions on stock exchanges by mutual funds during the period of study. In the equity market, the gross purchases increased at a CAGR of 29% and gross sales increased at a CAGR of 27%. On the other hand, in the debt market, gross purchases as well as gross sales increased at a CAGR of 36%.

9) Significant growth is found in respect of number of mutual funds and number of schemes. The Indian mutual fund industry was started in 1964 with only one player (UTI) and only one scheme (US-64). The number of mutual funds has increased to 47 and the number of schemes has increased to 1131 by the end of March 31, 2011. At present there are more than 6000 schemes offered by different mutual funds in India.

Findings based on Objectives No. 2

1. Mutual funds in India have been following the normal principles of accounting and reporting common to other business, under SEBI’s supervision. They are complying with the accounting principles and practices as provided by the relevant Acts and Schedule IX, XI and XII of SEBI (Mutual Funds) Regulations, 1996. Mutual funds in India follow the Indian GAAP and the relevant accounting standards set out by the Institute of Chartered Accountants of India (ICAI) They prepare revenue account, balance sheet, cash flow statement trustee report, audit report etc. in order to disclose the relevant facts.
2. The study reveals that there is no settled law or specific accounting standards in India for mutual fund business. The accounting policy of mutual fund involves the selection of certain specific methods of measuring and reporting of financial information from available alternatives. Absence of a uniform system of accounting has made the accounting information of different funds incomparable.

3. Mutual funds in India state fixed assets at the cost of acquisition less accumulated depreciation. But lack of uniformity was found in the use of method of depreciation. Some mutual funds use straight line method (SLM) and some use written down value method (WDV). Earlier UTI followed the SLM of depreciation but now it has changed it to WDV method. DSP Black Rock Mutual Fund and Reliance Mutual fund follow the WDV method while ICICI Prudential Mutual Fund, Kotak Mahindra Mutual Fund and Tata Mutual Fund follow the SLM of depreciation.

4. Regarding disclosure requirement, the study reveals that the statutory disclosures are made by mutual funds but violation of guidelines are rampant. In respect to NAV disclosure, it is found that mutual funds in India publish the NAV of schemes on a regular basis, but not daily. They disclose the latest NAV data and NAV history in their websites as well as they submit the NAV data regularly to AMFI.

5. It is found that there are several undisclosed facts which are to be unearthed by audit committee are ignored. Mutual funds are not stating clearly in their advertisements about investment objectives, performance record, right pricing and redemption provisions.

6. The study finds that the grievance redressal cell of various mutual funds was not functioning properly. In the year 2010-11, the number of pending complaints and the number of complaints received during the year by Reliance Mutual Fund were 25 and 11354 respectively, ICICI Mutual Fund were 39 and 941 respectively, Kotak Mahindra Mutual Fund 722 and 608 respectively, Tata Mutual Fund 4 and 178 respectively, DSP Black Rock Mutual Fund zero and 2240 respectively. The complaints were received in respect of non-receipt of dividend timely, non-receipt of redemption proceeds, delayed interest payment on redemption, non-receipt of unit certificate and etc. It indicates inadequate compliance of accounting principles. Violation of guidelines was also found in respect of segregation of earnings by SBI Mutual Fund, LIC Mutual Fund and BOI Mutual Fund.

7. The study finds that investors are not in a convenient zone for getting the requisite information about mutual funds centrally. Sources of information about mutual funds
are large and isolated but not centralized which creates problem to compare funds. Further, SEBI (Mutual Funds) Regulations provide that mutual funds should publish the periodical disclosures in one English-language daily newspaper circulating throughout the country as well as in the regional language where the main office of the fund is located. But it is unfortunate that almost all the mutual fund’s head offices are located in one place i.e. Mumbai. So a large portion of investors all over the country are in a danger zone in respect of mutual fund’s information details.

8. The study finds that mutual funds in India comply with the accounting and disclosure norms properly but the thing is that sometimes the spirit of compliance was found violated. It is found that all mutual funds have not yet followed up all the regulations as prescribed by SEBI. In respect of portfolio breakdown, some mutual funds provide portfolio breakdown to investor upon request. Many instances were there in the past about the violation of disclosure norms in many respects by mutual funds. Earlier mutual funds were not serious about disclosure of risk factor of their schemes. It is only in recent years that they are showing the risk factor in an investment.

Findings based on Objective No. 3

1) It is found that out of the 30 schemes studied, 7 schemes (i.e. 23.33%) performed better than the market from return point of view. The return of DSP Black Rock Balanced Fund-G (1.7322), ICICI Prudential FMCG-G (1.7697), ICICI Prudential Balanced Fund-G (1.8866), Kotak 50-G (2.1904), Reliance Growth –G (2.8034), Tata Opportunities Fund G (1.6845) and Tata Balanced Fund-G (1.4790) is higher than the market return( 1.4758). The top performer is Reliance Growth- G (2.8034) and Worst performance is seen in case of Reliance Income Fund-D (-0.0004). Also the income schemes of the fund could not perform well as against the benchmark return during the period of study.

2) The study finds that the total risk of the selected schemes ranges from 0.1936 to 9.3538. The most risky scheme was Reliance Vision Fund-B with the highest standard deviation of 9.3538 and the least risky scheme was Kotak Liquid Fund-G with the lowest standard deviation of (0.1936) during the period of study.

3) The study concluded that all the selected 30 schemes have defensive beta (<1), indicating that the schemes were less risky than the market. However, out of the 30
schemes, 17 (56.67%) schemes were more risky than the other schemes in terms of beta. The value of beta was the highest in case of Reliance Vision-B (0.9831) and the lowest in case of Kotak Liquid Fund-G (0.0051). Also, the diversifiable risk (DR) of all the schemes was positive because of poor diversification.

4) From co-efficient of determination (R²) point of view, out of the 30 schemes, only 7 schemes (23.33%) have reasonably exploited the diversification strategy in order to form their portfolio and therefore, they have little scope for diversification (R² = > 0.75). R² - value was lower in case of income schemes of all the selected mutual funds indicating that the schemes were not adopting the diversification strategy properly and there was scope for further diversification.

5) Out of 30 selected schemes, M-squared (M²) values of 14 schemes (46.67%) were positive, out of which 9 schemes (64.29%) showed superior performance (M² higher than 1) and 5 schemes (35.71%) showed average performance. The performance of the remaining 16 schemes (53.33%) was poor. Reliance Growth-G remained the top performer (2.6162).

6) The analysis of Sharpe ratio finds that out of the 30 schemes, 15 schemes (50%) have positive Sharpe ratio. Out of these 15 schemes, 7 schemes (46.67%) have outperformed the market Sharpe ratio (0.1110) and 8 schemes (53.33%) shows average performance. The 7 outperformers were DSP Black Rock Balanced Fund –G (0.1869), ICICI Prudential Balanced Fund-G (0.1656), ICICI Prudential FMCG-G (0.1463), Kotak 50-G (0.2498), Reliance Growth (0.2790), Reliance Vision Fund-B (0.1564) and Tata Balanced fund-G (0.1271). Reliance Growth-G (0.2790) was the top performer and Reliance Liquid Fund-G (-1.3783) was the worst performer.

7) According to Treynor Ratio, out of the 30 schemes, 16 schemes (53.33%) were able to maintain a positive Treynor ratio. However, only 5 schemes (31.25%) outperformed the market. The outperformers include Reliance Growth-G (2.4510), DSP Black Rock Balanced Fund –G(1.4632), ICICI Prudential FMCG-D(2.1862), Kotak 50-G(1.8504) and Reliance Vision Fund-B(1.0842) as against the market Treynor ratio of 0.8413, 1.0289, 2.1613, 1.6503, and 0.5087 respectively. Reliance Growth –G (2.4510) again holds the first rank and DSP Black Rock Bond Fund-D, the least rank (-22.3770). The performance of 11 schemes was average and the performance of the remaining 14 schemes was poor because of negative Treynor ratio during the study period.

8) The result of Jensen alpha indicates that out of the 30 schemes, only 9 (30%) schemes performed better than the market. The fund managers of these schemes were able to
manage the funds with superior management skills. Here also, Reliance Growth –G holds the first position with the highest value of Jensen alpha (1.4145).

9) Sharpe differential return measure concludes that the fund managers of only 7 schemes (23.33%) performed well in respect of selection of securities and diversification. Positive SDR was found in case of DSP Black Rock Balanced Fund-G (0.4290), ICICI Prudential FMCG-G (0.2316), ICICI Prudential Balanced Fund-G (0.1409), Kotak 50-G (0.3408), Reliance Growth-G (1.1960), Tata Equity Opportunities Fund –G (0.0652) and Tata Balanced Fund-G (0.1483). Reliance Growth –G was able to hold the first rank under this measure also.

10) The result of Fama’s Net Selectivity finds that 7 schemes (23.33%) out of 30 have outperformed the market. In the case of these schemes the return as well as the net selectivity was positive. This indicates that the fund managers of these schemes were able to earn better return due to superior stock selection ability. The stock selection ability of the fund managers of the remaining 23 schemes (76.67%) was found poor. As per this measure also, Reliance Growth-G topped the list.

SUGGESTIONS:

1. Investor’s awareness about mutual funds should be enhanced by arranging more and more investor education programmes by SEBI and mutual fund companies. Wide publicity, workshops, seminars, leaflets etc. may be useful for providing more awareness about mutual funds.

2. Mutual funds should take appropriate measures to build confidence in the existing as well as the target investors. They should ensure the investors about better return with lower risk and better customer service. Transparency in operation may be helpful in this regard.

3. Mutual funds should penetrate into rural and semi-urban markets in order to cover potential investors of vast section of society. In this respect mutual funds may expand their branches in rural and semi-urban areas and may employ agents from those areas.

4. SEBI should be given autonomy in real terms and power to fight for investor protection. It should be free from any influence from government or any other institution or Act in order to ensure that funds are complying with the spirit as well as the letter of all regulations and norms.
5. Mutual funds, SEBI and AMFI should make their research cell more active to conduct more and more research on different crucial areas such as market forecasting, risk management, transparency, fair disclosure and etc.

6. AMFI should be given the status of Self Regulatory Organization (SRO) soon for better regulation of mutual funds in India.

7. Mutual funds should ensure authentic and timely disclosure of relevant information to the investors. Uniform accounting policies should be evolved. SEBI should standardize the accounting practices of mutual funds. Convergence of Indian accounting standards with IFRS and the SEC guidelines on record keeping in USA may be useful in this respect.

8. As investors are not in a convenient zone for getting the relevant information centrally, SEBI should introduce a system of increased data access like the SEC’s EDGAR (Electronic Data Gathering, Analysis and Retrieval) system in the United States.

9. SEBI should institute a requirement that a mutual fund must file copies of all required disclosures in all of the major languages spoken in India as well as for any city in which the fund’s distributors have a presence.

10. Investors’ grievance redressal cell should be more active so that the grievances may be redressed within a very short period of time as far as possible in order to avoid pending up of grievances. In this regard, like banking, Mutual Funds Ombudsman may be introduced for quick settlement of grievances.

11. Fund managers should give more emphasis on developing their skill and ability in respect of stock selection and diversification. To this end, mutual funds, SEBI and AMFI should conduct more and more research on skill development in respect of market forecasting, risk management and so on.

12. In order to gain/regain investor’s confidence, all AMC’s should give due emphasis on efficient market timing, security selection and diversification so as to maintain consistency in performance.

13. As a measure to develop and train the fund managers of the underperformed funds/schemes, the SEBI and AMFI may arrange workshops/seminars where outperformed fund managers from within the country as well as from abroad may be invited to share their experience.

14. Fund managers should take care of the bullish and bearish trend of the market in order to form his portfolio. In the bull-run, investments may be made in debt securities, while in the bear-run, investment in equities may be safe.
15. Mutual funds may provide loan facility to investors against mutual fund units in order to attract more customers.

16. It is found that a fund manager is managing a large number of schemes at a time. This creates a problem in taking care of managing various aspects of all the schemes. It is suggested that a fund manager should be entrusted with the management of a single scheme, for its better management.

17. Unfair trade practices, alluring advertisements etc. should be controlled by strengthening regulations.

18. SEBI may ask the AMC’s about the reasons of continuous underperformance of a particular scheme and may stipulate some time for improving performance. If it is not improved, the scheme may be discontinued.

19. Mutual funds and SEBI should think for simplification of KYC norms and PAN card requirement so as to ease greater participation of investors.

20. Availability of large number of schemes is a hindering factor of mutual funds growth as investors are often confused with the wide variety of schemes. They are facing selection problem. So a nation-wide survey should be conducted by mutual funds while launching any new scheme so as to introduce investor-friendly products.

**SCOPE FOR FURTHER RESEARCH**

The scope of mutual funds is vast. Mutual funds cover a wide range of activities and functions. It is not possible and feasible also to cover the various aspects of mutual funds in a single study. The present study is confined to performance analysis of only a few schemes of a few mutual funds. It ignores various other important aspects of mutual funds which have direct or indirect relation with performance also. So there is ample scope for further research on mutual funds. Some important areas where research can be conducted are mentioned as under:

a) Performance Analysis of Mutual Funds considering the impact of brokerage, commission, taxes and inflation.

b) Impact of Mergers and Acquisitions on Mutual Funds’ Performance.

c) Analysis of Money Market Mutual Funds (MMMFs) in India.

e) The Role of FIIs on the Development of Mutual Fund Industry in India.
f) Marketing Strategy of Mutual Funds.
g) Role of Offshore Mutual Funds in India.
h) Developing suitable Accounting and Disclosure Practices of Mutual Funds in India.

CONCLUSION

During the ten (10) years study period (1st April 2001 to 31st March 2011), significant growth has been noticed in Indian Mutual Fund Industry in terms of asset under management, resource mobilization, transactions in stock exchange by mutual funds, number of mutual funds and number of schemes. The rising household savings, comprehensive regulatory frame work, favourable tax policies, variety of products, investor education campaign, and positive role of distributors and above all the launch of economic reforms in 1990 have contributed a lot for the impressive growth of mutual fund industry in India. The AUM registered a CAGR of 22 percent during the period in spite of facing the depressed market conditions caused by global financial crisis. The UTI lost its significance because of failure of its US-64 scheme, while the private sector gained investors’ confidence. During the study period, the private sector acquired the lion’s share in AUM (81%) as against their counterpart the public sector (19%). Out of the selected mutual funds, the share of Reliance Mutual Fund in AUM was the highest (39%), followed by ICICI Prudential Mutual Fund (30%), Kotak Mahindra Mutual Fund (11%), DSP Black Rock Mutual Fund (10%) and Tata Mutual Fund (10%). The open ended funds were in demand than the closed ended funds. The share of open ended funds in AUM was about 75% than the closed ended funds (25%). Again, income/debt oriented schemes acquired the highest share (43%) in AUM as against the growth/equity oriented schemes (28%), balanced schemes (4%) and others (25%). During the period, though there was substantial increase in gross resource mobilization (CAGR 49%), but there was high redemptions in 2008-09 and also in 2010-11 because of the impact of financial meltdown which hit the stock market badly. The UTI enjoyed monopoly in respect of resource mobilization up to 1986-87 (Growth index 54.72), but after the entry of public sector and private sector in to the industry, this monopoly was broken and hence its growth index of resource mobilization came down to 1.87 in 1988-89, 0.93 in 1994-95, -1.30 in 2002-03.
and -2.68 in 2010-11. Impacted by the financial crisis, the growth index of public sector and private sector was also sometimes positive and sometimes negative during the study period. Hence, the industry was fighting to maintain the net resource mobilization positive. Also, remarkable growth was noticed in respect of mutual funds transactions on stock exchanges, number of fund houses and number of schemes. During the study period, the gross purchases in the equity market have increased at a CAGR of 29.04%, while the gross sales increased at a CAGR of 27.10%. On the other hand, in the case of the debt market, the gross purchases and gross sales has increased at a CAGR of 36.69% and 36.71 % respectively. The number of mutual funds and the number of schemes maintained a CAGR of 3.33 % and 11.72 % respectively during the study period. The increase in the number of mutual funds was due to the entry of new international and private sector players in the industry. The number of schemes has increased because of launch of a wide variety of schemes like liquid/money market schemes, gilt, debt, ELSS, balanced ETFs, fund of fund schemes etc. by various mutual funds.

Mutual funds in India follow the traditional accounting policies and practices which are common to other businesses. Though the mutual funds altogether a separate type of organization, but there is no separate system of accounting for mutual funds in India. They follow the GAAP and accounting standards set out by the ICAI. In fact, absence of accounting norms has created a problem in comparing the accounting information of different mutual funds in the true sense. Availability of many alternatives in respect of investment valuation, treatment of income and expenses, depreciation etc. has made the accounting statements of different mutual funds incomparable. On the one hand, there is no specific set of accounting principles and standards meant for mutual funds in India and on the other hand whatever guidelines and regulations have been stipulated by the SEBI for accounting and disclosure requirements, these were also violated many times by various mutual funds. In fact a strong regulatory framework is highly needed to regulate the functioning of mutual funds in any country. Mutual fund industry in India is not weak is respect of regulations and guidelines, rather the industry is rich in this regard. The fact is that there are innumerable guidelines and regulations prescribed by various agencies such as Ministry of Finance Government of India, RBI, UTI and SEBI which often lead to chaos and complexities and left several loopholes opened for the mutual funds. In fact, the various misdeeds, distortions and violations of guidelines are due to the absence of strict regulatory Act for mutual funds. Therefore, enactment of a separate Act only for
regulation of mutual fund industry in India is utmost need of the hour. However, in the context of accounting and disclosure practices, the SEBI has forwarded a bunch of regulations and guidelines for accounting and disclosure practices, but it is still to go a long way to ensure systematic and transparent, quantitative and qualitative information. In order to increase credibility and comparability of accounting information, a separate system of accounting for mutual funds should be developed converging the Indian accounting standards with the IFRS and keeping line with the SEC guidelines on record keeping in USA.

The performance of the selected schemes was analyzed in terms of risk-return relationship using the leading performance evaluation measures like Sharpe ratio, Treynor ratio, Jensen alpha, Sharpe differential return, M-M measure and Fama’s net selectivity. In order to calculate return of the selected schemes, the monthly adjusted NAVs are used for the period from April 2001 to March 2011. The schemes’ returns are compared with the market return (BSE-100) and the public sector banks’ fixed deposit rate (9%) as the risk-free rate. During the study period only seven (7) schemes outperformed the market under various measures. As per ranking Reliance Growth-G listed the top performance under various measures, other out-performers were DSP Black Rock Balanced Fund-G, ICICI Prudential FMCG-G, ICICI Prudential Balanced Fund-G, Kotak 50-G, Tata Equity Opportunities Fund-G and Tata Balanced Fund-G. However, the study reported underperformance of the majority of the schemes out of the selected thirty (30) schemes, low average beta, miss-match of the risk and return in case of many schemes, failure to out-perform the market in terms of Sharpe ratio, Treynor ratio, SDR, Jensen alpha and Fama’s net selectivity. The poor performance of the schemes can be attributed to the lack of professional management skills, the fund managers’ inability to read market conditions correctly, poor stock selection and inadequate diversification etc.