CHAPTER 8

CONCLUSIONS AND SUGGESTIONS

CHAPTER CONTENTS

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Mutual Fund industry was prevalent in world since 18th century however India's MF industry took birth in 1963. Government of India (GOI) and Reserve Bank of India (RBI) took initiative and laid the foundation of Unit Trust of India (UTI) in 1963. The initial growth of this industry was slow but the same accelerated when public sector banks and other public sector insurance corporations entered the market from 1987. Later, in 1993, in the wake of policies of liberalization and globalization, the Government also permitted the private sector to enter into mutual fund business. This phase actually gave Indian investors variety and a complete family to select the correct MF for them. Indian MF industry has faced its ups and down like various other industries in the country but still looks promising and holds a bright future ahead.

For the purpose of this study, both primary data as well as secondary data are used. To analyze mutual fund schemes' performance, the secondary data are used. To know the investment behavior of the retail investor the primary data by using a structured questionnaire are gathered. This chapter derives conclusion based on the study. For the purpose of systematic presentation, the chapter is divided into six sections. Section 8.1 gives the Brief note on Growth of Mutual Fund Industry in India. Section 8.2 presents the Findings and Conclusions for Analysis of Secondary data. Section 8.3 presents the Findings and Conclusions for Analysis of Primary data. and suggestions for study based on primary data. Section 8.4 presents the results based on secondary and primary data. Section 8.5 presents the suggestions and Section 8.6 presents the suggestions for further research.

8.1 GROWTH OF MUTUAL FUND INDUSTRY IN INDIA: A BRIEF NOTE:

Mutual funds make saving and investing simple, accessible, and affordable. The advantages of mutual funds include professional management, diversification, variety, liquidity, affordability, convenience, and ease of recordkeeping—as well as strict government regulation and full disclosure. A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. During the past four and a half decades, the Indian mutual fund industry has viewed major

transformation. In the period 1965-1987, there was only one player UTI. With the entry of public sector banks in mutual fund like PNB, SBI, LIC, BOB from 1987-93, the AUM grew to 47,000 crore. From 1993 private sector banks were entered in mutual fund industry, which offers diversified schemes along with tax benefits and also including insurance benefits to investors, which fulfill the objectives of investors regarding regular income. The AUM grown and reached to Rs. 1,21,805 crore on January 2003. From March 2004 regulations were helping private sector Mutual Funds to merge with foreign companies. The industry has grown several folds not only in terms of the number of mutual funds and their schemes but also in respect of investible funds available to the industry. At present the industry has three types of players *viz.*, (1) Bank Sponsored, (2) Institutions and (3) Private Sectors. Out of total 41 players, 5 are in the Bank Sponsored including UTI, 1 is in the Institutions and 35 are in the Private Sectors. The total AUM of the industry as on March 31, 2011 stood at Rs. 7,00,538 crore. Of which, Bank Sponsored accounts for Rs. 1, 22,798 crore (17.53 %), Institutions accounts for Rs. 11,195 crore (1.60 %) and the remaining resources of Rs. 5, 66,545 crore (80.87 %) are with the Private Sectors. Thus private sector players are having tremendous growth in Mutual Fund Industry. As on March 31, 2011 the number of schemes offered by all the funds stood at 1131, of which 727 are open ended, 368 are closed ended and remaining 38 are interval schemes.

8.2 FINDINGS AND CONCLUSIONS FOR ANALYSIS OF SECONDARY DATA

8.2.1 Brief Profile of the Sample

It would be worthwhile to summarize brief profile of the sample, before presenting conclusions.

Based on screening of all available data, only those schemes which had data for the entire period of January 2000 to December 2009 are selected. These were 137 open-ended schemes. Data used in the study consist of month end Net Asset Values (NAV) for each of the sample schemes and the NAVs have been adjusted for any dividend, bonus and right issues to obtain the scheme return. These schemes are from public as well as private sectors. Two benchmark proxies *viz.*, BSE30 and Nifty50 have been used and 91 days t-bills rate has been used as a proxy for risk free return. The particulars relating to the characteristics of the sample schemes are given in Table 8.1.

Table 8.1 : Characteristics of the Sample Schemes					
Schemes Characteristics	**Scheme Category-wise Classification**				
Scheme Sponsorship-wise classification	Growth	Income	Balanced	Tax-Planning	**Total Sample Size**
Bank Sponsored: Joint Ventures - Predominantly Indian (BS-JV-PI)	7	4	1	2	14
Bank Sponsored: Joint Ventures - Predominantly Foreign (BS-JV-PF)	1	-	-	1	2
Bank Sponsored: Others (BS-O)	2	3	3		8
Institutions (INST.)	2	6	3	1	12
Private Sector: Indian (PS-I)	15	11	4	3	33
Private Sector: Foreign (PS-F)	11	4	2		17
Private Sector: Joint Ventures - Predominantly Indian (PS-JV-PI)	18	17	6	3	44
Private Sector: Joint Ventures - Predominantly Foreign (PS-JV-PF)	1	2	2	2	7
Total Sample Size	57	47	21	12	137

8.2.2 Performance Evaluation Measures

For the analysis of the performance of mutual fund schemes several measures have evolved over a period of time. In this study, following nine measures are used for evaluating the performance of the selected mutual fund schemes: **(a)** Rate of Return Measure, **(b)** Sharpe Ratio, **(c)**Treynor Ratio, **(d)** Jensen Differential Measure,**(e)** Sharpe Differential Measure , **(f)** Appraisal Ratio , **(g)** Information Ratio, **(h)** M^2 measure: Modigliani and Modigliani , and **(i)** Fama's Components of Investment performance measure.

8.2.3 Results of Investment Performance of Sample Schemes

1. **Risk and Return of Sample Schemes and Benchmark Proxies:** Table 8.2 indicates that the **average risk free return** is 0.5038. Of 137 schemes, 78 (56.93%) sample mutual fund schemes have earned returns more than the risk free return. This implies that the sample schemes, on an average, performed better than the risk free return.

   The **average market returns** for BSE30 and Nifty 50 are 1.0224 and 1.0246 respectively. The average market returns are more than the average fund return. There are only 31 (22.63%) and 30(21.90%) schemes which earned more monthly

compounding return than the monthly compounding market returns with respect to BSE30 and Nifty 50 respectively. This implies that the sample schemes, on an average, performed poorer than the market return.

Table 8.2 Monthly Average Return and Risk	
Characteristics	**(In %)**
Fund Return	0.5952
Risk Free Mean Return	0.5038
Average Fund Risk (S.D.)	6.8047
Average Market Return (BSE 30)	1.0224
Average Unique Risk (BSE 30)	4.3165
Average Unique Risk (Nifty 50)	4.3022
Average Diversification (R^2 - BSE 30)	0.4465
Average Diversification (R^2 - Nifty 50)	0.4477
Average Market Return (Nifty 50)	1.0246
Average Beta of Funds (BSE 30)	0.5847
Average Beta of Funds (Nifty 50)	0.5791
Average Market Risk (S.D. - BSE 30)	8.0094
Average Market Risk (S.D. – Nifty 50)	8.1004

The **average mutual fund schemes return** is 0.5952. Out of 137 schemes, 65 schemes (47.45 %) have earned the return more than the average return earned by the mutual fund schemes. It is also revealed that out of 137 mutual fund schemes, 119 schemes (86.86 %) have earned positive return, while only 18 schemes (13.14 %) have earned negative return. On examining whether there is a significant difference between the average return of the selected sample mutual fund schemes and average return of the benchmark portfolio *viz.*, BSE30 and Nifty50, it was found that there is **a significant difference** in the average return of mutual fund schemes and average return of the benchmark portfolio. The negative significant **t-value** indicates that the average return on mutual fund schemes was significantly lower than the average return on the benchmark portfolio ($\mathbf{H_1}$).

The **average market risk** is 8.0094 and 8.1004 per month for BSE30 and Nifty50 respectively. 63 (45.99%) and 61(44.53%) schemes depicted higher total risk with respect to BSE30 and Nifty50 benchmark proxy.

The **average sample mutual fund scheme risk** is 6.8047 percent per month. 76 (55.47%) schemes have depicted higher than average risky-ness. On examining whether there is a significant difference between the average risk of the selected sample mutual fund schemes and average risk of the benchmark portfolio *viz.*, BSE30 and Nifty50, it was found that there is **a significant difference** in the average risk of mutual fund schemes and average risk of the benchmark portfolio. The negative

significant **t-value** indicates that the average risk on mutual fund schemes was significantly lower than the average risk on the benchmark portfolio **(H_2)**.

The **average systematic risk** i.e. beta is 0.5847 and 0.5791 across both the benchmark criteria *viz.*, BSE 30 and Nifty 50 respectively. In case of BSE 30, 83 sample mutual fund schemes depicted higher beta than average beta and in case of Nifty 50, 84 sample mutual fund schemes depicted higher beta than average beta.

2. **Risk and Scheme Objectives:** Based on objectives, the schemes are classified into four categories namely, Balanced scheme, Growth scheme, Income scheme and Tax-Planning scheme. Table 8.3 reveals the results of average return, average risk and market risk for the selected schemes of mutual fund. It is found that these schemes are to more extent in conformity with their stated objectives. In case of average return and average risk (total risk) characteristics, all the schemes are in conformity with their stated objectives except tax-planning scheme. The results also clearly reflected that beta (market risk) and return characteristics are in conformity with their stated objectives in case of all the sample schemes. On examining whether there is a significant difference in the return of the selected sample mutual fund schemes according to their objectives, it was found that in case of *Balanced & Income schemes and Growth & Income schemes* there is **a significant difference** in the return of selected mutual fund schemes **(H_3)**.

On examining whether there is a significant difference in the risk of the selected sample mutual fund schemes according to their objectives, it was found that there is a significant difference in the risk, when any two types of schemes are compared except *Growth & Tax-Planning schemes* **(H_4)**. Similar findings were observed when systematic risk was compared between the schemes **(H_5)**.

Table 8.3 : Average Risk and Return of Sample Schemes : Objective Wise

Objectives	No. of Schemes	Average Return (%)	Average Risk (%)	Market Risk	
				BSE 30	Nifty 50
Balanced	21	0.6300	7.0272	0.6385	0.6336
Growth	57	0.8101	9.8692	0.9363	0.9265
Income	47	0.3598	2.1131	0.0240	0.0248
Tax-Planning	12	0.4353	10.2346	1.0169	1.0049

3. **Return and Fund Sponsorship:** Table 8.4 revealed that the average return of the private sector mutual fund schemes (101 schemes) was found to be 0.6680 and for the public sector mutual fund schemes (36 schemes) was 0.3907. Thus, the private

sector mutual fund scheme performed far better than the public sector mutual fund schemes. On examining whether there is a significant difference between the average return earned by private sector mutual fund schemes and public sector mutual fund schemes, it was found that there is a significant difference in the average return earned by private sector mutual fund schemes and public sector mutual fund schemes. The positive significant **t-value** indicates that the average return earned by the private sector mutual fund schemes was significantly higher than the average return earned by the public sector mutual fund schemes **(H_6)**.

Table 8.4 : Return and Fund Sponsorship		
Fund Sponsorship	**No. of Schemes**	**Average Return**
Public Sector	36	0.3907
Private Sector	101	0.6680
Note: t-value at 5% level of significance = 3.0895		

These results are similar to those reported by Mishra (2001)[1], Sondhi and Jain (2005)[2].

4. **Unique Risk and Diversification:** The primary reason for investment in mutual funds is that they are expected to be reasonably diversified and that their fund managers are able to generate superior performance than an average investor. Therefore, it will be worthwhile to examine as to what extent Indian mutual fund managers have been able to diversify their portfolios. Table 8.2 depicts that the average unique risk of the mutual fund schemes is 4.3165 and 4.3022 per month with respect to BSE 30 and Nifty 50 benchmark proxy respectively. While average diversification for BSE 30 and Nifty 50 benchmark proxy comes to 44.65% and 44.77% respectively. This entails that sample schemes are not adequately diversified. These results are similar to those reported by Gupta (2003)[3], Chandel and Verma (2005)[4],Muthappan and Damodharan (2006) [5], Debasish (2007)[6] *etc.*

On examining whether the mutual fund schemes are reasonably diversified, it was observed that sample mutual fund schemes are **not reasonably diversified (H_7)**.

On examining whether there is a significant difference in the unique risk of the selected sample mutual fund schemes according to their *objectives*, it was found that in case of *Balanced & Growth schemes, Balanced & Tax-planning schemes and Growth & Tax-Planning schemes* there is a **no significant difference (H_8)**.

5. **Results of Treynor Ratio:** The study used two benchmark proxy *viz.* BSE 30 and Nifty 50.

Table 8.5 : Results of Average Treynor Ratio: Aim-Wise		
Fund Objectives	**BSE 30**	**Nifty 50**
Balanced	0.1573	0.1589
Growth	0.3747	0.3801
Income	-4.1520	-7.5980
Tax-Planning	-0.0585	-0.0606
Overall Average	**-1.2486**	**-2.4278**
Note : Treynor Ratio BSE 30 = 0.5187 and Treynor Ratio Nifty 50 = 0.5208		

Table 8.5 indicates that the Treynor Ratio for BSE 30 is 0.5187. Out of 137 schemes, 51 (37.23 %) schemes have outperformed. The results indicate that the Treynor Ratio for Nifty 50 is 0.5208. Out of 137 schemes, 52 (37.96 %) schemes have outperformed. All the top five winners are from income fund with respect to both the benchmark proxy. The results are more or less similar across the benchmark portfolios for the sample mutual fund schemes. Thus it may be deduced from this analysis that benchmark variability hardly provides any purpose in the investment performance measurement and reporting. These results are similar to those reported by Jaydev (1996) [7], Singh and Singla (2000)[8], Gupta (2003)[3], Gupta and Gupta (2004)[9], Chandel and Verma (2005) [4], Muthappan and Damodharan (2006)[5], Chander (2006)[10], Debasish (2007)[6] *etc.*

On examining whether there is a significant difference in the Treynor ratio of the selected sample mutual fund schemes according to their *objectives*, it was found that there is **no significant difference** in the Treynor Ratio according to their objectives **(H_9)**.

6. **Results of Sharpe Ratio:** Table 8.6 indicates that Sharpe Ratio for BSE 30 and for Nifty 50 is 0.0648 and 0.0643 respectively.

Table 8.6 : Results of Average Sharpe Ratio: Aim-Wise	
Fund Objectives	**Value (%)**
Balanced	0.0226
Growth	0.0383
Income	-0.0745
Tax-Planning	-0.0032
Overall Average	**-0.0064**
Note : Sharpe Ratio BSE 30 = 0.0648 and Sharpe Ratio Nifty 50 = 0.0643	

Out of 137 schemes, 46 (33.58 %) schemes have outperformed the benchmark portfolios. In addition , the average Sharpe Ratio for all mutual fund schemes is -

0.0064 and 84 (61.31 %) schemes could register better than the overall sample average investment performance. These results are similar to those reported by Shah and Susan (1994)[11], Jaydev (1996) [7], Singh and Singla (2000)[8], Gupta (2003)[3], Gupta and Gupta (2004)[9], Chandel and Verma (2005)[4], Muthappan and Damodharan (2006)[5], Chander (2006)[10], Debasish (2007)[6], Deb, Banerjee and Chakrabarti (2008)[12] *etc.*

On examining whether there is a significant difference in the Sharpe ratio of the selected sample mutual fund schemes according to their *objectives*, it was found that only in case of *Growth and Income mutual fund schemes* there is **a significant difference (H_{10}).**

7. **Treynor Ratio vs. Sharpe Ratio:** Table 8.7 shows the results pertaining to Sharpe ratio and Treynor ratio. The Sharpe ratio takes into accounts the total risk of the portfolio whereas the Treynor ratio considers only the systematic or the market risk.

Table 8.7 : RCC of Mutual Fund Schemes between Sharpe and Treynor Ratios : Aim-Wise

Fund Objectives	BSE 30	Nifty 50
Balanced	0.9936	0.9939
Growth	0.9630	0.9631
Income	0.5437	0.5074
Tax-Planning	0.9959	0.9963
Total	**0.7084**	**0.6847**

The overall RCC for the sample schemes is 0.7084 and 0.6847 for BSE 30 and Nifty 50 respectively, which is quite high. It shows that overall there is small difference in ranking of mutual fund schemes based on both the measures. Thus, in respect of both the measures 41 (29.93 %) schemes have reflected better performance in comparison to their respective BSE 30 and Nifty50 benchmark portfolios. These results are similar to those reported by Gupta (2003)[3], Gupta and Gupta (2004)[9], Muthappan and Damodharan (2006)[5] *etc.*

On examining whether the RCC derived between Sharpe and Treynor ratio for each group of the selected sample mutual fund schemes according to their *objectives* is significant, it was found to be significant (H_{11}).

8. **Results of Jensen Differential Measure:** The results reveal that, out of 137 mutual fund schemes, 56 mutual fund schemes i.e. 40.88% have posted positive alpha estimates across both the benchmark criteria. The large variation of alpha

values show that stock selection abilities of fund managers vary for different mutual fund schemes. The results indicate that alpha values for only 14 schemes out of 137 schemes are found to be statistically significant at 5 per cent level (one tail test). If one applies a two-tailed test then find that 21 schemes show significant but negative values of alpha at 5 per cent level across the BSE 30 and Nifty 50 benchmark proxy. This implies that these schemes have not generated even the expected return. Hence, it may be concluded that, Indian fund managers do not seem to have generated excess returns than expected. These results are similar to those reported by Shah and Susan (1994) [11], Jaydev (1996)[7], Singh and Singla (2000)[8], Gupta (2003)[3], Gupta and Gupta (2004)[9], Chandel and Verma (2005) [4], Sondhi and Jain (2005) [2] , Muthappan and Damodharan (2006)[5], Chander (2006)[10], Debasish (2007)[6] , Deb, Banerjee and Chakrabarti (2008) [12] *etc.*

On examining whether the observed value of Jensen Differential Measure (alpha) for the sample schemes is different from zero, it was found that the observed value of differential measure (alpha) for the same sample schemes is **zero (H_{12}).**

9. **Results of Sharpe Differential Measure:** The results reveal that out of 137 schemes, 46 (33.58 %) schemes reflect a positive differential returns, thereby indicating superior performance. The remaining 91 (66.42 %) schemes yielded negative differential returns indicating that they could not generate returns commensurate with the risk they assumed. The average Sharpe Differential Return being -0.3493 and 62 (45.26 %) schemes could register better than the overall sample average investment performance for BSE30 proxy and the average Sharpe Differential Return being -0.3493 and 63 (45.99 %) schemes could register better than the overall sample average investment performance for Nifty50 proxy.

   As results are similar across the benchmark portfolios, it reveals that benchmark variability hardly provides any purpose in the investment performance measurement and reporting. These results are similar to those reported by Gupta (2003)[3], Muthappan and Damodharan (2006)[5], Prabakaran *et al* (2010) [13] *etc.*

10. **Results of Fama's Components of Investment Performance:** With respect to Fama's measure, the performance of a fund manager is broken down into various components such as (a) Performance on Systematic Risk (b) Performance on Diversification and (c) Performance on Net Selectivity.

- **WHEN USED BSE30 BENCHMARK PROXY:**

(a) Performance on Systematic Risk (β): Out of 137 mutual fund schemes, 126 schemes have positive returns on account of risk bearing activity of fund managers.

(b) Performance on Diversification: The results indicate that all the schemes have gained a significant part of their returns in pursuit of their diversification activities, as the diversification measure was positive.

(c) Performance on Net Selectivity: Fund managers of 56 schemes (40.88 %) appeared to possess superior stock selection ability as the selectivity measure was found to be positive. It is interesting to note that in terms of net selectivity 46 schemes (33.58 %) showed positive values. This would imply that fund managers of 10 schemes were not able to get some additional compensation for their diversification activities.

WHEN USED NIFTY50 BENCHMARK PROXY:

(a) Performance on Systematic Risk (β): Out of 137 mutual fund schemes, 125 schemes have positive returns on account of risk bearing activity of fund managers.

(b) Performance on Diversification: The results indicate that all the schemes have gained a significant part of their returns in pursuit of their diversification activities, as the diversification measure was positive.

(c) Performance on Net Selectivity: The results are exactly same as, when BSE30 is taken as a benchmark.

Thus it may be deduced from this analysis that benchmark variability hardly provides any purpose in the investment performance measurement and reporting. These results are similar to those reported by Gupta (2003)[3], Gupta and Gupta (2004)[9], Muthappan and Damodharan (2006)[5], Prabakaran *et al* (2010)[13] *etc.*

11. Results of Appraisal Ratio: When this performance measure is employed results are similar across both the benchmark portfolios for the sample mutual fund schemes. Out of 137 schemes, 56 (40.88 %) schemes reflect a positive ratio. The average Appraisal Ratio for all mutual fund schemes is -0.0440 and 66 (48.18 %) schemes could register better than the overall sample average investment performance in case of BSE 30 benchmark proxy. The average Appraisal Ratio for all mutual fund schemes is -0.0456. 66 (48.18 %) schemes could register better

than the overall sample average investment performance in case of Nifty 50 benchmark proxy. These results are similar to those reported by Gupta (2003)[3], Chander (2006)[10], Chander (2007)[14] *etc.*

On examining whether there is significant difference in the Appraisal ratio of the selected sample mutual fund schemes according to their *objectives*, it was found that there is **no significant difference** in the Appraisal Ratio according to their objectives ($\mathbf{H_{13}}$).

12. **Results of Information Ratio:** The results are more or less similar across the benchmark portfolios for the sample mutual fund schemes. When BSE 30 was used as a proxy for the market portfolios, out of 137 schemes, 31 (22.63 %) schemes reflect a positive ratio. The average Information Ratio for all mutual fund schemes is -0.0530 and 53 (38.69 %) schemes could register better than the overall sample average investment performance.

    When Nifty 50 was used as a proxy for the market portfolios, out of 137 schemes, 30 (21.90 %) schemes reflect a positive ratio. The average Information Ratio for all mutual fund schemes is -0.0547 and 56 (40.88 %) schemes could register better than the overall sample average investment performance.

    On examining whether there is significant difference in the Information ratio of the selected sample mutual fund schemes according to their *objectives*, it was found that only in case of *Growth and Income schemes* there is **a significant difference** in the Information Ratio according to their objectives ($\mathbf{H_{14}}$).

13. **Results of M^2 Measure: Modigliani and Modigliani:** In case of M^2 Measure also, the results reveal the perfect positive symmetry with regards to the investment performance ranking across the benchmark portfolios for sample investment schemes. Similarly in relation to the M^2 measure, the performance obtaining is similar to that obtained under the Sharpe Ratio. Out of 137 schemes, 46 (33.58 %) schemes could register positive performance. In addition, the average M^2 measure for all mutual fund schemes is -0.5701 with respect to BSE 30 benchmark proxy and -0.5728 with respect to Nifty 50. Of 137 schemes, 84 (61.31 %) schemes could register better than the overall sample average investment performance across both the benchmark criteria. These results are similar to those reported by Chander (2006)[10].

    On examining whether there is significant difference in the M^2 measure of the

selected sample mutual fund schemes according to their *objectives*, it was found that only in case of *Growth and Income schemes* there is **a significant difference** in the M^2 measure according to their objectives **(H_{15}).**

Thus, in sum, the results reported here indicated a mixed performance of sample schemes during the study period.

14. RANKING OF MUTUAL FUND SCHEMES ACROSS BENCHMARK CRITERIA

Table 8.8 : Objective-wise Spearman's RCC of mutual fund schemes across Benchmark Criteria

Sr. No	Objectives	Treynor Ratio (BSE 30)	Treynor Ratio (Nifty 50)	M^2 (BSE 30)	M^2 (Nifty 50)	Appraisal Ratio (BSE30)	Appraisal Ratio (Nifty 50)	Information Ratio (BSE 30)	Information Ratio (Nifty 50)
1	**Balanced**	1.0000		1.0000		0.9999		0.9999	
2	**Growth**	0.9998		1.0000		0.9767		0.9828	
3	**Income**	0.9417		1.0000		0.9999		0.9996	
4	**Tax-Planning**	0.9997		1.0000		0.9995		0.9992	
Overall RCC		**0.9605 (40.12)***		**1.0000 (∞)***		**0.9924 (93.83)***		**0.9909 (85.61)***	

Note: RCC = Spearman's Rank Correlation Coefficient
A figure in brackets presents the t-value significant at the 0.05 level (two-tail).

Two benchmark proxies were used to measure the performance of the sample schemes *viz.*, BSE30 and Nifty50. In order to detect any conflict in performance ranking of the sample schemes based on both the benchmark index; their RCC are computed. For Sharpe Ratio calculation one uses the total risk of the sample scheme as its denominator. So, there is no change in the results or rankings if one uses BSE30 or Nifty50 as a benchmark portfolio. In case of Treynor Ratio, M^2 Measure, Appraisal Ratio and Information Ratio, one can assign the ranking to the respective schemes on the basis of their results and hence only these four measures out of nine were considered for this analysis. The results reveals, that the RCC for the sample schemes based on Treynor Ratio is 0.9605 , based on M^2 Measure RCC is 1.0000, based on Appraisal Ratio RCC is 0.9924 and based on Information Ratio RCC is 0.9909 across the both the benchmark *i.e.* BSE 30 and Nifty 50.

It is evident from the past studies that the performance evaluation of a particular fund is sensitive to the benchmark used in order to get an estimation of the market return. For instance, Lehmann & Modest (1987)[15] argue that the mutual fund rankings are very sensitive to the asset pricing model (such as the Capital Asset Pricing Model)

chosen to provide for a proxy of the market portfolio. This implies that selection of a wrong proxy to the portfolio of securities maintained by the mutual fund could result in incorrect results. This is further evident from the study conducted by Elton *et al.* (1993)[16], in which he claimed that the positive performance reported in Ippolito (1989)[17] was not due to the superior selection ability of the managers of the fund but it was due to the selection of incorrect benchmark that showed abnormal returns. But the results reported in this study are not in line with the results reported by above studies. The information inputs reported in Table 8.8 reveal that the results are almost same across the both benchmark portfolios for the sample mutual fund schemes. These results are similar to those reported by Chander (2006) [10].

After examining performance of schemes, as per various measures and also examining the difference in results according to objectives of the same, the consistency of performance measures, with reference to two benchmark criteria, was examined. On examining whether the RCC is significant between different types of schemes, it was found that the performance of sample mutual fund schemes was consistent with reference to two benchmark criteria, irrespective of the performance measures applied (H_{16}).

15. RANKING OF MUTUAL FUND SCHEMES ACROSS DIFFERENT MEASUREMENT CRITERIA

As discussed, to analyze the performance of various mutual fund schemes nine different measurement criteria are used. But the rate of return measure, Jensen Measure, Sharpe differential return measure and Fama Measure are absolute measures of performance and one cannot assign the ranks to the mutual fund schemes based on above performance measures. In order to detect any difference in performance ranking of the sample schemes across different measurement criteria; their RCC has been computed. The RCCs, for the remaining five measures are present in Table 8.10, with reference to BSE30 as benchmark. Further to examine the significance of RCC, t-values were also computed and these are presented in parentheses below RCCs in the said Table 8.9. The computations with reference to Nifty50 as benchmark are presented in Table 8.10.

Theoretically, all performance measures developed to rate investment performance of the managed portfolio tend to do so in an identical manner. Regarding the parameter stationarity of investment performance, it was revealed by the information inputs

reported in Table 8.9 and Table 8.10 that Sharpe ratio tends to overstate the portfolio performance while the Treynor ratio underrates it for the obvious reasons set in methodologies, whereas the M^2 as considered to be more prudent and theoretically sound measure. As such the RCC between the Sharpe and M^2 is 1.0000 under both the benchmark proxy indicating perfect correlation between both the performance measures.

The Tables 8.9 and Table 8.10, indicates that there the RCCs are significant, between various measures. This implies that there is a consistency in ranking according to various performance measures.

Moreover an attempt was also made to examine consistency of the outcome of the performance measures within given benchmark criterion. On examining whether there is significant difference in the performance of sample schemes across the different measurement criteria, it was found that there is **no significant difference** in performance of sample scheme between two measures **(H_{17}).**

Thus, the results reported and discussed above point credence to the observation regarding performance rating consistency across the measurement criteria.

Table 8.9 : Spearman's Rank Correlation Coefficient : BSE 30

Performance Measures	Sharpe Ratio	Treynor Ratio	M^2	Appraisal Ratio	Information Ratio
Sharpe Ratio	1.0000 (∞)*	0.7084 (11.66)*	1.0000 (∞)*	0.9658 (43.30)*	0.8522 (18.92)*
Treynor Ratio	--	1.0000 (∞)*	0.7084 (11.65)*	0.6648 (10.34)*	0.7035 (11.50)*
M^2	--	--	1.0000 (∞)*	0.9658 (43.30)*	0.8522 (18.92)*
Appraisal Ratio	--	--	--	1.0000 (∞)*	0.8963 (23.49)*
Information Ratio	--	--	--	--	1.0000 (∞)*

Note: A Figure in brackets presents the t-value significant at the 0.05 level (two-tail).

Table 8.10 : Spearman's Rank Correlation Coefficient : Nifty 50

Performance Measures	Sharpe Ratio	Treynor Ratio	M^2	Appraisal Ratio	Information Ratio
Sharpe Ratio	1.0000 (∞)*	0.6847 (10.92)*	1.0000 (∞)*	0.9522 (36.21)*	0.8360 (17.70)*
Treynor Ratio	--	1.0000 (∞)*	0.6847 (10.92)*	0.6514 (9.98)*	0.6891 (11.05)*
M^2	--	--	1.0000 (∞)*	0.9522 (36.21)*	0.8360 (17.70)*
Appraisal Ratio	--	--	--	1.0000 (∞)*	0.8944 (23.24)*
Information Ratio	--	--	--	--	1.0000 (∞)*

Note: A Figure in brackets presents the t-value significant at the 0.05 level (two-tail).

16. SCHEMES OUTPERFORMING IN RELATION TO BSE 30 VIS-À-VIS NIFTY 50 BENCHMARK ACROSS DIFFERENT MEASUREMENT CRITERIA

Table 8.11 reveals the summary of schemes outperforming in relation to BSE 30 vis-à-vis Nifty 50 benchmark across different measurement criteria *viz.*, Rate of return, Treynor Ratio, Sharpe Ratio, Jensen differential measure, Sharpe differential measure, Fama's measure, Appraisal ratio, Information ratio, M^2 measure. It also reveals that the majority of the outperforming schemes are from private sector mutual funds.

Table 8.11 : Summary of Schemes Outperforming in Relation to BSE 30 vis-à-vis Nifty 50 across different measurement criteria

Sr. No.	Performance Measures	BSE 30		Nifty 50	
		Schemes Outper-forming	Top Five Performers	Schemes Outper-forming	Top Five Performers
1	Rate of Return	31 (22.63%)	1. Reliance Growth Fund(G) 2. Reliance Vision Fund (G) 3. HDFC Equity Fund (G) 4. HDFC Top 200 Fund (G) 5. HDFC Prudence Fund (G)	30 (21.90%)	1. Reliance Growth Fund(G) 2. Reliance Vision Fund (G) 3. HDFC Equity Fund (G) 4. HDFC Top 200 Fund (G) 5. HDFC Prudence Fund(G)
2	Treynor Ratio	51 (37.23%)	1. Templeton India Treasury Management Account (WD) 2. ICICI Prudential Gilt Fund (Treasury Plan) (G) 3. JM High Liquidity Fund (WD) 4. ICICI Prudential Gilt Fund (Investment Plan) (G) 5. **LIC Bond Fund (G)**	52 (37.96%)	1. Templeton India Treasury Management Account (WD) 2. ICICI Prudential Gilt Fund (Treasury Plan) (G) 3. JM High Liquidity Fund (WD) 4. ICICI Prudential Gilt Fund(InvestmentPlan) (G) 5. **DBS Chola Triple Ace (G)**
3	Sharpe Ratio	46 (33.58%)	1. Templeton India Treasury Management Account (G) 2. Birla Sun Life Cash Manager-Ret (G) 3. Birla Sun Life Cash Plus-Ret (G) 4. JM High Liquidity Fund (G) 5. HDFC Prudence Fund (G)	46 (33.58%)	1. Templeton India Treasury Management Account (G) 2. Birla Sun Life Cash Manager-Ret (G) 3. Birla Sun Life Cash Plus-Ret (G) 4. JM High Liquidity Fund (G) 5. HDFC Prudence Fund (G)
4	Jensen Differential Measure	56 (40.88%)	1. Templeton India Treasury Management Account (G) 2. Birla Sun Life Cash Plus-Ret (G) 3. Birla Sun Life Cash Manager-Ret (G) 4. JM High Liquidity Fund (G) 5. HDFC Equity Fund (G)	56 (40.88%)	1. Templeton India Treasury Management Account (G) 2. Birla Sun Life Cash Plus-Ret (G) 3. JM High Liquidity Fund (G) 4. Birla Sun Life Cash Manager-Ret (G) 5. HDFC Equity Fund (G)

Sr. No.	Performance Measures	BSE 30		Nifty 50	
		Schemes Outper-forming	Top Five Performers	Schemes Outper-forming	Top Five Performers
5	Sharpe Differential Measure	46 (33.58%)	1. Reliance Growth Fund (G) 2. Reliance Vision Fund (G) 3. HDFC Equity Fund (G) 4. HDFC Prudence Fund (G) 5. HDFC Top 200 Fund (G)	46 (33.58%)	1. Reliance Growth Fund (G) 2. Reliance Vision Fund (G) 3. HDFC Equity Fund (G) 4. HDFC Prudence Fund (G) 5. HDFC Top 200 Fund (G)
6	Fama's Components of Investment performance measure				
	1) Performance on Systematic Risk (β)	126 (92.0 %)	1. JM Basic Fund (G) 2. SBI Magnum Global Fund-1994 (G) 3. Taurus Starshare (G) 4. Taurus Discovery (G) 5. SBI Magnum Multiplier Plus-1993(G)	126 (92.0%)	1. JM Basic Fund (G) 2. SBI Magnum Global Fund-1994 (G) 3. Taurus Starshare (G) 4. Taurus Discovery (G) 5. SBI Magnum Multiplier Plus-1993 (G)
	2) Performa-nce on Diversification	137 (100.0 %)	1. ICICI Prudential Power (G) 2. Principal Balanced Fund (D) 3. HDFC High Interest Fund (G) 4. Principal Balanced Fund (G) 5. LIC Monthly Income Plan (G)	137 (100.0 %)	1. ICICI Prudential Power(G) 2. Principal Balanced Fund (D) 3. HDFC High Interest Fund (G) 4. Principal Balanced Fund (G) 5. LIC Monthly Income Plan (G)
	3) Performa-nce on Net Selecti-vity	56 (40.88%)	1. Reliance Growth Fund(G) 2. Reliance Vision Fund (G) 3. HDFC Equity Fund (G) 4. HDFC Prudence Fund(G) 5. HDFC Top 200 Fund (G)	56 (40.88%)	1. Reliance Growth Fund (G) 2. Reliance Vision Fund (G) 3. HDFC Equity Fund (G) 4. HDFC Prudence Fund (G) 5. HDFC Top 200 Fund (G)
7	Appraisal Ratio	56 (40.88%)	1. Templeton India Treasury Management Account (G) 2. Birla Sun Life Cash Manager-Ret (G) 3. Templeton India Pension Plan (G) 4. Birla Sun Life Cash Plus-Ret (G) 5. HDFC Equity Fund (G)	56 (40.88%)	1. Templeton India Treasury Management Account (G) 2. Birla Sun Life Cash Manager-Ret (G) 3. Templeton India Pension Plan (G) 4. Birla Sun Life Cash Plus-Ret (G) 5. HDFC Equity Fund (G)
8	Information Ratio	31 (22.63%)	1. HDFC Equity Fund (G) 2. Franklin India Bluechip Fund (G) 3. **Templeton India Growth Fund (G)** 4. HDFC Top 200 Fund (G) 5. Reliance Vision Fund (G)	30 (21.90%)	1. HDFC Equity Fund (G) 2. Franklin India Bluechip Fund (G) 3. HDFC Top 200 Fund (G) 4. **Reliance Growth Fund (G)** 5. Reliance Vision Fund (G)

Sr. No.	Performance Measures	BSE 30		Nifty 50	
		Schemes Outper-forming	Top Five Performers	Schemes Outper-forming	Top Five Performers
9	M^2 measure: Modigliani and Modigliani	46 (33.58%)	1. Templeton India Treasury Management Account (G) 2. Birla Sun Life Cash Manager-Ret (G) 3. Birla Sun Life Cash Plus-Ret (G) 4. JM High Liquidity Fund (G) 5. HDFC Prudence Fund (G)	46 (33.58%)	1. Templeton India Treasury Management Account (G) 2. Birla Sun Life Cash Manager-Ret (G) 3. Birla Sun Life Cash Plus-Ret (G) 4. JM High Liquidity Fund (G) 5. HDFC Prudence Fund (G)

Above para discussed the empirical results with respect to Performance measures. The following para discusses the empirical results with respect to Market timing.

8.2.4 RESULTS OF MARKET TIMING ABILITY AND STOCK SELECTION SKILLS OF THE FUND MANAGERS

Having examined the performance measure and parameter stationary with reference to benchmarks and with reference to performance measures, Chapter 6 examined the market timing abilities of the fund managers. The empirical results with respect to the market timing abilities of Indian mutual fund managers in terms of two models *viz.*, Treynor & Mazuy model and Henriksson & Merton model, are presented below:

H_{018}: Mutual fund managers do not display distinct market timing abilities.

The empirical results reported here support the hypothesis that Indian mutual fund managers do not display distinct market timing abilities in terms of both the models. There is only one scheme which found correct market timer and t-value for gamma coefficient was positive and statistically significant at 5 % level *viz.*, ICICI Prudential Gilt Fund (Investment Plan) (G) with respect to both the models. Some evidence is found that managers were timing the market in the wrong direction. There were total 7 schemes, where fund managers reflected such behavior in terms of both the models. These schemes were: Birla Sun Life MNC Fund (G), ICICI Prudential Balanced Fund (G), ICICI Prudential Growth Plan (G),Kotak Mahindra 30 Unit Scheme (G),Kotak Mahindra Balance (G), LIC MF Balance Fund (G), and Principal Tax Savings Fund (G).

These results are in tune with those reported by Gupta (2000)[18], Chander (2006)[10], Tripathy (2006)[19], Deb, Banerjee and Chakrabarti (2007)[20], Raju and Mallikarjuna Rao (2009)[21] *etc.*

H_{019}: The Market timing abilities of Fund Managers of Growth schemes do not differ from those of other schemes.

Table 8.12 : Summary Results Treynor and Mazuy Model : Market Timing and Fund Objectives					
Objectives	**Sample Schemes**	**Market Timers**		**Wrong Timers**	
		BSE 30	**Nifty 50**	**BSE 30**	**Nifty 50**
Balanced	21	-	-	3	2
Growth	57	-	-	6	3
Income	47	1	1	-	-
Tax-Planning	12	-	-	1	-
Total	**137**	**1**	**1**	**10**	**5**

Table 8.13 : Summary Results Henriksson and Merton Model : Market Timing and Fund Objectives					
Objectives	**Sample Schemes**	**Market Timers**		**Wrong Timers**	
		BSE 30	**Nifty 50**	**BSE 30**	**Nifty 50**
Balanced	21	-	-	6	5
Growth	57	-	-	7	2
Income	47	1	2	-	-
Tax-Planning	12	-	-	3	1
Total	**137**	**1**	**2**	**16**	**8**

The results reported in Table 8.12 and Table 8.13 support the hypothesis that Market timing abilities of Fund Managers of Growth schemes do not differ from those of other schemes. There is no scheme found to be correct market timer with respect to both the models except income schemes. And evidence is found that fund manager of balanced schemes, growth schemes and tax-planning schemes are the wrong timers of the market. These results are in tune with that reported by Gupta (2000)[18].

H_{020}: The Market timing abilities of Fund Managers of the bank sponsored mutual fund schemes do not differ from those of Private sector sponsored mutual funds and Institution sponsored mutual fund schemes.

Table 8.14 : Summary Results Treynor and Mazuy Model : Market Timing and Fund Sponsorship					
Sponsorship	**Sample Schemes**	**Market Timers**		**Wrong Timers**	
		BSE 30	**Nifty 50**	**BSE 30**	**Nifty 50**
BS:JV-PF	2	-	-	-	-
BS:JV-PI	14	-	-	-	-
BS:O	8	-	-	-	-
INST.	12	-	-	1	-
PS:F	17	-	-	2	1
PS:I	33	-	-	2	1
PS:JV-PF	7	-	-	1	-
PS:JV-PI	44	1	1	4	3
Total	**137**	**1**	**1**	**10**	**5**

Table 8.15 : Summary Results Henriksson and Merton Model : Market Timing and Fund Sponsorship					
Sponsorship	Sample Schemes	Market Timers		Wrong Timers	
		BSE 30	Nifty 50	BSE 30	Nifty 50
BS:JV-PF	2	-	-	-	-
BS:JV-PI	14	-	-	-	-
BS:O	8	-	-	-	-
INST.	12	-	-	3	3
PS:F	17	-	-	2	-
PS:I	33	-	-	5	3
PS:JV-PF	7	-	-	2	-
PS:JV-PI	44	1	2	4	2
Total	**137**	**1**	**2**	**16**	**8**

The results reported in Table 8.14 and Table 8.15 do not support the hypothesis that Market timing abilities of Fund Managers of the bank sponsored mutual fund schemes do not differ from those of Private sector sponsored mutual funds and Institution sponsored mutual fund schemes. And there is no scheme found to be correct market timer with respect to both the models except PS-JV-PI schemes. But it is found that majority of the wrong market timers were sponsored by the private sector mutual funds. There are no bank sponsored mutual funds schemes which found to be wrong market timers.

The results are more or less similar whether one uses the BSE30 or Nifty50 benchmark proxies for the sample mutual fund schemes.

Based on the results found, it may be concluded that Indian fund managers are not seriously engaged in correct market timing activities at all and are relying on stock selection skills. Therefore, whatever superior performance is reflected in the results pertaining to performance evaluation seems to have been largely due to their stock selection abilities rather than due to their market timing abilities. *In short, it may be concluded that Indian mutual fund managers are not the correct market timer.*

8.3 FINDINDS AND CONCLUSIONS FOR PRIMARY DATA

The present study has made an attempt to evaluate the Investment behavior of retail investors towards mutual funds, the conceptual awareness of MFs and the reasons responsible for withdrawal of investments and/or not investing in mutual funds. The survey through detailed questionnaire (Appendix-II) was conducted during the period, June 2010- September 2010, from the total number of 450 retail investors, i.e. 150 retail investors from each three major cities in the state of Gujarat *viz.* Ahmedabad, Surat and Baroda. Out of the total numbers of 450 respondents, finally total numbers

of 400 valid responses were considered for the purpose of Data Analysis and Interpretation i.e. 133 responses from Ahmedabad, 138 responses from Baroda and 129 responses from Surat. The following para presents the major findings in brief based on detailed analysis carried out in Chapter 7.

8.3.1 PROFILE

Profile of the Retail Mutual Fund Investors by Demographic Factors is given in Table 8.16. It reveals that,

- Male investors dominate the investment market in India.
- Majority of the investors are from the age group of 40 and below.
- Most of the sample investors possess higher education like graduation, post graduation and professional degree.
- Most of the investors are taking the investment decisions as they are married and have more financial responsibilities (dependents).
- Majority of the investors belong to salaried class followed by business class and professionals.
- Majority of the investors are having annual income of Rs. 5,00,000 and below.
- Majority of the investors are having annual savings of Rs. 1,00,000 and below.
- Most of the investors are having financial responsibility for 1 to 3 persons in addition to themselves.
- The investors' decisions are based on their own initiative.
- Most of the investors are financial literates.

Table 8.16 : Profile of Retail Mutual Fund Investors by Demographic Factors

Investor Particulars		Number of Respondents Total = 400 (in %)			
		Ahmedabad	**Baroda**	**Surat**	**Total**
Sex	Male	86 (64.7%)	104 (75.4%)	88 (68.2%)	278 (69.5%)
	Female	47 (35.3%)	34 (26.6%)	41 (31.8%)	122 (29.5%)
Age	Up to 30	58 (43.6%)	50 (36.2%)	35 (27.1%)	143 (35.8%)
	31-40	46 (34.6%)	48 (34.8%)	48 (37.2%)	142 (35.5%)
	41-50	19 (14.3%)	26 (18.8%)	36 (27.9%)	81 (20.3%)
	Above 50	10 (7.5%)	14 (10.1%)	10 (7.8%)	34 (8.5%)

Academic Qualifications	HSC	07 (5.3%)	06 (4.4%)	11 (8.5%)	24 (6.0%)
	Graduate	71 (53.4%)	46 (33.3%)	67 (51.9%)	184 (46.0%)
	Post-Graduate	50 (37.6%)	69 (50.0%)	47 (36.4%)	166 (41.5%)
	Professional Degree	05 (3.8%)	17 (12.3%)	04 (3.1%)	26 (6.5%)
Marital Status	Married	87 (65.4%)	105 (76.1%)	103 (79.8%)	295 (73.8%)
	Unmarried	42 (31.6%)	33 (23.9%)	22 (17.1%)	97 (24.3%)
	Widow	02 (1.5%)	00 (00.0%)	01 (0.8%)	03 (0.8%)
	Widower	00 (00.0%)	00 (00.0%)	02 (1.6%)	02 (0.5%)
	Divorced	02 (1.5%)	00 (00.0%)	01 (0.8%)	03 (0.8%)
Occupation	Student	02 (1.5%)	06 (4.3%)	03 (2.3%)	11 (2.8%)
	Professional	23 (17.3%)	24 (17.4%)	26 (20.2%)	73 (18.3%)
	Business	24 (18.0%)	22 (15.9%)	35 (27.1%)	81 (20.3%)
	Salaried	79 (59.4%)	80 (58.0%)	52 (40.3%)	211 (52.8%)
	Retired	04 (3.0%)	03 (2.2%)	03 (2.3%)	10 (2.5%)
	Any other	01 (0.8%)	03 (2.2%)	10 (7.8%)	14 (3.5%)
Annual Income (in Rs.)	Up to Rs 2,00,000	58 (43.6%)	33 (23.9%)	24 (18.6%)	115 (28.8%)
	Rs.2,00,001 – Rs. 5,00,000	49 (36.8%)	76 (55.1%)	63 (48.8%)	188 (47.0%)
	Rs.5,00,001 – Rs. 10,00,000	24 (18.0%)	24 (17.4%)	33 (25.6%)	81 (20.3%)
	Rs.10,00,001– Rs. 15,00,000	02 (1.5%)	05 (3.6%)	09 (7.0%)	16 (4.0%)
Annual Savings (in Rs.)	Below Rs 50,000	76 (57.1%)	40 (29.0%)	51 (39.5%)	167 (41.8%)
	Rs.50,000 to Rs 1,00,000	34 (25.6%)	69 (50.0%)	48 (37.2%)	151 (37.8%)
	Rs.1, 00,001 to Rs 5, 00,000	21 (15.8%)	27 (14.6%)	22 (17.1%)	70 (17.5%)
	Above Rs. 5, 00,000	02 (1.5%)	02 (1.4%)	08 (6.2%)	12 (3.0%)

Financial Responsibility	Only yourself	34 (25.6%)	21 (15.2%)	25 (19.4%)	80 (20.0%)
	1 person in addition to yourself	33 (24.8%)	31 (22.5%)	37 (28.7%)	101 (25.3%)
	2 to 3 persons in addition to yourself	50 (37.6%)	60 (43.5%)	53 (41.1%)	163 (40.8%)
	4 to 5 persons in addition to yourself	14 (10.5%)	24 (17.4%)	10 (7.8%)	48 (12.0%)
	More than 5 persons besides yourself	02 (1.5%)	02 (1.4%)	04 (3.1%)	08 (2.0%)
Basis for Investment Decisions	Taken on own initiative	82 (61.7%)	58 (42.0%)	63 (48.8%)	203 (50.8%)
	Taken on own initiative but with help from an expert	42 (31.6%)	71 (51.5%)	44 (34.1%)	157 (39.3%)
	Made by expert on investors behalf	09 (6.8%)	09 (6.5%)	22 (17.1%)	40 (10.0%)
Financial literacy	Financial literates	121 (91.0%)	116 (84.1%)	110 (85.3%)	347 (86.8%)
	Financial illiterates	12 (9.0%)	22 (15.9%)	19 (14.7%)	53 (13.3%)

Note: Figures in parenthesis represent the percentage.

8.3.2 KEY RESULTS

1. **Investments Objectives:** The first investments objectives of individual retail mutual fund investors is "for tax reduction" 184 (46.0 per cent) followed by "regular income" 158 (39.5 per cent), "for children's education" 156 (39.0 per cent), "purchase of asset" 137 (34.3 per cent), "for contingencies" 127 (31.8 per cent) and "for retirement" 127(31.8 per cent). Hence Mutual Fund Companies can attract a pool of investors by designing products with tax benefits and which can produce regular income.

2. **Investments Avenue Preference:** Asset preference pattern of investors provides an insight into the investment attitude of investors, which will influence the policy formation for garnering the individual investments. The study reveals that "Bank Deposits" is the most popular investments instrument among individual investors which is followed by Units of UTI & Mutual Funds, Life Insurance, Shares / Equity, Pension & Provident Fund, Gold, Postal Savings, PPF, Real Estate, Bonds Foreign Currency, Chits, and Commodities/ Derivatives. As Bank Deposits is one of the few financial products, which enable an average salaried person to get

reasonable and regular returns, along with safety of capital and Mutual funds also gives good return with low risk.

3. **Present Attitude towards the following Financial Instruments, in the Indian Capital Market:** The Financial instruments were rated on a 5-point scale. The study reveals that 68.0 per cent of respondents rated Shares between highly favourable to favourable, 42.8 per cent rated Debentures between highly favourable to favourable, 82.3 per cent rated Mutual Funds between highly favourable to favourable and 180 (45.1 per cent) have rated Bonds between highly favourable to favourable. Based on WMV Mutual Fund is ranked first, Shares second, debentures third and bonds are ranked fourth. It is revealed from the study that mutual fund is becoming more preferred financial instrument followed by shares. The MF industry has progressed in many aspects i.e. product innovation, distribution reach, investor education or leveraging technology for enhancing service standards. As MF is an ideal vehicle for both Debt and Equity products, it has the potential to emerge as one of the major growth drivers of the market in future.

4. **Preferred Route to Mutual Fund Investing:** Investors may use some sources to gain awareness regarding investing in Mutual Funds. The results indicated that the sources in the study are confined to Reference Groups/Friends 40.5 per cent, Newspapers (Business) 38.3 per cent, Newspapers (General) 36.3 per cent, Brokers/Agents 34.3 per cent, Internet 30.3 per cent, Financial Magazines 23.8 per cent, Television 22.8 per cent, Direct from company 10.3 per cent and Stores Display 2.00 per cent. Findings of the study reveal that investors attach high priorities to word of mouth and published information, thereby preferring reference groups/friends and newspapers. This throws light on the possibility that mutual fund investors spend time discussing, analyzing and examining relevant information before taking any decision for selecting schemes for investment. This result is similar to that reported by Kavitha Ranganathan (2006)[22] and Jaspal Singh *et al.* (2006)[23].

5. **Period of Investment in Mutual Funds:** The study reveals that 40.8 per cent of the investors investing in mutual funds from last two years, 42.5 per cent of the investors investing in mutual funds from more than two years but less than five

years, 12.3 per cent of the investors investing in mutual funds from five to ten years and 4.5 per cent of the investors investing in mutual funds from more than ten years. From the above results, it can be revealed that from last five years the awareness among the people is increased about mutual fund and also become popular and one of the most preferred investment option.

6. **Mutual Fund Investment Preference in Future:** The result indicates that 291 (72.8 per cent) of the respondents have voted towards 'Yes'. It can be inferred that they are satisfied with the mutual fund investment. There must be plenty reasons for those denying to invest or not sure regarding investing in future. Now to convert this negative approach to the positive approach firstly, AMCs should take steps and see that funds are not virtually at the mercy of institutional investors. MFs should not indulge in unethical practices and launch schemes that benefit institutional investors at the cost of retail investors. Also, the AMCs should try and tap the NRI market, as they can diversify from Bank Deposits to MFs. The main task at hand for the AMCs is to tackle investor sentiments with greater transparency and credibility in the functioning.

7. **Mutual Fund Scheme Preference:** Investors have several of options ranging from Growth schemes to Fixed Income schemes. Now-a-days investors are not offered just plain vanilla schemes but a varied basket to tune with their risk appetite. Overall growth schemes ranked 'First' by the respondents followed by income schemes ranked 'Second', tax savings schemes ranked 'Third', balanced schemes ranked 'Fourth' and index schemes ranked 'Fifth'. The preference for growth or any other scheme is also influenced by stock market conditions prevailing at the time of investment decision. The prevailing market conditions have prompted investors to look for growth schemes and income schemes have become attractive due to increasing interest rates and the hike in salaries of the individuals have increased the demand for tax savings schemes. This result is similar to that reported by Kavitha Ranganathan (2006)[22] and Jaspal Singh *et al.* (2006)[23].

8. **Scheme Preference by Operation:** The study indicates that Systematic Investment Plan (SIP) 54.5 per cent and Open ended schemes 53.8 per cent are the most preferred scheme. Majority of the investors are from salaried group and

professionals. These investors prefer to invest month-wise, as their income is on a monthly basis and also because of liquidity feature due importance given to these schemes. Moderate preference has been given by the investors to Close-ended schemes. Only 9.5 per cent of the investors have voted for Interval Schemes. This result is similar to that reported by Kavitha Ranganathan (2006)[22] and Jaspal Singh *et al.* (2006)[23].

9. **Preferential Feature in Mutual Funds:** The study shows that investors look for good return first in mutual fund products, followed by safety, capital appreciation, tax benefit, liquidity, flexibility, diversification benefit and professional management. This result is similar to that reported by Kavitha Ranganathan (2006)[22].

10. **Preferred Mode of Communication in Mutual Fund:** The study reveals that 35.3 per cent of the respondents prefer to personally visit the office to get the information about their investment and 26.5 per cent of the respondents prefer automated response followed by personal interact. The results of the study show that 247 (61.8 per cent) of the investors have given highest importance to personal interaction and automated response followed by personal interaction. Thus it can be concluded that there must be improvement in internet and telecommunication services in India. There is a possibility of more usage of automated services if they are more "user-friendly".

11. **Top-of-Mind Recall of Mutual Funds/Schemes:** Top-Of-Mind Recall throws light on the strength of brand identity, awareness, acceptability and preference. This calls for a high degree of brand equity and loyalty, which is the direct result of the promotion strategy of the AMCs and a good performance over a period of time. This study yielded superlative results where 36 registered Mutual Funds were recalled by the investors.

12. **Mutual Fund Conceptual Awareness Level:** The study attempted to examine the level of conceptual awareness amongst the respondents through well drafted 11 statements. The study reveals that the general awareness level among individual investors of the concept and functioning of MFs is good. This could be attributed to the wide publicity given to MF industry by the media, as well as

agent training programmes and investor education programmes organized by AMFI.

8.3.3 ASSOCIATION BETWEEN SRMFIS ATTITUDE TOWARDS FINANCIAL INSTRUMENTS AND DEMOGRAPHIC FACTORS:

On examining the association between SRMFIs attitude towards Financial Instruments on the one hand and Gender, Age, Academic Qualification, Marital Status, Occupation, Annual Income, Annual Savings, Financial Responsibility (individually) on the other hand the following results are observed.

- On examining association between Attitude towards Financial Instruments and Gender, it was observed that decision to invest in Shares and Bonds is *dependent* on Gender **(H_1)**.
- On examining association between Attitude towards Financial Instruments and Age, it was observed that decision to invest in Debentures and Bonds is *dependent* on Age **(H_2)**.
- On examining association between Attitude towards Financial Instruments and Academic Qualification, it was observed that decision to invest in Debentures is *dependent* on Academic Qualification **(H_3)**.
- On examining association between Attitude towards Financial Instruments and Marital Status, it was observed that investment decision for Mutual Funds is *dependent* on Marital Status **(H_4)**.
- On examining association between Attitude towards Financial Instruments and Occupation, it was observed that investment decision in for Debentures and Bonds is *dependent* on Occupation **(H_5)**.
- On examining association between Attitude towards Financial Instruments and Annual Income, it was observed that attitude towards financial instruments is *independent* on Annual Income **(H_6)**.
- On examining association between Attitude towards Financial Instruments and Annual Savings, it was observed that attitude towards financial instruments is *independent* of Annual Savings **(H_7)**.
- On examining association between Attitude towards Financial Instruments and Financial Responsibility, it was observed that attitude towards financial instruments is *independent* of Financial Responsibility **(H_8)**.

8.3.4 PERIOD OF INVESTMENT IN MUTUAL FUND BY SRMFIS AND DEMOGRAPHIC FACTORS:

On examining whether there is any association between the period of investment in mutual fund by SRMFIs on the one hand and Gender, Age, Academic Qualification, Marital Status, Occupation, Annual Income, Annual Savings, Financial Responsibility (individually) on the other hand the following results are observed.

- On examining association between Period of investment in mutual fund and Gender, it was observed that periodicity of investment in mutual fund is *independent* of the Gender ($\mathbf{H_9}$).
- On examining association between Period of investment in mutual fund and Age, it was observed that periodicity of investment in mutual fund is *dependent* on the Age ($\mathbf{H_{10}}$).
- On examining association between Period of investment in mutual fund and Academic Qualification, it was observed that periodicity of investment in mutual fund is *dependent* on the Academic Qualification ($\mathbf{H_{11}}$).
- On examining association between Period of investment in mutual fund and Marital Status, it was observed that periodicity of investment in mutual fund is *dependent* on the Marital Status ($\mathbf{H_{12}}$).
- On examining association between Period of investment in mutual fund and Occupation, it was observed that periodicity of investment in mutual fund is *dependent* on the Occupation ($\mathbf{H_{13}}$).
- On examining association between Period of investment in mutual fund and Annual Income, it was observed that periodicity of investment in mutual fund is *dependent* on the Annual Income ($\mathbf{H_{14}}$).
- On examining association between Period of investment in mutual fund and Annual Savings, it was observed that periodicity of investment in mutual fund is *dependent* on the Annual Savings ($\mathbf{H_{15}}$).
- On examining association between Period of investment in mutual fund and Financial Responsibility, it was observed that periodicity of investment in mutual fund is *dependent* on the Financial Responsibility ($\mathbf{H_{16}}$).

8.3.5 FOR SCHEME PREFERRED BY SRMFIS AND DEMOGRAPHIC FACTORS:

On examining association between scheme preferred by SRMFIs on the one hand and Gender, Age, Academic Qualification, Marital Status, Occupation, Annual Income, Annual Savings, Financial Responsibility (individually) on the other hand the following results are observed.

- On examining association between Scheme Preference and Gender, it was observed that the investment preference for Open-ended schemes is *dependent* on Gender **(H_{17})**.
- On examining association between Scheme Preference and Age, it was observed that the investment preference for Interval schemes, Close-ended schemes and Systematic Investment Plan (SIP) is *dependent* on Age **(H_{18})**.
- On examining association between Scheme Preference and Academic Qualification, it was observed that the investment in Open-ended schemes is *dependent* on the Academic Qualification **(H_{19})**.
- On examining association between Scheme Preference and Marital Status, it was observed that the investment preference for Close-ended schemes is *dependent* on Marital Status **(H_{20})**.
- On examining association between Scheme Preference and Occupation, it was observed that Scheme preference for all schemes is *dependent* on Occupation **(H_{21})**.
- On examining association between Scheme Preference and Annual Income, it was observed that Scheme preference and Annual Income are *independent* of each other **(H_{22})**.
- On examining association between Scheme Preference and Annual Savings, it was observed that Scheme preference and Annual Savings are *independent* of each other **(H_{23})**.
- On examining association between Scheme Preference and Financial Responsibility, it was observed that Scheme preference and Financial Responsibility are *independent* of each other **(H_{24})**.

8.3.6 FOR SRMFIS MUTUAL FUND INVESTMENT PREFERENCE IN FUTURE AND DEMOGRAPHIC FACTORS:

On examining association between SRMFIs Mutual Fund Investment Preference in future on the one hand and Gender, Age, Academic Qualification, Marital Status, Occupation, Annual Income, Annual Savings, Financial Responsibility (individually) on the other hand the following results are observed.

- On examining association between Mutual Fund Investment Preference in future and Gender, it was observed that the Mutual Fund Investment Preference in future and Gender are *dependent* of each other (H_{25}).
- On examining association between Mutual Fund Investment Preference in future and Age, it was observed that the Mutual Fund Investment Preference in future and Age are *independent* of each other (H_{26}).
- On examining association between Mutual Fund Investment Preference in future and Academic Qualification, it was observed that the Mutual Fund Investment Preference in future and Academic Qualification are *independent* of each other (H_{27}).
- On examining association between Mutual Fund Investment Preference in future and Marital Status, it was observed that the Mutual Fund Investment Preference in future and Marital Status are *independent* of each other (H_{28}).
- On examining association between Mutual Fund Investment Preference in future and Occupation, it was observed that the Mutual Fund Investment Preference in future is *dependent* on Occupation (H_{29}).
- On examining association between Mutual Fund Investment Preference in future and Annual Income, it was observed that the Mutual Fund Investment Preference in future and Annual Income are *independent* of each other (H_{30}).
- On examining association between Mutual Fund Investment Preference in future and Annual Savings, it was observed that the Mutual Fund Investment Preference in future and Annual Savings are *independent* of each other (H_{31}).
- On examining association between Mutual Fund Investment Preference in future and Financial Responsibility, it was observed that the Mutual Fund Investment Preference in future and Financial Responsibility are *independent* of each other (H_{32}).

8.3.7 ANALYSIS OF INFLUENTIAL FUND SELECTION FACTORS

For identifying the influential fund selection factors, the SRMFIs were asked to rate the importance of the 27 specified variables on a five-point scale ranging from Highly Important (5) to Not at All Important (1). These 27 variables are divided into three groups *viz.*, Fund Related Qualities, Fund Sponsor Qualities, and Investor Related Services. For this purpose firstly, Weighted Mean Value (WMV) was calculated from the data collected to assign comparatively important qualities and reasons. In the second stage Reliability Testing was applied and in the third stage Factor Analysis was applied for each of the above mentioned 'group' of variables separately. Based on this following major findings are derived.

Findings Regarding Influence of "Fund Related Qualities" on Selection of Fund/Schemes

- Out of totally thirteen variables identified in this group highest importance has been attached by the SRMFIs to 'Fund performance record' with a **WMV** of 4.51 followed by 'Funds reputation or brand name' with a **WMV** of 4.19.
- The **RELIABILITY TESTING** indicates that the variables obtained an overall α value of 0.765 and individually also all the thirteen variables have reliability coefficient higher than 0.60. Therefore, they were considered acceptable.
- The application of **FACTOR ANALYSIS** based on Varimax Rotation with Kaiser Normalization gives emergence to 4 factors under "Fund Related Qualities": *viz.* **Intrinsic Fund Qualities,** (consisting of public/private sector ownership, withdrawal facilities and favorable rating by a rating agency and tax benefits), **Product Features,** (consisting of entry & exit load, innovativeness of the schemes and initial investment requirement), **Scheme's Performance,** (consisting of Low expense ratio, good performance record and fund manager/scheme's reputation) and **Scheme's Image and Portfolio,** (consisting of Funds reputation or brand name, awareness of fund and Scheme's portfolio of investment).

Findings Regarding Analysis of Influence of "Fund Sponsor Qualities" on Selection of Fund/Schemes

- Out of totally six variables identified in this group highest importance has been attached by the retail mutual fund investors to "Reputation of sponsoring firm"

with a maximum **WMV** followed by "Sponsor's past performance in terms of risk and return" and "Sponsor's expertise in managing money".

- The **RELIABILITY TESTING** indicates that the variables obtained an overall α value of 0.713 and individually also all the six variables have reliability coefficient higher than 0.60. Therefore, they were considered acceptable.
- The application of **FACTOR ANALYSIS** based on Varimax Rotation with Kaiser Normalization gives emergence to 2 factors under "Fund Sponsor Qualities": *viz.,* **Proficient Performance,** (consisting of sponsor is expert in managing money, better past performance in terms of risk and return and well developed research & infrastructure and network & agency) and **Reputation/Brand Name,** (consisting of Reputation of sponsoring firm and brand name).

Findings Regarding Analysis of Influence of Investor Related Services on Selection of Fund/Schemes

- Out of totally eight variables identified in this group highest importance has been attached by the retail mutual fund investors to "Disclosure of NAV on every trading day" with a maximum **WMV** followed by "Disclosure of periodicity of valuation in the advertisement / Illustrative examples", "Disclosure of investment objective in the advertisement" and "Disclosure of deviation of investments from the original pattern".
- The **RELIABILITY TESTING** indicates that the variables obtained an overall α value of 0.637 and individually also four variables have reliability coefficient higher than 0.60 and other four variables have reliability coefficient nearer to 0.60. Therefore, they were considered acceptable.
- The application of **FACTOR ANALYSIS** based on Varimax Rotation with Kaiser Normalization gives emergence to 3 factors under "Investor Related Services": *viz.,* **Initial Disclosures,** (consisting of disclosures of objective in the advertisement, disclosures of periodicity of valuation in the advertisement / Illustrative examples and the method and disclosures of the periodicity of the schemes sales and repurchases in the offer document), **Visible disclosures,** (consisting of disclosure of NAV on every trading day, disclosure of deviation of investments from the original pattern and Investor's grievance redressal machinery) and **Fringe Benefits,** (consisting of Fringe benefits i.e. benefits other

than investment, play an important role in selection of the fund/schemes, preferred mutual fund to avoid problems of bad deliveries, and unnecessary follow up with brokers and companies).

8.3.8 FINDINGS REGARDING ANALYSIS OF REASONS FOR WITHDRAWING INVESTMENT AND/OR NOT INVESTING FURTHER IN MUTUAL FUNDS

Withdrawal from MF schemes and further non-investment in MF schemes is a cause of worry for Mutual Fund managers. For analyzing the reasons for withdrawing investment and/or not investing further in mutual funds, the SRMFIs were asked to express their level of agreement to the given thirteen reasons on a five-point scale ranging from Strongly Agree (5) to Strongly disagree (1) according to their perception. For this purpose firstly, Weighted Mean Value (WMV) was calculated from the data collected to assign comparatively important qualities and reasons. In the second stage Reliability Testing was applied and in the third stage Factor Analysis was applied. Based on this following major findings are derived.

- Out of totally thirteen variables identified in this group, investors have assigned great significance to the reasons "Returns from MFs have been less than expected" with a highest **WMV** followed by "Personal need", "Growth in the unit value has been very slow", "Probability of negative return on account of volatility in stock market & unsecured returns" and "Management cost charged to the funds have been high" has been rated as most important in that order that resulted in their repulsion investment in mutual funds. From the above result it can be concluded that performance of the mutual fund/scheme have great significance for investment in mutual fund. And if the performance of the fund/scheme is not as per expectations they may withdraw their investment from mutual fund.
- The **RELIABILITY TESTING** indicates that the variables obtained an overall α value of 0.753 and individually also all the thirteen variables have reliability coefficient higher than 0.60. Therefore, they were considered acceptable.
- The application of **FACTOR ANALYSIS** based on Varimax Rotation with Kaiser Normalization gives emergence to 4 factors under "Reasons for withdrawing investment and/or not investing further in mutual funds": *viz.*, **Poor Regulation and under performance by Mutual Fund,** (consisting of 'Returns from MFs have been less than expectation', 'Professionally expert managers have

inability to respond towards market volatility' and 'Regulatory bodies like SEBI and others have not been able to control funds properly'), **Service Behavior,** (consisting of 'Absence of any law regarding participation of fund holder in decisions concerning portfolio selection', 'Besides Non understanding of certain technical terms and conditions permitting abrupt withdrawal of scheme by the fund' and 'Investment v/s investor's objective'), **Individual Influential Factor,** (consisting of Personal need, Probability of negative return on account of volatility in stock market & unsecured returns, High hidden cost and Growth in the unit value has been very slow) and **Inefficient Management of Mutual Funds,** (consisting of high management cost charged to the funds and ineffective grievance redressal).

8.4 RESULTS BASED ON SECONDARY AND PRIMARY DATA:

In this study, the researcher has covered the three aspects i.e. performance evaluation of the selected schemes of mutual fund, market timing abilities of the fund managers and investment behavior of the retail investors towards mutual funds. In performance evaluation of the selected schemes of mutual fund, the study found top 5 out performers across nine different measurement criteria **(Table 8.11).** And in questionnaire top-of-mind recall test of Mutual Funds was administered. This study yielded superlative results where 36 registered Mutual Funds were recalled by the investors. The top ten amongst them were Reliance Mutual Fund, HDFC Mutual Fund, SBI Mutual Fund, Prudential ICICI Mutual Fund, UTI Mutual Fund, Birla Sun Life Mutual Fund, Tata Mutual fund, Franklin Templeton Mutual Fund, LIC Mutual Fund and Kotak Mahindra Mutual Fund presented in Table 8.17.

It was mentioned above that to evaluate the superior performance of the mutual fund scheme, one can use different performance measures. But the performance of the scheme is highly dependent on the market timing abilities of the fund manager and to time the market correctly the fund manager has to examine the behavior of the retail investor as it decides the market trend. The result presented in Table 8.17 revealed that the almost all the schemes which out-perform the market are same as top-of-mind recalled by the respondents.

Table 8.17: Results based on Secondary and Primary Data										
Rank	AMC/Mutual Fund Schemes	Top 5 out-performers across nine measurement criteria								
		A	B	C	D	E	F	G	H	I
		No. of Schemes								
1	Reliance Mutual Fund	2				2		2		
2	HDFC Mutual Fund	3	1		1	3		3	1	1
3	SBI Mutual Fund						2			
4	Prudential ICICI Mutual Fund			2						
5	UTI Mutual Fund									
6	Birla Sun Life Mutual Fund		2		2				2	2
7	Tata Mutual fund									
8	Franklin Templeton Mutual Fund		1	1	1				2	1
9	LIC Mutual Fund			1						
10	Kotak Mahindra Mutual Fund									
17	JM Financial Mutual Fund		1	1	1		1			1
23	Taurus Mutual Fund						2			

Note : 1. (A) Rate of Return Measure, (B) Sharpe Ratio, (C) Treynor Ratio, (D) Jensen Differential Measure,(E) Sharpe Differential Measure , (F) Appraisal Ratio , (G) Information Ratio, (H) M^2 measure: Modigliani and Modigliani , (I) Fama's Components of Investment performance measure.
2. Numbers in the table represents the no. of schemes from that AMC/Mutual Fund.

As mentioned in the Chapter of Introduction it was very difficult to find a study were both primary and secondary data are taken for the purpose of analysis. This study not only takes up the primary and secondary data for the purpose of study together, it further goes on to examine the integration of the same and it is noteworthy that such an integration is observed. Thus, this study is topical and proposes to bridge the gap.

8.4SUGGESTIONS

8.5.1 SUGGESTIONS: SECONDARY DATA

- The study reveals that the fund managers are not able to diversify their portfolio which leads to higher unique risk. Hence, even if with higher amount of risk, the schemes are not able to get higher amount of return. The main advantage of mutual fund is diversification, but here the fund manager fails to diversify their portfolio. Hence, the fund manager should enhancement their stock selection abilities.
- It was also found that compare to public sector mutual fund schemes, private sector mutual fund schemes generate higher return. So, the fund managers of public sector sponsored mutual fund try to improve stock selection as well as market timing abilities.
- The widely accepted benefit for investment in Mutual Fund is professional management, the study indicates that Fund Managers are not good market timers.

The AMFI, should take this finding with a serious note, and educate the fund managers to better serve the investors community.

8.5.2 SUGGESTIONS: PRIMARY DATA

- Since the investors need for good return, safety, tax benefit and liquidity is found to be high, Mutual Fund Companies can attract a pool of investors by designing products with tax benefits and which can produce regular income. The prevailing market conditions have prompted investors to look for growth schemes and income schemes have become attractive due to increasing interest rates and the hike in salaries of the individuals have increased the demand for tax savings schemes. Thus, AMC's should design such a product which covers all the three features in a single scheme to attract the investors.
- AMC's should keep in mind the basic requirements of the investors in designing of their product and in providing services to the investors. Based on the 'Fund Related Qualities', it was found the highest factor loadings is received by the variables like withdrawal facility, product with tax benefits, entry & exit load, Scheme's expense ratio, innovativeness of the schemes, fund performance record and Scheme's portfolio of investment. And based on 'Investors Related Services', it was found that highest factor loading is received by the variables like Fringe benefits, disclosure of NAV on every trading day and disclosure of investment objectives in the advertisement.
- The study found that 72.8 per cent of the mutual fund investors prefer to invest in future. This indicates that investors are satisfied with the mutual fund investment. There must be plenty reasons for 27.3 per cent investors to have posed a negative approach towards MFs. Based on the factor analysis it was identified that the higher management cost, MF return less than expected, personal need and absence of law given the most common reasons for withdrawing investment and/or not investing further in MF. Hence, AMCs should try to handle these reasons. Negative perceptions about MFs require to be tackled through appropriate investor education measures. To divert this negative approach towards the positive approach firstly, AMCs should take steps and see that funds are not virtually at the mercy of institutional investors. The main task at hand for the AMCs is to tackle investor sentiments with greater transparency and credibility in the functioning.

- The study reveals that the main savings objectives of investors are tax reduction and regular income. Hence Mutual Fund Companies can attract a pool of investors by designing products with tax benefits and which can produce regular income.
- As the investors' preference to invest on a regular period (i.e. monthly, quarterly, yearly *etc.*) basis is found to be high, we suggest that more of the new schemes opening for subscription be Systematic Investment Plan (SIP). The study reveals that the preference for selecting SIP is dependent on Age and Occupation. Hence, AMCs can take these demographic factors into consideration.
- The results of the study show that 61.8 per cent of the investors have given highest importance to personal interaction and automated response followed. E-commerce is gradually showing signs of gaining acceptance and electronic sale of financial products is especially gaining volumes. There is a possibility of the volumes reaching a significant size, thereby generating a new distribution paradigm. Therefore AMCs should establish friendlier and easily accessible 'Automated Response Systems'. There is a possibility of more usage of automated services if they are more "user-friendly". These systems should not only effectively convey information on products and services but also efficiently redress investor grievances.
- The study reveals that the general awareness level among individual investors of the concept and functioning of MFs is good. This could be attributed to the wide publicity given to MF industry by the media for varied reasons. Agent training programmes and investor education programmes organized by AMFI could also have contributed to this level of awareness. However, this study was based in a major cities of Gujarat, i.e. Ahmedabad, Baroda and Surat where the awareness level may be considerably high. It was found that 347 (86.8 per cent) investors were aware about the different financial terms and around 203 (50.8 per cent investors make the investment decisions on their own. But, the litmus test for the industry is the expansion of the distribution network to smaller urban and rural areas where most of the small investors live. The challenge would be to educate these investors about the advantages of investing in mutual funds compared to traditional saving instruments.

8.6 SUGGESTIONS FOR FURTHER RESEARCH

BASED ON SECONDARY DATA

- The performance of Indian mutual funds may be examined by taking an enlarged sample.
- The study period may go beyond 10 years. Testing of fund performance in the long run can be done.
- One can use daily or weekly data for evaluating the performance and market timing abilities of fund managers as against month-end data used in this study
- The study used only two characteristics *viz.*, scheme category and sponsorship of the scheme. The Future study can be done including variable such as Fund Market capitalization, Fund size, NAV, Risk, P/E ratio, Expense ratio, Turnover, Management tenure, Fund age , Diversification level, Number of holdings, Education level of fund manager, Age of fund manager *etc.* to see whether these variables are affecting the fund performance or whether it best indicates the future performance.

BASED ON PRIMARY DATA

- The MF operational environment is becoming more competitive. Hence, the impact of emerging competition on investor behavior/behavioral changes can be examined.
- MF industry in India has a large untapped market in urban areas besides the virgin markets in semi-urban and rural areas. The survey may be conducted in small urban and rural areas to know the investment behavior and the perception of the investors towards mutual funds. It will help mutual fund industry to capture market as well as increase the sell and designing of the product which fit to their requirements.
- Technological Developments also influence the behaviour of investors. Hence, the impact of technology on financial behaviour is another possible area for close study.
- Since the industry is still struggling to win the investors' confidence, an in-depth analysis into investor's expectations from MF products, its performance, management, service and other related areas could be done.

At present, more and more funds are entering the industry and their survival depends on strategic marketing choices of mutual fund companies, to endure and succeed in this highly promising industry, in the face of such cutthroat competition. In addition, the availability of plenty of savings instruments with varied risk-return combination would make the investors more alert and choosy. Running a successful MF requires complete understanding of the peculiarities of the Indian Stock Market and also the psyche of the small investor. Thus, the present exploratory study is an attempt to understand the investment behavior of MF investors in connection with scheme preference and selection. The factors identified in the study provide key information inputs regarding investor's preferences and priorities that will guide future mutual fund product managers in designing attractive mutual fund products for the Indian market.

POLICY SUGGESTION

If similar studies conducted on a large scale at regular intervals by organizations like AMFI/SEBI/SCMRD, will help to know the changing perceptions and responses of these groups, and thus provide early warning signals to enable implementation of timely corrective measures.

The fund managers are required to make some strategies for improving their stock selection and market timing abilities. So that they can able to earn higher amount of return and attract the investors.

The widely accepted benefit for investment in Mutual Fund is professional management, the study indicates that Fund Managers are not good market timers. The AMFI, should take this finding with a serious note, and educate the fund managers to better serve the investors community.

This study would help the existing and prospective AMCs, institutional and individual investors, researchers and policy makers to get an idea of the status of performance of the mutual funds, market timing abilities of fund managers and investment behavior of the retail investor. This will have broader implications to institutional and individual investors to select appropriate scheme for investment, to existing and prospective AMCs for developing competitive strategies, becoming more investor oriented, and developing appropriate policies encouraging the healthy growth of Indian Mutual Funds. The study will have some useful managerial implications for the AMCs in their product designing, marketing and management of the fund. Results

of the study may help in making cost effective strategic decisions and hence would be of interest to both existing and new MFs; Fund managers; and individual investors. From an academic perspective, the goal of identifying superior fund managers is interesting as it encourages development and application of new models and theories thus making significant contribution to the body of knowledge of investment management.

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