PERFORMANCE OF THE INDIAN MUTUAL FUND INDUSTRY: A STUDY WITH SPECIAL REFERENCE TO GROWTH SCHEMES

THESIS

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CERTIFICATE

This is to certify that the thesis entitled **"PERFORMANCE OF THE INDIAN MUTUAL FUND INDUSTRY: A STUDY WITH SPECIAL REFERENCE TO GROWTH SCHEMES"** is a bonafied record of the research work done by Mrs.N.Lakshmi at the Department of Commerce, Pondicherry University, under my supervision.

The subject on which the thesis has been prepared is her original work and has not been previously formed the basis for the award, to any candidate, of any Degree, Diploma, Associateship, Fellowship or other similar title of any University or Institution.

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DECLARATION

I hereby state that the thesis entitled **"PERFORMANCE OF THE INDIAN MUTUAL FUND INDUSTRY: A STUDY WITH SPECIAL REFERENCE TO GROWTH SCHEMES"** for the degree of Doctor of Philosophy is my original work and no part of the thesis has been submitted for the award of any other Degree, Diploma, Associateship, Fellowship or other similar title.

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Date :

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF EXHIBITS

CHAPTER I

INTRODUCTION

Investment is a commitment of funds in real assets or financial assets. Investment involves risk and gain. In the present dynamic global environment, exploring investment avenues are of great relevance. Investment skills developed over a period of time are considerably influenced by experience and spadework carried out to arrive at conclusions. The success of an investment activity depends on the knowledge and ability of investors to invest, the right amount, in the right type of investment, at the right time.

Real assets, being tangible material things, are less liquid than financial assets. Compared to financial assets, returns on real assets are more difficult to measure accurately due to the absence of broad, ready, and active market. Financial assets available to individual investors are manifold, having different concomitant benefits to choose from. All financial investments are risky but the degree of risk and return differ from each other. An investor has to use his discretion, which is an art acquired by learning and practical experience. The knowledge of financial investment and the art of its management are the basic requirements for a successful investor. The pre-requisite for a successful

investment also lies in its liquidity, apart from risk and return on investment. Liquidity through easy marketability of investments demands the existence of a well-organised Government regulated financial system.

Financial system comprises of financial institutions, services, markets and instruments, which are closely related and work in conjunction with each other. The litany of new financial institutions and instruments developed in recent years, with the ostensible objective of modernizing the financial sector, is impressively long; Mutual Funds, Discount and Finance House of India, Money Market Mutual Funds, Certificate of Deposit, Commercial Paper, Factoring and Treasury Bills. Financial services through the network of elements (institutions, markets and instruments) serve the needs of individuals, institutions and companies. It is through these elements, the functioning of the financial system is facilitated.

Financial services sector is the nucleus of the growth model designed for the economic development of a country. The financial services sector plays a crucial role in the process of economic development. Financial services based on its nature and relevance is regarded as the fourth element of the financial system. An orderly

functioning of the financial system depends on the range and the quality of financial services.

Financial services comprise of various functions and services that are provided by financial institutions. Financial services are offered by both asset management companies, which include leasing companies, mutual funds, merchant bankers, issue managers, portfolio managers and liability management companies comprising of bill discounting houses and acceptance houses. Financial services lend a big hand in raising the required funds and ensure its efficient deployment.

Over the years, the financial services in India have undergone revolutionary changes and had become more sophisticated, in response to the varied needs of the economy. The process of financial sector reforms, economic liberalization and globalization of Indian Capital Market had generated and augmented the interest of the investors in equity. But, due to inadequate knowledge of the capital market and lack of professional expertise, the common investors are still hesitant to invest their hard earned money in the corporate securities. The advent of mutual funds has helped in garnering the investible funds of this category of investors in a significant way. As professional experts manage mutual funds, investment in them relieves investors from the emotional stress involved in buying and selling of securities.

WORLD PANORAMA

At the very dawn of commercial history, Egyptians and Phoenicians were selling shares in vessels and caravans in order to spread the risk of these perilous ventures. The idea of pooling money dates back to 1822, when groups of people in Belgium established a company to finance investments in national industries under the name of 'Societe Generale de Belgique' incorporating the concept of risk sharing. The institution acquired securities from a wide range of companies and practiced the concept of mutual fund for risk diversification. The word 'mutual' denoted something to be done collectively by a group of people with the common objective of having mutual faith and understanding among themselves. 'Fund' was used in monetary terms, to collect some money from the members for a common objective like earning profits with joint efforts.

In 1822, King William I of Netherlands came up with a close-end fund. In 1860, this phenomenon spread to England. In 1868, the Foreign and Colonial Government Trust of London was formed, which was the real pioneer to spread risk of investors over a large number of securities and was considered as the Mecca of modern mutual funds. In 1873, Robert Fleming, established 'The Scottish American Trust'. Although, many nineteenth century British investment trusts invested in American

stocks, the first American investment trust was the close-end Boston Personal Property Trust created in 1893. In U.K., the accepting houses emerged as a major force in the business of investment management.

Mutual fund in America is basically the concept of Unit Trust of Britain. In U.S.A. mutual funds have come a long way since March 21, 1924 when the first fund, 'Massachusetts Investment Trust' was organised for the professors of Harvard University and offered shares to the public in 1926. But it was Sherman L Adams, the father of modern mutual fund, along with Charles Learoyd and Ashton Carr established a modest portfolio of 45 common stocks worth USD 50,000*. The crash of stock markets in 1929 led to the demise of many close-end funds. By 1930's, 920 mutual funds were formed in U.S.A. and most of them were close end. In Canada, the Canadian Investment Fund was the first to be set up in 1932 followed by Commonwealth International Corporation Limited and Corporate Investors Limited.

The enactment of Securities Act of 1933, Investment Company Act of 1940 and Investment Advisors Act of 1940, led to the revival of mutual funds in U.S.A. The value of securities owned by U.S.A. funds

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* Sudhkar A and Sasikumar K, "Globalisation of Mutual Fund Industry: Challenges and Implications" , Southern Economist, Vol 42, Nov 15, 2004, p22.

was USD 2.5 billion in 1950. So, the accepting houses started rapidly to build up their skills and knowledge to deal with enlarged capital.

Since the World War-II, there had been a phenomenal growth in the mutual fund industry throughout the world. Mutual funds in Japan are known as investment trusts, but they differ from investment trusts of U.K. and mutual funds of U.S.A. While the growth of the mutual fund industry in U.S.A. was a spontaneous response to market developments, the Japanese investment trusts were established to meet the changing requirement of government policy and as such the establishment of investment trusts was a well thought-out action rather than a spontaneous response to economic market developments. The Mutual fund industry in Japan dates back to 1937. But an investment trust modeled on the unit trusts of U.K. was established only in l941. Investment trusts in Japan were set up under the Securities Investment Law of 1951 with the three important characteristics namely contractual nature, open-end and flexibility.

Prior to 1960s, the U.S.A. provident fund professional investment authorities were abhorrent of investing in equities as they are of in India today. In 1980s, because of high mutual fund returns, employees (through IRA accounts) en masse shifted to equity option for their retirement fund. In stark contrast, Japan saw a 60 percent decline in

Nikkei from 40,000 to 16,000 as a consequence of Japanese retail investors' aversion to equities. With the increasing inflation and interest rates during 1990's, the individual and institutional investors became extremely sensitive to the true value of money. The shift started towards non-intermediation, resulting in the growth of mutual funds. In U.S.A., the number of mutual funds grew from 70 in 1940 to more than 3000 by the end of 1989. The mutual fund industry's assets in U.S.A. increased from USD 44 billion in 1980 to USD 1 trillion in 1989. Subsequently hundreds of mutual funds, both open-end and close-end were launched and the concept of mutual funds spread over to many countries like Europe, the Far East, Latin America and Canada.

Retail investments in US mutual funds were low because of the flatness of the market since 1966 till 1982. The value of securities owned by U.S.A. fund houses increased from USD 60 billion in 1960 to more than USD 100 billion in 1983. Since the beginning of 1990, investors have poured over half a trillion dollars into stock and bond mutual funds. In 1990, U.S.A. mutual fund industry constituted of 2,362 mutual funds with 39,614 thousands of investors holding USD 570.8 billions of assets. American investors embraced mutual funds with a fervor that even the most optimistic fund executives could not have predicted. By the end of 1994 in U.S.A., mutual funds had become the second largest financial

institution after the banking sector holding assets worth USD 2161.4 billion. In 1995, U.K. equity income category had the highest number of account holders (11,86,365)*.

The popularity of mutual funds among retail investors was further driven by changes in retirement fund investment norms where employees at large were allowed to choose asset allocation between equities and debt. In December 1995, the European community issued a directive to coordinate laws, regulations and the administrative provisions relating to mutual funds and was popularly known as Undertakings for Collective Investment in Transferable Securities. The directive established a common regulatory scheme for investment policies, public disclosure, structure of organisation, and regulations to encourage the growth of mutual funds all over the globe, which led the momentum in many countries in the Asia-Pacific region with a big bang, including Hong Kong, Thailand, Singapore and Korea.

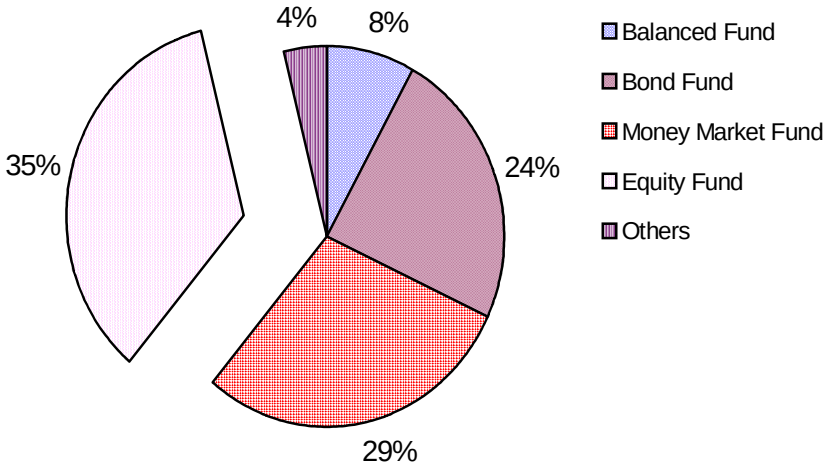
By the end of 1996, of the U.S.A mutual fund industry's (USD 3,539 trillion) assets, households owned USD 2.626 trillion (74.2 percent) while the remaining USD 9123 billion (25.8 percent) was held by banks, trustees, and other institutional investors. In 1996, U.S.A. households

* Fredman, Albert J, et.al , "How Mutual funds Work", Prentice Hall of India Private Limited, New Delhi, 1997, p 293.

purchased USD 543 billion financial assets compared to USD 499.6 billion in 1995 with a significant proportion assigned towards long-term mutual funds.

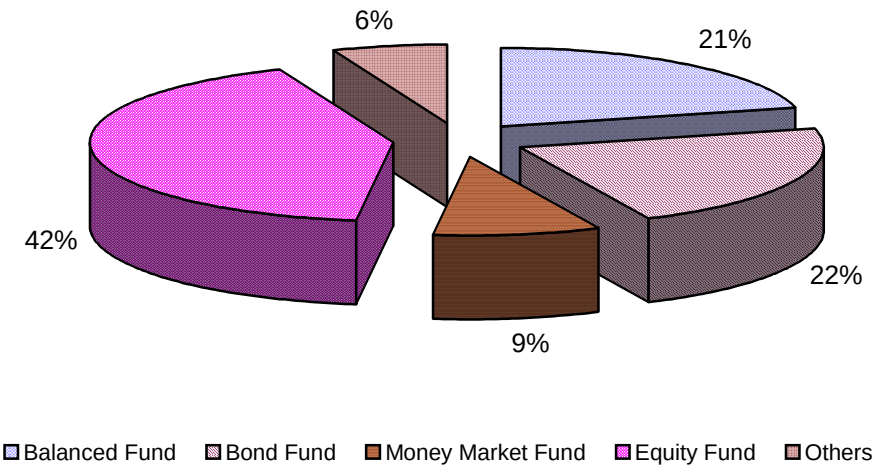
The mutual fund in its present structure is a Twentieth Century phenomenon. Globally there were thousands of funds offering varied schemes with different investment objectives and options. Mutual funds emerged as the most important investment vehicle for household investments in U.S.A. with the basic objective of allowing small investors to partake in the capital market by investing in a wide portfolio of stocks so as to reduce risk. At the end of first quarter of 2003, the assets of worldwide mutual funds stood at USD 11.2 trillion while the assets of equity funds contributed for 35 percent as Exhibited in 1.1.

Exhibit 1.1
Composition of Worldwide Mutual Fund Assets



The number of worldwide mutual funds stood at 53,150 with equity funds accounting for 42 percent as shown in the Exhibit 1.2.

Exhibit 1.2
Worldwide Number of Mutual Funds



Source: *Tripathy, Nalini Prava, Financial Instruments and Services, Prentice Hall of India Private Limited, New Delhi, 2004, pp. 51-2.*

As on March 2004, there were 8,212 mutual funds in U.S.A. totaling around USD 7.6 trillion where one out of every three investor held a mutual fund investment. In U.S.A., mutual funds outnumbered the securities on the New York Stock Exchange (NYSE). Mutual funds thus became a global financial culture, collectively managing more money compared to banks having a profound impact on financial markets.

INDIAN PANORAMA

The Indian capital market having a long history spanning over a century had passed through the most radical phase. The Indian Capital

Market witnessed unprecedented developments and innovations during the eighties and nineties. One such development was the increased role the mutual fund industry played in financial intermediation. Mutual fund, as an institutional device, pools investor's funds for investment in the capital market under the direction of an investment manager. Mutual funds bridge the gap between the supply and demand for funds in the financial market.

In India, the need for the establishment of mutual funds was felt in 1931 and the concept of mutual fund was coined in 1964, by the far-sighted vision of Sri T.T.Krishnamachari, the then finance minister. Taking into consideration the recommendations of the Central Banking Enquiry Committee and Shroff Committee, the Central Government established Unit Trust of India in 1964 through an Act of Parliament, to operate as a financial institution as well as an investment trust by way of launching UTI Unit Scheme 64. The overwhelming response and the vast popularity of UTI Unit Scheme 64 and the Mastershare Scheme in 1986 attracted the attention of banks and other financial institutions to this industry and paved the way for the entry of public sector banks. By the end of 1986-87, UTI had launched 20 schemes mobilizing funds amounting to Rs.4,56,500 crores. Since then, the mutual funds have

established themselves as an alternative investment vehicle and are now an integral part of the Indian financial system.

In 1987, the public sector banks and insurance companies were permitted to set up mutual funds. Accordingly, the LIC and GIC and six public sector banks initiated the setting up of mutual funds, bringing out a new era in the mutual fund industry. The financial sector reforms were introduced in India as an integral part of the economic reforms in the early 1990s with the principal objective of removing structural deficiencies and improving the growth rate of financial markets. Mutual fund reforms attempted for the creation of a competitive environment by allowing private sector participation. Since 1991, several mutual funds were set up by private and joint sectors. Many private mutual funds opted for foreign collaboration due to the technical expertise of their counterparts and past track record of success. Based on the recommendations of the Dave panel report in 1991, the Government of India issued new guidelines for setting up mutual funds in public sector, private sector as well as in joint sector on February 14, 1992. On February 19, 1993, the first batch of 12 private sector mutual funds was given “in-principle approval” by the Securities Exchange Board of India (SEBI). The erstwhile Kothari Pioneer Mutual fund (now merged with

Franklin Templeton) was the first fund established in July 1993 in the private sector.

The SEBI formulated the Mutual Fund Regulations in 1993, establishing a comprehensive regulatory framework for the first time, while the Indian Mutual Fund Industry (IMFI) had already passed through two phases of developments. The first phase was between 1964 and 1987 when the UTI was the only player, managing total assets of Rs.4,564 crores by the end of March 1987. In 1986, the first growth scheme, Mastershare was launched by UTI and was the first to be listed on stock exchange. The second phase was between 1987 and 1993 during which period eight funds were established (six by banks and one each by LIC and GIC). SBI Mutual Fund was the first non UTI mutual fund established in June 1987, followed by Canbank Mutual Fund in December 1987. SBI Mutual Fund launched its first scheme namely, Regular Income Scheme (RIS) 1987 with 5½ years of duration assuring 12 percent return. Canbank Mutual Fund launched its first scheme, Canshare in December 1987 mopping up Rs.4 crores. The total assets managed by the industry shot upto Rs.47,004 crores by the end of March 1993.

The third phase began with the entry of private and foreign sector mutual funds in 1993 increasing the share of private players. The

industry evolved self-regulation to promote confidence among investors under the aegis of the Association of Mutual Funds of India (AMFI) incorporated on August 22, 1995 as a non-profit organisation. With the objective of ensuring healthy growth of mutual funds, the SEBI (Mutual Funds) Regulations 1993 were substituted by a more comprehensive and revised regulations in 1996 bringing out standards in Net Assets Value (NAV) calculation, accounting practices, exemption from listing of schemes, remuneration to Asset Management Company's (AMC), fixation of a band of seven percent between purchase and repurchase prices. Since October 1999, Money Market Mutual Funds was brought under the supervisory control of SEBI on par with liquid funds. The acquisition of Pioneer ITI by Templeton in August 2000 was one of the biggest mergers in the IMFI. At the end of January 2003, there were 33 mutual funds managing total assets of Rs.1,21,805 crores after witnessing several mergers and acquisitions. The total Assets Under Management (AUM) of the mutual fund houses in the country crossed Rs.One trillion in June 2003, a decade after the entry of private sector in mutual fund business[*].

The fourth phase had its beginning from February 2003, following the repeal of the Unit Trust of India Act 1964, bifurcating UTI into two

*Ashutosh Joshi and Vandana, *"MFs corner Rs 1 trn assets in 9 months"*, Business Standard: Money & Markets Section II, June 8, 2007 p.1.

separate entities, namely UTI Specified Undertaking regulated by Government of India and UTI Mutual Fund Ltd regulated by SEBI. With mergers taking place among mutual funds, the mutual fund industry entered its fourth phase of consolidation and growth. By the end of September 2004, there were 29 funds, managing assets of Rs.1,53,108 crores under 421 schemes. The industry touched Rs.Two trillion in September 2005. The growth rate of the industry scaled up, as the next milestone of Rs.Three trillion was reached in August 2006[*].

In India, mutual funds as vehicles of mobilization and channels of funds towards the securities market, as exposed in the Table 1.1 had shown improvement in total net assets from Rs.25 crores, by the end of 1964-65 to Rs.47,734 crores as on March 31, 1993, and touched Rs.2,31,862 crores as on March 31, 2006 as shown in the Exhibit 1.3. The industry is presently holding total net assets worth Rs.3,26,338 crores as on March 31, 2007 through 687 schemes.

Mutual funds are set to bag a huge chunk of nearly Rs.3,05,000 crores of cash reserves from Government's new pension fund and public sector companies[!]. The mutual fund industry in India had grown several

* Op.cit

! Ashutosh Joshi, *"MFs to get rich with inflows from PSUs",* Business Standard: Money & Markets, Section II, May 18, 2007, p.1.

TABLE 1.1
Mutual Fund Schemes And Assets Under Management Of
Indian Mutual Fund Industry

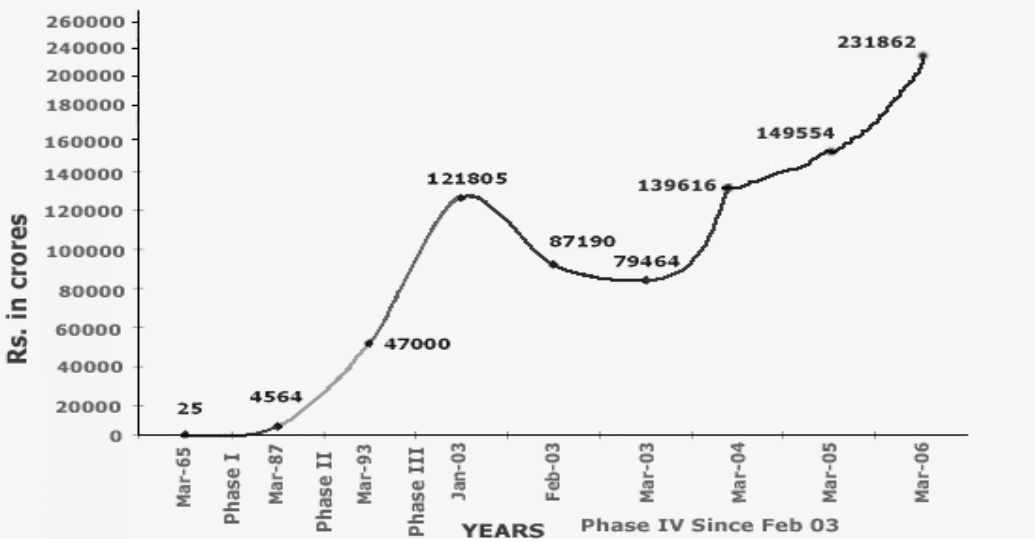
Year	Number Of Schemes in Operation	**Assets Under Management** (Rs. in Crores)		
		UTI	**Others**	**Total**
1964-65	1	25	-	25
1965-66	1	26	-	26
1966-67	1	34	-	34
1967-68	1	49	-	49
1968-69	1	65	-	65
1969-70	1	88	-	88
1970-71	2	105	-	105
1971-72	2	119	-	119
1972-73	2	142	-	142
1973-74	2	172	-	172
1974-75	2	170	-	170
1975-76	2	177	-	177
1976-77	2	207	-	207
1977-78	2	280	-	280
1978-79	2	394	-	394
1979-80	2	455	-	455
1980-81	3	514	-	514
1981-82	3	679	-	679
1982-83	4	870	-	870
1983-84	4	1261	-	1261
1984-85	4	2210	-	2210
1985-86	10	3218	-	3218
1986-87	11	4564	-	4564
1987-88	13	6739	132	6871
1988-89	21	11835	1621	13456
1989-90	47	17651	1480	19131
1990-91	83	21376	1785	23161
1991-92	116	31806	6168	37973
1992-93	142	38977	8757	47734
1993-94	167	51709	10721	62430
1994-95	178	59619	13349	72967
1995-96	168	61528	12787	74315
1996-97	196	59341	10856	70197
1997-98	235	57554	11430	68984
1998-99	277	53320	15152	68472
1999-00	337	76547	36458	113005
2000-01	393	58017	32570	90587
2001-02	417	51434	49160	100594
2002-03	382	13516	65948	79464
2003-04	403	-	139616	139616
2004-05	451	-	149554	149554
2005-06	592	-	231862	231862

Source: *Compiled from AMFI records and UTI Institute of Capital Markets.*

Exhibit 1.3

Assets Under Management of The Indian Mutual Fund Industry

(Since 1964)



Source: *www.amfiindia.com*

folds in terms of number of schemes, funds raised and investor base over the years. With the growing competition in the market, a regular scientific appraisal of mutual funds is essential for the investors as well as the fund managers.

STATEMENT OF THE PROBLEM

India has become the world's fourth largest economy besides U.S.A., China, and Japan. Although the Indian capital market witnessed some significant changes during the eighties, both the primary and the secondary segments continued to suffer from some serious deficiencies. Many unhealthy practices prevailed in the primary market to attract retail investors. High pricing of new issues, difficulties in analyzing the

prospects of a company, under pricing of shares in the market after listing have discouraged and aroused hesitation among many investors to enter into the stock market. The secondary market had become highly volatile and technical for small investors.

Markets for equity shares, real estate, derivatives and other assets have become highly dynamic. Unprecedented global and national events have brought in substantial changes in the securities market. Capital market, being the major supplier of corporate finance, ought to grow in a healthy manner to pump in more and more money. Investment in corporate securities demands investors to understand the complexities of market, to keep track of market movements and to make scientific investment decisions. The growing popularity of mutual funds prove that it is an ideal investment vehicle for small investors having limited information and knowledge to enter the today's complex and modern capital market. The domestic mutual fund industry has grown by 50 percent particularly through Systematic Investment Plan (SIP) from retail participants. But, there is still a long way to go as only five percent of the households are investing in mutual fund schemes.

Liberalization of economic policies, metamorphic changes in the Indian Financial System, brought out increase in the share of household savings, changes in investment attitude and preferences. It is estimated

that, the Gross Domestic Savings for 2007-08 to 2011-12 will range from 33.4 percent to 34.7 percent, under the growth scenarios of seven to nine percent respectively, against 27.1 percent in 2004-05. Household sector's financial savings for 2007-08 to 2011-12 is expected to be in the range of 24.1 percent to 24.4 percent, with household financial and physical savings projected in the range of 11.3 percent to 11.4 percent and 12.9 percent to 13 percent respectively[*]. The household savings rate is increasing and is expected to accelerate with the reinforcement of benign demographic dynamics, financial sector liberalization and increasing human development index. As the household sector's share in financial assets is expected to go much higher in the country's savings, it is of utmost importance to show a right path to individual investors. With an emphasis on increase in domestic savings and improvement in deployment of investible funds into the market, the need and scope for mutual fund operations have increased and is expected to increase tremendously in future. Mutual funds seek to serve those individuals, who have the inclination to invest but lack the background, expertise and sufficient resources to diversify their investment among various sectors. Even though mutual fund industry is growing, still there is a long way to

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* Srinivasan G (2007), "*Household, corporate savings seen rising on income growth"*, The Hindu Business Line: Economy, May 27, 2007. p 6.

go. The penetration level in rural areas is not very high. The funds have grown more because of the changing demographic profile. More number of investors, particularly youth, whose disposable income has gone up, opt mutual fund to enter securities market indirectly.

Indian investors have little information to take prudent investment decisions. Such information drought is the breeding ground for misguidance and the investor is likely to be inspired by the agents to opt for a particular scheme without an in-depth analysis. The information drought regarding performance of mutual funds in India is perhaps a major cause for the Indian mutual fund industry for not attaining the status of their counterparts in U.S.A., U.K. and other developed countries. An average investor obtains investment advice and practical information from investment outlets, such as business magazines and web sites. However, the information on performance of mutual funds over a period of time is scantily available for all the investors. The present work is an attempt to fill up the lacuna and help investors to make meaningful investments. Therefore, the present study attempts to bring out the performance of mutual fund industry in India.

The mutual fund industry has gained momentum in 1993 with the entry of private sector in the wake of liberalization and globalization. Further, the industry has gained a coveted status after the implementation

of the SEBI (Mutual Funds) Regulations 1996. Of the varied category of mutual fund schemes, growth oriented mutual funds are expected to offer the advantages of diversification, market timing and selectivity. A growth scheme has to generate capital appreciation for its unit-holders by investing a substantial portion of its corpus in high growth equity shares or other equity related instruments of corporate bodies. The principal objective of growth schemes with growth options is to ensure maximum capital appreciation. Hence, the researcher intends to study growth schemes with growth options launched in the year 1993 and still in operation under the regulated environment.

This research work intends to find answers for the following questions:

- Is the Indian Mutual Fund Industry making a consistent growth?
- What factors influence the investor's choice of a mutual fund organisation and scheme?
- What are the views of fund managers, brokers and investors on mutual fund investments?
- How is the performance of growth schemes in India?

SIGNIFICANCE OF THE STUDY

Mutual funds play a crucial role in the economic development of the respective countries. The active involvement of mutual funds in the economic development can be seen by their dominant presence in the money and capital markets world over. Their presence is, however, comparatively stronger in the economically advanced countries.

The role of the mutual funds in the form of financial intermediation, by way of resource mobilization, allocation of resources, and development of capital markets and growth of corporate sector is very conspicuous. Mutual funds also play an important role in the stock market by way of ensuring stability as supplier of large resources and through steady absorption of floating stocks. Mutual funds are well known for their benefits in the following forms to its investors:

- Professional expertise in buying and selling of units;
- Professional management of securities transactions;
- Opportunity to hold wide spectrum of securities;
- Long-term planning by fund managers;
- Safety of funds;
- Spreading of risk;
- Freedom from stress and emotional involvement;

- Automatic reinvestment of dividends and capital gains;
- Dissemination of information on the performance of the mutual funds, schemes, fund managers and,
- Investor protection.

Emergence of mutual funds in the Indian scenario is a product of constraints on the banking sector to tap the fruits of the capital market and the reluctance of the investors to take a direct plunge in complex and erratic capital market operations. Mutual fund entered the arena of this service sector in an admirable manner. The IMFI is one among the top 15 nations in terms of assets under management, which has crossed USD 100 billion. As a globally significant player the IMFI is attracting a bigger chunk of household investments and is expected to witness five to six times growth in the next seven to eight years. It is expected that the industry's AUM may grow to USD 500-600 billion by 2015 as more global players are planning and ready to set up asset management businesses in India*.

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* Joshi et. al., loc. cit.

NEED FOR THE STUDY

India's savings rate is over 23 percent, which is one of the highest in the world. In order to accelerate economic development of our country, it is not only necessary to increase the rate of savings but also to improve the holding pattern of such savings. Savings held in the form of currency or physical assets either remain idle or kept unproductive or wasted. The Government's steps to channel the financial savings are one of the major contributions for the rapid economic growth. The efforts towards financialisation of savings and the general reluctance of the investing populous demand the active role of mutual funds. As investment in equity shares are too risky, mutual funds have to become efficient in mobilization and allocation of resources.

The rate of conversion of household savings into investment in our country is very low. The percentage of household savings that flew into the capital market in India is as poor as 7 percent, as against 25 percent in the U.S.A. and 19 percent in Japan. As the household sectors share is much higher in the country's savings, it is of utmost importance to show a right path for their deployment. The Indian household sector is characterized by a tendency to avoid risk as they lack the mental readiness to absorb the shocks of the volatile capital market. Hence, to

attract the surplus funds possessed by this sector into the capital market, institutional intermediaries are required.

The Indian household sectors' investment in mutual funds made a greater beginning in the second half of the eighties. Though apparently mutual funds were intended to cater to the needs of the retail investors, there had been no sufficient response from them. Mutual funds are supposed to be the best investment vehicle for small investors and hence there is a need to find out investors perceptions and factors influencing their decisions. So, there is a dare necessity to identify how far mutual funds satisfy the twin aspirations of the investors (steady appreciation of unit value and consistent return on investment).

In the year 2001, despite a long history, assets of mutual funds in India constituted less than 5 percent of Gross Domestic Product, which is very low compared to 25 percent in Brazil, and 33 percent in Korea. This is perhaps due to the reason that the industry has not won investors confidence to attract a growing share of household's financial savings. The IMFI is still not able to establish its worthiness among retail investors as a clearly preferred vehicle of investment for their savings even after forty years of its existence.

Today, more and more private sector mutual funds are coming into the foray. An average investor is unable to take a decision as to which bandwagon should he hop on to. As household sector's share is much larger in the country's savings it is utmost essential to guide their deployment in the right direction. Thus, there is a need for the present study to bring to light the performance of the mutual funds, which can help the retail investors to make valued judgment in terms of deploying their savings to the capital market through the mutual fund vehicle. With the growing institutionalization, retail investors are gradually keeping out of the primary and secondary market, and looking forward to mutual funds for their investments.

Among the mutual funds, it is expected that debt oriented schemes will continue to dominate the mutual fund industry satisfying the needs of yield, security and liquidity fairly well besides being attractive from the tax point of view. While equity oriented schemes will gain more significance in future, their popularity will depend on the conditions of the stock market and the kind of tax relief accorded to them. Hence, it is of utmost importance to study the performance of growth schemes of mutual fund industry, which is a near substitute for direct investment in shares. Analysis of risk-return of schemes and its relationship with the market will provide information on the performance of sample schemes,

fund managers ability in selecting and timing security related transactions in the present scenario of multitudinous mutual fund schemes.

OBJECTIVES OF THE STUDY

This research work is undertaken with the following objectives:

- To appraise the performance of mutual fund industry in India under the regulated environment.
- To study the relationship between the performance of market index with that of the growth schemes.
- To evaluate the performance of growth schemes using Sharpe, Treynor, Jensen and Eugene Fama's measures of portfolio evaluation.
- To study the factors influencing choice of investment in mutual funds by the fund managers.
- To study the attitude of investors and brokers towards investment in mutual funds.

HYPOTHESES

Based on the above objectives, the following hypotheses were set:

Hypothesis 1: There is no significant difference among the performance evaluation tools as suggested by Sharpe, Treynor and Jensen.

Hypothesis 2: Index returns and scheme returns are not significantly related.

Hypothesis 3: Past performance of the scheme does not have any significant relationship with that of current performance.

Hypothesis 4: Investment decisions are not significantly influenced by the profile of investors.

Hypothesis 5: Profile of investors does not have any significant impact on the criteria of selecting mutual fund scheme.

Hypothesis 6: There is no domination of attitudinal difference between the opinions of investors towards investment in mutual funds.

Hypothesis 7: There is no significant difference between the opinions of investors, brokers and fund managers with regard to the factors influencing the choice of mutual fund and scheme.

SCOPE OF THE STUDY

This research work attempts to evaluate the performance of mutual fund industry in India under the regulated environment after the introduction of the SEBI (Mutual Funds) Regulations 1996 enforcing uniformity in rules and regulations. Performance evaluation is restricted to seven growth schemes launched in 1993 when the industry was opened for private sector and the industry brought under the regulated

environment for the first time by passing the SEBI (Mutual Funds) Regulations 1993. Performance in terms of NAV of growth schemes with growth option alone is studied from the angle of risk and return in comparison with the benchmark (BSE 100) index from April 1998 (a year after the introduction of comprehensive regulations) to March 2006. All the seven selected schemes were initially launched as close-end and were later converted into open-end. To identify the perception of investing public and financial intermediaries, an opinion survey of investors, brokers and fund managers of sample schemes were carried out.

OPERATIONAL DEFINITIONS AND CONCEPTS

Mutual Fund is a fund established in the form of a trust by a sponsor to raise money by the trustee through the sale of units to the public under one or more schemes for investing in securities in accordance with the SEBI regulations.

Mutual fund scheme refers to the IMFI products launched representing a category with specific objective and varied options. A scheme can belong to open or close-end type of operation. The objective of the scheme can relate to any category like income, growth, balanced, money market and equity linked savings scheme.

Open-end Funds are schemes of a mutual fund offering units for sale on a continuous basis directly from the fund and does not specify any duration for redemption or repurchase of units.

Net Assets Value is the current market worth of a mutual fund scheme. Calculated on a daily basis considering total assets and any accrued earnings, after deducting liabilities; the remainder is divided by the number of units outstanding. NAV is considered as the most reliable indicator of mutual fund performance.

Unit means the share of holding of an investor in a mutual fund scheme. Each unit represents one undivided share in the assets of a scheme.

Unit-holder is a participant in a mutual fund scheme.

Growth Schemes invest primarily in shares and also might hold fixed-income securities in a smaller proportion.

Growth Option of a mutual fund scheme is an option for long term growth of resources mobilized as it invests primarily in shares with significant growth potential. Dividend is not paid to the investors but ploughed back into the fund increasing the NAV of the units.

Year refers to the financial year of Government of India starting on April 1 and ending on March 31 of the following year.

LIMITATIONS OF THE STUDY

The limitations of this study are as follows:

i. Since the study is mostly based on the secondary data, the shortcomings of the use of secondary data are ineviTable.

ii. Performance evaluation of the scheme is based only on the NAV of the growth category schemes with growth option alone.

iii. Brokerage commission, entry load, exit load and taxes were not considered.

iv. Based on the availability of data, industry analysis has been carried only from 1997-98 to 2005-06 while performance analysis of sample schemes relates to the period 1998-99 to 2005-06.

v. The present study does not cover the impact of mergers and takeovers of the sample schemes.

vi. Opinion survey of investors and brokers were restricted to Kovai Investors Association and Coimbatore Stock Exchange.

CHAPTER SCHEME

This research work is organised into seven chapters as detailed below:

Chapter I presents the need for the study, statement of the problem, objectives, hypotheses, scope and limitations of the study.

Chapter II deals with the comprehensive review of literature comprising of studies in foreign countries as well as in India.

Chapter III focuses on the methodology adopted for the present study covering the data source, sampling technique, tools and techniques of analysis.

Chapter IV highlights the performance of IMFI after the implementation of the SEBI (Mutual Funds) Regulations 1996, in terms of number of funds, number of schemes launched, category of schemes, types of schemes, resources mobilized, redemption of funds and assets under management.

Chapter V analyses the performance of selected growth schemes with growth option in terms of risk, return, consistency in performance and dependence on market performance.

Chapter VI studies the perception of investors, brokers, and fund managers relating to mutual fund investment, choice of sector, factors influencing the choice of mutual fund and scheme.

Chapter VII comprehensively summarizes the entire study and presents conclusion and suggestions.

CHAPTER II

REVIEW OF PREVIOUS STUDIES

A large number of studies on the growth and financial performance of mutual funds have been carried out during the past, in the developed and developing countries. Brief reviews of the following research works reveal the wealth of contributions towards the performance evaluation of mutual fund, market timing and stock selection abilities of fund managers. The pioneering work on the mutual funds in U.S.A. was done by Friend, et al., (1962) in Wharton School of Finance and Commerce for the period 1953 to 1958.

- **Friend, et al.,** (1962) made an extensive and systematic study of 152 mutual funds found that mutual fund schemes earned an average annual return of 12.4 percent, while their composite benchmark earned a return of 12.6 percent. Their alpha was negative with 20 basis points. Overall results did not suggest widespread inefficiency in the industry. Comparison of fund returns with turnover and expense categories did not reveal a strong relationship.

Friend et. al, "A Study of Mutual Funds" U.S. Securities and Exchange Commission, USA, (1962).

- **Irwin, Brown, FE** (1965) analyzed issues relating to investment policy, portfolio turnover rate, performance of mutual funds and its impact on the stock markets. The schoolwork identified that mutual funds had a significant impact on the price movement in the stock market. The cram concludes that, on an average, funds did not perform better than the composite markets and there was no persistent relationship between portfolio turnover and fund performance.

- **Treynor** (1965) used 'characteristic line' for relating expected rate of return of a fund to the rate of return of a suitable market average. He coined a fund performance measure taking investment risk into account. Further, to deal with a portfolio, 'portfolio-possibility line' was used to relate expected return to the portfolio owner's risk preference.

- The most prominent study by **Sharpe, William F** (1966) developed a composite measure of return and risk. He evaluated 34 open-end mutual funds for the period 1944-63. Reward to variability ratio for each scheme was significantly less than DJIA and ranged from 0.43 to 0.78.

Irwin, Brown, FE, et al., "A Study of Mutual Funds: Investment Policy and Investment Company Performance" reprinted in Hsiu-kwangwer and Alan Jzakon (Ed.) *Elements of Investments*, New York: Holt, Renchart and Winston, (1965), pp.371-385.

Treynor Jack L, "How to Rate Management of Investment Funds", *Harvard Business Review*, Vol. 43(1), (1965), pp. 63-75.

Sharpe, William F "Mutual Fund Performance", *The Journal of Business*, Vol. 39(1), (1966), pp.119-138.

Expense ratio was inversely related with the fund performance, as correlation coefficient was 0.0505. The results depicted that good performance was associated with low expense ratio and not with the size. Sample schemes showed consistency in risk measure.

- **Treynor and Mazuy** (1966) evaluated the performance of 57 fund managers in terms of their market timing abilities and found that, fund managers had not successfully outguessed the market. The results suggested that, investors were completely dependent on fluctuations in the market. Improvement in the rates of return was due to the fund managers' ability to identify under-priced industries and companies. The study adopted Treynor's (1965) methodology for reviewing the performance of mutual funds.

- **Jensen** (1968) developed a composite portfolio evaluation technique concerning risk-adjusted returns. He evaluated the ability of 115 fund managers in selecting securities during the period 1945-66. Analysis of net returns indicated that, 39 funds had above average returns, while 76 funds yielded abnormally poor returns. Using gross returns, 48 funds showed above average results and 67 funds below average results.

Treynor and Mazuy , "Can Mutual Funds Outguess The Markets" *Harvard Business Review*, Vol. 44, (1966), pp.131-136.

Jensen Michael C, "The Performance Of Mutual Funds In The Period 1945-1964", *Journal of Finance*, Vol. 23, (1968), pp.389-416.

Jensen concluded that, there was very little evidence that funds were able to perform significantly better than expected as fund managers were not able to forecast securities price movements.

- **Smith and Tito** (1969) examined the inter-relationships between the three widely used composite measures of investment performance and suggested a fourth alternative, identifying some aspects of differentiation in the process. While ranking the funds on the basis of ex-post performance, alternative measures produced little differences. However, conclusions differed widely when performance were compared with the market. In view of this, they suggested modified Jensen's measure based on estimating equation and slope coefficient.

- **Friend, Blume and Crockett** (1970) compared the performance of 86 funds with random portfolios. The study concluded that, mutual funds performed badly in terms of total risk. Funds with higher turnover outperformed the market. The size of the fund did not have any impact on their performance.

Smith and Tito , "Risk-Return Measures of Post-Portfolio Performance" *Journal of Financial and Quantitative Analysis*, Vol. 4, (1969), pp.449-471.

Friend, Blume, Crockett, *Mutual Funds and Other Institutional Investors – A new perspective*, Mc Graw Hill Book Company, New York, (1970).

- **Carlson** (1970) examined mutual funds emphasizing the effect of market series (S&P 500, NYSE composite, DJIA) during the period 1948-67. All fund groups outperformed DJIA but for a few which had gross returns better than that of S&P 500 or NYSE composite. Though there was consistency in risk and return, there was no consistency between risk-adjusted performance measures over the time period. Carlson's analysis of performance exposed relationship between cash inflows into funds and not with the size or expense ratio.

- **Arditti** (1971) found that Sharpe's conclusion got altered when annual rate of return was introduced as a third dimension. He found that, contrary to Sharpe's findings the average fund performance could no longer be judged inferior to the performance of DJIA. Fund managers opted higher risk for better annual returns.

- **Williamson** (1972) compared ranks of 180 funds between 1961-65 and 1966-70. There was no correlation between the rankings of the two periods. The investment abilities of most of the fund managers were identical. He highlighted the growing prominence of volatility in the measurement of investment risk.

Carlson, "Aggregate Performance Of Mutual Funds, 1948-1967", *Journal of Financial and Quantitative Analysis*, Vol. 5, (1970), pp.1-32.

Arditti, "Another Look at Mutual Fund Performance", *Journal of Financial and Quantitative Analysis*, Vol. 3, (1971), pp. 909-912.

Williamson, "Measurement and Forecasting of Mutual Fund Performance: Choosing an Investment Strategy", *Financial Analysts Journal*, Vol. 28, (1972), pp.78-84.

- **Fama** (1972) developed methods to distinguish observed return due to the ability to pick up the best securities at a given level of risk from that of predictions of price movements in the market. He introduced a multi-period model allowing evaluation on a period-by-period and on a cumulative basis. He branded that, return on a portfolio constitutes of return for security selection and return for bearing risk. His contributions combined the concepts from modern theories of portfolio selection and capital market equilibrium with more traditional concepts of good portfolio management.

- **Klemosky** (1973) analysed investment performance of 40 funds based on quarterly returns during the period 1966-71. He acknowledged that, biases in Sharpe, Treynor, and Jensen's measures, could be removed by using mean absolute deviation and semi-standard deviation as risk surrogates compared to the composite measures derived from the CAPM.

- **McDonald and John** (1974) examined 123 mutual funds and identified the existence of positive relationship between objectives and risk. The study identified the existence of positive relationship between

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Fama, "Components of Investment Performance", *Journal of Finance*, Vol. 27, (1972), pp.551-567.

Klemosky, "The Bias in Composite Performance Measures", *Journal of Financial and Quantitative Analysis*, Vol. 8, (1973), pp.505-514.

McDonald and John, "Objectives And Performance Of Mutual Funds, 1960-69", *Journal of Financial and Quantitative Analysis*, Vol. 9, (1974), pp.311-333.

return and risk. The relationship between objective and risk-adjusted performance indicated that, more aggressive funds experienced better results.

- **Gupta** (1974) evaluated the performance of mutual fund industry for the period 1962-71 using Sharpe, Treynor, and Jensen models. All the funds covered under the study outperformed the market irrespective of the choice of market index. The results indicated that all the three models provided identical results. All the mutual fund subgroups outperformed the market using DJIA while income and balanced groups under performed S&P 500. Return per unit of risk varied with the level of volatility assumed and he concluded that, funds with higher volatility exhibited superior performance.

- **Meyer's** (1977) findings based on stochastic dominance model revalidated Sharpe's findings with the caution that it was relevant for mutual funds in the designated past rather than for the future period.

- **Klemosky** (1977) examined performance consistency of 158 fund managers for the period 1968-75. The ranking of performance showed

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Gupta, "The Mutual Fund Industry and Its Comparative Performance", *Journal of Financial and Quantitative Analysis*, Vol. 6, (1974), pp.894.

Meyer, "Further Applications of Stochastic Dominance to Mutual Fund Performance", *Journal of Financial and Quantitative Analysis*, Vol 12(1977) 917-924.

Klemosky, "How Consistently Do Managers Manage", *Journal of Portfolio Management*, Vol. 3, (1977), pp.11-15.

better consistency between four-year periods and relatively lower consistency between adjacent two-year periods.

- **Ippolito's** (1989) results and conclusions were relevant and consistent with the theory of efficiency of informed investors. He estimated that risk-adjusted return for the mutual fund industry was greater than zero and attributed positive alpha before load charges and identified that fund performance was not related to expenses and turnover as predicted by efficiency arguments.

- **Rich Fortin and Stuart Michelson** (1995) studied 1,326 load funds and 1,161 no load funds and identified that, no-load funds had lower expense ratio and so was suitable for six years and load funds had higher expense ratio and so had fifteen years of average holding period. No-load funds offered superior results in nineteen out of twenty-four schemes. He concluded that, a mutual fund investor had to remain invested in a particular fund for very long periods to recover the initial front-end charge and achieve investment results similar to that of no-load funds.

Ippolito R, "Efficiency with Costly Information: A Study of Mutual Fund Performance", *Quarterly Journal of Economics,* Vol. 104, (1989), pp.1-23.

Rich Fortin, and Stuart Michelson, "Are load Mutual Funds Worth the Price?", *Journal Of Investing,* Vol. 4(3) , (Fall 1995), pp. 89-94.

- **Baur, Sundaram and Smith** (1995) outlined the pricing fundamentals of open-end and close-end funds, and described the transaction cost of buying and selling funds. The U.S.A.'s experience of mutual funds described how these institutions could change a country's capital market and individual investment patterns. The study disclosed that the continuous redemption privilege of open-end funds had vulnerable consequences in the pricing of each type of fund, the assets held by each type of fund and the manner in which the transaction and management fees were collected.

- **Conrad S Ciccotello and C Terry Grant's** (1996) study identified a negative correlation between asset size of the fund and the expense ratio. The results of the study brought out that, larger funds had lower expense ratios due to economies of scale. Equity funds had spent heavily to acquire information for trading decision and were consistent with the theory of information pricing. The high beta, high expenses and high turnover in the aggressive growth group than in long-term growth funds and income funds suggested higher costs being associated with obtaining and using corporate information in emerging and volatile market.

Baur, Sundaram and Smith, "Mutual Funds: The US Experience", *Finance India*, Vol. 9(4), (1995), pp.945-957.

Conrad S Ciccotello and C Terry Grant, "Information Pricing: The Evidence from Equity Mutual Funds", *The Financial Review*, Vol. 31(2), (1996), pp.365-380.

- **Grubber** (1996) attempted to study the puzzle relating to the fast growth of mutual funds inspite of inferior performance of actively managed portfolios. The study revealed that, mutual funds had negative performance compared to the market and provided evidence of persistence of under performance. Sophisticated clientele withdrew money from mutual funds during the period of poor performance, where as mutual funds found money from disadvantaged clientele leading to the faster growth of funds.

- **Dellva, Wilfred L and Olson, Gerard T** (1998) studied 568 mutual funds without survivorship bias. The results indicate that, informational competency of funds increased the efficiency, reduced expenses and provided for higher risk-adjusted returns. Redemption fees had positive and significant impact on expenses. International funds had higher expense ratios.

- **Khorana, Ajay and Nelling, Edward** (1998) using multinomial probit model identified that, funds with higher ratings had higher risk adjusted performance, lower systematic risk, greater degree of

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Grubber, "The Persistence Of Risk-Adjusted Mutual Fund Performance", *Journal of Business*, Vol. 2, (1996), pp.133-157.

Dellva, Wilfred L.and Olson, Gerard T. "The Relationship Between Mutual Fund Fees And Expenses And Their Effects On Performance", *The Financial Review*, Vol. 33(1), (Feb 1998), pp.85-104.

Khorana, Ajay and Nelling, Edward "The Determinants And Predictive Ability Of Mutual Fund Ratings", *Journal Of Investing*, Vol. 7(3), Fall (1998), pp 61-66.

diversification, larger asset base, lower portfolio turnover, managers with longer tenures, lower front load and expense ratios. Persistence in fund performance was statistically significant during short time horizons. Morningstar's mutual fund ratings were based on historic risk and reward. The ratings provided useful information while selecting mutual funds. Funds in the top 10 percent of risk-adjusted scores had five star rating; next 22.55 percent received four star rating; middle 35 percent were assigned three stars, and the last two categories represented the next 22.5 percent and 10 percent. High rated funds performed substantially better than low rated funds after the issue of ratings.

- **Fernando, Chitru S et., al.** (1999) observed that splitting did not exhibit any superior performance nor any change in the risk characteristics of funds but enhance the marketability of fund's shares due to positive response from small investors.

- **Statman, Meir** (2000) emphasizes that, socially responsible investing has to be taken as a tool by the corporations. He further

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Fernando, Chitru S et.al, "Is Share Price Related To Marketability? Evidence from Mutual Fund Share Splits", *Journal of The Financial Management Association,* Vol. 28(3), Autumn (1999) pp.54-67.

Statman, Meir "Socially Responsible Mutual Funds", *Journal Of Financial Analysts* Vol. 56 (3) (May / June 2000), pp. 30-38.

identified that, socially responsible stocks out performed while socially responsible mutual funds under performed the S & P 500 Index during 1990-98.

- **Maria Do Ceu Cortez and Florinda Silva** (2002) analysed the implications of conditioning information variables on a sample of Portuguese stock funds. He identified that unconditional Jensen's alpha ensured superior performance till incorporation of public information variables. Alpha was not statistically different from zero while beta was related to public information variables.

The literature survey of foreign studies revealed that mutual fund managers were not able to offer higher returns due to their inability in stock selection and market timing. For short periods fund managers were able to offer superior returns.

REVIEW OF INDIAN STUDIES

The following is a brief account of research articles published in books, financial dailies, magazines and research journals by academicians, professionals and journalists explaining the concepts of

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Maria Do Ceu Cortez & Florinda Silva, "Conditioning Information on Portfolio Performance Evaluation: A Reexamination of Performance Persistence in the Portuguese Mutual Fund Market", *Finance India*, Vol. XVI (4), (December 2002), pp. 1393-1408.

mutual funds, its importance, features, schemes, investment pattern, method of reading a mutual fund prospectus, how to choose a scheme and significance of IMFI in the economic development of India. Gupta L C, Peeush Ranjan Agarwal, Srivastava S K were a few academicians and professionals who have studied the need for radical changes in the Indian financial system, emergence of mutual fund operations in India, regulatory framework and the impact of taxation on mutual fund performance. Verma's book on mutual funds covers the conceptual and regulatory framework of the mutual funds in India with guidelines for mutual fund selection. A brief account of the research works of Indian academicians are as follows:

❖ **Gupta Ramesh** (1989) evaluated fund performance in India comparing the returns earned by schemes of similar risk and similar constraints. An explicit risk-return relationship was developed to make comparison across funds with different risk levels. His study decomposed total return into return from investors risk, return from managers' risk and target risk. Mutual fund return due to selectivity was decomposed into return due to selection of securities and timing of investment in a particular class of securities.

Gupta, Ramesh "Mutual Funds", *The Management Accountant*, Vol. 24(5), (May 1989), pp.320-322.

❖ **Vidhyashankar S** (1990) identified a shift from bank or company deposits to mutual funds due to its superiority by way of ensuring a healthy and orderly development of capital market with adequate investor protection through SEBI interference. The study identified that mutual funds in the Indian capital market have a bright future as one of the predominant instruments of savings by the end of the century.

❖ **Bansal L K** (1991) identified that mutual fund like other financial institutions is a potential intermediary between the prospective investor and the capital market. Mutual fund, as an investment agency was preferred since 1985-86 due to the benefits of liquidity, safety and reasonable appreciation assured by the industry. The schemes with assured returns showed tremendous progress. Majority of the funds floated by commercial banks gave an impression that the responsibility of funds laid with the respective banks and their investment was secured.

❖ **Sarkar A K** (1991) critically examined mutual fund evaluation methodology and pointed out that Sharpe and Treynor performance measures ranked mutual funds alike inspite of their differences in terms

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Vidhyashankar S, "Mutual Funds: Emerging Trends In India", *Chartered Secretary*, Vol. 20(8), (August 1990), pp.639-640.

Bansal L K, "Challenges For Mutual Funds In India", *Chartered Secretary*, Vol. 21(10), (October 1991), pp. 825-26.

Sarkar A K, "Mutual Funds in India - Emerging Trends", *The Management Accountant*, Vol. 26 (3), (March 1991), pp.171-174.

of risk. The Sharpe and Treynor index could be used to rank performance of portfolios with different risk levels.

❖ **Batra and Bhatia** (1992) appreciated the performance of various funds in terms of return and funds mobilized. UTI, LIC and SBI Mutual Fund are in the capital market for many years declaring dividends ranging from 11 percent to 16 percent. The performance of Canbank Mutual Fund, Indian Bank Mutual Fund and PNB Mutual Fund were highly commendable. The performance of many schemes was equally good compared to industrial securities.

❖ **Gupta L C** (1992) attempted a household survey of investors with the objective of identifying investors' preferences for mutual funds so as to help policy makers and mutual funds in designing mutual fund products and in shaping the mutual fund industry.

❖ **Gangadhar V** (1992) identified mutual funds as the prime vehicle for mobilization of household sectors' savings as it ensures the triple benefits of steady return, capital appreciation and low risk. He identified that open-end funds were very popular in India due to its size, economies

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Batra and Bhatia, "Indian Mutual Funds: A study of Public sector" , paper presented, UTI Institute of Capital Market, Mumbai, (1992).

Gupta L C, *Mutual Funds and Asset Preference*, Society for Capital Market Research and Development, New Delhi, First Edition (1992).

Gangadhar V, "The Changing Pattern of Mutual Funds in India", *The Management Accountant*, Vol. 27 (12), (December 1992), pp. 924-28.

of operations and for its liquidity. Investors opted for mutual funds with the expectation of higher return for a given risk, greater convenience and liquidity.

❖ **Lal C and Sharma Seema** (1992) identified that, the household sector's share in the Indian domestic savings increased from 73.6 percent in 1950-51 to 83.6 percent in 1988-89. The share of financial assets increased from 56 percent in 1970-71 to over 60 percent in 1989-90 bringing out a tremendous impact on all the constituents of the financial market.

❖ **Sahu R K** (1992) identified mutual funds as a suitable investment vehicle to strengthen capital market, as the total assets were around Rs.30,000 crores while the total resources in equity was less than 15 percent of market capitalization.

❖ **Venugopalan S** (1992) opined that India (15 million) ranks third in the World next to U.S.A. (50 million) and Japan (25 million) in terms of number of shareholders ensuring the spread of equity cult. However,

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Lal C and Sharma Seema, "Mutual Fund-A Buoyant Financial Instrument", *Finance India,* Vol. VI (4) (December 1992), pp.811-18.

Sahu R K, "A Critical Review of the Mutual Fund Regulations", *Chartered Secretary,* Vol. 22(12), (December 1992), pp. 1076-1078.

Venugopalan S, "Mutual Funds", *Chartered Secretary,* Vol. XXII (8), (August 1992), pp.691-694.

many investors face hardships in the share market due to lack of professional advice, inability to minimize risk, limited resources and information.

❖ **Anagol** (1992) identified the urgent need for a comprehensive self-regulatory regime for mutual funds in India, in the context of divergence in its size, constitution, regulation among funds and sweeping deregulation and liberalization in the financial sector.

❖ **Shashikant Uma** (1993) critically examined the rationale and relevance of mutual fund operations in Indian Money Markets. She pointed out that money market mutual funds with low-risk and low return offered conservative investors a reliable investment avenue for short-term investment.

❖ **Ansari** (1993) stressed the need for mutual funds to bring in innovative schemes suitable to the varied needs of the small savers in order to become predominant financial service institution in the country.

Angol, "Role of Self Regulatory Organisation in Mutual Fund Industry in India", Chartered Financial Analyst, Vol.7(1), 1992,p11.

Shashikant, Uma "Accounting Policy and Practices of Mutual Funds: The Need for Standardization", Prajan, Vol. XXIV (2), (1993), pp. 91-102.

Ansari, "Mutual Funds in India: Emerging Trends", *The Chartered Accountant*, Vol. 42(2), (August 1993), pp.88-93.

❖ **Sahu R K and Panda J** (1993) identified that, the savings of the Indian public in mutual funds was 5 to 6 percent of total financial savings, 11 to 12 percent of bank deposits and less than 15 percent of equity market capitalization. The study suggested that, mutual funds should develop suitable strategies keeping in view the savings potentials, growth prospects of investment outlets, national policies and priorities.

❖ **Saha Asish and Rama Murthy Y Sree** (1993-94) identified that return, liquidity, safety and capital appreciation played a predominant role in the preference of the schemes by investors. The preference of the households towards shares and debentures was 7 percent by 1989-90. Mutual funds being an alternative way for direct purchase of stocks should be managed effectively adopting investment analysis, valuation models, and portfolio management techniques. The study suggested that, fund managers could adopt portfolio selection techniques to make more informed judgments rather than making investments on an intuition basis.

❖ **Vaid, Seema's** (1994) study revealed that the industry showed a continuous growth in savings mobilization and the number of unit holders

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Sahu R K and Panda J, "The Role And Future Of Mutual Funds In India", Management Accountant, (February 1993) pp. 91-3.

Saha Asish and Rama Murthy Y Sree, "Managing Mutual Funds: Some Critical Issues", *Journal of Social and Management Science*, Vol. XXII (1), (1993-94), pp.25-35.

Vaid, Seema, "Mutual Fund Operations In India", Rishi Publications, Varnasi, (1994).

during the period 1987 to 1992. 58.40 percent of resources mobilized by the industry were through income schemes. UTI accounted for 83.90 percent of industry mobilization. Pure growth schemes displayed a sound investment pattern with 81.80 percent of portfolios in equity scrips and had identified that semi-urban and rural areas were not adequately tapped by the mutual funds inspite of satisfactory returns. Offshore funds showed best performance during 1985-86.

❖ **Shukla and Singh** (1994) attempted to identify whether portfolio manager's professional education brought out superior performance. They found that equity mutual funds managed by professionally qualified managers were riskier but better diversified than the others. Though the performance differences were not statistically significant, the three professionally qualified fund managers reviewed outperformed others.

❖ The study by **Shome** (1994) based on growth schemes examined the performance of the mutual fund industry between April 1993 to March 1994 with BSE SENSEX as market surrogate. The study revealed that, in the case of 10 schemes, the average rate of return on mutual funds were marginally lower than the market return while the standard

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Shukla and Singh , "Are CFA Charter Holders Better Equity Fund Managers", *Chartered Financial Analysts,* Vol. 2, (1994), pp.68-74.

Shome, "A Study Of Performance Of Indian Mutual Funds", unpublished thesis, Jhansi University, (1994).

deviation was higher than the market. The analysis also provided that, performance of a fund was not closely associated with its size.

❖ **Shah Ajay and Thomas Susan** (1994) studied the performance of 11 mutual fund schemes on the basis of market prices. Weekly returns computed for these schemes since their launch of the scheme to April 1994 were evaluated using Jensen and Sharpe measures. They concluded that, except UTI UGS 2000, none of the sample schemes earned superior returns than the market due to very high risk and inadequate diversification.

❖ **Kale and Uma** (1995) conducted a study on the performance of 77 schemes managed by 8 mutual funds. The study revealed that, growth schemes yielded 47 percent CAGR, tax-planning schemes 30 percent CAGR followed by balanced schemes with 28 percent CAGR and income schemes with 18 percent CAGR.

❖ The Delhi-based **Value Research India Pvt. Ltd** (1996) conducted a survey covering the bearish phase of Indian stock markets from 30th June 1994 to 31st December 1995. The survey examined 83 mutual fund

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Shah Ajay and Thomas Susan, "Performance Evaluation of Professional Portfolio Management In India", paper presented, CMIE, (10 April 1994).

Kale and Uma, "A Study On The Evaluation Of The Performance Of Mutual Funds In India", National Insurance Academy, Pune, India (1995).

Value Research India Pvt. Ltd, "Mutual Fund" Delhi, India. (1996).

schemes. The study revealed that, 15 schemes provided negative returns, of which, 13 were growth schemes. Returns from income schemes and income-cum-growth schemes were more than 20 percent. From the point of risk-adjusted monthly returns, of the 53 growth schemes, 28 (52.8 percent) could beat the index even in a bear phase.

❖ **Tripathy, Nalini Prava (**1996) identified that the Indian capital market expanded tremendously as a result of economic reforms, globalization and privatization. Household sector accounted for about 80 percent of country's savings and only about one-third of such savings were available for the corporate sector. The study suggested that, mutual funds should build investors confidence through schemes meeting the diversified needs of investors, speedy disposal of information, improved transparency in operation, better customer service and assured benefits of professionalism.

❖ **Yadav R A and Mishra, Biswadeep** (1996) evaluated 14 close end schemes over the period of April 1992 to March 1995 with BSE National Index as benchmark. Their analysis indicated that, 57 percent of sample schemes had a mean return higher than that of the market, higher

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Tripathy, Nalini Prava, "Mutual Fund In India: A Financial Service in Capital Market", *Finance India*, Vol. X (1), (March 1996), pp. 85-91.

Yadav R A and Mishra, Biswadeep "Performance Evaluation of Mutual Funds: An empirical analysis", *MDI Management Journal*, Vol. 9(2), (July 1996), pp.117-125.

Sharpe Index and lower Treynor index. Schemes performed well in terms of diversification and total variability of returns but failed to provide adequate risk-premium per unit of systematic risk. 57 percent had positive alpha signifying superior performance in terms of timing ability of fund managers. Fund managers of growth schemes adopted a conservative investment policy and maintained a low portfolio beta to restrict losses in a rapidly falling stock market.

❖ **Jayadev M** (1996) studied the performance of UTI Mastergain 1991 and SBI Magnum Express from 1992-94 with 13 percent return offered by Post Office Monthly Income Deposits as risk-free return. Mastergain earned an average return of 2.89 percent as against market earnings of 2.84 percent. Volatility of Magnum Express was high compared to Mastergain. Master gain had a superior performance over its benchmark (Economic Times Ordinary Share Price Index) by taking greater risk than the market. Mastergain indicated lesser degree of diversification of the portfolio with lower R^2 value and very high unique risk. Magnum Express portfolio was well diversified with higher R^2 value along with lower unique risk and total risk. Both the funds did not earn superior returns because of lack of selectivity on the part of the fund

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Jayadev M, "Mutual Fund Performance: An Analysis of Monthly Returns", *Finance India*, Vol. X (1) (March 1996), pp. 73-84.

managers indicating that, the funds did not offer the advantages of professionalism to the investors.

❖ **Sahadevan S and Thiripalraju M** (1997) stated that, mutual funds provided opportunity for the middle and lower income groups to acquire shares. The savings of household sector constituted more than 75 percent of the GDS along with a shift in the preference from physical assets to financial assets and also identified that, savings pattern of households shifted from bank deposits to shares, debentures, and mutual funds.

❖ **Krishnamurthi S (**1997) identified mutual funds as an ideal investment vehicle for small and medium investors with limited resources, to reap the benefits of investing in blue chip shares through firm allotment in primary market, avoid dud shares, access to price sensitive information and spread risk along with the benefits of professional fund management.

❖ **Gupta and Sehgal** (1998) evaluated performance of 80 mutual fund schemes over four years (1992-96). The study tested the proposition relating to fund diversification, consistency of performance, parameter of

Sahadevan S and Thiripalraju M, *Mutual Funds: Data, Interpretation and Analysis*, Prentice Hall of India Private Limited, New Delhi, (1997).

Krishnamurthi S, "Genesis of Mutual Funds in India", Vision Books, New Delhi, (1997).

Gupta O P and Sehgal, Sanjay, "Investment Performance of Mutual Funds: The Indian Experience", paper presented in Second UTI-ICM Capital Markets Conference, December 23-24, (1998), Vasi, Bombay.

performance and risk-return relationship. The study noticed the existence of inadequate portfolio diversification and consistency in performance among the sample schemes.

❖ **Rao, Mohana P** (1998) opined that, UTI followed by LIC Mutual Fund dominated the market with 54 and 15 schemes respectively. His interview with 120 respondents showed that, 96 percent invested in UTI due to better service and return. 50 percent of shareholding and 25 percent of unit-holding respondents were from metro cities. Investor's services, income–cum-growth option and capital appreciation were very important aspects while choosing a fund. He identified that the close-end schemes were very popular among investors and respondents in general expected private sector funds to improve the quality of services, investors' confidence besides reducing fraud and mismanagement.

❖ **Kumar V K** (1999) analysed the roles, products and the problems faced by the IMFI. He suggested the turnaround strategies of awareness programs, transparency of information, distinct marketing and distribution systems to rebuild confidence.

Rao, Mohana P, "Working Of Mutual Fund Organisations In India", Kanishka Publishers, New Delhi, (1998).

Kumar V K, "In Search Of Turnaround Strategies For Mutual Fund Industry", *The Management Accountant*, (May 1999) Vol. 34(5), pp. 337-343.

❖ **Irissappane Aravazhi** (2000) evaluated the investment pattern and performance of 34 close-end schemes from 1988-98 and elicited the views of investors and managers belonging to Chennai, Mumbai, Pune and Delhi. The survey identified that the investors desired a return equivalent to market. 16 schemes reported greater risk than the market volatility. Majority of the schemes had a lower beta. Negative values in the case of Treynor and Sharpe index among many schemes indicated the mockery of the market. He further identified that the fund managers of 26 schemes had missed the chance of gaining from scheduling with response to changes in the market.

❖ **Gupta Amitabh (**2000) identified that the IMFI had come a long way since its inception in 1964. The transformation in the previous decade was the outcome of policy initiatives taken by the Government of India to break the monolithic structure of the industry in 1987 by permitting public sector banks and insurance sectors to enter the market.

❖ **Agrawal, Ashok Motilal** (2000) opined that mutual funds had made a remarkable progress during 1987-95. The cumulative investible

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Irissappane, Aravazhi "Paradigm Shifts In The Performance Of Indian Mutual Funds: An Analysis With Reference To Close-Ended Funds Of Selected Institutions", UTI Institute of Capital Markets, Mumbai(2000).

Gupta Amitabh, "Investment Performance of Indian Mutual Funds: An Empirical Study", *Finance India*, Vol. XIV (3), (September 2000), pp. 833-866.

Agrawal, Ashok Motilal, "Mutual Funds- Emerging Trends and Prospects", *Finance India,* Vol. XIV (4), (December 2000) pp.1271-1275.

funds of the mutual funds industry recorded a skyrocketing growth since 1987 and reached Rs.8,059 crores by December 31, 1995 from Rs.4,564 crores during 1986-87.

❖ **Ramesh Chander** (2000) examined 34 mutual fund schemes with reference to the three fund characteristics with 91-days treasury bills rated as risk-free investment from January 1994 to December 1997. Returns based on NAV of many sample schemes were superior and highly volatile compared to BSE SENSEX. Open-end schemes outperformed close-end schemes in term of return. Income funds outsmarted growth and balanced funds. Banks and UTI sponsored schemes performed fairly well in relation to sponsorship. Average annual return of sample schemes was 7.34 percent due to diversification and 4.1 percent due to stock selectivity. The study revealed the poor market timing ability of mutual fund investment. The researcher also identified that, 12 factors explained majority of total variance in portfolio management practices.

❖ **Gupta Amitabh** (2001) evaluated the performance of 73 selected schemes with different investment objectives, both from the public and

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Ramesh Chander "Performance Appraisal of Mutual Funds in India", *Finance India,* Vol. XIV(4) (December 2000), pp.1256-1261.

Gupta Amitabh, "Mutual Funds in India: A Study of Investment Management", *Finance India*, Vol. XV (2), (June 2001), pp.631-637.

private sector using Market Index and Fundex. NAV of both close-end and open-end schemes from April 1994 to March 1999 were tested. The sample schemes were not adequately diversified, risk and return of schemes were not in conformity with their objectives, and there was no evidence of market timing abilities of mutual fund industry in India.

❖ **Narasimhan M S and Vijayalakshmi S** (2001) analysed the top holding of 76 mutual fund schemes from January 1998 to March 1999. The study showed that, 62 stocks were held in portfolio of several schemes, of which only 26 companies provided positive gains. The top holdings represented more than 90 percent of the total corpus in the case of 11 funds. The top holdings showed higher risk levels compared to the return. The correlation between portfolio stocks and diversification benefits was significant at one percent level for 30 pairs and at five percent level for 53 pairs.

❖ **Roshni Jayam's** (2002) study brought out that equities had a good chance of appreciation in future. The researcher was of the view that, investors should correctly judge their investment objective and risk

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Narasimhan M S and Vijayalakshmi S "Performance Analysis of Mutual Funds in India", *Finance India*, Vol. XV (1), (March 2001), pp.155-174.

Roshni Jayam, "Debt Be Not Proud, Equity's Back", *Business Today*, (April 2002) pp. 42-45.

appetite before picking schemes, diversified equity funds were typically safer than others and index funds were the best when market movements were not certain. The researcher suggested Systematic Withdrawal Plan (SWP) with growth option was more suitable for investors in need of regular cash inflows.

❖ **Bansal Manish** (2003) survey of 2,819 respondents revealed that, the percentage of investors holding only UTI schemes reduced. The unit holders' loyalty seemed to have become a myth as investors were looking for performance. Unit-holders spread their holdings over two or more funds with an urge to diversify increasing competitive mutual fund environment.

❖ **Singh, Jaspal and Subhash Chander** (2003) identified that past record and growth prospects influenced the choice of scheme. Investors in mutual funds expected repurchase facility, prompt service and adequate information. Return, portfolio selection and NAV were important criteria's for mutual fund appraisal. The ANOVA results indicated that, occupational status; age had insignificant influence on the choice of scheme. Salaried and retired categories had priority for past

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Bansal, Manish "Mutual Funds: Eight Steps to nirvana", *Chartered Financial Analyst*, Vol. 9(12), (December 2003), pp. 34-40.

Singh, Jaspal and Subhash Chander, "What Drives the Investors towards Mutual Funds: An Empirical Analysis", *The ICFAI Journal Of Applied Finance*, Vol. 9(8), (November 2003), pp.38-46.

record and safety in their mutual fund investment decisions.

❖ **Saha, Tapas Rajan** (2003) identified that Prudential ICICI Balanced Fund, Zurich(I) Equity Fund were the best among the equity funds while Pioneer ITI Treasury scheme was the best among debt schemes. He concluded that, the efficiency of the fund managers was the key in the success of mutual funds and so the AMCs had to ensure more professional outlook for better results.

❖ **Satish D** (2004) opined that investors from seven major cities in India had a preference for mutual funds compared to banking and insurance products. Investors expected moderate return and accepted moderate risk. 60 percent of investors preferred growth schemes. The image of AMC acted as a major factor in the choice of schemes. Investors had the same level of confidence towards shares and mutual funds.

❖ **Sharath Jutur** (2004) studied 58 schemes during the bear period (September 1998 to April 2002). He identified that the risk was low for

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Saha, Tapas Rajan "Indian Mutual Fund Management", *Managment Accountant,* (October 2003), Vol. 38(10), pp.765-771.

Sathis D, "Investors Perceptions: A Survey by MARCH Marketing Consultancy & Research", *Chartered Financial Analyst,* Vol. 10(7), (July 2004) pp. 35-36.

Sharath Jutur, "Evaluating Indian Mutual Funds", *Chartered Financial Analyst,* (July 2004). p.83.

37 schemes, below average risk for 11 and of average risk for 10 schemes. Risk-return analysis revealed that, average mutual funds were found to be with low unsystematic and high total risk. The return was positive in the case of 46 schemes, with 30 schemes yielding above 5 percent. 32 schemes had positive Treynor ratio, 30 schemes had positive Sharpe ratio, 35 schemes had positive Jensen measure due to the bearish market with low CAPM returns.

❖ **Elango's** (2004) analytical results indicate that, private funds had a high positive association between the past and current year NAV compared to public sector. The private sector schemes outperformed public sector in terms of NAV range value, innovative products and in deployment of funds. Public sector funds showed low volatility as against greater variability for private sector indicating low consistency. Student 't' test indicated the existence of a high significant difference between the mean NAV of private sector funds and public sector with a high statistical significance of (-)5.95.

❖ **Venkateshwarlu M** (2004) had analysed investors from the twin cities of Hyderabad and Secunderabad. Investors preferred to invest in

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Elango R, "Which fund yields more returns?" *The Management Accountant,* Vol. 39(4), (2004), p283-290.

Venkateshwarlu M (2004), "Investors' Perceptions of Mutual Funds", *Southern Economist*, (January 15, 2004), pp.14-16.

open-end schemes with growth objectives. Chi-squared value revealed that, the size of income class is independent of preference pattern, and dependent on the choice of fund floating institution. Reasonable returns and long-term strategy adopted by the scheme were the criteria of scheme selection. Investors perceived that too many restrictions led to the average performance of mutual funds in India.

❖ **Sondhi H J and Jain P K** (2005) examined 17 public and 19 private sector mutual fund equity schemes. The mean and median returns for the aggregate period (1993-2002) were lower than the returns on 364 days treasury bills, and higher than the BSE 100 index. Alliance Equity fund was the top performer and Canbonus and LIC Dhanvikas(I) were the worst performers. They hypothesized that majority of the sample schemes earned returns better than the market. Private equity schemes had superior performance due to its popularity; fund management practices, well-researched stock selection and timing skills. More than three-fourth of public sector schemes were unable to achieve better returns in spite of higher investor confidence associated with high safety. The funds did not show consistency in performance.

Sondhi H J and Jain P K, "Financial Management Of Private And Public Equity Mutual Funds In India: An Analysis Of Profitability", (July 2005), *The ICFAI Journal of Applied Finance*, (2005), pp.14-27.

❖ **Muthappan P K and Damodharan E** (2006) evaluated 40 schemes for the period April 1995 to March 2000. The study identified that majority of the schemes earned returns higher than the market but lower than 91 days Treasury bill rate. The average risk of the schemes was higher than the market. 15 schemes had an above average monthly return. Growth schemes earned average monthly return. The risk and return of the schemes were not always in conformity with their stated investment objectives. The sample schemes were not adequately diversified, as the average unique risk was 7.45 percent with an average diversification of 35.01 percent. 23 schemes outperformed both in terms of total risk and systematic risk. 19 schemes with positive alpha values indicated superior performance. The study concludes that, the Indian Mutual Funds were not properly diversified.

❖ **Sanjay Kant Khare (**2007) opined that investors could purchase stocks or bonds with much lower trading costs through mutual funds and enjoy the advantages of diversification and lower risk. The researcher identified that, with a higher savings rate of 23 percent, channeling savings into mutual funds sector has been growing rapidly as retail

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Muthappan P K & Damodharan E , "Risk-Adjusted Performance Evaluation of Indian Mutual Funds Schemes", *Finance India*, Vol. XX(3), (September 2006), pp.965-983.

Sanjay Kant Khare 2007, "Mutual Funds: A Refuge for Small Investors", *Southern Economist*, (January 15, 2007), pp.21-24.

investors were gradually keeping out of the primary and secondary market. Mutual funds have to penetrate into rural areas with diversified products, better corporate governance and through introduction of financial planners.

The present work is based on the review of 27 foreign and 46 Indian studies relating to mutual funds. The review of foreign studies ensures that, mutual funds have a significant impact on the price movement in the stock market, the average return from the schemes were below that of their benchmark, all the three models provided identical results, good performance were associated with low expense ratio and not with the size.

The aforementioned studies indicate that the evaluation of mutual funds has been a matter of concern in India for the researchers, academicians, fund managers and financial analysts to a greater extent after 1985. The reviews bring to light the importance of mutual funds in the Indian financial scenario; highlight the need for adequate investor protection, single regulatory authority, higher return for a given risk as per investors' expectation, greater convenience and liquidity, and the expectations that mutual funds should act as a catalytic agent of economic growth and foster investors' interest.

The studies on mutual fund investment performances have long sought to draw the distinction between the ability to time the market and the ability to forecast the returns of individual assets. Thus superior performances are due to either timing or selection ability or some combination of the two. Indeed portfolio managers often characterize themselves as market timers or stock pickers.

The subject of mutual fund performance has received a great deal of attention in the literature of financial economics. The reviews of earlier studies have briefly looked at predictability of performance, persistence in performance and market timing ability. However, reviews on industry performance particularly under the regulated environment are scantly available. As the mutual fund industry has a significant role to play in the corporate governance and to strengthen capital mobilization of the country there is a great need to study the performance of mutual fund industry along with the performance of growth schemes, particularly after the industry has ensured uniformity in accounting policies to bridge the gap in the existing literature. Since all the earlier studies have made use of Sharpe, Treynor and Jensen measures the present study makes use of the same well established traditional techniques along with Fama's Decomposition of Total Return which was not applied by many of the previous studies.

CHAPTER III

METHODOLOGY

The methodology of the present research work entitled "*Performance Of The Indian Mutual Fund Industry: A Study With Special Reference To Growth Schemes*" is as follows:

SOURCES OF DATA

The study is a blend of both primary and secondary data. Secondary data were collected from the records of AMFI, UTI Institute of Capital Markets, and web sites of respective mutual funds.

The primary data required for the study was collected using a detailed interview schedule / questionnaire from fund managers, brokers and investors respectively. Before the preparation of schedule / questionnaire discussions were held with the AMFI Chairman, Director of Society for Capital Market Research and Development, Dean of UTI Institute of Capital Markets, Officials of SEBI, CRISIL Fund Services Ltd, Credence Analytics (India) Pvt Ltd and Value Research India Private Limited for first hand information. A structured questionnaire was prepared and tested through a pilot study among investors. The questionnaire was revised and administered to elicit the perception of investors and brokers on their preference for mutual funds. Investors,

brokers and fund managers were contacted in person for the sake of collection of primary data required for the study.

SAMPLING FRAME

The Indian Mutual Fund Industry came under liberalized environment in the year 1993 with the introduction of SEBI (Mutual Funds) Regulations. The industry was brought under the uniform regulatory control with the implementation of SEBI (Mutual Funds) Regulations 1996. Hence, this study attempts to review the performance of the industry from 1997-98, after the introduction of uniform rules and regulations to March 2006.

To study the risk and return relationship, the sampling frame includes all the 25 schemes launched in the year 1993 in the IMFI. On the basis of types of scheme, 2 were open-end and 23 were close-end. Of the 25 schemes, from the objective point of view, 10 were growth schemes, 8 were tax saving schemes, 4 were income-cum-growth schemes and 3 were income schemes. Since 92 percent (23 schemes) were close-end and 40 percent (10 schemes) were growth schemes, a detailed in-depth study of all the existing seven growth schemes was undertaken for the present study. All the seven short listed schemes were initially close-end and latter converted into open-end on various dates.

Thus, the sampling frame for the purpose of the study constitutes the follows schemes:

- SBI Magnum Multiplier Plus 1993
- LIC MF Equity Fund [LIC Dhanvikas (1)]
- Cangrowth Plus [GIC Growth Plus II]
- UTI Opportunities Fund [UTI Grandmaster 93]
- Franklin India Bluechip Fund [Kothari Pioneer Blue Chip Fund]
- Franklin India Prima Fund [Kothari Pioneer Prima Fund]
- HDFC Capital Builder Fund [Zurich India Capital Builder Fund]

Note: *Scheme names within square brackets indicate their previous name.*

Using schedules, opinion survey of fund managers was restricted to the seven schemes selected for the research work. Out of 46 brokers registered with the Coimbatore Stock Exchange, 26 were inactive. The remaining 20 brokers were contacted using questionnaire to collect the opinion of brokers adopting census method.

To elicit information from the investors, all the investors registered in the Kovai Investors Association were contacted between January 2005 and September 2005. Four hundred and sixty investors were members in Kovai Investors Association as on December 15, 2004. All the investors holding mutual funds were surveyed adopting census method. A detailed questionnaire covering various aspects of the investment decision of

investors were prepared and finalized. After pre-testing, the same research instrument was distributed in various meetings of Kovai Investors Association and collected personally from the investors. The response rate was 75.63 percent. Thus, the primary sampling frame for the present study consists of seven fund managers, 20 brokers and 360 investors.

TOOLS OF ANALYSIS

The tools like return, risk, and risk-free rate of return were used for risk-return analysis of schemes in relation to that of the market as per Sharpe, Treynor and Jensen Models. The major portion of funds mobilized through growth schemes are invested in equity shares. In analyzing the risk-return relationship the CAPM is used widely. The CAPM uses the concept of beta to link risk with return. Beta as a measure of systematic risk shows how the NAV of a growth scheme responds to changes in market performance. Using the beta concept the CAPM helps to define the required return on a security. The equation for calculating the expected return based on CAPM is as follows:

$R_i = R_f + \beta (R_m - R_f)$

R_i = Expected return

R_f = Risk-free return

β = Measure of systematic risk

R_m = Market return

The following tools of analysis adopted in this study were the same as used in the previous studies by Carlson Robert S(1970), Fama Eugene(1972), Sarkar A K(1991), Shashikant Uma(1993), Yadav R A(1996), Jayadev M(1996), Wilfred L Dellava(1998), Gupta Amitabh(2000), Sondhi H J(2005), and others over the time period.

NAV values on every Monday of the sample schemes for the period of (April 1998 to March 2006) eight years were used based on the data available.

Portfolio Return refers to the yield from the selected growth schemes with growth option. Portfolio returns (R_p) are calculated on the basis of changes in the NAV on a weekly basis. Average of such weekly returns (AR_p) is calculated on a yearly basis and for the entire period of study as follows:

$$R_p = \frac{NAV_t - NAV_{t-1}}{NAV_{t-1}}$$

R_p is the return of the portfolio on a weekly basis

't' is the time period

Market Return is calculated on the basis of the changes in the BSE 100 Index on a weekly basis (R_m) and the averages of such weekly returns

(AR_m) are arrived at for every year and for the total period of study. BSE 100 index was used as a benchmark for the selected growth schemes as it is widely considered as a market proxy or benchmark for the purpose of academics, research and practicing fund managers. BSE 100 index is used as a benchmark as it is a broad based index, consisting of 100 actively traded equity shares representing more than 70 percent of the total market capitalization in Bombay Stock Exchange. The market return is calculated as follows:

$$R_m = \frac{\text{Market Index}_t - \text{Market Index}_{t-1}}{\text{Market Index}_{t-1}}$$

Risk-free return (R_f) is the return available from zero risk investment avenues like treasury bills and bank deposits. The current RBI bank rate of 6.00 percent is assumed as the risk-free rate of return as it has been constant for many years and is related with the most commonly preferred investment avenue namely bank deposits.

Risk is the uncertainty and variability of returns / capital appreciation or loss of both. Total risk is measured with the help of standard deviation of both scheme and market returns. The total risk of an investment consists of two components: Diversifiable and non-diversifiable risk.

Diversifiable (Unsystematic) risk represents that portion of an investment's risk that can be eliminated by holding enough number of varied types of securities. Unsystematic risk is that portion of total risk calculated as follows:

$$\text{Unsystematic Risk} = (\sigma_p^2) - (\beta^2 \times \sigma_m^2)$$

σ_p Standard Deviation of the Scheme

σ_m Standard Deviation of the Market

Non-diversifiable (Systematic) risk is that part of total variability in returns caused by factors due to economic, social and political causes. Systematic risk is not unique to an investment avenue and is unavoidable. Each security possesses its own level of systematic risk, which is measured using beta coefficient.

$$\text{Systematic Risk} = \beta^2 \times \sigma_p^2$$

Beta reflects how volatile the return from an investment in response to market swings. It measures the impact of the market forces on return expected from funds. Beta is calculated by relating portfolio return with market return using regression analysis. Beta greater than one, depicts high sensitivity of scheme's returns against market being aggressive. Beta values less than one indicates defensive nature of the scheme. The regression slope coefficient from the Characteristic Regression Line

(CRL) measures the systematic risk of an asset. The CAPM is applied to compute the beta value from the following formula:

$$R_i = \alpha + \beta R_m + e$$

Covariance reflects the degree to which the market and scheme returns vary. A positive covariance means that the market and scheme returns move in the same direction whereas a negative covariance implies that the return moves in the opposite direction. Covariance is calculated using the formula:

$$C.V = ((\sigma_p / \overline{X}_p) \times 100)$$

$\overline{X}_p$ is the mean return of the scheme

Coefficient of Correlation (r) measures the nature and the extent of relationship between stock market index return and the scheme's return for a particular period. The co-movement of schemes performance with that of market index is studied with the help of a simple linear regression analysis using the following formula:

$$r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}}$$

$$x = (X - \overline{X})$$

$$y = (Y - \overline{Y})$$

Autocorrelation Coefficient measures the association within the chronological sequence of observations of net assets value to verify whether the present NAV value is based on the past NAV and is calculated using the formula:

$$r_k = \frac{\sum_{i=1}^{n-k} (y_i - \overline{Y})(y_{i+k} - \overline{Y})}{\sum_{i=1}^{n} (y_i - \overline{Y})^2}$$

y_i denote an observation in a time sequence 't'

y_1 denote the first or earliest observation

r_k is called the lag k sample autocorrelation coefficient

$\overline{Y}$ denotes the mean value of variable Y

Coefficient of Determination (R^2) is the square of the correlation co-efficient and indicates the degree of diversification. It gives the percentage variation in the scheme's return as explained by the variation in the market's return. A low R^2 indicates that scheme has further scope for diversification and a high R^2 indicates that the scheme is well diversified.

TECHNIQUES OF ANALYSIS

The collected information was analysed using simple and sophisticated techniques as follows:

Compound Annual Growth Rate (CAGR) calculates the growth in variables (number of funds, funds mobilized, assets under management, number of schemes) on a yearly basis.

$$CAGR = [((P_1 / P_0)^{(1/n)} - 1) \times 100]$$

P_1 , P_0, n are the variables in the current period, base period and the number of years

Compound Growth Rate (CGR) calculates the growth in variables for the entire period of study. CGR is a superior measure of calculating compounded return than simple return with the following formula:

$$CGR = [((P_n / P_0)^{(1/n)} - 1) \times 100]$$

Rank Correlation is used when information is sufficient to rank the data. The rank correlation coefficient is a measure of correlation that exists between two sets of ranks. It is a measure of association that is based on the ranks of the observations and not on the numerical values of the data as calculated using the following formula:

$$R = 1 - \left\{ \frac{6 \sum D^2}{N(N^2-1)} \right\}$$

R denotes coefficient of rank correlation

D refers to the difference of rank between the paired items in two series.

Kendall's Coefficient of Concordance is a non parametric measure of relationship determining the degree of association among several (k) sets of ranking of N objects.

$$W = \left\{ \frac{\sum (R_j - \overline{Rj})^2}{(1/12)\, k^2 (N^3 - N)} \right\}$$

k is the number of sets of rankings

N is the number of objects ranked

R_j is the sum of ranks assigned by all the k judges

$(1/12)\ k^2\ (N^3 - N)$ is the maximum possible sum of the squared deviations

Chi-square test is a non-parametric test explaining whether or not two attributes are associated or not, using the following formula:

$$\chi^2 = \sum \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

O_{ij} is the observed frequency of the cell in i^{th} row and j^{th} column

E_{ij} is the expected frequency of the cell in i^{th} row and j^{th} column

Z Test is used to verify the extent of relationship between the market and the scheme using the correlation coefficient with the help of the formula:

$$\text{Z test} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n}$$

ANOVA (F test) is the analysis of variance used in the case of multiple samples. It is a measure of significance of the difference between the means of factors influencing choice of mutual fund organisation and scheme using the following formula:

$$Z = \left\{ \frac{\overline{X_1} - \overline{X_2}}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}} \right\}$$

Binomial Test of Significance is used to test the probability model to make inference about population proportion from observations satisfying the Bernoulli trials using Z test. The proportion of investors agreeing with the specific attitude statements has been tested using the following formula to identify the attitude towards mutual fund industry in India and the extent of distribution of investors accepting with the specific attitude statements:

$$\mathbf{Z} = \frac{x/n - P}{\sqrt{(p \times q)/n}}$$

x is the number of respondents agreeing

p, q and n is the proportion of acceptance, non acceptance and number of Bernoulli trials

The models developed on the assumptions of 'The Capital Asset Pricing Model' and tested by Treynor (1965), Sharpe (1966), Jensen (1968) and Fama's Decomposition of Returns was used to evaluate the performance of selected growth schemes.

Sharpe Index (S_t) measures the risk premium of the portfolio with reference to the total amount of risk. The index S_t measures the slope of the line emanating from risk-free rate outward the portfolio. The larger the S_t, the better the portfolio has performed. S_t is the reward to variability of the scheme's total risk and is a summary measure of scheme's performance adjusted for risk.

$$S_t = \frac{AR_{pt} - R_f}{\sigma_{pt}}$$

S_t = Sharpe Index

AR_{pt} = Average return on portfolio 't'

R_f = Risk-free rate of return

σ_{pt} = Risk involved in portfolio 't' returns

Treynor Index (T_t) sums up the risk and return of a portfolio in a single number. The index measures the slope of the line emanating outward from the risk-free rate to the portfolio under consideration. Treynor index is a reward to volatility of the portfolio. The characteristic line relates the market return to a specific portfolio return without any direct adjustment

for risk. This line can be fitted through a least square regression involving a single market portfolio. To use Treynor's measure first the CRL of portfolios are fixed by estimating the following equation:

$R_p = a_p + b_p R_m + e_p$

R_p Return on portfolio 'p'

a_p Intercept coefficient for portfolio

b_p Portfolio's beta coefficient

R_m Return on market index

e_p Random error term for portfolio 'p'

$$T_t = \frac{AR_p - R_f}{\beta_p}$$

Jensen constructed a measure of absolute performance on a risk-adjusted basis while Sharpe and Treynor models provided measures for ranking the relative performance of various portfolios on a risk-adjusted basis. Equilibrium average return on a portfolio is the benchmark. Equilibrium average return is the return of the market portfolio for a given systematic risk calculated with the following formula:

$$EAR_p = R_f + (R_m - R_f) B_p$$

EAR_p is the equilibrium return of the portfolio 'p' indicating superior / inferior performance of the portfolio's alpha (α). Jensen's Alpha is the intercept of the CRL. If alpha is positive, the portfolio has performed better and if it is negative, scheme performance is not up to the

benchmark. In a well-diversified portfolio, the average value of alpha of all stocks turns out to be zero.

Eugene Fama's Decomposition Of Total Returns

Eugene Fama provides for an analytical framework, which enables for a detailed analysis of scheme performance popularly known as Fama's Decomposition of Total Return. The total return on a portfolio constitutes of risk-free return (R_f) and excess return.

The excess return arises from different factors such as risk accepted and stock selection. The excess return can be decomposed into two components, namely risk premium (reward for bearing risk) and for stock selectivity (return from stock selection).

Each portfolio will have both systematic risk and unsystematic risk. Hence risk premium can be decomposed into two components namely, return for bearing systematic risk (market risk) and return for bearing unsystematic risk.

Return for Systematic Risk (R_1) = $\beta_p (R_m - R_f)$

Return for Unsystematic Risk (R_2) = $[(\sigma_p / \sigma_m) - \beta_p] \times (R_m - R_f)$

The return from pure stock selectivity (R_3) is the difference between the actual return and the sum of the other three components. The return for pure (net) selectivity is the additional return obtained by a

portfolio manager for his superior stock selection ability over and above the return mandated by the total risk of the portfolio.

$$\text{Fama's net selectivity} = R_p - [R_f + (\sigma_p / \sigma_m) \times (R_m - R_f)]$$

Hence, the total return on a fund can be decomposed into four components:

Total return on Portfolio = Risk-Free return (R_f) + Return for bearing Systematic risk (R_1) + Return for bearing Unsystematic risk (R_2) + Return from pure Stock Selectivity (R_3)

Sharpe's Differential Return

Sharpe's Differential Return measures the ability of fund managers in both security selection and diversifying portfolio. The difference between the expected return and actual return of the portfolio are called differential returns. If a portfolio is well diversified, the two measures (Jensen and Sharpe) indicates same quantum of differential return. In case the portfolio is not fully diversified, the Sharpe Differential Return would be small in magnitude than Jensen's alpha. The difference can be interpreted as a decline in performance resulting from lack of diversification. Sharpe's Differential returns are computed by applying the following equation to measure the incremental returns earned by the mutual fund manager for a given level of total risk using the formula:

$$SDR = R_i - \left\{ R_f + (R_m - R_f)\, \sigma_p / \sigma_m \right\}$$

Rank Order Scoring

In the case of analysis using ranks, the total scores are obtained by way of multiplying the frequency with the weights assigned for each rank. The highest weight is assigned for the first rank and the weights are reduced by one for each successive rank.

Degree of Safety

The highest weight has been assigned for the highest degree of safety. The weights are reduced by one for each successive degree of safety thereby assigning the lowest weight (one) for the lowest degree of safety.

Degree of Satisfaction

The highest weight has been assigned for the fully satisfied and the weight one is assigned for the not satisfied state of opinion by way of reducing weight by one degree for each successive degree of satisfaction.

Degree of Importance

The highest weight has been assigned for very important and the weight one is assigned for not at all important as reduced by one point of weight for each successive degree of importance.

Degree of Agreement

The highest weight of five points was assigned for strongly agreeing and the lowest weight of one point was assigned for strongly disagreeing statement. For each successive degree of agreement one point of differentiation was assigned.

Total scores are arrived by way of multiplying the frequencies with their respective weights. Average scores are calculated by way of dividing the total score by the total number of observations in each case.

The present research work is based on both primary and secondary data. The sampling frame constitutes of the schemes launched in 1993, the year of introduction of SEBI regulations and private sector entry. The study is from 1997, a year after the Indian Mutual Fund Industry came under the uniform regulated environment and upto March 2006. The analysis of the schemes relates to seven short listed schemes for the period March 1998 to March 2006. The primary sampling frame consists of seven fund managers, 20 brokers and 360 investors. The tools like return, risk and risk-free rate of return are used as per Sharpe, Treynor and Jensen Models. The collected information was analysed using simple and sophisticated techniques.

CHAPTER IV

PERFORMANCE OF THE INDIAN MUTUAL FUND INDUSTRY

The growing interdependence between the various national financial markets and emergence of international financial markets has been one of the most significant developments in the area of finance during the 1980's. A significant outcome of these developments was the emergence of new financial instruments and services. The introduction of mutual funds is also a product of this favourable environment. Though the mutual funds history dates long back, it is in the 1980's, which witnessed a tremendous growth of mutual funds all over the world. The regulations governing the functioning of the mutual funds in India were introduced by SEBI on December 9, 1996 repealing the regulations issued in 1993. The 1996 regulations ordained the regulatory norms for the formation, operation and management of mutual funds in India. It brought out the broader guidelines on investment valuation, restrictions on investment, advertisement code and code of conduct for mutual funds and asset management companies.

Mutual funds had emerged as powerful players in the financial markets and at the same time had attracted diverse reactions from financial experts. Hence, the researcher has attempted to study the first objective of appraising the performance of IMFI under the regulated environment from the financial year 1997-98 to 2005-06 in terms of

number of mutual funds in operation, funds mobilized, redemption / repurchase of funds, AUM, new schemes launched and schemes in operation.

TABLE 4.1

Number Of Mutual Funds (Sector-Wise)

Year	Government (UTI)	Others		Private Sector			Total	
		Bank Sponsored	Institution Sponsored	Indian	Joint Venture (Predominantly) Indian	Joint Venture (Predominantly) Foreign	Number of Funds	CAGR
1997-98	1	6	3	6	7	8	31	-
1998-99	1	6	3	7	7	8	32	3.23
1999-00	1	6	4	5	7	9	32	0.00
2000-01	1	6	4	6	8	10	35	9.38
2001-02	1	5	4	7	8	10	35	0.00
2002-03	1	4	4	7	6	11	33	(-)5.71
2003-04	-	5	3	8	5	10	31	6.06
2004-05	-	*4	2	10	3	10	29	(-)6.45
2005-06	-	*4	1	10	5	9	29	0.00
CGR	**(-)100**	**(-)4.41**	**(-)11.49**	**5.84**	**(-)3.67**	**1.32**	**(-)6.45**	

Source: *Compiled from AMFI records*.
* Includes one Bank Sponsored Joint Venture (Predominantly) Indian Mutual Fund.

Table 4.1 shows that, the IMFI had a negative growth rate of (-)

6.45 percent in terms of number of funds in operation due to negative growth of UTI by (-)100.00 percent, institution sponsored by (-)11.49 percent, bank sponsored by (-) 4.41 percent and (-)3.67 percent in the case of private sector joint venture (predominantly) Indian mutual funds. Private sector Indian mutual funds had grown by 5.84 percent and private sector joint venture (predominantly) foreign mutual funds by 1.32 percent.

The CAGR of the number of funds in operation shows wide fluctuations with positive and negative figures revealing that the industry had undergone a lot of mergers, acquisition and closures during the period of study. The CGR of the industry shows a negative trend (- 6.45 percent) due to the fall in the number of funds from 31 to 29.

TABLE 4.2

Funds Mobilized By Mutual Funds (Sector-Wise)

Rs. in Crores

Year	Government (UTI)	Others		Private Sector			Total	CAGR
		Bank Sponsored	Institution Sponsored	Indian	Joint Venture (Predominantly) Indian	Joint Venture (Predominantly) Foreign		
1997-98	13748	130	148	3032	1312	331	18701	-
1998-99	11679	420	1312	2739	3019	2208	21377	14.31
1999-00	13536	1828	2211	6688	15548	19937	59748	**179.50**
2000-01	12413	2181	4011	19901	20796	33655	92957	55.58
2001-02	4643	4242	9371	33634	48396	64237	164523	76.99
2002-03	7062	11090	17535	83351	71513	124122	314673	91.26
2003-04	-	46661	21897	143050	140545	238037	590190	87.56
2004-05	-	90446	12800	242428	156879	337109	839662	42.27
2005-06	-	137226	46220	256761	**346518**	**311433**	**1098158**	30.79
CGR	(-) 100.00	**116.74**	89.31	63.76	85.82	**113.99**	**57.23**	

Source: *Compiled from AMFI records.*

Table 4.2 shows the extent of funds mobilized by IMFI during the period covered under the study. The highest CAGR of funds mobilized by the industry was 179.50 percent in the year 1999-00.

The total amount of funds raised was the highest in the year 2005-06 (Rs.10,98,158 crores) as shown in the Exhibit 4.1. The funds raised by the private sector joint venture (predominantly) Indian funds and the

private sector joint venture (predominantly) foreign funds were the highest in the year 2005-06 with Rs.3,46,518 crores and Rs.3,11,433 crores respectively.

The funds mobilized by the industry had a CGR of 57.23 percent along with 116.74 percent by bank sponsored mutual funds followed by 113.99 percent by private sector joint venture (predominantly) foreign funds.

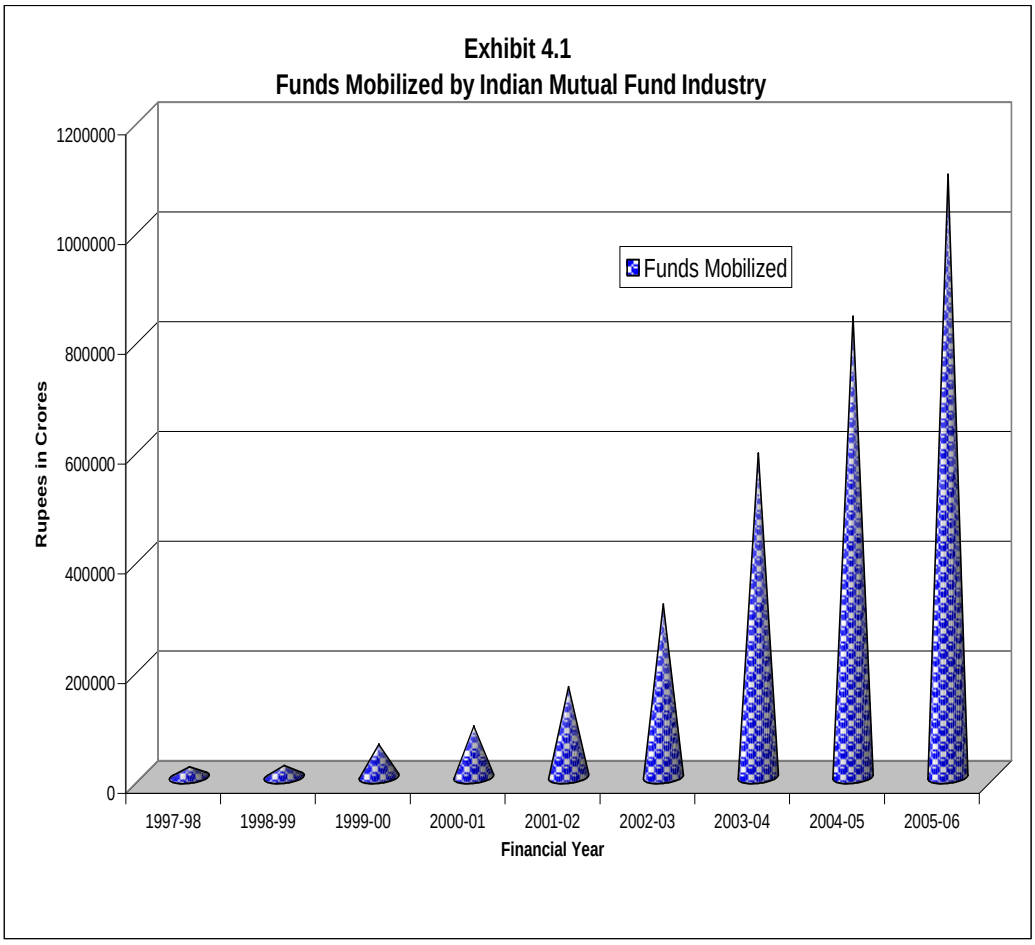


TABLE 4.3

Redemption / Repurchase Of Funds (Sector-Wise)

Rs. in Crores

Year	Government (UTI)	Others		Private Sector			Total	CAGR
		Bank Sponsored	Institution Sponsored	Indian	Joint Venture (Predominantly) Indian	Joint Venture (Predominantly) Foreign		
1997-98	10080	1120	383	2640	822	182	15227	-
1998-99	13364	772	512	2636	2290	1458	21032	38.12
1999-00	9663	1744	1864	5718	10641	11574	41204	95.91
2000-01	12090	4125	3147	17576	18353	28538	83829	**103.45**
2001-02	11927	3329	8550	31181	43239	59122	157348	87.70
2002-03	7246	10536	16121	79341	68333	119648	301225	91.44
2003-04	-	43183	19796	133131	127280	219991	543381	80.39
2004-05	-	92460	16183	237060	156198	335607	837508	54.13
2005-06	-	129535	44108	238065	**329429**	**304245**	**1045382**	24.82

Source: *Compiled from AMFI records.*

The above Table shows that the CAGR of funds redeemed / repurchased was the highest (103.45 percent) in the year 2000-01 while the amount of redemption / repurchase was the highest in the year 2005-06 (Rs.10,45,382 crores).

Sector-wise analysis of funds redeemed / repurchased showed that

in the year 2005-06, the highest redemption / repurchase was in the private sector joint venture (predominantly) Indian fund category (Rs.3,29,429 crores) followed by private sector joint venture (predominantly) foreign funds (Rs.3,04,245 crores).

TABLE 4.4
Distribution Of Assets Under Management (Sector-Wise)
Rs. In Crores

Year	Government (UTI)	Others		Private Sector			Total
		Bank Sponsored	Institution Sponsored	Indian	Joint Venture (Predominantly) Indian	Joint Venture (Predominantly) Foreign	
1997-98	57554	4872	2472	1031	1583	1472	68984
1998-99	53320	5481	2811	1016	3040	2804	68472
1999-00	76547	7842	3570	2331	9724	12991	113005
2000-01	58017	3333	3507	3370	8620	13740	90587
2001-02	51434	3970	4234	5177	15502	20277	100594
2002-03	13516	4491	5935	10180	15459	29883	79464
2003-04	-	28085	6539	19885	33143	51964	139616
2004-05	-	29103	3010	30750	30839	55852	149554
2005-06	-	45119	5229	50602	**74144**	**56768**	231862
CGR	(-) 100.00	28.06	8.68	**54.13**	**53.33**	50.05	**14.42**

Source: *Compiled from AMFI records.*

Table 4.4 shows that, the AUM of the industry had shown a growth of 14.42 percent over the period of study with the highest growth rate of 54.13 percent and 53.33 percent in the case of private sector Indian funds and private sector joint venture (predominantly) Indian funds respectively. As shown in the Exhibit 4.2, the industry has ensured a growth in AUM.

The AUM was the highest in the year 2005-06 with Rs.74,144 crores for private sector joint venture (predominantly) Indian funds accounting for 31.98 percent of the industry's AUM. Private sector joint venture (predominantly) foreign funds with Rs.56,768 crores of AUM accounted for 24.48 percent of industry's AUM.

Exhibit 4.2

Assets Under Management of Mutual Funds (since 1997-98)

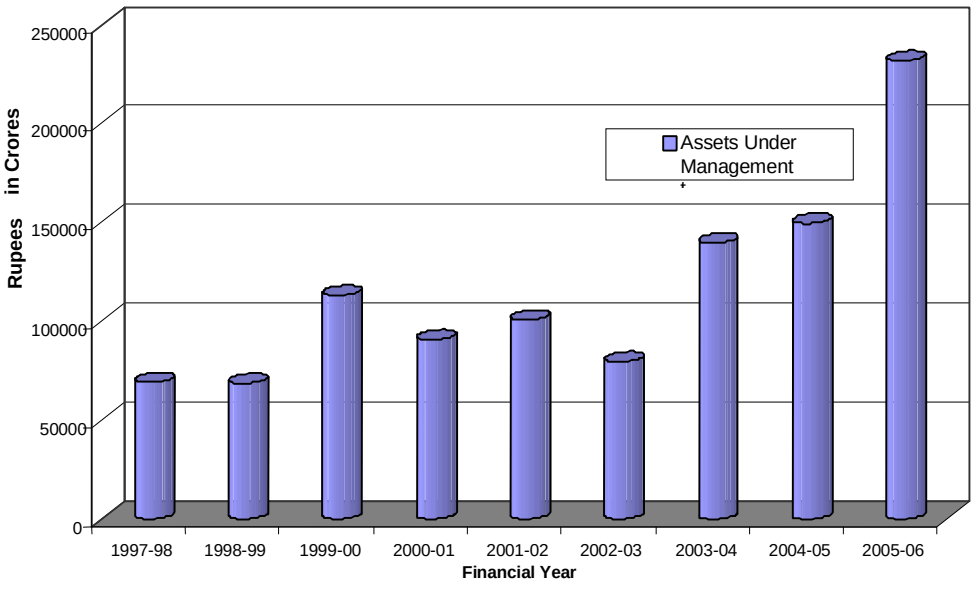


TABLE 4.5

New Schemes Launched and Total Schemes in Operation

Year	New Schemes Launched		Total Schemes in Operation	
	Number of Schemes	**Percentage**	**Number of Schemes**	**CAGR**
1997-98	43	18.30	235	-
1998-99	40	14.44	277	17.87
1999-00	64	18.99	337	21.66
2000-01	41	10.43	393	16.62
2001-02	90	21.58	417	6.11
2002-03	53	13.87	382	(-)8.39
2003-04	46	11.41	403	5.50
2004-05	97	21.51	451	11.91
2005-06	**190**	**32.09**	**592**	**31.26**
CGR	**17.95**		**10.81**	

Source: *Compiled from AMFI records.*

The above Table 4.5 shows that over the period of study, the IMFI showed a CGR of 10.81 percent in terms of total number of schemes in operation with a 17.95 percent CGR of new schemes launched as shown in the Exhibit 4.3.

The industry had the highest number of schemes in operation

(592), along with the highest number of schemes launched (190) in the year 2005-06. The percentage of new schemes launched was the highest in the year 2005-06 with 32.09 percent.

The CAGR of total schemes in operation was the highest (31.26 percent) in the year 2005-06.

Exhibit 4.3
New Schemes Launched and Total Schemes in Operation

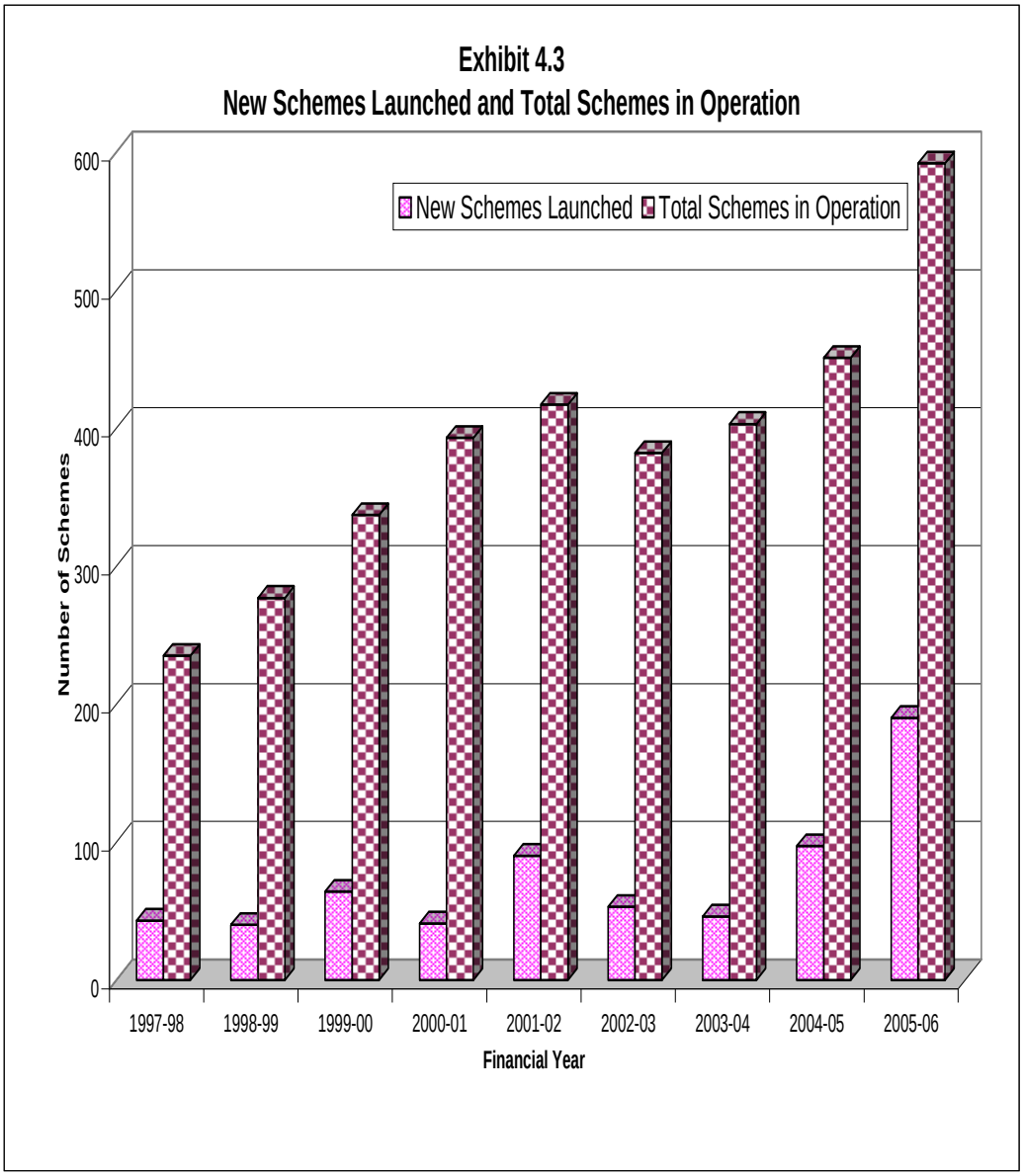


TABLE 4.6

Type-wise Number of Schemes Launched and in Operation

Year	Open-ended		Close-ended		Assured Returns		Total	
	New Schemes Launched	**Total Schemes in Operation**	**New Schemes Launched**	**Total Schemes in Operation**	**New Schemes Launched**	**Total Schemes in Operation**	**New Schemes Launched**	**Total Schemes in Operation**
1997-98	23	63	10	125	10	47	43	235
1998-99	22	102	11	146	7	29	40	277
1999-00	61	168	0	128	3	41	64	337
2000-01	36	240	3	118	2	35	41	393
2001-02	74	304	16	87	0	26	90	417
2002-03	47	329	6	47	0	6	53	382
2003-04	44	363	2	40	0	0	46	403
2004-05	72	403	25	48	0	0	97	451
2005-06	67	**463**	**123**	129	0	0	**190**	**592**
CGR	12.61	**24.81**	**32.16**	0.35	**(-) 100.00**	**(-) 100.00**	17.95	10.81

Source: *Compiled from AMFI records.*

The above Table shows the type-wise number of schemes launched and total schemes in operation during the study period. The CGR of close-end schemes launched was 32.16 percent with the highest number

of 123 close-end schemes launched in the year 2005-06. The CGR of open-end schemes in operation was 24.81 percent during the period of study with the highest number of 463 open-end schemes in operation in the year 2005-06.

Assured return schemes had lost its existence since 2003-04 with a CGR of (-)100.00 percent. The industry had the highest number of open-end schemes (463) in operation with more number of close-end schemes (123) launched in the year 2005-06.

TABLE 4.7
Type-Wise Funds Mobilized

Rs. in Crores

Year	Open-end		Close-end		Assured Returns		Total	
	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation
1997-98	3499	9716	558	752	8222	**8233**	12279	18701
1998-99	2917	14314	1174	1490	5566	5573	9657	21377
1999-00	5853	54224	0	337	2794	5187	8647	59748
2000-01	2968	90905	339	1438	523	614	3830	92957
2001-02	2998	162500	337	635	0	1388	3335	164523
2002-03	3731	314206	114	467	0	0	3845	314673
2003-04	8359	587480	190	2710	0	0	8549	590190
2004-05	20136	821958	5628	17704	0	0	25764	839662
2005-06	38077	**1057126**	32506	41032	0	0	70583	**1098158**
CGR	30.75	**68.38**	**57.09**	55.95	(-) 100.00	(-) 100.00	**11.42**	57.23

Source: *Compiled from AMFI records.*

Table 4.7 shows the amount of funds mobilized by IMFI from open-end, close-end and assured return schemes. The CGR of the funds mobilized from new schemes was 11.42 percent.

The funds mobilized from open-end schemes was the highest with Rs.10,57,126 crores in the year 2005-06. The CGR of funds mobilized from open-end schemes in operation was 68.38 percent. The CGR of funds mobilized from close-end schemes launched was 57.09 percent.

TABLE 4.8

Type-Wise Redemption / Repurchase Of Funds

Rs. in Crores

Year	**Open-end**	**Close-end**	**Assured Returns**	**Total**
1997-98	7629	7105	493	15227
1998-99	14961	4094	1977	21032
1999-00	37597	2654	953	41204
2000-01	77367	4800	1662	83829
2001-02	153725	3251	372	157348
2002-03	300646	519	60	301225
2003-04	541446	1925	10	543381
2004-05	825976	11532	0	837508
2005-06	**1031346**	**14036**	0	**1045382**

Source: *Compiled from AMFI records.*

Table 4.8 shows the amount of funds redeemed / repurchased by the IMFI. The highest amount of redemption from open-ended schemes was Rs. 10,31,346 crores accounting for 98.66 percent and from close-ended schemes Rs. 14,036 crores accounting for 1.34 percent as shown in the Exhibit 4.4.

Exhibit 4.4
Type-Wise Redemption / Repurchase Of MutuaFunds

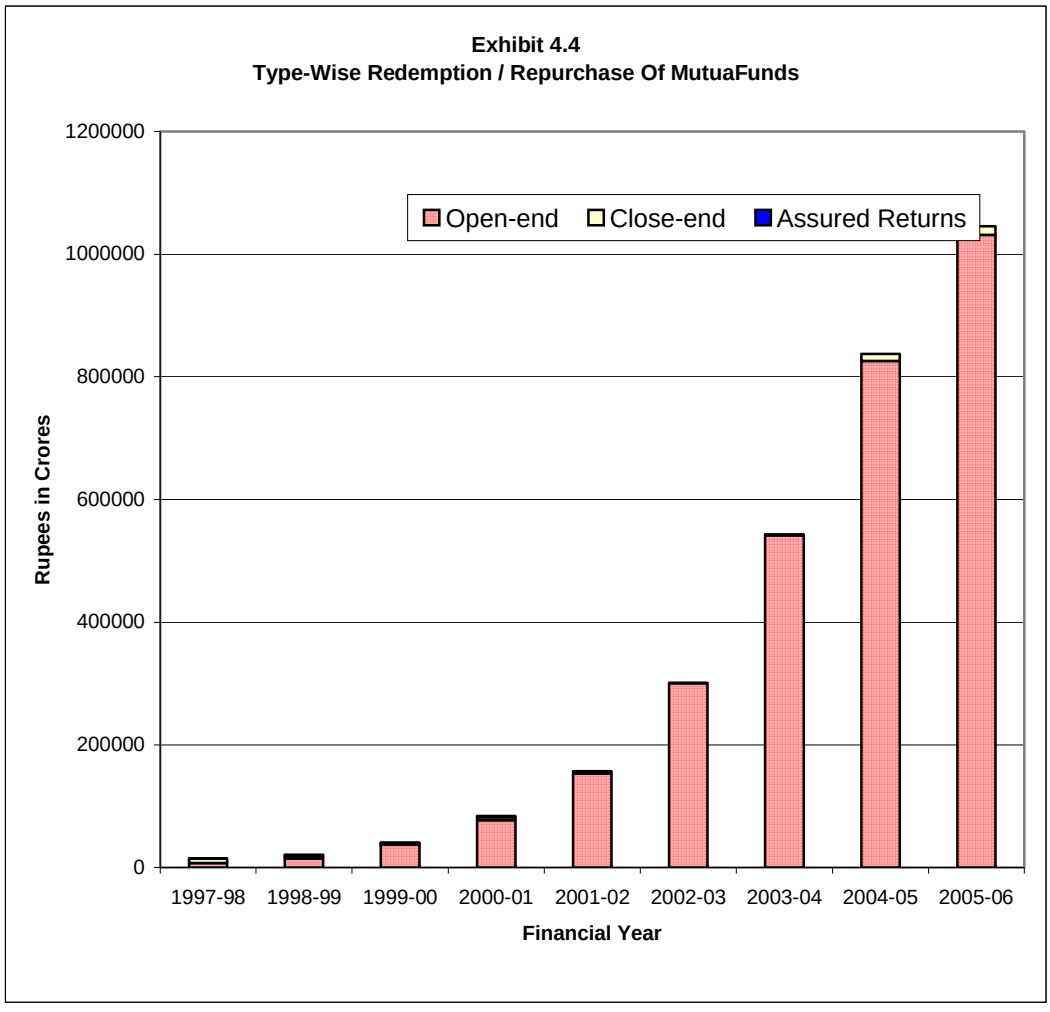


TABLE 4.9

Type-Wise Assets Under Management

Rs. in Crores

Year	Open-end	Close-end	Assured Returns	Total
1997-98	NA	NA	NA	68984
1998-99	37240	16439	14793	68472
1999-00	72166	18275	22564	113005
2000-01	57293	13613	19681	90587
2001-02	71938	10977	17679	100594
2002-03	75071	4033	360	79464
2003-04	134523	5093	0	139616
2004-05	137983	11571	0	149554
2005-06	**193713**	**38149**	0	**231862**

Source: *Compiled from AMFI records.*

Table 4.9 shows the value of AUM of open-end, close-end and assured return schemes. The highest AUM of Rs.1,93,713 crores were from open-end schemes and Rs.38,149 crores were from close-end schemes in the year 2005-06 accounting for 83.55 percent and 16.45 percent respectively.

TABLE 4.10

Category-Wise Schemes Launched And Total Schemes In Operation

Year	Income		Growth		Balanced		ELSS		Gilt		Money Market		Total	
	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation
1997-98	25	84	13	74	1	19	4	58	0	0	0	0	43	235
1998-99	19	100	11	83	0	17	2	60	0	0	8	17	40	277
1999-00	14	113	25	105	**8**	23	3	65	**12**	13	2	18	64	337
2000-01	17	126	8	110	6	32	4	80	1	19	5	26	41	393
2001-02	53	146	17	114	2	34	0	63	9	29	**9**	31	90	417
2002-03	32	117	17	120	1	35	0	47	1	31	2	32	53	382
2003-04	29	131	10	126	2	37	0	43	2	30	3	36	46	403
2004-05	52	159	36	151	4	35	0	37	0	30	5	39	97	451
2005-06	**130**	251	**46**	194	1	36	**8**	37	0	29	5	45	190	592
Total	**371**		**183**		25		21		25		39		**664**	
CGR		**12.93**		**11.30**		7.36		(-) 4.87		-		-		10.81

Source: *Compiled from AMFI records.*

Table 4.10 shows the category-wise number of new schemes launched and total schemes in operation of the IMFI. Of the 664 schemes launched during the study period, 371 (55.87 %) were income schemes, 183 were growth schemes, 39 (5.87%) were money market schemes, 25 (3.77%) were balanced schemes, 25 (3.77%) were gilt schemes and 21(3.16%) were equity linked saving schemes (ELSS).

The income schemes in operation showed a CGR of 12.93 percent followed by growth schemes in operation with 11.30 percent.

The highest number of income schemes (130) and growth schemes (46) were launched in the year 2005-06.

TABLE 4.11

Category Wise Funds Raised by Mutual Funds

Rs. in Crores

Year	Income		Growth		Balanced		ELSS		Gilt		Money Market		Total	
	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation	New Schemes Launched	Total Schemes in Operation
1997-98	11718	12779	537	1187	0	4711	24	24	0	0	0	0	12279	18701
1998-99	7062	13738	1100	1923	0	161	6	8	0	0	1489	5547	9657	21377
1999-00	3375	17707	3190	15020	1084	5717	56	247	897	5132	45	15925	8647	59748
2000-01	2079	26674	541	17996	268	**7701**	2	214	253	4160	687	36212	3830	92957
2001-02	2744	51021	130	1983	6	477	0	33	108	6439	347	104570	3335	164523
2002-03	3175	109423	411	4618	0	361	0	22	2	5202	257	195047	3845	314673
2003-04	6008	**172939**	1164	26642	109	2523	0	53	144	**12387**	1124	375646	8549	590190
2004-05	10128	155719	11756	37079	676	3755	0	154	0	4361	3204	638594	25764	839662
2005-06	31523	168792	36559	**82086**	4	4006	1456	**3935**	0	2480	1041	**836859**	70583	**1098158**
CGR		**33.21**		**60.11**		(-) 1.79		76.23		-		-		57.23

Source: *Compiled from AMFI records.*

Table 4.11 shows the category wise funds raised by the IMFI from schemes launched and total schemes in operation. The ELSS showed a highest CGR of 76.23 percent followed by growth schemes and income schemes with 60.11 percent and 33.21 percent respectively.

The funds mobilized by the money market schemes were the highest (Rs. 8,36,859 crores) in the year 2005-06 followed by income schemes (Rs. 1,72,939 crores) in the year 2003-04 and growth schemes (Rs. 82,086 crores) in the year 2005-06 as shown in the Exhibit 4.5.

Exhibit 4.5
Category-Wise Funds Raised by Mutual Funds

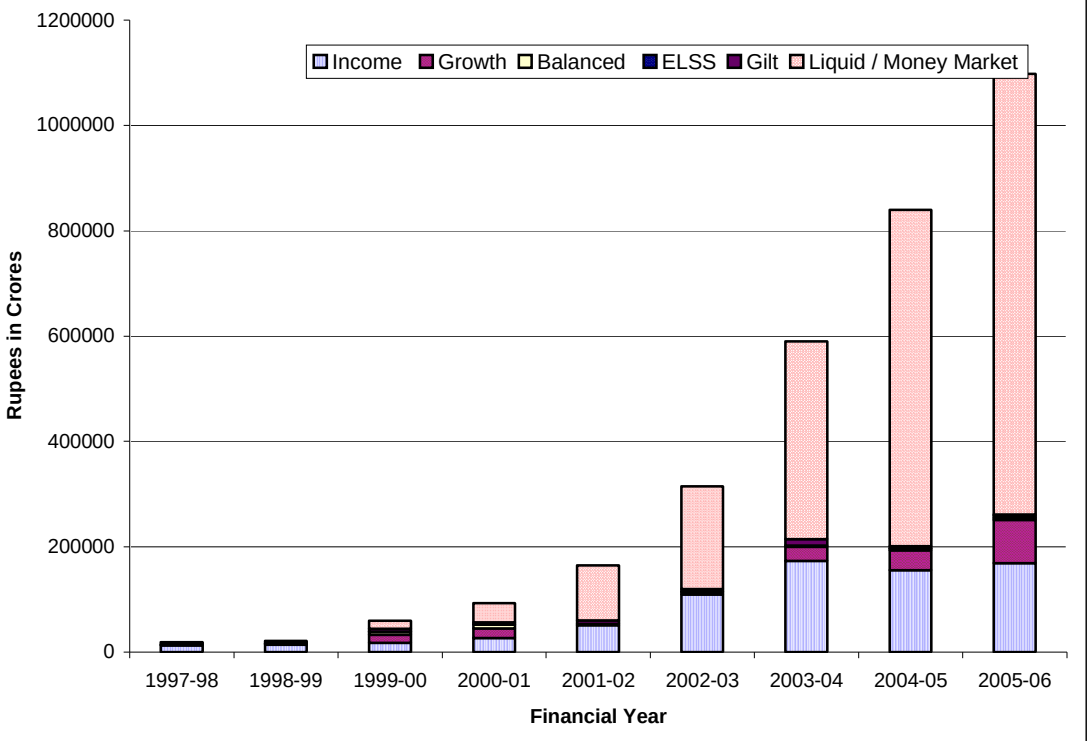


TABLE 4.12

Category-Wise Redemption / Repurchase Of Funds

Rs. in Crores

Year	Income	Growth	Balanced	ELSS	Gilt	Money Market	Total
1997-98	9340	2028	3148	711	0	0	15227
1998-99	12904	2672	248	461	0	4747	21032
1999-00	9039	10170	4204	617	2997	14177	41204
2000-01	21835	18299	4919	656	4472	33648	83829
2001-02	42812	2243	5831	315	4875	101272	157348
2002-03	100408	3917	756	210	5892	190042	301225
2003-04	160144	18958	2536	519	10155	351069	543381
2004-05	**169965**	29832	3410	348	5706	628247	837508
2005-06	154816	**50450**	3079	343	4040	**832654**	1045382

Source: *Compiled from AMFI records.*

Table 4.12 shows the category wise redemption / repurchase of funds by the IMFI. The redemption of funds was the highest from money market (Rs. 8,32,654 crores) schemes in the year 2005-06 followed by income schemes (Rs. 1,69,965 crores) in the year 2004-05 and growth schemes (Rs. 50,450 crores) in the year 2005-06.

TABLE 4.13

Category-wise Assets Under Management

Rs. in Crores

Year	Income	Growth	Balanced	ELSS	Gilt	Money Market	Total
1997-98	NA	NA	NA	NA	NA	NA	68984
1998-99	48372	14622	1909	2477	0	1092	68472
1999-00	49859	26927	**26757**	4865	2370	2227	113005
2000-01	48863	13483	19273	2523	2317	4128	90587
2001-02	55788	13852	16954	1768	4163	8069	100594
2002-03	47564	9887	3141	1228	3910	13734	79464
2003-04	**62524**	23613	4080	1669	**6026**	41704	139616
2004-05	47605	36711	4867	1727	4576	54068	149554
2005-06	60278	**92867**	7493	6589	3135	**61500**	**231862**

Source: *Compiled from AMFI records.*

The IMFI had the highest value of AUM from growth schemes (Rs. 92,867 crores) followed by money market schemes (Rs.61,500 crores) in the year 2005-06.

The AUM of income schemes and gilt schemes were the highest in the year 2003-04 with Rs.62,524 crores and Rs.6,026 crores respectively.

The AUM of balanced schemes was the highest in the year 1999-00 with Rs.26,757 crores.

CONCLUSION

During the period of study, the IMFI had undergone a lot of mergers, acquisition of mutual funds. The private sector Indian mutual funds had shown a good progress in terms of number of mutual funds followed by Private sector Joint Venture (Predominantly) Foreign Funds. The funds mobilized by the industry have grown by 57.23 percent and AUM by 14.42 percent. Redemption in absolute terms was high during 2005-06 particularly from open-end type.

There had been a good number of schemes launched particularly in close-end type with income objective. Funds mobilized from open-end schemes had shown a growth of 68.38 percent. Assured return schemes had lost its existence. The AUM was high in the case of schemes in growth and money market category of mutual funds.

CHAPTER V

PERFORMANCE OF SELECTED GROWTH SCHEMES

Investors always look for safer investment avenues. Investors wish to maximize their returns in accordance with their risk tolerance. Return is the motivating force and the principal reward in the investment process. Measuring historical returns enables investors to assess the returns that can be expected from their investments. Since return and risk are positively interrelated, it is always imperative to consider both risk and return while evaluating any investment alternative. Mutual funds have gained a significant status among various investment avenues available in India. The paradigm shift towards mutual funds assumed greater importance ever since the financial sector gained momentum under the globalized and liberalized environment. The financial sector reforms and SEBI (Mutual Funds) Regulations brought out healthy competition in the mutual fund industry ensuring enhanced opportunities for the investing populace.

Performance evaluation of mutual funds is built on the twin expectations of the investors namely, risk premium and scheme's return over the market return. Performance analysis of mutual funds, fund manager's ability to identify and select growth stocks besides investing at

the right point of time are the key issues in mutual fund investment strategy. The most appropriate and commonly applied tool for assessing the performance of mutual fund scheme is to track the NAV. Future performance is predictable from past performance as funds are bought and sold based on NAV of schemes. Equity schemes are the close substitute for direct investment in capital market. As equity based schemes are comparatively riskier; investors expect return in relation to the risk involved. Hence, a better way to assess the portfolio is to consider return per unit of risk. To measure the risk, two appropriate quantitative risk surrogates that can be used are: standard deviation of rate of return and beta coefficient of the portfolio.

Markowitz's portfolio theory paved the way for a new direction to the risk-return analysis of portfolios. The CAPM developed by Sharpe (1964) and John Lintner (1969) laid the foundation stone for the growth of capital market. Treynor (1965) and Jensen (1968) made remarkable contribution by developing models to evaluate portfolios. Fama made a valuable contribution to decompose return into various components. An empirical review of NAV of the selected growth schemes bequeaths a better understanding of the mutual fund schemes performance. This part of the research work is an attempt to study the second and the third objectives to ascertain whether the selected mutual funds performed well

through their selective buying and selling of securities rather than by random picking up, whether the selected portfolios performed better than the market, how capable are the portfolio managers in predicting market movements.

Many research works followed the methodology of Treynor, Sharpe and Jensen. On the same lines, based on the background of the previous studies reviewed, the researcher has attempted to make a close assessment of the mutual funds in the interest of the investing public, brokers and fund managers. This part of the research work relates to the appraisal of the seven schemes launched in 1993, using Sharpe Reward to Variability, Treynor Reward to Volatility, Jensen Alpha, and Eugene Fama Decomposed Total Return for the period of eight financial years from April 1998 to March 2006 under the regulated environment.

SHARPE INDEX

Sharpe Index (S_t) is based on the scheme's total risk and is a summary measure of scheme's performance adjusted for risk.

S_t = [(Return from the Portfolio – Risk-free Rate of Return) ÷ Total Risk of Portfolio]

TABLE 5.1

Sharpe Index - Cangrowth Plus Scheme

Year	Return	Market Return	Risk	Sharpe Index	Market Sharpe Index
1998-99	0.0045	(-)0.0001	0.0836	(-)0.6634	(-)1.4273
1999-00	**0.0154**	0.0134	0.0663	(-)0.6732	(-)0.8495
2000-01	**(-)0.0084**	(-)0.0092	**0.1026**	(-)0.6669	(-)1.2713
2001-02	(-)0.0002	0.0009	0.0422	(-)1.4245	**(-)1.3567**
2002-03	(-)0.0012	(-)0.0017	**0.0205**	(-)2.9814	**(-)2.7173**
2003-04	0.0101	0.0132	0.0317	(-)1.5748	**(-)1.1327**
2004-05	0.0077	0.0042	0.0388	(-)1.3473	**(-)1.2738**
2005-06	0.0098	0.0101	0.0216	(-)2.3222	**(-)2.1318**
Overall	**0.0047**	0.0039	0.0581	**(-)0.9508**	(-)1.3172

The above Table presents the calculations of Sharpe's Index for Cangrowth Plus scheme during the period of study. The return from the scheme ranged from (-)0.0084 to 0.0154 and was better than the market return except in three years (2001-02, 2003-04, 2005-06). Scheme's risk ranged from 0.0205 to 0.1026.

Sharpe index of the scheme showed negative values in all the years implying poor performance of the scheme in relation to the risk-free return and risk assumed.

Exhibit 5.1 displays the relationship between scheme return and market return and ensures that market outperformed the scheme from 2001-02 onwards. However, the scheme's overall absolute return (0.0047) and Sharpe index (-0.9508) was better than the market in comparison to total risk.

Exhibit 5.1
Cangrowth Plus Scheme's Return and Market Return

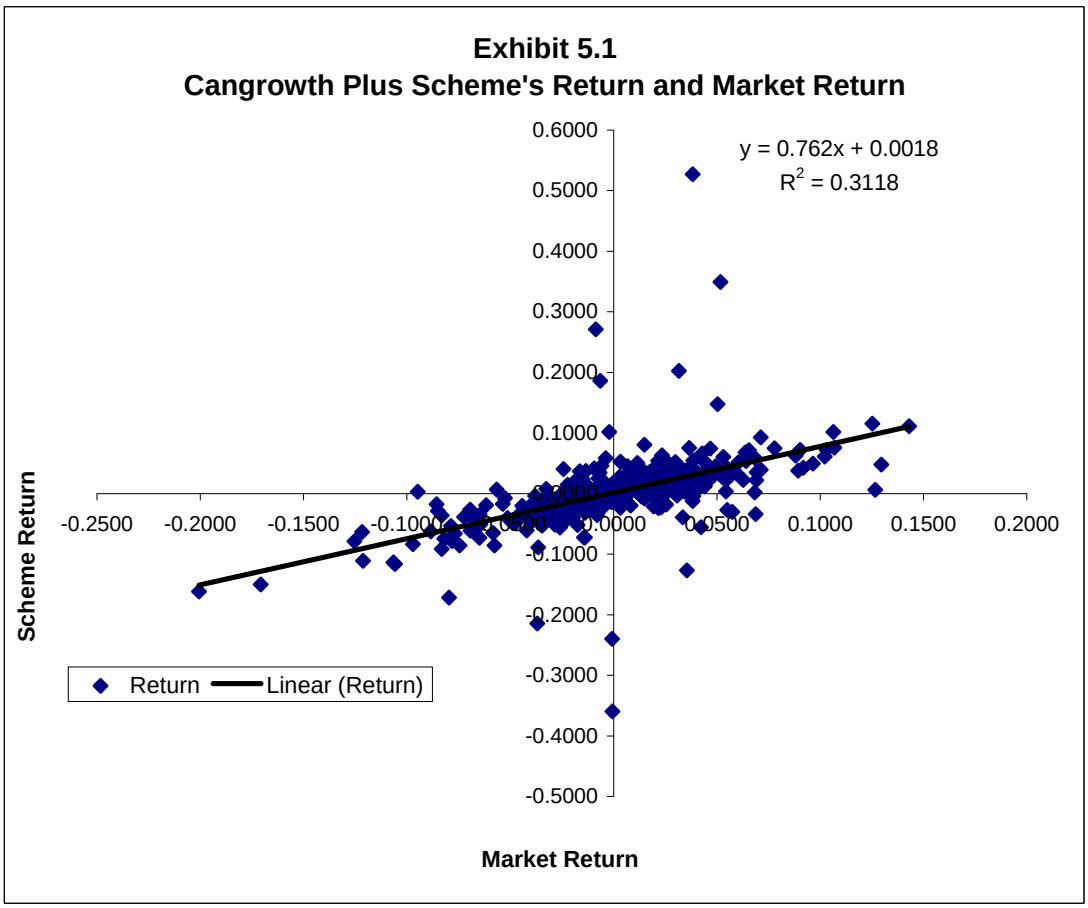


TABLE 5.2

Sharpe Index - Franklin India Bluechip Scheme

Year	Return	Market Return	Risk	Sharpe Index	Market Sharpe Index
1998-99	0.0112	(-)0.0001	0.0476	**(-)1.0250**	(-)1.4273
1999-00	0.0063	0.0134	**0.0870**	**(-)0.6175**	(-)0.8495
2000-01	**(-)0.0053**	(-)0.0092	0.0445	(-)1.4673	(-)1.2713
2001-02	0.0026	0.0009	0.0434	**(-)1.3216**	(-)1.3567
2002-03	0.0003	(-)0.0017	0.0233	**(-)2.5581**	(-)2.7173
2003-04	**0.0172**	0.0132	0.0395	**(-)1.0843**	(-)1.1327
2004-05	0.0043	0.0042	0.0403	(-)1.3843	(-)1.2738
2005-06	0.0111	0.0101	**0.0230**	**(-)2.1248**	(-)2.1318
Overall	**0.0059**	**0.0039**	0.0475	**(-)1.1392**	(-)1.3172

The Sharpe Index of Franklin India Bluechip scheme is presented in Table 5.2 which reveals that the return from the scheme ranged from a minimum of (-) 0.0053 to a maximum of 0.0172. The scheme's return was better than the market in almost all the years except 1999-00 which is also evident from the Exhibit 5.2. Scheme's risk ranged from 0.0230 to 0.0870.

Scheme's Sharpe index was negative in all the years indicating insufficient returns compared to the risk-free return and risk taken. The scheme's Sharpe index outperformed the market Sharpe index in almost all the years (except 2000-01, 2004-05).

Franklin India Bluechip Scheme provided a better overall return of 0.0059 compared to the market (0.0039) and outperformed the market in terms of Sharpe's index (-1.1392).

Exhibit 5.2
Franklin India Bluechip Scheme's Return and Market Return

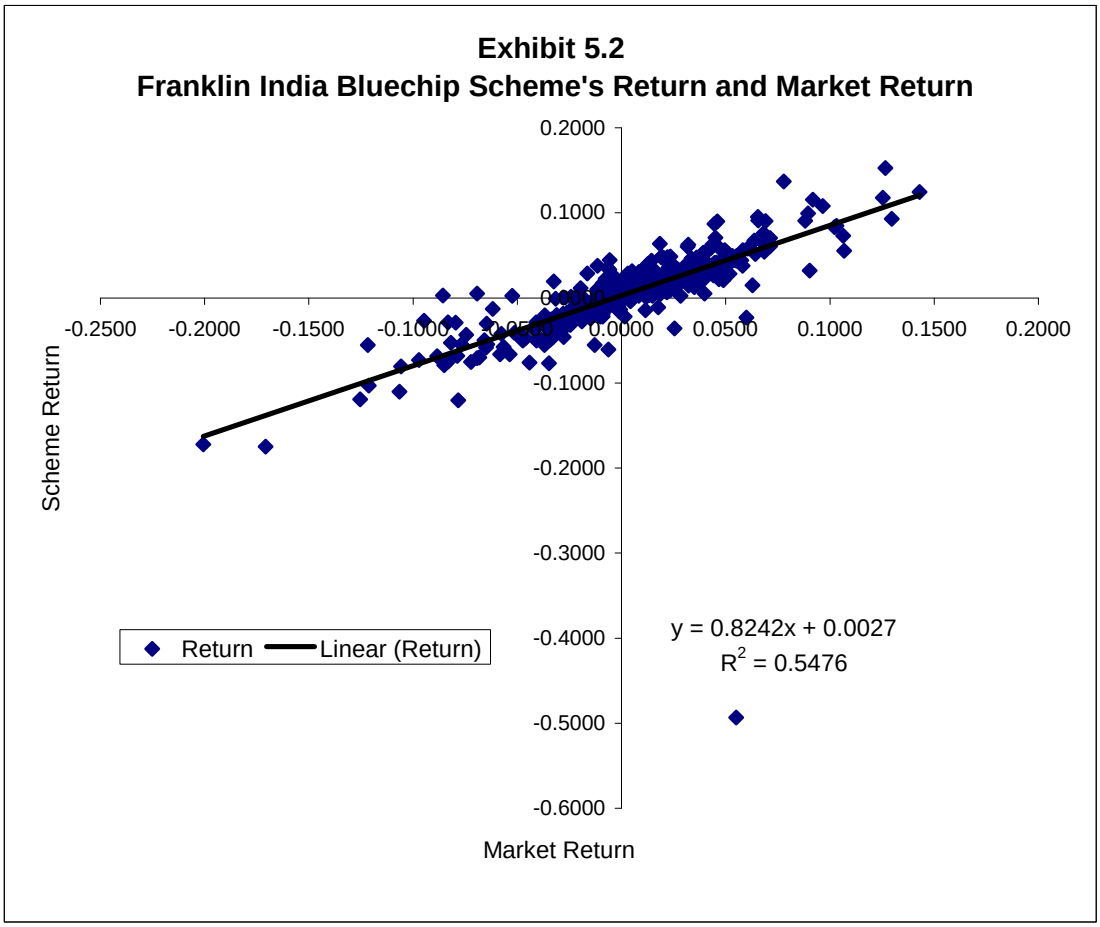


TABLE 5.3

Sharpe Index - Franklin India Prima Scheme

Year	Return	Market Return	Risk	Sharpe Index	Market Sharpe Index
1998-99	0.0117	(-)0.0001	0.0468	**(-)1.0318**	(-)1.4273
1999-00	0.0162	0.0134	**0.1040**	**(-)0.4209**	(-)0.8495
2000-01	**(-)0.0080**	(-)0.0092	0.0588	**(-)1.1570**	(-)1.2713
2001-02	0.0074	0.0009	0.0446	**(-)1.1783**	(-)1.3567
2002-03	0.0020	(-)0.0017	0.0245	**(-)2.3687**	(-)2.7173
2003-04	**0.0187**	0.0132	0.0425	**(-)0.9719**	(-)1.1327
2004-05	0.0096	0.0042	0.0406	**(-)1.2413**	(-)1.2738
2005-06	0.0108	0.0101	**0.0217**	(-)2.2723	(-)2.1318
Overall	**0.0086**	0.0039	0.0537	**(-)0.9576**	(-)1.3172

The above Table shows that the return on Franklin India Prima Scheme ranged from (-) 0.0080 to 0.0187 and was better than the market in all the years covered under the study as shown in the Exhibit 5.3. The risk covered by the scheme ranged from 0.0217 to 0.1040.

The Sharpe index of the scheme showed negative returns in all the years indicating inadequate returns compared to the total risk and risk free return. The scheme's Sharpe index was better than the market

Sharpe index in almost all the years (except 2005-06) indicating out performance compared to market.

On an overall, the Franklin India Prima Scheme's performance in terms of absolute return (0.0086) and Sharpe index (-0.9576**)** was good compared to the market.

Exhibit 5.3
Franklin India Prima Scheme's Return and Market Return

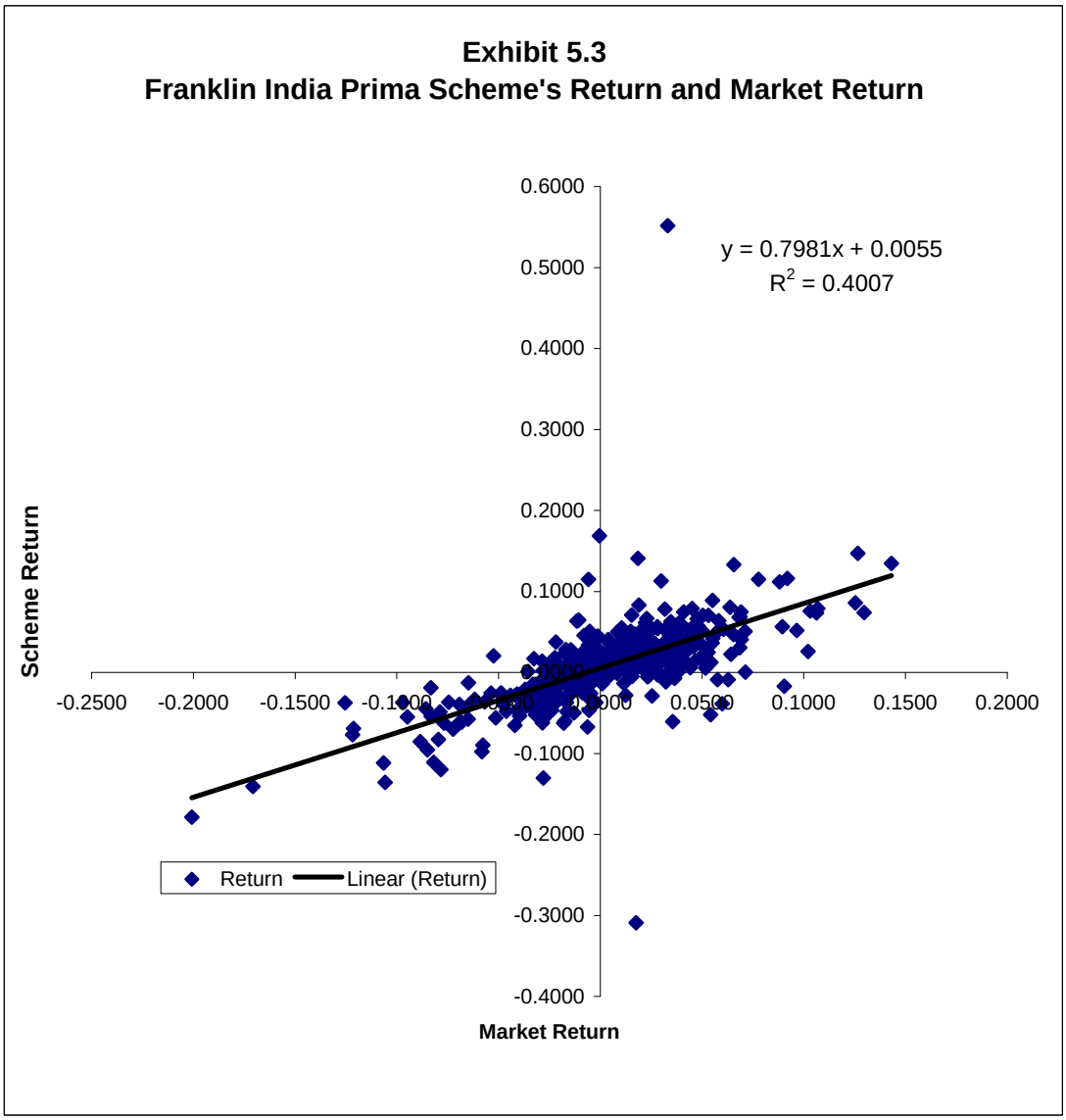


TABLE 5.4

Sharpe Index - HDFC Capital Builder Scheme

Year	Return	Market Return	Risk	Sharpe Index	Market Sharpe Index
1998-99	0.0134	(-)0.0001	**0.0899**	**(-)0.5182**	(-)1.4273
1999-00	0.0028	0.0134	0.0445	(-)1.2850	(-)0.8495
2000-01	**(-)0.0047**	(-)0.0092	0.0319	(-)2.0250	(-)1.2713
2001-02	0.0018	0.0009	**0.0233**	(-)2.4955	(-)1.3567
2002-03	(-)0.0010	(-)0.0017	0.0234	(-)2.6111	(-)2.7173
2003-04	**0.0158**	0.0132	0.0375	(-)1.1782	(-)1.1327
2004-05	0.0096	0.0042	0.0387	(-)1.3020	(-)1.2738
2005-06	0.0100	0.0101	0.0243	**(-)2.0592**	(-)2.1318
Overall	**0.0057**	0.0039	0.0444	**(-)1.2169**	(-)1.3172

Table 5.4 shows the calculations on Sharpe's index and presents that the return on HDFC Capital Builder Scheme ranged from (-) 0.0047 to 0.0158. Scheme's return was better than the market in almost all the years except in 1999-00 and 2005-06 as shown in the Exhibit 5.4. Scheme's risk was the lowest in the year 2001-02 (0.0233) and the highest (0.0899) in the year 1998-99.

Sharpe index was negative for the scheme and for the market in all the years indicating insufficient returns in relation to the risk-free return and risk involved. The scheme outperformed the market in terms of Sharpe index only in three years (1998-99, 2002-03, 2005-06).

During the period covered under study, the HDFC Capital Builder Scheme outperformed the market in terms of absolute return (0.0057) and Sharpe index of (-)1.2169 indicating better performance.

Exhibit 5.4
HDFC Capital Builder Scheme's Return and Market Return

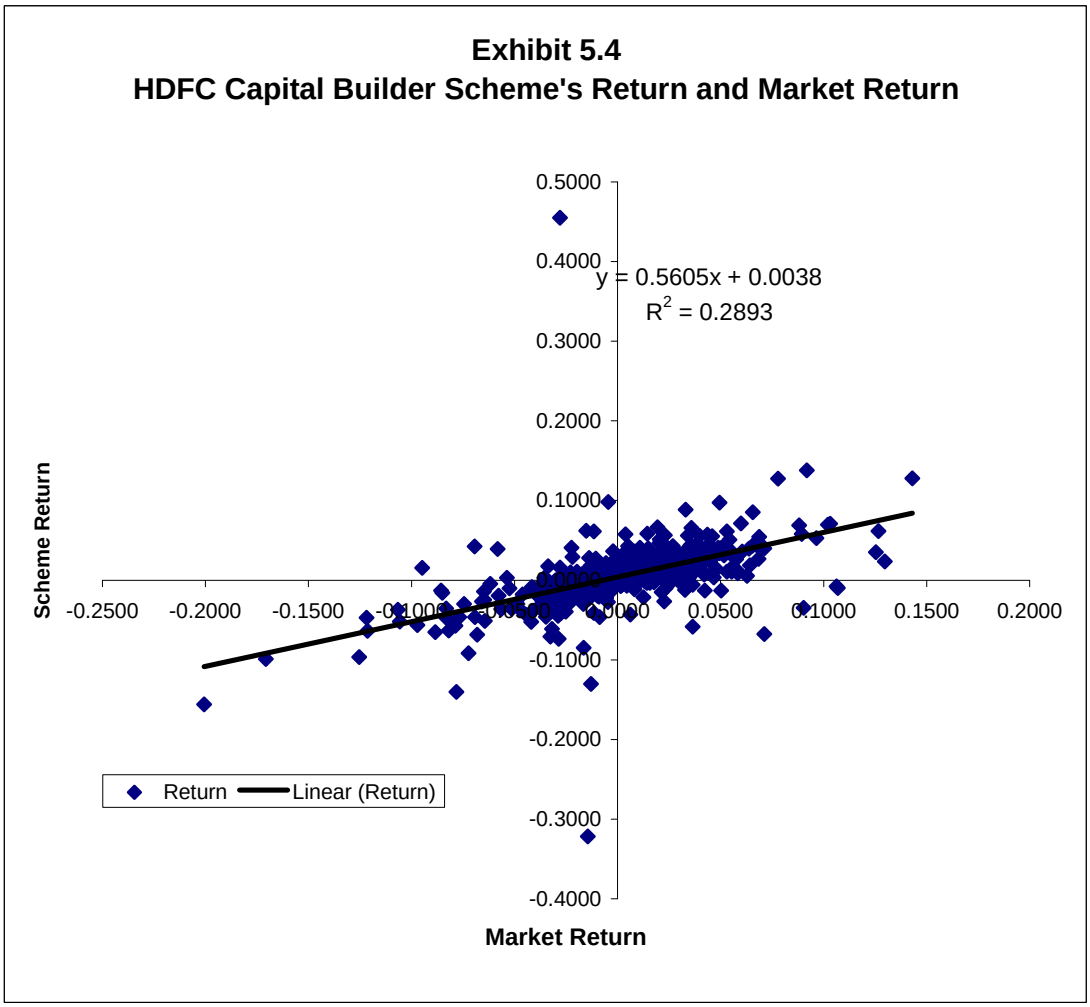


TABLE 5.5

Sharpe Index - LIC MF Equity Scheme

Year	Return	Market Return	Risk	Sharpe Index	Market Sharpe Index
1998-99	0.0004	(-)0.0001	0.0365	(-)1.6356	(-)1.4273
1999-00	0.0061	0.0134	0.0450	(-)1.1969	(-)0.8495
2000-01	**(-)0.0103**	(-)0.0092	**0.0479**	(-)1.4672	(-)1.2713
2001-02	0.0015	0.0009	0.0410	(-)1.4279	(-)1.3567
2002-03	(-)0.0005	(-)0.0017	0.0235	**(-)2.5758**	(-)2.7173
2003-04	**0.0142**	0.0132	0.0370	(-)1.2389	(-)1.1327
2004-05	0.0025	0.0042	0.0400	(-)1.4367	(-)1.2738
2005-06	0.0085	0.0101	**0.0228**	(-)2.2547	(-)2.1318
Overall	**0.0028**	**0.0039**	**0.0380**	(-)1.5057	(-)1.3172

The above Table shows that, return on LIC MF Equity scheme during the period of study ranged from (-) 0.0103 to 0.0142 and was better than the market only in four years (1998-99 and 2001 to 2004) as shown in the Exhibit 5.5. Scheme's risk ranged from a minimum of 0.0228 to a maximum of 0.0479 ensuring a better position, in line with the total period risk of 0.0380.

Sharpe index showed negative values in all the years implying inadequate returns compared to the risk-free rate of return and risk involved. The scheme's Sharpe index underperformed compared to the market in almost all the years except 2002-03.

For the period of study, the return of the scheme (0.0028) was less than the market (0.0039) and so did not outperform the market based on total risk involved as per Sharpe index.

Exhibit 5.5
LIC MF Equity Scheme's Return and Market Return

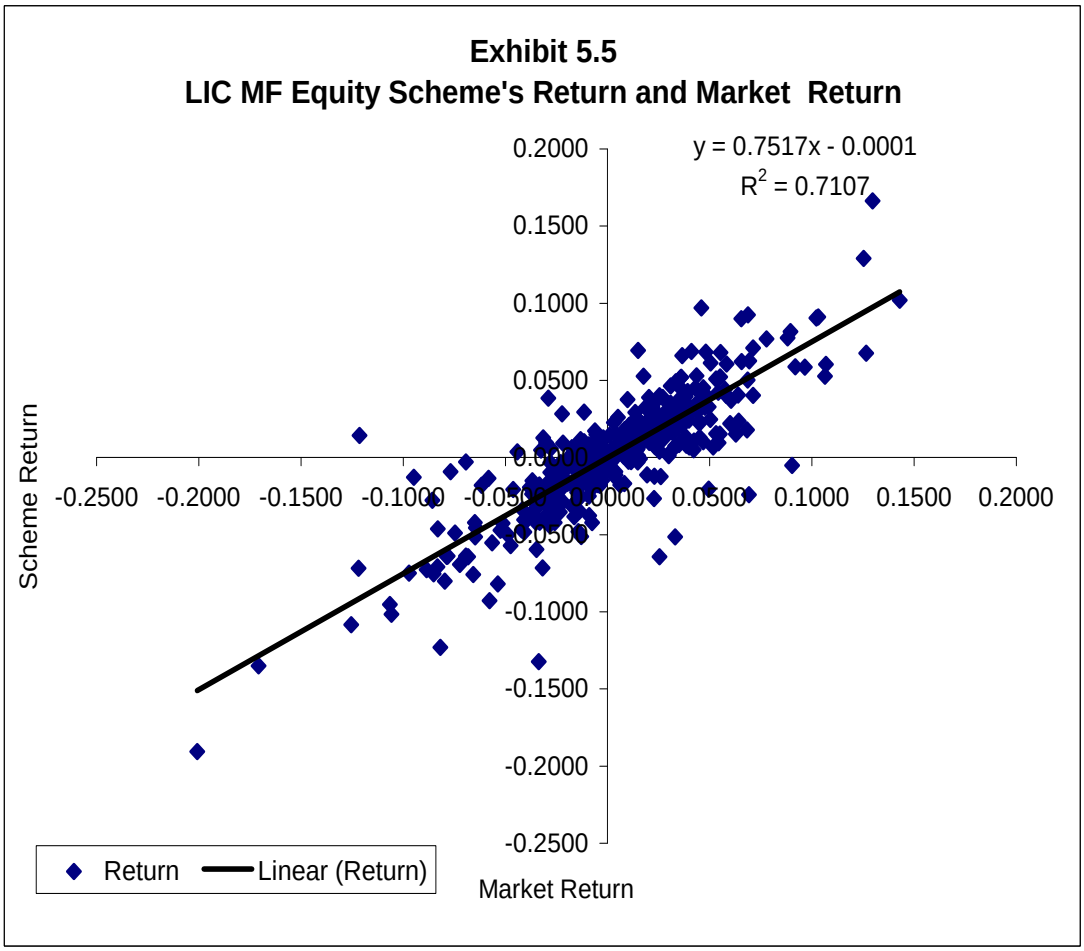


TABLE 5.6

Sharpe Index - SBI Magnum Multiplier Plus Scheme

Year	Return	Market Return	Risk	Sharpe Index	Market Sharpe Index
1998-99	0.0031	(-)0.0001	0.0428	**(-)1.3282**	(-)1.4273
1999-00	**0.0188**	0.0134	0.0606	**(-)0.6791**	(-)0.8495
2000-01	**(-)0.0204**	(-)0.0092	0.0866	**(-)0.9290**	(-)1.2713
2001-02	0.0127	0.0009	**0.1931**	**(-)0.2452**	(-)1.3567
2002-03	(-)0.0029	(-)0.0017	0.0309	**(-)2.0377**	(-)2.7173
2003-04	0.0173	0.0132	0.0939	**(-)0.4542**	(-)1.1327
2004-05	0.0084	0.0042	0.0459	**(-)1.1229**	(-)1.2738
2005-06	0.0149	0.0101	**0.0246**	**(-)1.8290**	(-)2.1318
Overall	**0.0065**	0.0039	0.0887	**(-)0.6033**	**(-)1.3172**

Table 5.6 depicts that, the return on SBI Magnum Multiplier Plus scheme ranged from (-) 0.0204 to 0.0188 during the period of study with an average of 0.0065 as shown in the Exhibit 5.6. Scheme's return was better than the market return in almost all the years except in the years 2000-01 and 2002-03. Scheme's risk ranged from 0.0246 to 0.1931.

The performance of the scheme in terms of risk and return as measured by Sharpe Index shows negative values during the entire period of study implying that the returns were not sufficient to cover the risk free return and risk involved. SBI Magnum Multiplier Scheme outperformed the market in all the eight years studied in terms of Sharpe index.

The overall Sharpe index of the scheme (-0.6033) was less than the market Sharpe index (-1.3172) which shows that the scheme out performed the market.

Exhibit 5.6
SBI Magnum Multiplier Plus Scheme's Return and Market Return

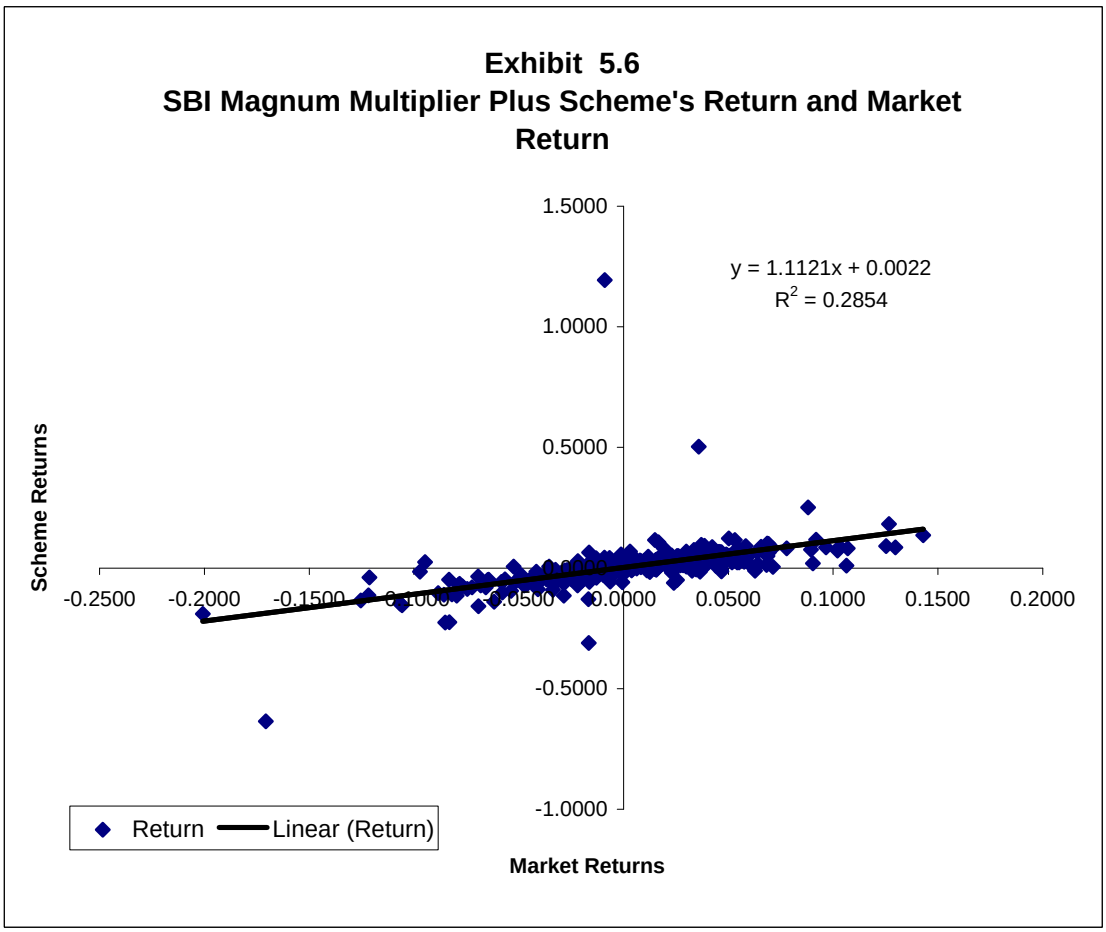


TABLE 5.7

Sharpe Index - UTI Opportunities Scheme

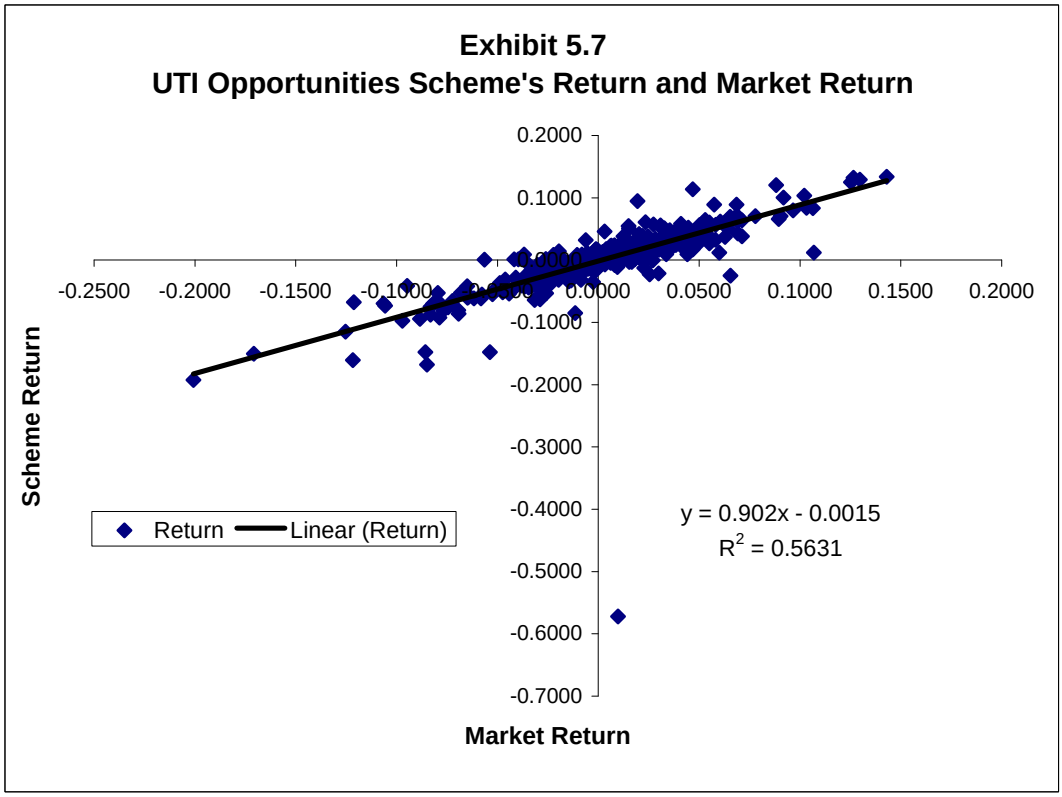
Year	Return	Market Return	Risk	Sharpe Index	Market Sharpe Index
1998-99	(-)0.0010	(-)0.0001	0.0461	**(-)1.3217**	(-)1.4273
1999-00	0.0094	0.0134	0.0482	(-)1.0488	(-)0.8495
2000-01	**(-)0.0104**	(-)0.0092	0.0667	**(-)1.0559**	(-)1.2713
2001-02	0.0019	0.0009	0.0401	(-)1.4505	(-)1.3567
2002-03	(-)0.0016	(-)0.0017	**0.0211**	(-)2.9243	(-)2.7173
2003-04	**0.0131**	0.0132	0.0367	(-)1.2787	(-)1.1327
2004-05	0.0058	0.0042	0.0411	(-)1.3198	(-)1.2738
2005-06	(-)0.0010	0.0101	**0.0836**	**(-)0.7293**	(-)2.1318
Overall	0.0020	0.0039	**0.0512**	**(-)1.1317**	(-)1.3172

The above Table reveals that, the return from UTI Opportunities scheme ranged from (-) 0.0104 to 0.0131 as displayed in the Exhibit 5.7. Scheme's return was better than the market only in three years (2001-02, 2002-03, 2004-05). Scheme's risk ranged from 0.0211 to 0.0836 with an overall risk of 0.0512.

Scheme's Sharpe index showed negative values in all the years implying inadequate returns compared to the risk-free return and risk covered.

The scheme outperformed the market in three years out of eight years (1998-99, 2000-01 and 2005-06), however for the overall period the UTI Opportunities scheme showed better performance than the market in terms of Sharpe index (-1.1317).

Exhibit 5.7
UTI Opportunities Scheme's Return and Market Return



As per **Sharpe index**, both the scheme and the market showed negative values indicating insufficient returns compared to the risk-free return and total risk involved. However, six schemes out of seven schemes (except LIC MF Equity scheme) performed better than the market during the period of study.

TREYNOR INDEX

Treynor Index uses beta as a risk surrogate. It evaluates excess returns with regard to systematic risk. Schemes with higher Treynor index imply better performance. Treynor index is used to rank the desirability of portfolios and individual assets together, since diversifiable risk is ignored. Treynor single-parameter investment performance index is used for ranking mutual funds based on systematic risk.

Treynor Index = [(Return from the Portfolio – Risk free rate of return) ÷ Beta of the Portfolio]

TABLE 5.8

Treynor Index - Cangrowth Plus Scheme

Year	Return	Beta	Treynor Index	Market Treynor Index
1998-99	0.0045	0.8338	(-)0.0665	(-)0.0600
1999-00	0.0154	**0.5593**	(-)0.0798	(-)0.0466
2000-01	(-)0.0084	0.8502	(-)0.0805	(-)0.0692
2001-02	(-)0.0002	**0.8826**	(-)0.0682	(-)0.0591
2002-03	(-)0.0012	0.7780	(-)0.0787	(-)0.0617
2003-04	0.0101	0.6954	(-)0.0718	(-)0.0468
2004-05	0.0077	0.7622	(-)0.0686	(-)0.0558
2005-06	0.0098	0.8195	(-)0.0613	(-)0.0499
Overall	**0.0047**	**0.7620**	(-)0.0726	(-)0.0561

Table 5.8 reveals that, the Cangrowth Plus scheme had positive beta values ranging from 0.5593 to 0.8826 indicating that scheme moves in the same direction as that of the market and is defensive in nature being less than one.

The negative Treynor index implies that the scheme did not provide adequate return to cover risk-free return nor the market risk during the entire period of study. As scheme's Treynor index was negative, the performance was not good compared to the market in all the eight years studied.

On an overall, the Cangrowth plus scheme provided a return (0.0047) less than that of the market (0.7620) and so, the overall negative Treynor index also was poor than the market depicting most awful performance of the scheme based on market risk.

TABLE 5.9

Treynor Index - Franklin India Bluechip Scheme

Year	Return	Beta	Treynor Index	Market Treynor Index
1998-99	0.0112	**0.9566**	**(-)0.0510**	(-)0.0600
1999-00	0.0063	**0.6544**	(-)0.0821	(-)0.0466
2000-01	(-)0.0053	0.7292	(-)0.0895	(-)0.0692
2001-02	0.0026	0.9304	(-)0.0617	(-)0.0591
2002-03	0.0003	0.9331	(-)0.0640	(-)0.0617
2003-04	0.0172	0.9034	(-)0.0474	(-)0.0468
2004-05	0.0043	0.9100	(-)0.0613	(-)0.0558
2005-06	0.0111	0.9344	(-)0.0524	(-)0.0499
Overall	0.0059	0.8242	(-)0.0656	(-)0.0561

Table 5.9 shows that, the Franklin India Bluechip scheme's positive beta values ranges from a minimum of 0.6544 to a maximum of 0.9566 indicating performance of the scheme is in the same direction as that of the market. However, the scheme's beta values being less than one in all the years indicate its defensive nature.

The negative Treynor index for all the years indicate that the scheme did not provide adequate return to cover risk-free return and for

the market risk undertaken by the unit-holders. The negative Treynor index being less than the market in only one year (1998-99) indicates poor performance of the scheme based on beta risk during the study period.

TABLE 5.10

Treynor Index - Franklin India Prima Scheme

Year	Return	Beta	Treynor Index	Market Treynor Index
1998-99	0.0117	0.7221	(-)0.0669	(-)0.0600
1999-00	0.0162	0.7817	(-)0.0560	(-)0.0466
2000-01	(-)0.0080	0.7822	(-)0.0869	(-)0.0692
2001-02	0.0074	0.8532	(-)0.0616	(-)0.0591
2002-03	0.0020	0.8514	(-)0.0681	(-)0.0617
2003-04	0.0187	0.7956	(-)0.0520	(-)0.0468
2004-05	0.0096	**0.8556**	(-)0.0589	(-)0.0558
2005-06	0.0108	**0.6528**	(-)0.0754	(-)0.0499
Overall	0.0086	**0.7981**	(-)0.0645	(-)0.0561

The Franklin India Prima Scheme's positive beta values as depicted in the Table 5.10 with an overall value of 0.7981 demonstrate that scheme and the market moves in the same direction. The beta values

ranging from 0.6528 to 0.8556 are an indication of high sensitivity of the scheme for the market movement. The scheme did not provide enough returns to cover the risk-free return and for the market risk involved as reflected in the negative Treynor index.

The negative Treynor index of Franklin India Prima Scheme being more than the market in all the years studied established that the market performance was better than that of the scheme.

TABLE 5.11

Treynor Index - HDFC Capital Builder Scheme

Year	**Return**	**Beta**	**Treynor Index**	**Market Treynor Index**
1998-99	0.0134	0.7454	(-)0.0625	(-)0.0600
1999-00	0.0028	**0.3946**	(-)0.1450	(-)0.0466
2000-01	(-)0.0047	0.4501	(-)0.1437	(-)0.0692
2001-02	0.0018	0.4273	(-)0.1362	(-)0.0591
2002-03	(-)0.0010	0.5032	(-)0.1213	(-)0.0617
2003-04	0.0158	0.6230	(-)0.0709	(-)0.0468
2004-05	0.0096	0.8305	(-)0.0607	(-)0.0558
2005-06	0.0100	**0.8451**	(-)0.0592	(-)0.0499
Overall	0.0057	0.5605	(-)0.0964	(-)0.0561

Table 5.11 shows the HDFC Capital Builder Scheme's positive beta values ranging from 0.3946 to 0.8451 reveals that the performance of the scheme and that of the market were in the same direction. The lower beta values in all the years indicate the defensive nature of the scheme.

The negative Treynor index in all the years signify that the scheme did not provide adequate returns to cover the market risk involved and the risk-free return. The negative Treynor's index being more than that of market in all the years signify under performance of the scheme compared to the market.

The overall Treynor index of HDFC Capital Builder Scheme being more than that of the market indicates that the scheme's performance was disgraceful.

TABLE 5.12

Treynor Index - LIC MF Equity Scheme

Year	Return	Beta	Treynor Index	Market Treynor Index
1998-99	0.0004	**0.5915**	(-)0.1008	(-)0.0600
1999-00	0.0061	0.6534	(-)0.0825	(-)0.0466
2000-01	(-)0.0103	0.6860	(-)0.1025	(-)0.0692
2001-02	0.0015	0.8120	(-)0.0720	(-)0.0591
2002-03	(-)0.0005	**0.9724**	(-)0.0622	(-)0.0617
2003-04	0.0142	0.8492	(-)0.0539	(-)0.0468
2004-05	0.0025	0.8970	(-)0.0641	(-)0.0558
2005-06	0.0085	0.8535	(-)0.0603	(-)0.0499
Overall	0.0028	**0.7517**	(-)0.0761	(-)0.0561

The above Table shows the LIC MF Equity Scheme's Treynor index. The beta values of the scheme ranges from a minimum value of 0.5915 to a maximum value of 0.9724 indicates the defensive nature of the scheme. The beta values were above the overall average beta (0.7517) from 2001-02 onwards. Beta values being positive indicate that, the performance of the scheme was in the same direction as that of the market.

The negative Treynor index shows that, the scheme did not assure a return to cover risk-free rate and for the systematic risk associated with the scheme. The scheme's negative Treynor index being more than that of market in all the eight years and in the overall period ascertains that, the scheme did not outshine the market.

TABLE 5.13

Treynor Index - SBI Magnum Multiplier Plus

Year	**Return**	**Beta**	**Treynor Index**	**Market Treynor Index**
1998-99	0.0031	**0.8093**	(-)0.0703	(-)0.0600
1999-00	0.0188	0.8115	(-)0.0507	(-)0.0466
2000-01	(-)0.0204	1.3082	**(-)0.0615**	(-)0.0692
2001-02	0.0127	**1.6147**	**(-)0.0293**	(-)0.0591
2002-03	(-)0.0029	1.1080	**(-)0.0568**	(-)0.0617
2003-04	0.0173	1.1648	**(-)0.0366**	(-)0.0468
2004-05	0.0084	0.9984	**(-)0.0517**	(-)0.0558
2005-06	0.0149	0.8469	(-)0.0532	(-)0.0499
Overall	0.0065	1.1121	**(-)0.0481**	(-)0.0561

The above Table 5.13 reveals that, SBI Magnum Multiplier Plus Scheme with positive beta coefficients from 0.8093 to 1.6147 indicates

that the scheme moves in the same direction as that of the market due to the positive influence of the market. The average beta value of 1.1121 indicates the aggressive nature of the scheme.

The scheme's negative Treynor index in all the years under study showed that the scheme did not ensure adequate return to its investors in terms of risk-free return and market risk involved. The negative Treynor index being less than the market from 2000-01 to 2004-05 and for the overall period indicates better performance of the scheme compared to the market.

TABLE 5.14

Treynor Index - UTI Opportunities Scheme

Year	**Return**	**Beta**	**Treynor Index**	**Market Treynor's Index**
1998-99	(-)0.0010	1.0423	**(-)0.0585**	(-)0.0600
1999-00	0.0094	0.8191	(-)0.0617	(-)0.0466
2000-01	(-)0.0104	**1.0721**	**(-)0.0656**	(-)0.0692
2001-02	0.0019	0.8182	(-)0.0710	(-)0.0591
2002-03	(-)0.0016	0.8619	(-)0.0715	(-)0.0617
2003-04	0.0131	**0.7854**	(-)0.0597	(-)0.0468
2004-05	0.0058	0.8917	(-)0.0608	(-)0.0558
2005-06	(-)0.0010	0.8024	(-)0.0760	(-)0.0499
Overall	0.0020	0.9020	(-)0.0643	(-)0.0561

Table 5.14 reveals that the UTI Opportunities scheme ensures positive beta values ranging from 0.7854 to 1.0721 pointing out that the scheme moves in the same direction as that of the market.

Scheme's beta values less than one in most of the years indicate the defensive nature and greater than one spot out the aggressive nature of the scheme. The negative Treynor index reveals that the scheme does not provide sufficient return to cover risk-free return and market risk of the scheme.

The negative scheme's Treynor index being more than the market Treynor index in almost all the years (except 1998-99 and 2000-01) indicates unfortunate performance of the scheme compared to that of the market.

As per **Treynor index**, all the seven sample schemes studied had positive beta values signifying that scheme and market performance are in the same direction. Only SBI Magnum Multiplier Plus Scheme and UTI Opportunities Scheme with beta more than one in some years were aggressive. All the schemes and the market had negative Treynor index demonstrating insufficient returns compared to the market risk. Only SBI Magnum Multiplier Plus scheme outshined the market based on Treynor index.

JENSEN MEASURE

The Sharpe and Treynor models provide measures for ranking the relative performance of various portfolios on a risk-adjusted basis. Jensen developed a measure of absolute performance on a risk-adjusted basis, with equilibrium average return on a portfolio as the benchmark.

Scheme's Expected Return= Risk free return + (Beta × Risk Premium)

Jensen Alpha is the gap between the scheme's expected return and its actual returns.

To assess the extent of diversification, Jensen performance measure (1968) has to be compared with Sharpe Differential Return (1966). If a portfolio is well diversified, the quantum of differential return of the two measures will be the same.

SHARPE'S DIFFERENTIAL RETURN

Sharpe's Differential Return measures the ability of the fund manager in terms of both security selection and diversification of portfolio. The difference between the expected return and actual return of the portfolio is the differential return. Differential returns are computed by applying the following equation.

Sharpe's Expected Return = [Risk-free return + (Excess of market return over risk-free return × standard deviation of scheme) / standard deviation of market]

TABLE 5.15

Jensen Alpha - Cangrowth Plus Scheme

Year	Return	Expected Return	Jensen Alpha	Sharpe Differential Return
1998-99	0.0045	0.0099	(-)0.0054	0.0639
1999-00	0.0154	**0.0339**	(-)0.0186	0.0117
2000-01	(-)0.0084	**0.0012**	(-)0.0096	0.0620
2001-02	(-)0.0002	0.0079	(-)0.0080	(-)0.0029
2002-03	(-)0.0012	0.0120	(-)0.0132	(-)0.0054
2003-04	0.0101	0.0275	(-)0.0174	(-)0.0140
2004-05	0.0077	0.0175	(-)0.0098	(-)0.0028
2005-06	0.0098	0.0191	(-)0.0093	(-)0.0041
Overall	0.0047	0.0172	(-)0.0125	0.0213

The Cangrowth Plus scheme's Jensen alpha is depicted in the Table 5.15. The expected return of the scheme ranged from 0.0012 to 0.0339. The negative Jensen's alpha in all the years indicate poor performance of the scheme compared to that of expectations.

A comparison of Jensen's alpha and Sharpe's Differential return indicates that, the extent of diversification was not appreciable.

TABLE 5.16

Jensen Alpha - Franklin India Bluechip Scheme

Year	Return	Expected Return	Jensen Alpha	Sharpe's Differential Return
1998-99	0.0112	0.0026	0.0086	0.0192
1999-00	0.0063	**0.0295**	(-)0.0232	0.0202
2000-01	(-)0.0053	0.0096	(-)0.0148	(-)0.0087
2001-02	0.0026	0.0051	(-)0.0025	0.0015
2002-03	0.0003	**0.0025**	(-)0.0022	0.0037
2003-04	0.0172	0.0177	(-)0.0006	0.0019
2004-05	0.0043	0.0093	(-)0.0050	(-)0.0045
2005-06	0.0111	0.0134	(-)0.0023	0.0002
Overall	0.0059	0.0137	(-)0.0078	0.0084

Table 5.16 reveals the Jensen alpha and Sharpe's Differential Return of Franklin India Bluechip scheme. The expected return of the scheme ranged from 0.0025 to 0.0295. The negative Jensen alpha from 1999-00 onwards indicate that the scheme did not provide adequate return as expected.

The scheme is not fully diversified as Jensen's alpha differed considerably from that of Sharpe's Differential return.

TABLE 5.17

Jensen Alpha - Franklin India Prima Scheme

Year	Return	Expected Return	Jensen Alpha	Sharpe's Differential Return
1998-99	0.0117	0.0166	(-)0.0049	0.0185
1999-00	0.0162	0.0236	(-)0.0073	0.0446
2000-01	(-)0.0080	**0.0059**	(-)0.0139	0.0067
2001-02	0.0074	0.0096	(-)0.0022	0.0080
2002-03	0.0020	0.0075	(-)0.0055	0.0085
2003-04	0.0187	0.0228	(-)0.0041	0.0068
2004-05	0.0096	0.0123	(-)0.0027	0.0013
2005-06	0.0108	**0.0274**	(-)0.0167	(-)0.0030
Overall	0.0086	0.0152	(-)0.0066	0.0193

Table 5.17 shows the Franklin India Prima Scheme's Jensen alpha. The expected return of the scheme ranged from 0.0059 to 0.0274. The negative Jensen's alpha in all the years indicate that the scheme provided poor returns than expected.

The difference in Jensen's alpha and differential Sharpe's returns of the scheme shows that the scheme's portfolio was not fully diversified.

TABLE 5.18

Jensen Alpha - HDFC Capital Builder Scheme

Year	Return	Expected Return	Jensen Alpha	Sharpe's Differential Return
1998-99	0.0134	0.0152	(-)0.0018	0.0817
1999-00	0.0028	**0.0416**	(-)0.0388	(-)0.0194
2000-01	(-)0.0047	0.0289	(-)0.0335	(-)0.0241
2001-02	0.0018	0.0348	(-)0.0330	(-)0.0266
2002-03	(-)0.0010	0.0290	(-)0.0300	0.0025
2003-04	0.0158	0.0308	(-)0.0150	(-)0.0017
2004-05	0.0096	**0.0137**	(-)0.0041	(-)0.0011
2005-06	0.0100	0.0179	(-)0.0079	0.0018
Overall	0.0057	0.0285	(-)0.0226	0.0045

The HDFC Capital Builder scheme's Jensen alpha is depicted in the Table 5.18. The expected return ranged from 0.0137 to 0.0416. The negative Jensen alpha in all the years indicates that the returns provided by the scheme were less than expected.

A comparison of the Jensen's alpha with Sharpe's Differential Return shows that the scheme was not well-diversified.

TABLE 5.19

Jensen Alpha - LIC MF Equity Scheme

Year	Return	Expected Return	Jensen Alpha	Sharpe's Differential Return
1998-99	0.0004	0.0245	(-)0.0241	(-)0.0076
1999-00	0.0061	**0.0295**	(-)0.0234	(-)0.0156
2000-01	(-)0.0103	0.0125	(-)0.0229	(-)0.0094
2001-02	0.0015	0.0120	(-)0.0105	(-)0.0029
2002-03	(-)0.0005	**0.0001**	(-)0.0005	0.0033
2003-04	0.0142	0.0203	(-)0.0061	(-)0.0039
2004-05	0.0025	0.0100	(-)0.0075	(-)0.0065
2005-06	0.0085	0.0174	(-)0.0089	(-)0.0028
Overall	0.0028	0.0178	(-)0.0150	(-)0.0072

The above Table reveals the LIC MF Equity scheme's Jensen alpha. The expected return of the scheme ranged from 0.0001 to 0.0295. The negative Jensen's alpha values in all the years indicate that the scheme did not provide adequate returns as expected by the investors.

A comparison of the scheme's Jensen alpha with that of its Sharpe's Differential returns ensures insufficient degree of diversification in the scheme.

TABLE 5.20

Jensen Alpha - SBI Magnum Multiplier Plus Scheme

Year	Return	Expected Return	Jensen Alpha	Sharpe's Differential Return
1998-99	0.0031	0.0114	(-)0.0083	0.0042
1999-00	0.0188	**0.0222**	(-)0.0033	0.0103
2000-01	(-)0.0204	(-)0.0305	**0.0101**	0.0296
2001-02	0.0127	**(-)0.0354**	**0.0480**	0.2146
2002-03	(-)0.0029	(-)0.0083	**0.0054**	0.0210
2003-04	0.0173	0.0055	**0.0118**	0.0637
2004-05	0.0084	0.0043	**0.0041**	0.0069
2005-06	0.0149	0.0178	(-)0.0028	0.0075
Overall	0.0065	(-)0.0024	0.0089	0.0633

The above Table depicts the SBI Magnum Multiplier Plus Scheme's Jensen alpha. The expected return of the scheme ranged from (-)0.0354 to 0.0222. The positive Jensen's alpha in many years indicates that the scheme provided better returns than expected.

Comparison of Jensen's alpha with Sharpe's Differential returns reveals that the scheme does not ensure full diversification.

TABLE 5.21

Jensen Alpha - UTI Opportunities Scheme

Year	Return	Expected Return	Jensen Alpha	Sharpe's Differential Return
1998-99	(-)0.0010	(-)0.0026	0.0016	0.0049
1999-00	0.0094	0.0218	**(-)0.0124**	(-)0.0096
2000-01	(-)0.0104	**(-)0.0142**	0.0038	0.0144
2001-02	0.0019	0.0117	**(-)0.0098**	(-)0.0038
2002-03	(-)0.0016	0.0068	**(-)0.0084**	(-)0.0044
2003-04	0.0131	**0.0232**	**(-)0.0102**	(-)0.0054
2004-05	0.0058	0.0103	**(-)0.0045**	(-)0.0019
2005-06	(-)0.0010	0.0200	**(-)0.0209**	0.1172
Overall	0.0020	0.0094	**(-)0.0073**	0.0095

Table 5.21 displays the Jensen's alpha and Sharpe's Differential return of UTI Opportunities Scheme. The expected return of the scheme ranged from a minimum of (-) 0.0142 to a maximum of 0.0232. The negative Jensen's alpha in many years indicates that the scheme did not provide adequate returns compared to that of expectations.

A comparison of Jensen's alpha with Sharpe's Differential return shows that the scheme was not fully diversified.

As per **Jensen Alpha**, of the seven sample schemes studied, only three schemes, namely Franklin India Bluechip scheme, SBI Magnum Multiplier Plus Scheme, and UTI Opportunities scheme provided return in excess of expectations during few years. For the overall period, SBI Magnum Multiplier Plus scheme alone had positive Jensen alpha. However, all the schemes were not well diversified due to differences in Jensen alpha and Sharpe's Differential Returns.

COMPOSITE RISK –RETURN ANALYSIS

A composite risk-return analysis of sample schemes during the eight year period of study and their ranking based on Sharpe, Treynor and Jensen measures is of utmost importance to identify the scheme that perform well in terms of actual return, total risk, systematic risk and return in excess of expectations based on market conditions.

TABLE 5.22

Consolidated Sharpe Index of Sample Schemes

Mutual Fund Scheme	**Return**	**Risk**	**Risk Premium**	**Sharpe Index**	**Rank**
Cangrowth Plus Scheme	0.0047	0.0581	(-)0.0553	**(-)0.9508**	**II**
Franklin India Bluechip Scheme	0.0059	0.0475	(-)0.0541	(-)1.1392	V
Franklin India Prima Scheme	**0.0086**	0.0537	(-)0.0514	(-)0.9576	III
HDFC Capital Builder Scheme	0.0057	0.0444	(-)0.0540	(-)1.2169	VI
LIC MF Equity Scheme	0.0028	**0.0380**	(-)0.0572	**(-)1.5057**	VII
SBI Magnum Multiplier Plus Scheme	0.0065	0.0887	(-)0.0535	**(-)0.6033**	**I**
UTI Opportunities Scheme	**0.0020**	0.0512	(-)0.0580	(-)1.1317	IV

The above Table presents the return, risk, risk premium and Sharpe index of the seven sample schemes for the eight years. The return from Franklin India Prima Scheme (0.0086) was the highest and the UTI Opportunities Scheme (0.0020) was the lowest. The risk of LIC MF Equity Scheme was the lowest (0.0380). The negative risk premium for

all the schemes, imply that the return of the sample schemes was less than the risk-free rate of return and risk covered. The negative Sharpe's index ranging from (-) 1.5057 to (-) 0.6033 indicate the poor performance of all the sample schemes in terms of total risk taken by the investors.

SBI Magnum Multiplier Plus scheme (-0.6033) and Cangrowth Plus scheme (-0.9508) topped the list as shown in the Exhibit 5.8 among the sample schemes based on Sharpe Index.

Exhibit 5.8
Sharpe Index of Sample Schemes

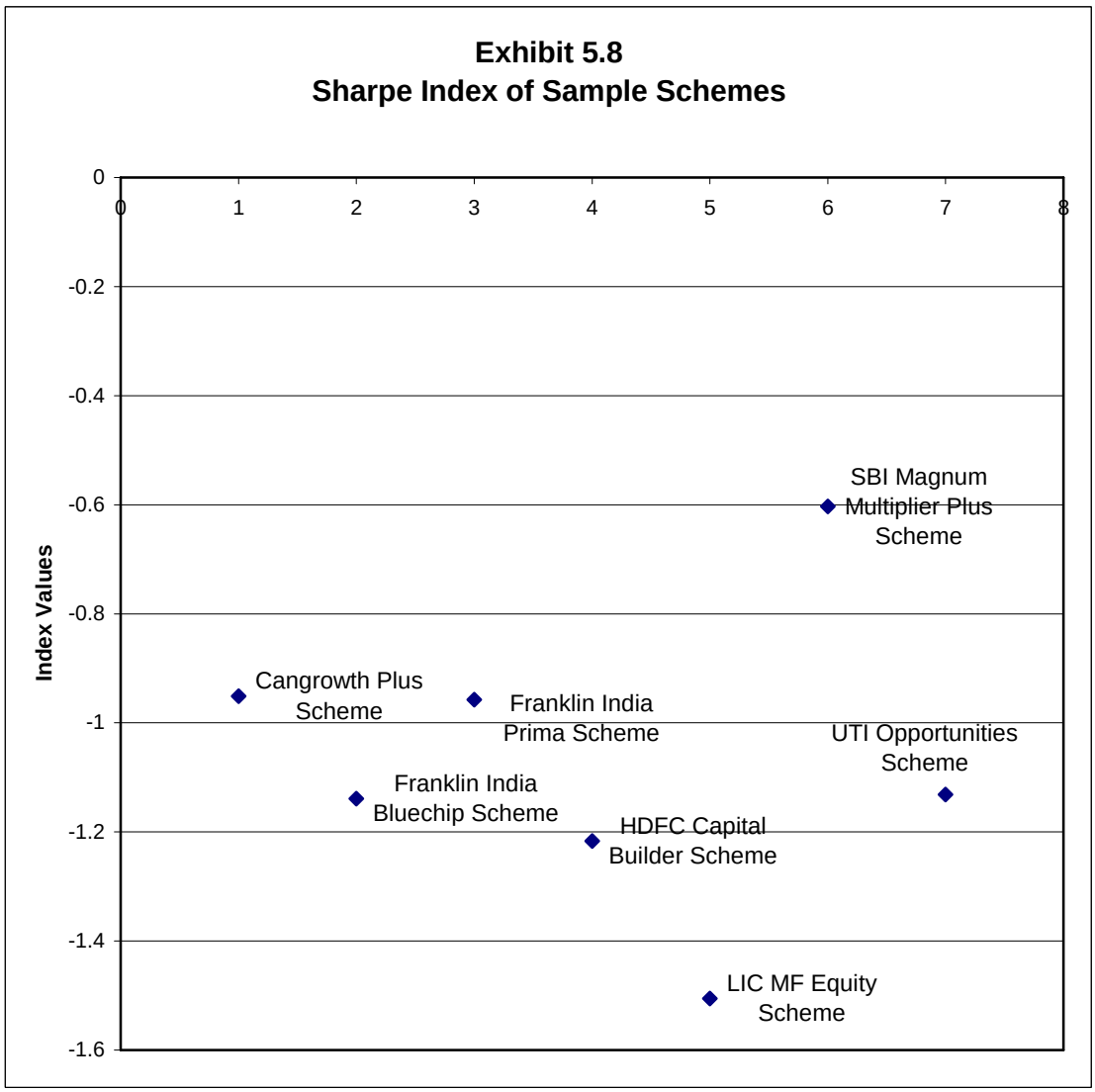


TABLE 5.23

Consolidated Treynor Index of Sample Schemes

Mutual Fund Schemes	**Return**	**Beta**	**Risk Premium**	**Treynor Index**	**Rank**
Cangrowth Plus Scheme	0.0047	0.7620	(-)0.0553	(-)0.0726	V
Franklin India Bluechip Scheme	0.0059	0.8242	(-)0.0541	(-)0.0656	IV
Franklin India Prima Scheme	0.0086	0.7981	(-)0.0514	(-)0.0645	III
HDFC Capital Builder Scheme	0.0057	**0.5605**	(-)0.0540	**(-)0.0964**	VII
LIC MF Equity Scheme	0.0028	0.7517	(-)0.0572	(-)0.0761	VI
SBI Magnum Multiplier Plus Scheme	0.0065	**1.1121**	(-)0.0535	**(-)0.0481**	**I**
UTI Opportunities Scheme	0.0020	0.9020	(-)0.0580	**(-)0.0643**	**II**

The above Table reveals the return, beta, risk premium and Treynor index for the eight years of all the sample schemes. The beta value was the lowest for HDFC Capital Builder Scheme (0.5605) and the highest in the case of SBI Magnum Multiplier plus scheme (1.1121).

SBI Magnum Multiplier Plus scheme with the beta value more than one indicates its aggressive nature while all other sample schemes were

defensive in nature with beta values less than one. The negative Treynor index for all the schemes ranging from (-)0.0964 to (–)0.0481 indicates that the sample schemes provided insufficient returns compared to the risk free return and the market risk involved as shown in the Exhibit 5.9.

SBI Magnum Multiplier Plus scheme (-0.0481) and UTI Opportunities scheme (-0.0643) topped the list among the sample schemes based on Treynor Index.

Exhibit 5.9
Treynor Index Of Sample Schemes

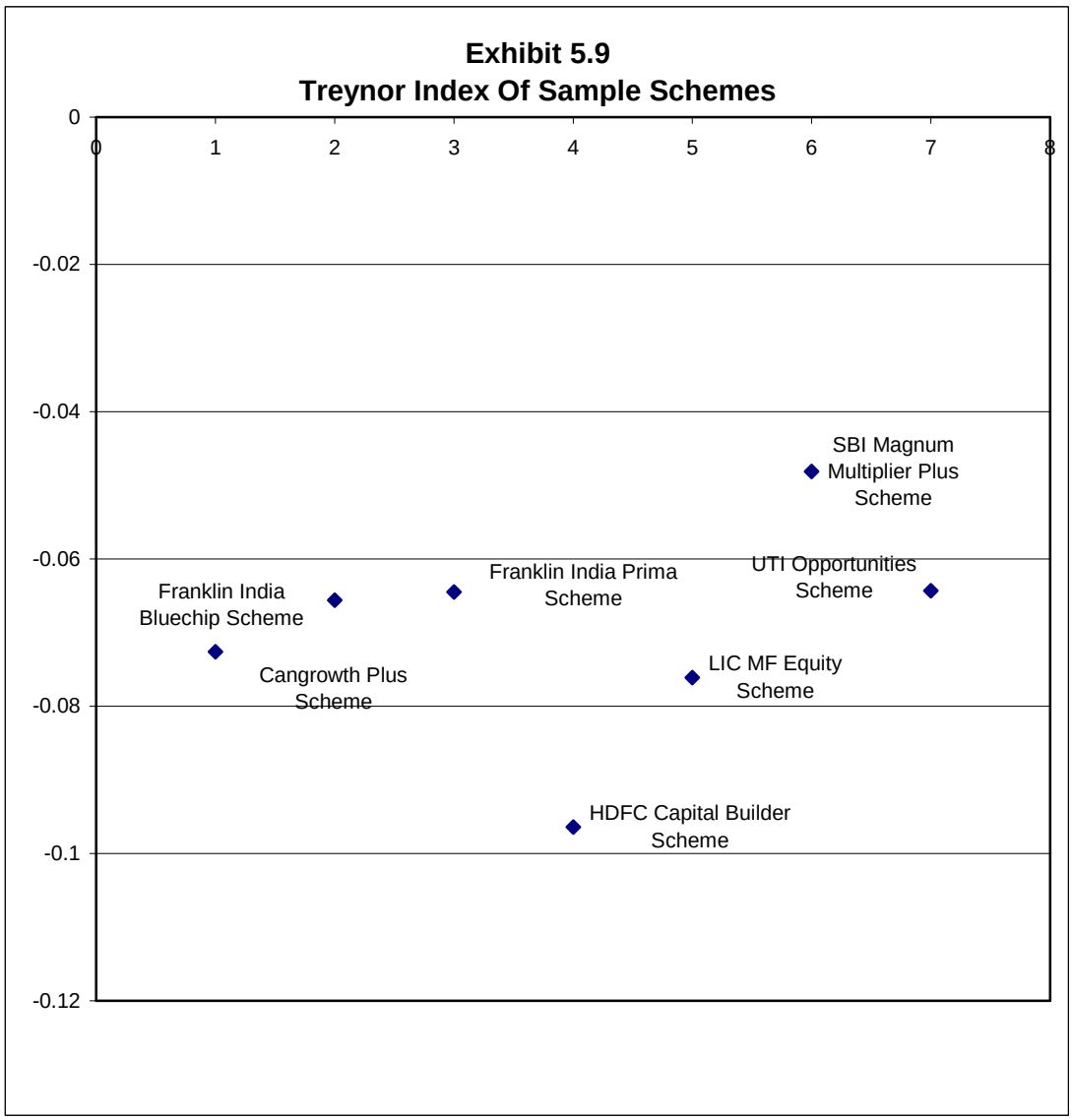


TABLE 5.24

Consolidated Jensen Alpha of Sample Schemes

Mutual Fund Scheme	**Return**	**Expected Return**	**Jensen Alpha**	**Sharpe's Differential Return**	**Rank**
Cangrowth Plus Scheme	0.0047	0.0172	(-)0.0125	0.0213	V
Franklin India Bluechip Scheme	0.0059	0.0137	(-)0.0078	0.0084	IV
Franklin India Prima Scheme	0.0086	0.0152	**(-)0.0066**	0.0193	**II**
HDFC Capital Builder Scheme	0.0057	**0.0285**	(-)0.0226	0.0045	VII
LIC MF Equity Scheme	0.0028	0.0178	(-)0.0150	(-)0.0072	VI
SBI Magnum Multiplier Plus Scheme	0.0065	**(-) 0.0024**	**0.0089**	0.0633	**I**
UTI Opportunities Scheme	**0.0020**	0.0094	(-)0.0073	0.0095	III

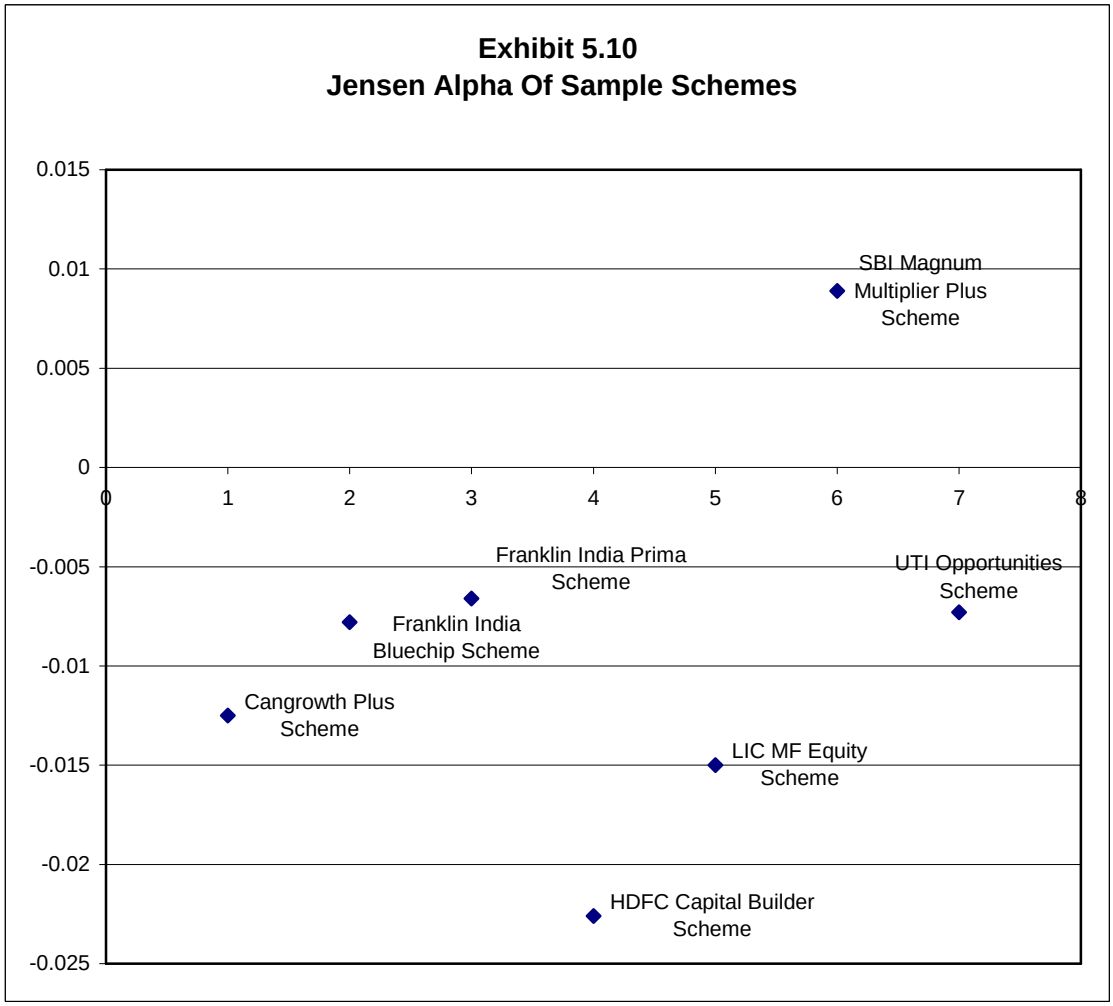
The above Table shows the return, expected return, Jensen Alpha and Sharpe's Differential Return of sample schemes for the entire period of study. The expected return was the highest in the case of HDFC Capital Builder Scheme (0.0285) and the lowest in the case of SBI

Magnum Multiplier plus scheme (-0.0024) due to high beta value. Only SBI Magnum Multiplier Plus Scheme provided positive Jensen's alpha indicating its superior performance compared to that of expectations.

All the schemes were not fully diversified as the Jensen's alpha and Sharpe's Differential returns differed significantly.

SBI Magnum Multiplier Plus Scheme (0.0089) followed by the Franklin India Prima Fund (-0.0066) topped the list as shown in the Exhibit 5.10 based on Jensen's alpha.

Exhibit 5.10
Jensen Alpha Of Sample Schemes



COMPARISON OF PERFORMANCE EVALUATION MEASURES

All the three models employ different measures to evaluate the performance of mutual fund schemes. Hence, there is a need to study the similarity or otherwise as depicted by Sharpe, Treynor and Jensen's model. To identify the uniformity in the ranking of the three models Kendalls Coefficient of Concordance was used to test the following hypothesis at five percent level of significance.

Hypothesis 01: There is no significant difference among the performance evaluation measures as used by Sharpe, Treynor and Jensen.

TABLE 5.25

Comparison of Performance Evaluation Models

Mutual Fund Scheme	**Sharpe**		**Treynor**		**Jensen Alpha**		**R_j**	**S**
	Index	**Rank**	**Index**	**Rank**	**Index**	**Rank**		
Cangrowth Plus Scheme	(-) 0.9508	II	(-) 0.0726	V	(-) 0.0125	V	12	0
Franklin India Bluechip Scheme	(-) 1.1392	V	(-) 0.0656	IV	(-) 0.0078	IV	13	1
Franklin India Prima Scheme	(-) 0.9576	III	(-) 0.0645	III	(-) 0.0066	II	8	16
HDFC Capital Builder Scheme	(-) 1.2169	VI	(-) 0.0964	**VII**	(-) 0.0226	**VII**	20	64
LIC MF Equity Scheme	(-) 1.5057	VII	(-) 0.0761	VI	(-) 0.0150	VI	19	49
SBI Magnum Multiplier Plus Scheme	(-) 0.6033	**I**	(-) 0.0481	**I**	0.0089	**I**	3	81
UTI Opportunities Scheme	(-) 1.1317	IV	(-) 0.0643	II	(-) 0.0073	III	9	9
Spearman's Coefficient of Correlation: Ranking between Sharpe and Treynor's Measure = **0.6429** Ranking between Treynor and Jensen's Measure = **0.8929** Ranking between Sharpe and Jensen's Measure = **0.7500**							Sum = 84	Sum = **220**

Table 5.25 shows that, the rank correlation between the pairs of evaluation was found to be positive indicating a high degree of positive relationship between the ranks assigned by the three measures formulated by Sharpe, Treynor and Jenson. The relationship between Treynor and Jensen was the highest (0.8929) and lowest (0.6429) between Sharpe and Treynor's measures of performance evaluation.

Testing the significance in the relationship using the Kendalls Coefficient of Concordance provides a calculated value of 's' (220) greater than the Table value (157.3) which shows that 'w' (0.8730) is significant. Hence, the null hypothesis is rejected and it is inferred that the rankings provided by the three measures essentially apply the same standard in evaluating the performance of mutual fund schemes. There is a significant agreement in the ranking by the three measures. The lowest value observed amongst the ranks (R_j) is 3 and hence the best estimate of true rankings is the SBI Magnum Multiplier Plus scheme (i.e) all the three models on the whole rank SBI Magnum Multiplier Plus scheme as the topper among the sample schemes covered under study in terms of performance compared to the market and risk elements involved.

EUGENE FAMA'S DECOMPOSITION OF PERFORMANCE

Eugene Fama provides for an analytical framework enabling for a detailed break up of a fund's performance into the components of total

returns to identify the impact of different skills involved in active portfolio management. The total return on a portfolio constitutes of risk free return and excess return.

Total return = Risk-free return (R_f) + Excess Return

Excess Return =Risk premium + Return from Stock Selectivity(R_3)

Risk Premium = Return for bearing Systematic risk (R_1) + Return for bearing Unsystematic risk (R_2)

Return for Systematic Risk (R_1) = β_p (R_m-R_f)

Return for Unsystematic Risk (R_2) = [(σ_p / σ_m) - β_p] * (R_m – R_f)

Return from pure Stock Selectivity (R_3) = R_p- (R_f+ R_1 + R_2)

TABLE 5.26

Eugene Fama's Decomposition of Sample Schemes' Returns

Mutual Fund Scheme	**Return**	**Return for Systematic Risk**	**Return for Unsystematic Risk**	**Return for Pure Selectivity**
Cangrowth Plus Scheme	0.0047	(-)0.0428	(-)0.0338	0.0213
Franklin India Bluechip Scheme	0.0059	(-)0.0463	(-)0.0163	0.0084
Franklin India Prima Scheme	0.0086	(-)0.0448	(-)0.0234	0.0193
HDFC Capital Builder Scheme	0.0057	**(-)0.0315**	**(-)0.0835**	0.0045
LIC MF Equity Scheme	0.0028	(-)0.0422	**(-)0.0079**	(-)0.0072
SBI Magnum Multiplier Plus Scheme	0.0065	**(-)0.0624**	(-)0.0544	**0.0633**
UTI Opportunities Scheme	0.0020	(-)0.0506	(-)0.0168	0.0095

Table 5.26 shows the Eugene Fama's Decomposition of total returns. The negative values of return on systematic and unsystematic risk imply that the market return was less than the risk-free return during the period of study and so did not cover any of the risk involved. The negative return on systematic risk was the highest in the case of HDFC Capital Builder Scheme (-)0.0315 and the lowest in the case of SBI Magnum Multiplier Plus scheme (-)0.0624.

The negative return on unsystematic risk was the highest in the case of LIC MF Equity Scheme (-)0.0079 and the lowest in the case of HDFC Capital Builder Scheme (-)0.0835. The return from stock selectivity was positive (except for LIC MF Equity scheme) implying that the sample schemes had earned superior return due to stock selectivity. SBI Magnum Multiplier Plus scheme provided the highest net superior returns (0.0633) due to selectivity skills assuming higher risk.

RISK ANALYSIS

An analysis of the scheme's risk in comparison with that of the benchmark index risk is of paramount importance to identify the schemes which are riskier than the market and the impact of the market on the mutual fund scheme. Sharpe considers the total variance explained by the market index in terms of systematic risk and the unexplained otherwise

residual variance in terms of unsystematic risk. The risk components are calculated as follows:

Total Variance Explained by Index = $r^2 \times \sigma_p^2$

Total Variance not explained by Index = $(1- r^2) \times \sigma_p^2$

TABLE 5.27

Composite Risk Of Sample Schemes

Mutual Fund Scheme	**Components of Risk**		**Total Variance**
	Explained Variance	**Unexplained Variance**	
Cangrowth Plus Scheme	0.0011	0.0023	0.0034
Franklin India Bluechip Scheme	0.0013	0.0010	0.0023
Franklin India Prima Scheme	0.0012	0.0017	0.0029
HDFC Capital Builder Scheme	**0.0006**	0.0014	0.0020
LIC MF Equity Scheme	0.0010	**0.0004**	0.0014
SBI Magnum Multiplier Plus Scheme	**0.0023**	**0.0056**	0.0079
UTI Opportunities Scheme	0.0015	0.0011	0.0026

The above Table explains the components of risk. The explained variance by market index was the lowest in the case of HDFC Capital Builder Scheme (0.0006) and the highest in the case of SBI Magnum

Multiplier Plus scheme (0.0023). The unexplained variance by market index was the highest for SBI Magnum Multiplier Plus Scheme (0.0056) and the lowest in the case of LIC MF Equity Scheme (0.0004).

SBI Magnum Multiplier Plus Scheme showed high explained and high unexplained variance during the period of study.

RELATIONSHIP BETWEEN THE SCHEME AND MARKET

The risk involved in individual securities is measured by standard deviation. The interactive risk or covariance between the scheme and the market rate of return helps to identify whether the two rates of returns move in the same direction or inversely related based on the positive or negative covariance. If the covariance is zero it implies that the scheme is independent of the market.

The coefficient of correlation helps to identify the similarity or otherwise in the behaviour of schemes and market rate of return. The scheme could reduce risk by way of investing in negative or low covariance providing security so as to reduce risk by diversification. Lower the correlation, better the diversification of portfolio. The coefficient of determination (R^2) provides the percentage of variance of the scheme that is explained by the variation of return on the market. To test the relationship between the market index return and scheme return,

the following null hypothesis was formulated and tested at five percent level of significance using Chi-square test of significance.

Hypothesis 02: Index returns and scheme returns are not significantly related.

TABLE 5.28

Impact Of Market On The Performance Of Sample Schemes

Mutual Fund Scheme	**Covariance**	**Correlation**	**Coefficient of Determination**	**Calculated Z Value**
Cangrowth Plus Scheme	0.0014	0.5584	0.3118	13.70*
Franklin India Bluechip Scheme	0.0015	0.7400	0.5476	22.39*
Franklin India Prima Scheme	0.0014	0.6330	0.4007	16.64*
HDFC Capital Builder Scheme	**0.0010**	0.5379	0.2893	12.98*
LIC MF Equity Scheme	0.0014	0.8430	**0.7107**	31.89*
SBI Magnum Multiplier Plus Scheme	**0.0020**	0.5342	**0.2854**	12.86*
UTI Opportunities Scheme	0.0016	0.7504	0.5631	23.10*

* Significant at five percent level.

The interactive risk as measured by covariance between the market and the scheme's returns were positive for all the schemes covered under

the study indicates that the sample schemes moves in the same direction as that of the market. The highest covariance was in the case of SBI Magnum Multiplier Plus Scheme (0.0020) and the lowest in the case of HDFC Capital Builder Scheme (0.0010).

LIC MF Equity scheme had the highest 71.07 percent of variance of the scheme's return explained by the variation of return on the market index while SBI Magnum Multiplier Plus scheme had the lowest 28.54 percent explained by the variation in the market return.

The calculated Z Value was greater than the Table value (1.96) for all the schemes covered under the study. Hence, it could be concluded that the hypothesis is rejected (i.e.) market return have a significant impact on all the sample mutual fund scheme's returns.

RELATIONSHIP BETWEEN THE PRESENT PERFORMANCE AND THE PAST PERFORMANCE

The present performance of a scheme is based on the performance track record of the scheme in the past period. To identify the extent of impact of the past performance on the current net assets value, the following hypothesis was formulated and tested at five percent level of significance using autocorrelation.

Hypothesis 03: Past performance of the scheme does not have any significant relationship with that of current performance.

TABLE 5.29

Autocorrelation Of Net Assets Value Of Sample Schemes

Mutual Fund Scheme	Time Lag				
	Weekly	**Monthly**	**Quarterly**	**Half Yearly**	**Yearly**
Cangrowth Plus Scheme	0.9751 (89.48)*	0.9140 (45.85) *	0.7595 (23.75) *	0.5685 (14.06)*	0.2035 (4.23)*
Franklin India Bluechip Scheme	0.9809 (102.62)*	0.9231 (48.83)*	0.7741 (24.88)*	0.6074 (15.56)*	0.3735 (8.19)*
Franklin India Prima Scheme	0.9871 (125.08)*	0.9487 (61.05)*	0.8376 (31.20)*	0.6922 (19.52)*	0.4528 (10.33)*
HDFC Capital Builder Scheme	0.9852 (117.07)*	0.9421 (57.14)*	0.8277 (30.01)*	0.6751 (18.62)*	0.4209 (9.44)*
LIC MF Equity Scheme	0.9818 (105.28)*	0.9299 (51.46)*	0.7958 (26.74)*	0.6463 (17.24)*	0.3687 (8.07)*
SBI Magnum Multiplier Plus Scheme	0.9743 (87.95)*	0.9061 (43.57)*	0.7023 (20.07)*	0.4860 (11.31)*	0.1137 (2.33)*
UTI Opportunities Scheme	0.9771 (93.38)*	0.9073 (43.90)*	0.7064 (20.31)*	0.4583 (10.49)*	0.1975 (4.10)*

* Significant at five percent level.

The results of the autocorrelation as depicted in the above Table shows that, the present NAV is positively and significantly correlated

with the past NAV for all the time lags of all the sample schemes studied. There exists a high degree of positive correlation in weekly time lag and gets reduced as the time lag increases.

As the correlation coefficient is significant for all the time lags, the hypothesis of no correlation gets automatically rejected for all time lags of all the sample schemes. However, the coefficient of correlation with higher time lags consistently increases with reduction in time lags, which is evident from the uniform rise in correlation coefficient from yearly to weekly time lags for all the sample schemes.

CONCLUSION

During the eight years of study period, the sample schemes outperformed the market in terms of absolute returns in many years. But all the sample schemes and the market did not provide adequate return to cover risk-free return and total risk of the scheme. Schemes in general performed better than the market. Except SBI Magnum Multiplier Plus Scheme, the other sample schemes did not ensure expected returns.

The performance of the sample schemes were in the same direction as that of the market as evident from the positive beta values. Only SBI Magnum Multiplier Plus Scheme and UTI Opportunities Scheme were aggressive with high beta values. All the sample schemes were not well diversified as depicted by the differences in the Jensen alpha and

Sharpe's Differential return. All the three risk-adjusted performance measures by Sharpe, Treynor and Jensen Models depicted poor performance of the sample schemes and ensured significant agreement in their ranking. Of the seven sample schemes studied, SBI Magnum Multiplier Scheme topped the list in the case of all the three portfolio performance evaluation models.

All the sample schemes did not provide adequate return in terms of systematic risk and unsystematic risk. However, the sample schemes (except LIC MF Equity Scheme) ensured positive returns due to stock selection skills of fund managers.

The variance explained by the market was more in the case of LIC MF Equity Scheme, UTI Opportunities Scheme, Franklin India Bluechip scheme while it was less in the case of other sample schemes.

The market performance had a significant positive influence on the entire sample schemes' performance. The present NAV is positively and significantly correlated with the past NAV for all the time lags of all the sample schemes studied. There exists a high degree of positive correlation in weekly time lag and gets reduced as the time lag increases for all the sample schemes.

CHAPTER VI

PERCEPTIONS OF INVESTORS, BROKERS AND FUND MANAGERS ON THE INDIAN MUTUAL FUND INDUSTRY

Financial system comprises of financial institutions, services, market and instruments. Financial institutions mobilize resources, purchase and sell instruments and render various services in accordance with the practices and procedures of law. Investing in financial securities is a complex one involving knowledge of various investment tools, terms, concepts, strategies and process. The success of a financial investment activity depends on the knowledge and ability of investors to invest the right amount, in the right type, at the right time. Investor has to use his intellect, which is an art to acquire by learning and experience. Knowledge of financial investment principles and the art of investment management are the basic requirements for a successful investment.

The financial securities include ownership securities (like shares, mutual fund units) and creditorship securities (like debentures, bonds). Ownership securities are more risky than creditorship securities. Investment decisions relating to ownership securities involve planning of investment strategies according to the extent of diversification desired by

individuals. Investors can reduce risk and maximize returns by way of mutual fund investments, enjoying the expertise of professional fund management. In India, Mutual fund industry is an organised financial system, accessible to individual investors having varied needs and options. In order to identify the preferences of brokers and investors for mutual funds, a careful collection of primary data through questionnaire was made. Schedules were used to collect data from fund managers on mutual funds. The information collected from investors, brokers and fund managers with regard to the fourth and fifth objectives of the study are analysed in this chapter as detailed below:

PROFILE OF INVESTORS

The differences in the personal characteristics of individual investors influence the choice and preference for investments. Hence, to understand the nature and characteristics of respondents covered under the study, an analysis of the information regarding their socio-economic background is carried out in this part of the research work.

TABLE 6.1

Profile of Sample Investors

Profile of Investors		**Number of Investors**	**Percentage**
Age	Below 30 Years	60	16.67
	31-45 Years	148	**41.11**
	46-60 Years	112	31.11
	Above 60 Years	40	11.11
Sex	Male	312	**86.67**
	Female	48	13.33
Occupation	Business	107	29.72
	Agriculture	24	6.67
	Professional	27	7.50
	Employed	136	**37.78**
	Others (Retired)	66	18.33
Educational Qualification	upto Higher Secondary Level	82	22.78
	Undergraduate	181	**50.28**
	Postgraduate	97	26.94
Marital Status	Married	318	**88.33**
	Unmarried	42	11.67
Monthly Income (in Rupees)	Below 10,000	181	**50.28**
	10001-20,000	114	31.67
	Above 20,000	65	18.05
Monthly Savings (in Rupees)	Below 2,000	187	**51.94**
	2001-4,000	63	17.50
	Above 4,000	110	30.56

Table 6.1 reveals that, 41.11 percent of respondents were in the age group of 31-45 years, 86.67 percent of respondents were male investors, 37.78 percent of investors represented employed category, 50.28 percent of investors were undergraduates, 88.33 percent of investors were married, 50.28 percent of investors were earning less than Rs.10,000 per month and 51.94 percent of investors were saving less than Rs.2,000 per month.

ATTITUDE OF INVESTORS TOWARDS INVESTMENTS

The investors' attitude towards investment is analyzed with respect to their financial needs, investment objective, and time horizon of investment, willingness to take risk, fluctuations in the value of investment, investment experience, preference and degree of safety for financial assets.

Financial Needs And Dependence Of Investors On Investments

The nature and intensity of financial needs differ from investor to investor based on their requirements, objectives and economic status. The intensity of financial needs has a say on the dependence of investors on their investments, which is factorized as follows:

TABLE 6.2

Financial Dependence Of Investors

Factors of Financial Dependence	Number of Investors	Percentage
Depend totally on investments.	42	11.67
Depend on investments for income and emergency needs.	96	**26.67**
Depend somewhat on investments for income and emergency needs.	66	18.33
Depend on investments to serve only on an emergency.	63	17.50
Devote investments to long - term savings.	76	**21.11**
Don't Depend on investments.	17	4.72
Total	360	100.00

The above Table reveals that, 26.67 percent of investors covered (Factor 2) depend on their investments for income and emergency needs and 21.11 percent (Factor 5) devote their investments to long-term savings.

Investment Objectives Of Investors

People have many motives for investing. The choice of investment and the constituents of portfolio are based on their motives. The investment objectives of investors can be categorized into five options.

TABLE 6.3

Investment Objective Of Investors

Options for Investment Objective	**Number of Investors**	**Percentage**
Capital preservation and satisfactory current income.	54	15.00
First priority for Income and second priority for Growth.	84	**23.33**
Balanced preference for income and growth.	93	**25.83**
Basically growth oriented but intends to play it somewhat safe.	69	19.17
Maximize growth, as income is not critical.	60	16.67
Total	360	100.00

Table 6.3 reveals that, 25.83 percent desired to (Option 3) balance their income and growth objectives while 23.33 percent had (Option 2) top priority for income objective and second priority for growth objective.

Investment Time Horizon Of Investors

Investment time horizon is the longevity of funds to be committed in various investment avenues and is a major determinant in the choice of investment. The period of time between the date of purchase and sale of an investment is the investor's investment horizon or holding period.

TABLE 6.4

Investment Time Horizon Of Investors

Investment Time Horizon	Number of Investors	Percentage
Upto 5 Years	225	**62.50**
6-10 Years	98	**27.22**
11-15 Years	27	7.50
Above 15 Years	10	**2.78**
Total	360	100.00

Table 6.4 reveals that, 62.50 percent of investors had an investment time horizon upto five years, 27.22 percent of investors had an investment time horizon between 6-10 years and a minimum of 2.78 percent had more than 15 years of investment time horizon.

Investors' Willingness To Take Risk

Investors differ in their choice of investments due to differences in their willingness to invest for the expected return against risk; willingness to accept higher risk to attain higher expected returns, investor's risk tolerance; and attitude towards risk aversion in accepting risk.

The risk of an investment refers to the variability of its rate of return. Forces that give rise for variations in returns constitute the

elements of risk. The degree of risk taken and the extent of benefits derived from investment are related to each other. Investors' willingness to take risk can be categorized as follows based on the extent of risk accepted.

TABLE 6.5

Investors' Willingness To Take Risk

Willingness to take Risk	**Number of Investors**	**Percentage**
Willing to take as much risk as possible.	90	**25.00**
Willing to take modest risk.	210	**58.33**
Avoid taking risk.	60	**16.67**
Total	360	100.00

Table 6.5 reveals that, 58.33 percent of investors were (Category 2) willing to take modest risk, 25 percent were (Category 1) ready to take as much risk as possible and the reset 16.67 percent were avoiding risk.

Investors Attitude Towards Fluctuations In The Value Of Investments

Risk tolerance is basically investors' feeling of comfort in the choice of investment. The risk spectrum ranges from "safe or maximum stability" to "very risky or substantial volatility". The comfort zone

chosen by the investor determines the choice of investment and the extent of benefits derived. Investors' attitude towards fluctuations in the value of investments can be grouped into the following five choices:

TABLE 6.6

Investors' Attitude Towards Volatility In Investment Value

Attitude Towards Volatility In Investment Value	**Number of Investors**	**Percentage**
Accept lower long run returns with maximum stability.	81	22.50
Accept little volatility for higher returns.	88	**24.44**
Take average amount of volatility for average returns.	109	**30.28**
Accept higher volatility as growth is the goal.	49	13.61
Accept substantial volatility, as maximum appreciation is the goal.	33	**9.17**
Total	360	100.00

Table 6.6 shows that, 30.28 percent of investors were ready to take average amount of volatility for average returns (Choice 3) while 24.44 percent accepted (Choice 2) little volatility for higher returns and only 9.17 percent accepted substantial volatility, as maximum appreciation was their goal.

Investors Profile And Attitude Towards Investments

Personal profile of each investor differs from each other. Personal profile brings out the differences in their financial needs, investment objective, and willingness to take risk and attitude towards fluctuations in the value of investments. Hence, there is a need to study the impact of investors profile on their attitude towards investments. Chi-square test is used to study the impact at five percent level of significance using the following hypothesis:

Hypothesis 04: Investment decisions are not significantly influenced by the profile of investors.

TABLE 6.7

Investors Profile And Attitude Towards Investment

Investors Profile	Financial Need	Investment Objective	Willingness To Take Risk	Volatility In Investment Value
Age	44.14*	65.35*	23.25*	24.44*
Sex	22.48*	32.81*	28.92*	13.75*
Occupation	71.56*	73.68*	16.96*	52.63*
Educational Qualification	25.09*	35.03*	6.38	7.03
Marital Status	6.60	12.48*	8.18*	10.93*
Monthly Income	122.56*	89.10*	8.43	30.07*
Monthly Savings	76.56*	55.07*	2.30	19.75*

*Significant at 5 percent level.

Table 6.7 reveals that, age, sex, occupation have a significant impact on the investors' financial dependence, investment objective, willingness to take risk and the extent of volatility in investment value accepted.

Educational qualification of investors had a significant impact on the financial needs and investment objective.

Marital status had a significant impact on investment objective, willingness to take risk and volatility in investment value.

Monthly income and monthly savings significantly influence financial needs, investment objective and volatility in investment value.

Investment Experience Of Investors

The experience of investors in the field of investment brings out changes in investment attitude, preference towards investment avenues and the extent of diversification in investment.

TABLE 6.8

Investment Experience Of Investors

Investment Experience	**Number of Investors**	**Percentage**
Less than 5 Years	189	**52.50**
6-10 Years	84	**23.33**
11-15 Years	52	14.45
16-20 Years	18	5.00
Above 20 Years	17	**4.72**
Total	360	100.00

Table 6.8 reveals that, 52.50 percent of investors had less than five years of investment experience while 23.33 percent had 6 to 10 years of experience in the field of investment and only 4.72 percent had more than 20 years of investment experience.

Proportion Of Holdings In Financial Assets

Investors do not put all their holdings in one type of financial asset. To fulfill the objectives and varied needs, investors diversify their savings among various financial assets. The proportion of investments in varied financial assets determines the amount of risk taken and the return that could be earned by the investors.

TABLE 6.9

Investment In Financial Assets By Investors

Financial Assets	**Proportion of Investment in Financial Assets**				
	Below 25	**26-50**	**51-75**	**Above75**	**Total**
Bank Deposits	155 (43.05)	145 (40.28)	36 (10.00)	24 (6.67)	360 **(100.00)**
Post Office Savings Scheme	149 (42.57)	117 (33.43)	39 (11.14)	24 (6.86)	329 **(91.39)**
Bonds & Debentures	104 (57.14)	30 (16.48)	24 (13.19)	24 (13.19)	182 (50.56)
Equity Shares	193 (56.93)	70 (20.65)	43 (12.68)	33 (9.74)	339 **(94.17)**
Mutual Funds	227 **(63.06)**	70 (19.44)	33 (9.17)	30 (8.33)	360 **(100.00)**
Insurance	133 (58.86)	45 (19.91)	24 (10.62)	24 (10.62)	226 (62.78)

Figures in brackets represent percentages.

Table 6.9 shows that, 100 percent of sample investors had invested in bank deposits and mutual funds followed by equity shares (94.17 percent) and post office savings schemes (91.39 percent).

63.06 percent had invested upto 25 percent of their savings in mutual funds.

Majority of the investors had invested upto 25 percent of their savings in each type of financial asset.

TABLE 6.10

Investors Preference For Financial Assets

Financial Assets	**Order of Preference**						**Total Score**	**Average Score**	**Rank**
	Rank I	**Rank II**	**Rank III**	**Rank IV**	**Rank V**	**Rank VI**			
Bank Deposits	165	93	36	37	23	6	1762	**4.9**	**I**
Post Office Savings Schemes	94	135	57	31	28	15	1631	**4.5**	**II**
Bonds and Debentures	27	39	64	73	51	106	1040	2.9	**VI**
Equity Shares	76	46	124	45	36	33	1422	**4.0**	**III**
Mutual Funds	43	55	67	114	57	24	1281	**3.6**	**IV**
Insurance Policies	24	61	63	57	75	80	1102	3.1	**V**

Table 6.10 shows the frequencies obtained and the weights assigned to each financial asset along with the total score and rank. Investors preferred bank deposit in the first instance, with the highest average score of 4.9. The second preference was towards post office savings scheme as the average score was 4.5. The third place was for equity shares with an average score of 4.0. Mutual funds were the fourth preferred financial asset with an average score of 3.6.

TABLE 6.11

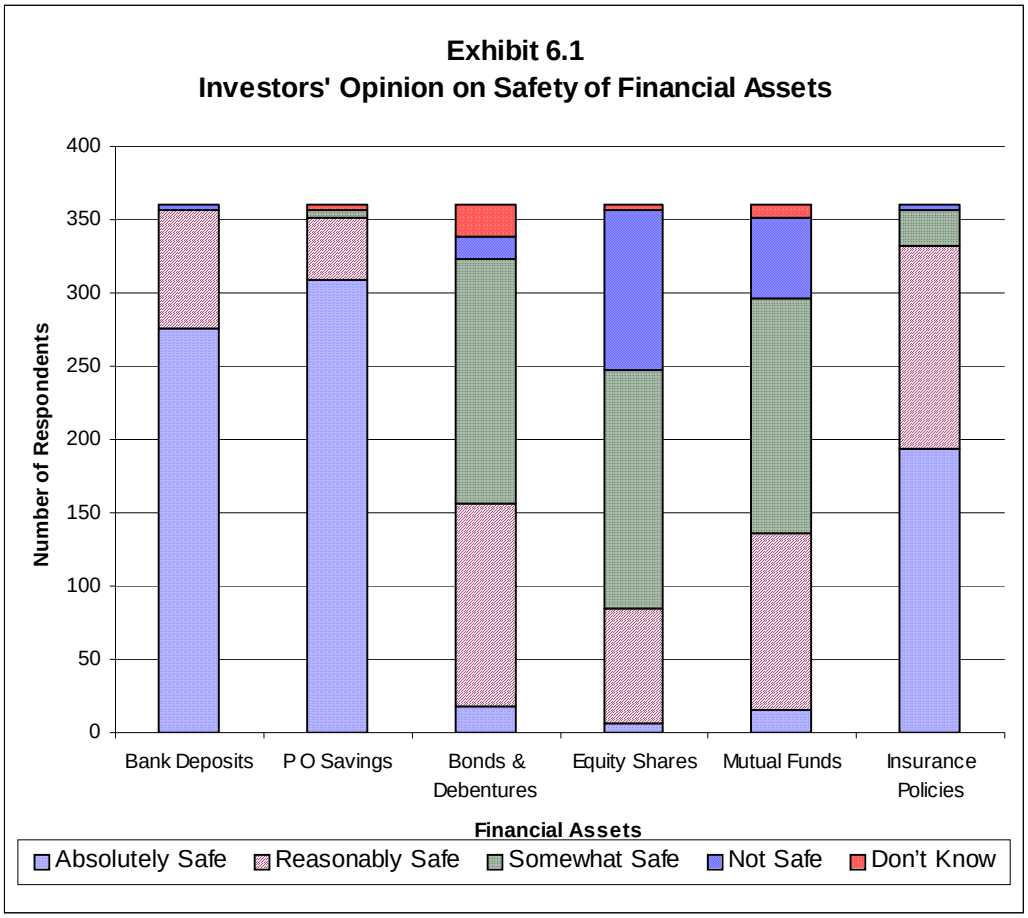
Investors' Opinion On Degree Of Safety Of Financial Assets

Financial Assets	**Degree of Safety**						
	Absolutely Safe	**Reasonably Safe**	**Somewhat Safe**	**Not Safe**	**Don't Know**	**Total Score**	**Average Score**
Bank Deposits	276	81	0	3	0	1710	**4.8**
Post Office Savings Schemes	309	42	6	0	3	1734	**4.8**
Bonds and Debentures	18	139	166	16	21	1197	**3.3**
Equity Shares	6	79	163	109	3	1056	**2.9**
Mutual Funds	15	121	160	55	9	1158	**3.2**
Insurance Policies	193	139	25	3	0	1602	**4.5**

Table 6.11 reveals the opinion of investors relating to the degree of safety of investment in financial assets and the scores assigned. Investors were of the opinion that bank deposits and post office savings schemes had the highest degree of safety, with an average score of 4.8 each. Insurance policies were second preferred from the point of view of safety with an average score of 4.5. Bonds and debentures occupied the third

position, with an average score of 3.3. Fourth position was assigned for mutual funds; the average score being 3.2 and the last preference was for equity shares scoring 2.9.

Post office savings schemes, bank deposits and insurance policies were regarded as absolutely safe for 309 (85.83 percent), 276 (76.67 percent) and 193 (53.61 percent) investors respectively as shown in the Exhibit 6.1. Bonds and debentures, equity shares and mutual funds were somewhat safe for 166, 163 and 160 investors respectively.



INVESTORS OPINION ON MUTUAL FUND INDUSTRY IN INDIA

The success or failure of any industry in the financial sector depends on the extent of awareness and acceptability among the investing community. Hence, this part of the research attempts to identify the opinion of investors towards mutual fund investment in terms of experience in the field of mutual fund investment, objective of selecting mutual fund schemes, impact of profile on scheme selection, preference for mutual fund sector and on the sources of information.

TABLE 6.12

Experience Of Investors In Mutual Fund Investment

Investment Experience	**Number of Investors**	**Percentage**
Upto 5 Years	238	**66.11**
6-10 Years	89	24.72
Above 10 Years	33	9.17
Total	360	100.00

The above Table reveals that, the investment experience in the field of mutual funds was less than five years for 66.11 percent of investors

covered and only 9.17 percent had mutual fund investment experience for more than 10 years.

Investors Opinion On Objective Of Selecting Mutual Fund Schemes

Investments in mutual funds are based on a combination of criteria like return, safety, liquidity and tax benefit provided by the schemes.

TABLE 6.13

Objective Of Investing In Mutual Funds

Classification of Objective	Objectives	Number of Investors	Percentage
Return	Regular Income	163	**45.28**
	Growth	107	29.72
	Both	90	25.00
Stability	Safety	190	**52.77**
	Speculation	65	18.06
	Both	105	29.17
Marketability	High Liquidity	112	31.11
	High Profitability	128	**35.56**
	Both	120	33.33
Tax Benefit	Tax Savings	131	36.39
	Non-Tax Savings	51	14.17
	Both	178	**49.44**

The above Table reveals that, from return on investment point of view, 45.28 percent preferred funds providing regular income. From stability point of view, 52.77 percent chose schemes assuring safety of investment. From the angle of marketability of schemes, 35.56 percent preferred mutual funds ensuring high profitability. From the tax benefit point of view, 49.44 percent invested in schemes with or without tax savings.

Investors Profile And Objective Of Selecting Mutual Fund Schemes

The choice of a scheme differs from investor to investor based on their profile. There is a need to identify the impact of investors profile on the criteria of selecting mutual fund scheme and was tested using chi-square test at five percent level of significance with the following hypothesis.

Hypothesis 05: Profile of investors does not have any significant impact on the criteria of selecting mutual fund schemes.

TABLE 6.14

Investors' Profile and Objective of Selecting Mutual Fund Scheme

Profile Of Investors	**Objective of Selecting Scheme**			
	Return	**Safety**	**Liquidity**	**Tax Benefit**
Age	59.87 *	22.94*	28.82*	15.48*
Sex	2.75	7.28*	5.07	8.60*
Occupation	30.87*	29.95*	29.45*	22.03*
Educational Qualification	9.18	6.55	45.21*	57.44*
Marital Status	5.01	14.28*	0.18	4.23
Monthly Income	46.39*	56.32*	20.79*	17.30*
Monthly Savings	23.50*	23.49*	47.08*	21.51*

* Significant at 5 percent level.

Table 6.14 reveals that the hypothesis is rejected (significant) in 21 cases and accepted (insignificant) in 7 cases. It could be concluded that, age, occupation, monthly income and monthly savings had a significant influence on the selection of schemes based on the criteria of return, safety, liquidity and tax benefit.

Sex had a significant influence on the selection of schemes based on safety and tax benefits.

Educational qualification had significant influence on the selection of mutual fund schemes based on the criteria of liquidity and tax benefit.

Marital Status had a significant influence on the choice of mutual fund scheme based on the criterion of safety of investment alone.

TABLE 6.15

Investors' Preference For Mutual Fund Sector

Mutual Fund Sector	**Order of Preference**					**Total Score**	**Average Score**	**Rank**
	Rank I	**Rank II**	**Rank III**	**Rank IV**	**Rank V**			
Bank Sponsored	40	73	142	54	51	1077	**3.0**	**II**
Institution Sponsored	54	70	66	83	87	1001	**2.8**	**III**
Private Indian	40	63	97	108	52	1011	**2.8**	**III**
Private Joint Venture (Predominantly) Indian	75	151	52	40	42	1257	**3.5**	**I**
Private Joint Venture (Predominantly) Foreign	61	45	54	81	119	928	2.6	IV

Table 6.15 reveals that the investors covered under the study had first preference for private sector (joint venture) predominantly Indian mutual funds, with an average score of 3.5. Second preference was for bank sponsored mutual funds, as the average score was 3.0. Third rating

was for private sector Indian mutual funds and institution sponsored mutual funds, as the average score was 2.8 each.

Scheme Galore

The Indian Mutual Fund Industry offers a wide variety of schemes. Based on the investment policy, the schemes can be broadly classified as presented in the Table 6.16.

TABLE 6.16

Investors' Preference Towards Scheme Objective

Scheme Objective Galore	Preference for Scheme Objective						Total Score	Average Score	Rank
	Rank I	Rank II	Rank III	Rank IV	Rank V	Rank VI			
Growth	146	99	64	6	12	33	1702	**4.7**	**I**
Income	133	97	44	33	24	29	1635	**4.5**	**II**
Balanced	21	57	63	57	24	138	1020	2.8	IV
ELSS	33	21	57	63	15	171	921	2.6	V
Money Market	5	54	57	61	138	45	1032	**2.9**	**III**
Gilt	2	7	9	13	143	186	594	1.7	VI

Table 6.16 reveals that the investors had first preference for growth schemes with an average score of 4.7. Second preference was for income

schemes with an average score of 4.5. Third rating was for money market schemes with an average score of 2.9.

Table 6.17

Sources Of Information On Mutual Fund

Information Source	**Number of Responses**	**Percentage**
Brokers / Agents	223	**61.94**
Prospectus	123	34.17
Advertisement	215	**59.72**
Annual Reports	114	31.67
Newspapers	204	**56.67**
Magazines	141	39.17
Friends and Relatives	132	36.67

Table 6.17 reveals that the main source of information for mutual funds was brokers / agents for 61.94 percent of investors followed by advertisements for 59.72 percent and newspapers for 56.67 percent of investors as shown in the Exhibit 6.2.

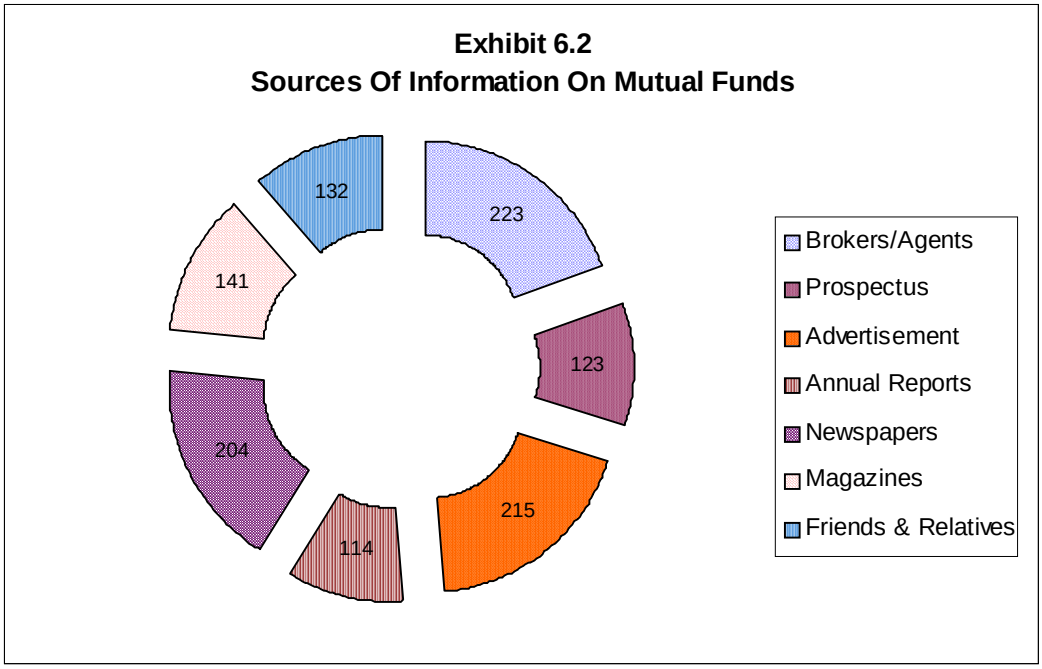


Table 6.18

Investors' Opinion On Factors Determining Success Of Mutual Funds

Factors Determining Success of Mutual Funds	Degree of Importance					
	Very Important	Important	Not Important	Not At All Important	Total Score	Average Score
Quality of Service	219	102	29	10	1250	**3.5**
Suitability of Product	154	147	41	18	1157	3.2
Research	108	148	83	21	1063	3.0
Risk Orientation	52	161	129	18	967	2.7
Number of Investor Service Centers	189	128	35	8	1218	**3.4**

Table 6.18 shows that investors view quality of service and number of investor service centers as important determinants for the success of mutual funds as the average score was 3.5 and 3.4 respectively.

TABLE 6.19

Benefits Of Investing In Mutual Funds

Benefits of Mutual Funds	**Number of Responses**	**Percentage**
Portfolio Diversification	112	31.11
Tax Shelter	131	**36.39**
Liquidity of Investment	102	28.33
Assured Allotment	84	23.33
Transparency in Operation	113	31.39
Lower Cost	82	22.78
Wide Investment Opportunities	93	25.83
High Yielding	110	30.56
Innovation in Schemes	66	18.33
Capital Appreciation	122	**33.89**
Quality of Service	83	23.06
Profitability	148	**41.11**
Convenience	104	28.89
Repurchase Facility	100	27.78
Loan Facility	46	12.78
Transferability	56	15.56
Professional Management	92	25.56

Table 6.19 shows that the most important benefit of investing in mutual funds was profitability (41.11 percent) followed by Tax Shelter (36.39 percent) and capital appreciation (33.89 percent).

TABLE 6.20

Investors' Opinion On Factors Influencing The Choice Of Mutual Fund Organisation

Factors Influencing Choice of Mutual Fund Organisation	**Degree of Importance**				**Total Score**	**Average Score**
	Very Important	**Important**	**Not Important**	**Not at All Important**		
Goodwill	229	92	21	18	1252	**3.5**
Volume of Business	118	148	73	21	1083	3.0
Sector Represented	79	184	73	24	1038	2.9
Investor Services	139	158	45	18	1138	**3.2**
Past Performance	134	117	91	18	1087	**3.0**
Infrastructure	72	170	100	18	1016	2.8
Suggestions from friends, relatives etc	42	118	151	49	873	2.4
Background Experience	89	163	84	24	1037	2.9
Investment Philosophy and Methodology	78	186	75	21	1041	2.9

Table 6.20 shows the factors affecting the choice of mutual fund organisation. Goodwill was the most influential factor in the selection of the mutual fund with an average score of 3.5. Second important factor was investor services with an average score of 3.2 followed by past performance with an average score of 3.0.

TABLE 6.21

Investors' Opinion On Factors Influencing the Choice Of Scheme

Factors Influencing Choice Of Mutual Fund Scheme	**Degree of Importance**				**Total Score**	**Average Score**
	Very Important	**Important**	**Not Important**	**Not At All Important**		
Capital Appreciation	239	97	0	24	1271	**3.5**
Objective of the Fund	135	171	33	21	1140	**3.2**
Return on Investment	136	175	31	18	1149	**3.2**
Tax benefit	76	197	69	18	1051	2.9
Liquidity	112	157	73	18	1083	3.0
Safety	142	167	33	18	1153	**3.2**
Loan facility	39	85	187	49	834	2.3
Convenience of Reinvestment	60	130	130	40	930	2.6
Fund managers Background	101	147	88	24	1045	2.9
Early Bird Incentive	42	78	201	39	843	2.3

Table 6.21 reveals that, the most important factor affecting the choice of mutual fund scheme was capital appreciation with an average score of 3.5 followed by fund objective, return on investment and safety with an average score of 3.2 each.

SPECIFIC ATTITUDE OF INVESTORS TOWARDS MUTUAL FUND INDUSTRY

The specific attitudes of investors towards various aspects of Indian Mutual Fund Industry have a say on their preference for mutual funds. In this section an analysis of specific attitude of investors with reference to industry performance, investment opportunities, investor services, suitability to small investors, ability to weather market fluctuations, comparison with bank deposits and shares have been analyzed.

TABLE 6.22

Investors' Satisfaction On Indian Mutual Fund Industry

Mutual Fund Industry	**Degree of Satisfaction**			**Total Score**	**Average Score**
	Fully Satisfied	**Moderately Satisfied**	**Not Satisfied**		
Performance	70	**232**	58	732	**2.03**
Investment Opportunity	60	**240**	60	720	**2.00**
Investors Services	72	**219**	69	723	**2.01**

Table 6.22 shows that, 232 (64.44 percent) investors were moderately satisfied, 70 (19.45 percent) investors were fully satisfied while 58 (16.11 percent) investors were not satisfied with the performance of the Indian mutual fund industry.

240 (66.66 percent) investors were moderately satisfied, 60 (16.67 percent) investors were fully satisfied while the remaining 60 (16.67 percent) investors were not satisfied with the investment opportunities provided by the mutual fund industry in India.

219 (60.83 percent) investors were moderately satisfied, 72 (20.00 percent) investors were fully satisfied while the remaining 69 (19.17 percent) investors were not satisfied with the services rendered by the Indian mutual fund industry.

Investors were moderately satisfied with the performance, opportunities and investor services provided by the Indian Mutual Fund Industry which is evident from the average scores of 2.03, 2.00 and 2.01 respectively.

Specific Attitude Statements

To verify the opinion of investors relating to various aspects of mutual funds the following specific attitude statements were framed. The investors degree of agreement on five point scaling was collected and

reduced to two point scaling to identify the impact on attitude towards acceptance of mutual funds.

Statement i: **Investing in funds is less risky compared to shares.**

The attitude of the investors towards the statement "*Investing in funds are less risky compared to shares"* was tested applying binomial test to the distribution of investors according to their degree of agreement. The null hypothesis formulated that the proportion of investors agreeing that "investing in mutual funds is less risky compared to shares" is 50 percent, is tested at five percent level of significance as shown in the Table 6.23.

TABLE 6.23

Distribution Of Investors According To Their Degree Of Agreement

Towards Investing In Mutual Funds Compared To Shares

Degree of Agreement on Five point Scale	**Number of Respondents**	**Degree of Agreement on Two point Scale**	**Respondents**	
			Number	**Percentage**
Strongly Agree	123			
Agree	158	Agree	**281**	**85.93**
Neutral	33			
Disagree	24			
Strongly Disagree	22	Disagree	46	14.07

Table 6.23 shows that, 281 investors (85.93 percent) agreed (consisting 123 investors strongly agreeing). Applying the binomial test of significance, the calculated Z value 12.97 was greater than the Table value 1.96. Hence, it could be inferred that, the null hypothesis is rejected, it can be suggested that the proportion of investors agreeing that investing in mutual funds is less risky compared to shares is more than 50 percent.

Statement ii: **Mutual Funds are more suitable to small investors who are otherwise hesitant of entering into capital market.**

The opinion of investors relating to the statement *"Mutual Funds are more suitable to small investors who are otherwise hesitant of entering into capital market"* was measured in terms of five-point scale and tested at five percent level of significance. The following null hypothesis, the proportion of investors agreeing that, mutual funds are more suitable to small investors hesitating to enter capital market is 50 percent was tested at five percent level of significance to the study the degree of agreement with the above statement based on the distribution of their strength of feelings.

TABLE 6.24

Distribution Of Investors According To Their Degree of Agreement On Suitability Of Mutual Funds For Small Investors Hesitating To Enter Capital Market

Degree of Agreement on Five point Scale	**Number of Respondents**	**Degree of Agreement on Two point Scale**	**Respondents**	
			Number	**Percentage**
Strongly Agree	90			
Agree	176	Agree	**266**	**86.93**
Neutral	54			
Disagree	12			
Strongly Disagree	28	Disagree	40	13.07

An analysis of the above data shows that, 86.93 percent agreed with the statement, 13.07 percent disagreed with the statement with varying degrees of freedom. Statistical analysis of the data gives Z value of 12.92 with a Table value of 1.96. Hence, the null hypothesis is rejected implying that, the proportion of investors agreeing that, mutual funds are more suitable to small investors who are otherwise hesitant of entering into capital market is more than 50 percent.

Statement iii: **Mutual Funds have the ability to weather the market fluctuation.**

The opinions expressed by the investors indicating their intensity of feeling towards the statement "*Mutual Funds have the ability to weather the market fluctuations"* presented in the Table 6.25 was tested for its significance at five percent level of significance based on the null hypothesis that, the proportion of investors agreeing that the mutual funds have the ability to weather the market fluctuation is 50 percent.

TABLE 6.25

Distribution Of Investors According To Their Degree Of Agreement on Mutual Funds' Ability To Weather Market Fluctuations

Degree of Agreement on Five point Scale	**Number of Respondents**	**Degree of Agreement on Two point Scale**	**Respondents**	
			Number	**Percentage**
Strongly Agree	21			
Agree	112	Agree	**133**	**68.91**
Neutral	167			
Disagree	39			
Strongly Disagree	21	Disagree	60	31.09

An analysis of the above Table indicates that, 68.91 percent agreed and 31.09 percent disagreed with the statement. An analysis of the information statistically using binomial test of significance shows that the calculated Z value being 5.26 is greater than the Table value of 1.96 rejecting the null hypothesis. So it could be concluded that, the proportion of investors agreeing that mutual funds have the ability to weather market fluctuations is more than 50 percent.

Statement iv: Risk and return characteristics of Indian Mutual Funds are not in conformity with their stated objectives.

The attitude of the investors towards risk and return characteristics of Indian Mutual Funds was tested at five percent level of significance by applying binomial test using the null hypothesis formulated that the proportion of investors agreeing that the risk and return characteristics of mutual funds are not in conformity with their stated objectives is 50 percent.

TABLE 6.26

Distribution Of Investors According To Their Degree Of Agreement Towards Risk And Return Characteristics Of Indian Mutual Funds Are Not In Conformity With Their Stated Objectives

Degree of Agreement on Five point Scale	**Number of Respondents**	**Degree of Agreement on Two point Scale**	**Respondents**	
			Number	**Percentage**
Strongly Agree	30			
Agree	130	Agree	**160**	**69.26**
Neutral	129			
Disagree	53			
Strongly Disagree	18	Disagree	71	30.74

The above Table shows that 69.26 percent of investors agreed and 30.74 percent disagreed with the above statement. The binomial test of significance shows the calculated Z value to be 5.85. The null hypothesis is rejected as the calculated value is greater than the Table value (1.96) indicating that, the proportion of investors agreeing that the risk and return characteristics of Indian mutual funds are not in conformity with their stated objectives is more than 50 percent.

***Statement* v: Investing in funds is much better in terms of returns than depositing in banks.**

The attitude of investors towards investing in mutual funds is much better in terms of returns than depositing in banks is tested at five percent level of significance. The null hypothesis that, the proportion of investors agreeing that investing in funds is much better in terms of returns than depositing in banks is 50 percent.

TABLE 6.27

Distribution Of Investors According To Their Degree Of Agreement Towards Their View That Mutual Funds Provide Better Returns Compared To Bank Deposits

Degree of Agreement on Five point Scale	**Number of Respondents**	**Degree of Agreement on Two point Scale**	**Respondents**	
			Number	**Percentage**
Strongly Agree	70			
Agree	138	Agree	**208**	**75.64**
Neutral	85			
Disagree	39			
Strongly Disagree	28	Disagree	67	24.36

Table 6.27 shows that 75.64 percent agreed and 24.36 percent disagreed with the statement. Statistical analysis of the above data gives the calculated Z value to be 8.52. The null hypothesis is rejected as the calculated value is greater than the Table value (1.96) indicating that, the proportion of investors agreeing that mutual funds provide better returns than bank deposits is more than 50 percent.

Statement vi: Growth schemes are highly preferred to income schemes.

The attitude of the investors towards growth schemes are highly preferred to income schemes was tested by applying binomial test to the data obtained in the following Table at five percent level of significance. The null hypothesis formulated for the purpose of testing the significance of the above hypothesis is that, the proportion of investors agreeing that growth schemes are highly preferred to income schemes is 50 percent.

TABLE 6.28

Distribution Of Investors According To Their Degree Of Agreement towards preference For Growth Schemes Compared To Income Schemes

Degree of Agreement on Five point Scale	**Number of Respondents**	**Degree of Agreement on Two point Scale**	**Respondents**	
			Number	**Percentage**
Strongly Agree	83			
Agree	177	Agree	**260**	**78.55**
Neutral	29			
Disagree	58			
Strongly Disagree	13	Disagree	71	21.45

The above Table shows that 78.55 percent of investors agreed and 21.45 percent disagreed with the above statement. The binomial test of significance shows that Z value is 10.38. The hypothesis is rejected as calculated value is greater than Table value (1.96). It could be concluded that, the proportion of investors agreeing that growth schemes are highly preferred to income schemes is more than 50 percent.

COMBINED OPTION OF INVESTORS, FUND MANAGERS AND BROKERS

The combined opinion of investors, fund managers and brokers will help to identify the extent of acceptability of the mutual fund industry in India. Hence, this part of the chapter deals with the primary data collected from brokers and fund managers of selected schemes besides the opinion of investors as already discussed in detail previously.

TABLE 6.29

Investors and Brokers' Opinion Towards Degree of Safety of Financial Assets

Financial Assets	Investors							Brokers						
	Absolutely Safe	Reasonably Safe	Somewhat Safe	Not Safe	Don't Know	Total Score	Average Score	Absolutely Safe	Reasonably Safe	Somewhat Safe	Not Safe	Don't Know	Total Score	Average Score
Bank Deposits	276	81	0	3	0	1710	**4.8**	1	17	2	0	0	79	4.0
Post Office Savings Schemes	309	42	6	0	3	1734	**4.8**	2	1	7	10	0	55	2.8
Bonds & Debentures	18	139	166	16	21	1197	3.3	8	12	0	0	0	88	4.4
Equity Shares	6	79	163	109	3	1056	2.9	17	3	0	0	0	97	**4.9**
Mutual Funds	15	121	160	55	9	1158	3.2	13	7	0	0	0	93	**4.7**
Insurance Policies	193	139	25	3	0	1602	4.5	0	7	12	1	0	66	3.3

Table 6.29 shows that, investors had first preference for bank deposits and post office savings scheme with an average score of 4.8 each while brokers had first preference for equity shares with an average score of 4.9.

TABLE 6.30

Investors And Brokers' Opinion On Benefits Of Investing In Mutual Funds

Benefits of Mutual Funds	**Investors**		**Brokers**	
	Number of Responses	**Percentage**	**Number of Responses**	**Percentage**
Portfolio Diversification	112	31.11	14	**70.00**
Tax Shelter	131	36.39	11	55.00
Liquidity of Investment	102	28.33	14	**70.00**
Assured Allotment	84	23.33	7	35.00
Transparency in Operation	113	31.39	12	60.00
Lower Cost	82	22.78	3	15.00
Wide Investment Opportunities	93	25.83	5	25.00
High Yielding	110	30.56	2	10.00
Innovation in Schemes	66	18.33	3	15.00
Capital Appreciation	122	33.89	8	40.00
Quality of Service	83	23.06	3	15.00
Profitability	148	**41.11**	6	30.00
Convenience	104	28.89	7	35.00
Repurchase Facility	100	27.78	11	55.00
Loan Facility	46	12.78	1	5.00
Transferability	56	15.56	1	5.00
Professional Management	92	25.56	14	**70.00**

The most important benefit of mutual funds for investors was profitability (41.11percent) as against portfolio diversification (70.00 percent), liquidity of investment (70.00 percent) and professional management (70.00 percent) for brokers.

TABLE 6.31

Investors and Brokers' Preference for Mutual Fund Sector

Fund Sector	**Investors**								**Brokers**							
	I	**II**	**III**	**IV**	**V**	**Total Score**	**Average Score**	**Rank**	**I**	**II**	**III**	**IV**	**V**	**Total Score**	**Average Score**	**Rank**
Bank Sponsored	40	73	142	54	51	1077	**3.0**	**II**	5	7	2	5	1	70	3.5	III
Institution Sponsored	54	70	66	83	87	1001	2.8	IV	2	1	2	3	12	38	1.9	V
Private Indian	40	63	97	108	52	1011	2.8	III	4	4	12	0	0	76	3.8	**II**
Private Joint Venture (Predominantly) Indian	75	151	52	40	42	1257	**3.5**	**I**	10	7	1	1	1	84	**4.2**	**I**
Private Joint Venture (Predominantly) Foreign	61	45	54	81	119	928	2.6	V	1	3	5	8	3	51	2.6	IV

Table 6.31 reveals that, the investors and brokers had a first choice for private sector joint venture (predominantly) Indian funds with an average score of 3.5 and 4.2 respectively. Second rating was for bank

sponsored mutual funds for investors and private sector Indian funds for brokers with an average score of 3.0 and 3.8 respectively.

TABLE 6.32

Investors and Brokers' Preference for Mutual Fund Objective

Fund Objective	Investors									Brokers								
	I	II	III	IV	V	VI	Total Score	Average Score	Rank	I	II	III	IV	V	VI	Total Score	Average Score	Rank
Growth	146	99	64	6	12	33	1702	4.7	**I**	3	7	3	2	4	1	90	4.5	**I**
Income	133	97	44	33	24	29	1635	4.5	**II**	6	2	5	3	3	1	82	4.1	**II**
Balanced	21	57	63	57	24	138	1020	2.8	IV	6	2	5	2	2	3	79	3.95	III
ELSS	33	21	57	63	15	171	921	2.5	V	2	5	2	6	2	3	65	3.3	IV
Money Market	5	54	57	61	138	45	1032	2.9	III	1	2	3	5	6	3	58	2.9	V
Gilt	2	7	9	13	143	186	594	1.7	VI	2	2	2	2	3	9	51	2.6	VI

The above Table 6.32 reveals that, the investors and brokers had first rating for growth objective with an average score of 4.7 and 4.5 respectively. Second preference was for income objective with an average score of 4.5 and 4.1 respectively for investors and brokers.

TABLE 6.33

Investors, Brokers and Fund Managers' Opinion on Factors Determining Success of Mutual Funds

Factors Determining Success of Mutual Funds	**Investors**						**Brokers**						**Fund Managers**					
	Very Important	**Important**	**Not Important**	**Not At All Important**	**Total Score**	**Average Score**	**Very Important**	**Important**	**Not Important**	**Not At All Important**	**Total Score**	**Average Score**	**Very Important**	**Important**	**Not Important**	**Not At All Important**	**Total Score**	**Average Score**
Quality of Service	219	102	29	10	1250	**3.5**	16	4	0	0	76	**3.8**	7	0	0	0	28	**4.0**
Suitability of Product	154	147	41	18	1157	3.2	14	6	0	0	74	**3.7**	5	2	0	0	26	3.7
Research	108	148	83	21	1063	3.0	8	10	0	2	62	3.1	6	1	0	0	27	**3.9**
Risk Orientation	52	161	129	18	967	2.7	3	11	6	0	57	2.9	3	3	1	0	23	3.3
Number of Investor Service Centers	189	128	35	8	1218	**3.4**	10	9	1	0	70	3.5	3	4	0	0	24	3.4

The above Table reveals the opinion of investors, brokers and fund managers relating to the factors determining the success of mutual fund organisations. The entire three categories of respondents (namely, investors, brokers and fund managers) had a first choice for the quality of service as the major factor determining the success of mutual fund organisation with an average score of 3.5, 3.8 and 4.0 respectively.

CHOICE OF MUTUAL FUND ORGANISATION AND SCHEME

The very success or failure of the investment decision basically lies on the selection of the mutual fund organisation followed by the selection of the scheme suitable to the investor. A right choice assures good returns and a wrong choice leads to loss of funds invested. Hence, there is a need to identify the factors affecting the choice of mutual fund organisation and that of the schemes. Choice differs from individual to individual and from that of brokers and fund managers. Hence, it is of utmost relevance to identify whether there is any difference in the choice of mutual funds and schemes among the opinion of investors, brokers and fund managers by way of testing the following null hypotheses using ANOVA.

Hypothesis 07: There is no significant difference in the opinion of investors, brokers and fund managers with regard to the factors affecting choice of mutual funds.

TABLE 6.34

Investors, Brokers and Fund Managers' Opinion on Factors influencing Choice of Mutual Fund Organisations

Factors Affecting Choice of Mutual Fund Organisation	Investors						Brokers						Fund Managers						F Value	P Value
	Very Important	Important	Not Important	Not at all Important	Total Score	Average Score	Very Important	Important	Not Important	Not at all Important	Total Score	Average Score	Very Important	Important	Not Important	Not at all Important	Total Score	Average Score		
Goodwill	229	92	21	18	1252	3.5	7	13	0	0	67	3.4	5	1	1	0	25	3.6	0.29	0.75
Volume Of Business	118	148	73	21	1083	3.0	2	13	5	0	57	2.9	2	5	0	0	23	3.3	0.70	0.50
Sector Represented	79	184	73	24	1038	2.9	10	5	5	0	65	3.3	6	1	0	0	27	3.8	6.56	0.01*
Investor Service	139	158	45	18	1138	3.2	6	14	0	0	66	3.3	3	0	4	0	20	2.9	0.77	0.46
Past Performance	134	117	91	18	1087	3.0	10	9	1	0	69	3.5	4	3	0	0	25	3.6	1.48	0.23
Infrastructure	72	170	100	18	1016	2.8	7	8	4	1	61	3.1	3	4	0	0	24	3.4	4.18	0.02*
Suggestions(Friends, Relatives)	42	118	151	49	873	2.4	4	4	11	1	51	2.6	0	5	1	1	18	2.6	0.29	0.75
Background Experience	89	163	84	24	1037	2.9	6	12	1	1	63	3.2	5	2	0	0	26	3.7	4.18	0.02*
Investment Philosophy and Methodology	78	186	75	21	1041	2.9	6	12	2	0	64	3.2	7	0	0	0	28	4.0	8.02	0.01*

* Significant at Five Percent Level.

Table 6.34 reveals that, there exists significant difference in the opinion of investors, brokers and fund managers as the calculated P Value was less than 0.05 with regard to sector represented, infrastructure, background, investment philosophy and methodology as factors affecting choice of organizations.

Investors, Brokers and Fund Managers Opinion on Factors affecting Choice of Mutual Fund Scheme

The choice of mutual fund scheme differs according to the role played by the individual. Hence the following null hypothesis was formulated and tested at five percent level of significance using ANOVA.

Hypothesis 07: There is no significant difference between the opinions of investors, brokers and fund managers with regard to the factors affecting choice of mutual schemes.

TABLE 6.35

Investors, Brokers and Fund Managers' Opinion on Factors influencing Choice of Mutual Fund Scheme

Factors Affecting Choice of Mutual Fund Scheme	Investors						Brokers						Fund Managers							
	Very Important	Important	Not Important	Not at all Important	Total Score	Average Score	Very Important	Important	Not Important	Not at all Important	Total Score	Average Score	Very Important	Important	Not Important	Not at all Important	Total Score	Average Score	F Value	P Value
Capital Appreciation	239	97	0	24	1271	3.5	9	11	0	0	69	3.5	7	0	0	0	28	4.0	1.34	0.26
Objective of the Fund	135	171	33	21	1140	3.2	9	9	2	0	67	3.4	6	1	0	0	27	3.9	2.92	0.06
Return on investment	136	175	31	18	1149	3.2	13	7	0	0	73	3.7	6	1	0	0	27	3.9	5.65	0.03*
Tax benefit	76	197	69	18	1051	2.9	7	12	1	0	66	3.3	5	1	1	0	25	3.6	4.69	0.01*
Liquidity	112	157	73	18	1083	3.0	10	9	1	0	69	3.5	7	0	0	0	28	4.0	7.38	0.01*
Safety	142	167	33	18	1153	3.2	15	3	2	0	73	3.7	5	1	1	0	25	3.6	3.62	0.03*
Loan facility	39	85	187	49	834	2.3	1	7	11	1	48	2.4	0	0	4	3	11	1.6	2.90	0.06
Convenience of Reinvestment	60	130	130	40	930	2.6	1	11	8	0	53	2.7	2	3	2	0	21	3.0	0.81	0.45
Fund managers background	101	147	88	24	1045	2.9	10	9	1	0	69	3.5	7	0	0	0	28	4.0	8.99	0.01*
Early bird incentive	42	78	201	39	843	2.3	0	6	13	1	45	2.3	0	0	5	2	12	1.7	2.17	0.12

* Significant at Five Percent level.

Table 6.35 reveals that, there exists significant difference in the opinion of investors, brokers and fund managers with regard to return on investment, tax benefit, liquidity, safety, fund managers background as factors affecting the choice of mutual fund schemes, as the calculated 'p' value was less than 0.05 rejecting the null hypothesis.

Specific Attitude Towards Mutual Funds

An analysis of specific attitudes of the investors, brokers and fund managers towards risk comparison, suitability to small investors, ability to weather market fluctuations, risk-return comparison with scheme objective, superiority over bank deposits, and preference for scheme is presented in the Table 6.36.

TABLE 6.36
Investors, Brokers and Fund Managers' Degree of Agreement Towards Specific Attitude Statements

Specific Attitude Statements	Investors							Brokers							Fund Managers						
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Score	Average Score	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Score	Average Score	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Score	Average Score
Investing in Mutual Funds are less risky compared to Shares.	123	158	33	24	22	1416	**3.9**	3	12	3	2	0	76	**3.8**	1	4	2	0	0	27	**3.9**
Mutual Funds are more suiTable to small investors hesitant of entering into capital market.	90	176	54	12	28	1368	3.8	8	9	3	0	0	85	**4.3**	2	5	0	0	0	30	**4.3**
Mutual Funds have the ability to weather the market fluctuation.	21	112	167	39	21	1153	3.2	4	9	2	5	0	72	3.6	3	2	0	2	0	27	**3.9**
Risk and return characteristics of funds are not in conformity with their stated objectives.	30	130	129	53	18	1181	3.3	1	11	3	4	1	67	**3.4**	0	3	3	1	0	23	3.3
Investing in funds is much better in terms of returns than bank deposit.	70	138	85	39	28	1263	3.5	5	8	5	1	1	75	**3.8**	4	3	0	0	0	32	**4.6**
Growth Schemes are highly preferred to income scheme.	149	138	30	22	21	1452	**4.0**	2	8	4	5	1	66	3.3	1	4	2	0	0	19	2.7

Table 6.36 shows that, investors and fund managers agreed that, investing in mutual funds are less risky compared to shares with a highest average score of 3.9 each.

Brokers and fund managers highly agreed that mutual funds are more suitable to small investors who are otherwise hesitant of entering into capital market with an average score of 4.3 each.

Fund managers with the highest average score of 3.9 viewed that mutual funds have the ability to weather the market fluctuations.

Brokers with the highest average score of 3.4 opined that risk and return characteristics of Indian mutual funds are not in conformity with their stated objectives.

Fund managers with the highest score of 4.6 accepted that investing in funds is much better in terms of returns than depositing money in banks.

Growth schemes were highly preferred to income schemes by investors with an average score of 4.0.

CONCLUSION

The survey of investors' in mutual funds revealed that, profile of investors has a significant impact on the investors' decisions relating to investments and particularly mutual fund investments. Investors had a high preference for bank deposits while brokers preferred equity shares. Investors

select mutual funds on the basis of regular income, safety, profitability and tax benefits. Private sector joint venture (predominantly) Indian mutual funds were highly preferred by both investors and brokers. Both investors and brokers prefer growth schemes followed by income schemes. Brokers / agents were the main source of information about mutual funds. According to investors, mutual funds provided the benefits of profitability while brokers preferred mutual funds for its portfolio diversification, liquidity of investment and professional management.

Quality of service was the most important determinant of success for mutual fund according to investors, brokers and fund managers. Goodwill was the main criterion of choosing mutual fund organisation for all the three categories of respondents. For investors, capital appreciation influenced the choice of mutual fund scheme. For brokers, return on investment and safety affected the choice of mutual fund schemes. For fund managers, capital appreciation, liquidity and fund managers background were important criteria of choosing mutual fund schemes. Investors were partly satisfied with the performance, opportunities provided, and services offered by the Indian mutual fund industry.

Investors and fund managers agreed that, investing in mutual funds were less risky compared to shares.

Brokers and fund managers highly agreed that mutual funds are more suiTable to small investors who are otherwise hesitant of entering into capital market.

Fund managers viewed that mutual funds have the ability to weather the market fluctuations and accepted that investing in funds is much better in terms of returns than depositing money in banks.

Brokers opined that risk and return characteristics of Indian mutual funds are not in conformity with their stated objectives.

Investors preferred growth schemes compared to income schemes. Investors strongly agreed that mutual funds were less risky compared to shares, were suitable to small investors heisting to enter capital market, had the ability to weather market fluctuations, risk and return characteristics were not in conformity with their stated objectives.

CHAPTER VII

SUMMARY, FINDINGS AND CONCLUSION

Mobilization, allocation and channeling of savings along with the risk management system contribute for the development of a financial market. Matured financial market stimulates savings by ensuring better rate of return. Globalization and liberalization phenomena have been instrumental in the accelerated development of the financial market in India. To give a fillip to the sagging and depressed economy, by way of making the financial sector more vibrant and efficient, reforms were introduced in the beginning of 1990's. The transparency in operations, along with the formation of SEBI, liberalization of foreign capital norms, resulted in the emergence of mutual funds in the public and private sectors. The financial sector reforms and the opening up of the liberalized economy resulted in throwing up the traditionally protected mutual fund industry to a greater level of competitive environment. The emergence of an intensely competitive structure in the place of the earlier monolithic scenario is the biggest structural change in the Indian Mutual Fund Industry (IMFI) during the last decade.

Mutual funds mobilize and channel funds towards securities market. The total AUM of the mutual fund houses in India crossed

Rs.One trillion in June 2003, a decade after the private sector entry. In a matter of two years the industry touched Rs.Two trillion in September 2005 and reached Rs.Three trillion by August 2006. The funds have grown so swiftly, more due to the changing demographic profile, increasing number of youths with investable surplus and growth in the economy. The dominating role of the private and foreign players in the domestic market has contributed towards the growth of AUM of the IMFI to a peak of Rs.Four trillion in June 2007.

The inflows to fixed income schemes contributed nearly 70-75 percent of this growth, reflecting the rising retail investors' interest in the secondary market participation through mutual funds. However, the industry continues to be dominated by the top players as 48 percent of the total AUM is held by the top five fund houses. The whopping corpus of funds under management surfaces two hard facts: Firstly, the investors still carry a belief that mutual funds provide an opportunity for better return coupled with reasonably good safety of the money invested. Secondly, the environment is getting more and more conducive for mutual funds because of the active role played by SEBI and AMFI through various rules and regulations.

Even though the mutual funds are growing steadily, only five percent of the households are investing in mutual funds, hence there is a

long way to go. The penetration level is also not much deep; as the industry has not reached out to rural India, where income is on the rise. It is expected that the mutual funds could witness five to six times of growth in the next seven to eight years, as the industry has become a globally significant player attracting a bigger chunk of household savings. At present, the Indian Mutual Fund Industry is one among the top 15 nations in terms of AUM and is expected to grow to $500-600 billion by 2015 as more global players are planning to set up asset management business houses in India.

Mutual fund industry has a tremendous potential for growth in the Indian environment. In order to really carve out a niche for mutual funds, there is a need to take a dispassionate view of the mutual fund industry in retrospect as lowering interest rates, encouragement provided by budgets, options for high risk and better returns have already paved the way for the long innings to be played by mutual funds in India. Hence, the researcher has attempted this study entitled "*Performance of the Indian Mutual Fund Industry: A Study With Special Reference To Growth Schemes"* with the intention of finding answers to the following questions:

- Is the Indian Mutual Fund Industry making a consistent growth?

- What factors influence the investor's choice of a mutual fund organisation and scheme?
- What are the views of fund managers, brokers and investors on mutual fund investment?
- How is the performance of growth schemes in India?

The researcher has carried out the present study with the objective of (i) appraising the performance of mutual fund industry in India under the regulated environment; (ii) studying the relationship between the performance of market index with that of the growth schemes; (iii) evaluating the performance of growth schemes using Sharpe, Treynor, Jensen and Fama's measures of portfolio evaluation; (iv) identifying factors considered by fund managers in their investment decisions; (v) observing the attitude of investors and brokers towards investment in mutual funds.

The above objectives were statistically tested with the hypotheses that, (i) there is no significant difference among the performance evaluation tools as suggested by Sharpe, Treynor and Jensen; (ii) index returns and scheme returns are not significantly related; (iii) past performance of the scheme does not have any significant relationship with that of current performance; (iv) investment decisions are not

significantly influenced by the profile of investors; (v) profile of investors does not have any significant impact on the criteria of selecting mutual fund schemes; (vi) the proportion of investors favouring specific attitude statements relating to mutual funds is 50 percent; and (vii) there is no significant difference between the opinions of investors, brokers and fund managers with regard to the factors affecting the choice of mutual fund and the scheme.

This research work attempts to evaluate the performance of mutual fund industry in India under the regulated environment after the implementation of SEBI (Mutual Funds) Regulations 1996, as the industry gained a coveted status on bringing out uniformity in rules and regulations. Performance evaluation is restricted to seven growth schemes launched in 1993, the year of private sector entry in the Indian Mutual Fund arena, after the introduction of the SEBI (Mutual Funds) Regulations. Of the varied category of mutual funds schemes, growth oriented mutual funds are capable of offering the advantages of diversification, market timing and selectivity. All the seven selected schemes were initially launched as close-end and were later converted into open-end on various dates. To identify the perception of investing public and financial intermediaries, an opinion survey of investors, brokers and fund managers of sample schemes was carried out.

The present work is based on the review of 27 foreign and 46 Indian studies relating to mutual funds. The review of foreign studies ensures that, mutual funds have a significant impact on the price movement in the stock market, the average return from the schemes were below that of their benchmark, all the three models provided identical results, good performance was associated with low expense ratio and not with the size. In India, studies relating to mutual funds have been carried out mostly after 1985. The reviews bring to light the importance of mutual funds under the Indian financial scenario; highlight the need for adequate investor protection, single regulatory authority, higher return for a given risk as per investors' expectation, greater convenience and liquidity, and the expectations that mutual funds should act as a catalytic agent for economic growth and foster investors' interest.

The present study is a blend of both primary and secondary data. The primary data required for the study was collected from seven fund managers, 20 brokers and 360 investors using schedule and questionnaires. Secondary data was collected from the records of AMFI, UTI Institute of Capital Markets, and web sites of respective mutual funds. The collected information were analysed using simple and sophisticated techniques such as CGR, CAGR, Pearson's Correlation, Autocorrelation, Rank Correlation, Coefficient of Determination,

Kendall's Coefficient of Concordance, Chi-square test, Z test and ANOVA (F test).

The following schemes were short listed for the purpose of the study:

- SBI Magnum Multiplier Plus 1993
- LIC MF Equity Fund [LIC Dhanvikas (1)]
- Cangrowth Plus [GIC Growth Plus II]
- UTI Opportunities Fund [UTI Grandmaster 93]
- Franklin India Bluechip Fund [Kothari Pioneer Blue Chip Fund]
- Franklin India Prima Fund [Kothari Pioneer Prima Fund]
- HDFC Capital Builder Fund [Zurich India Capital Builder Fund]

Note: *Scheme names within square brackets indicate their previous name.*

The performance in terms of NAV of growth schemes with growth option alone were studied from the angle of risk and return in comparison with the benchmark (BSE 100) index from April 1998 (a year after the introduction of comprehensive regulations) to March 2006 using tools like return, risk, and risk-free rate of return.

FINDINGS OF THE STUDY

The performance of the Indian Mutual Fund Industry during the nine years period (1997-98 to 2005-06) covered under the study was as follows:

The mutual fund industry had undergone a lot of mergers, acquisitions and closures besides the entry of many new mutual funds. The industry accounted for an impressive growth in funds mobilized and has scaled upto Rs.10,98,558 crores by the end of March 2006 inspite of the fall in the number of mutual funds from 31 to 29 with a negative CGR of 6.45 percent. The Government sponsored category of mutual fund (UTI), the first to be launched in India had lost its existence.

The funds mobilized by the industry increased by 57.23 percent through open-end schemes in operation and from schemes launched in close-end category. The growth in funds mobilized was accounted by bank-sponsored mutual funds category (116.74 percent) followed by private sector joint venture (predominantly) foreign funds (113.99 percent). A major portion of the funds mobilized was through ELSS category (76.23 percent) followed by growth schemes (60.11 percent) and income schemes (33.21 percent).

The Assets Under Management of the industry had shown a growth rate of 14.42 percent. Sector-wise analysis shows that, the private sector Indian funds showed a growth in AUM by 54.13 percent followed by private sector joint venture (predominantly) Indian funds by 53.33 percent and Private sector Joint venture (Predominantly) Foreign Funds by 50.05 percent. The AUM was the highest in growth schemes followed by money market schemes.

By the end of 2005-06, private sector joint venture (predominantly) Indian funds (Rs.3,46,518 crores) and private sector joint venture (predominantly) foreign funds (Rs.3,11,433 crores) had become the highest fund raising sectors followed by private sector Indian mutual funds (Rs.256761 crores). Hence, it is crystal clear that private sector was the dominating sector in IMFI in terms of funds mobilized, assets managed and redemption of funds.

The total number of schemes operated had grown by 10.81 percent while the growth in new schemes launched was 17.95 percent. Assured return schemes lost its existence from 2003-04 onwards. Type-wise analysis shows that, close-end schemes launched grew by 32.16 percent and open-end schemes operated by the industry grew by 24.81 percent. The number of income schemes launched increased by 12.93 percent followed by growth schemes by 11.30 percent. Of the Rs.2,31,862 crores

of mutual fund industry's AUM as on March 31, 2006, 83.55 percent was from open-end schemes and 16.45 percent was from close-end schemes.

Category-wise analysis of the 664 schemes launched during the study period shows that, 371 (55.87 percent) were income schemes, 183 (27.56 percent) were growth schemes, 39 (5.87 percent) were money market schemes, 25 (3.77 percent) were balanced schemes, 25 (3.77 percent) were gilt schemes and 21 (3.16 percent) were equity linked saving schemes.

The funds mobilized by the mutual fund industry was the highest in the year 2005-06 mainly from open-end schemes (Rs.10,57,126 crores). The highest number of 190 schemes was launched in 2005-06 with 123 schemes in the close-end category.

The redemption of funds was the highest in the year 2005-06 accounting for 98.66 percent from open-end schemes. Sector-wise analysis shows that, the highest redemption / repurchase was from private sector joint venture (predominantly) Indian funds (Rs.3,29,429 crores) followed by private sector joint venture (predominantly) foreign funds (Rs.3,04,245 crores). Redemption / repurchase were significant among growth schemes and money market schemes in the year 2005-06.

The funds mobilized and the number of schemes launched by the industry had shown a tremendous increase. There had been a paradigm shift in the type of scheme launched from open-end to close-end category. Mutual funds from Government sponsored sector and assured return category schemes had lost its existence. Income schemes had shown a better performance than growth schemes in terms of number of schemes and fund raised. The industry had shown a consistency in performance leading to the best performance in 2005-06 in terms of funds mobilized, number of schemes and assets under management. Private sector Indian, Private sector Joint venture (Predominantly) Indian and Private sector Joint Venture (predominantly) foreign mutual funds were performing better compared to other sectors.

The outcomes of risk-return analysis of seven sample schemes for the study period 1998-99 to 2005-06 were as follows:

All the seven schemes covered under the study showed negative risk premium, Sharpe index and Treynor index indicating that the sample scheme's returns were insufficient to cover the risk-free return and for the risk undertaken by the investors.

SBI Magnum Multiplier Plus scheme outperformed the market in all the eight years based on the Sharpe index while LIC MF Equity

scheme underperformed the market in most of the years of the study (seven out of eight years).

The positive beta values for all the sample schemes throughout the period of study revealed that, the performance of the sample schemes and that of the market were in the same direction. However, the beta values less than one in all the years in the case of Cangrowth Plus Scheme, Franklin India Bluechip Scheme, Franklin India Prima Scheme, HDFC Capital Builder Scheme, LIC MF Equity Scheme, indicate their defensive nature compared to the market. While SBI Magnum Multiplier Plus Scheme with beta values more than one in many years indicate its aggressive nature.

Out of seven schemes studied, only SBI Magnum Multiplier Plus Scheme outperformed the market based on Treynor index.

SBI Magnum Multiplier Plus Scheme showed positive Jensen Alpha in five out of eight years while Cangrowth Plus Scheme, Franklin India Prima Scheme, HDFC Capital Builder Scheme and LIC MF Equity Scheme showed negative Jensen alpha in all the years.

An overall analysis of the sample schemes for the entire study period reveals that; return from Franklin India Prima Scheme (0.0086) was the highest among the seven schemes studied. The beta value was

the lowest for HDFC Capital Builder Scheme (0.5605) and the highest in the case of SBI Magnum Multiplier plus scheme (1.1121). The total risk of LIC MF Equity Scheme was the lowest (0.0380) while SBI Magnum Multiplier Plus Scheme had the highest (0.0887) total risk.

Based on Sharpe Index, SBI Magnum Multiplier Plus scheme (-0.6033) followed by Cangrowth Plus scheme (-0.9508) topped the list.

On the basis of Treynor Index, SBI Magnum Multiplier Plus scheme (-0.0481) and UTI Opportunities scheme (-0.0643) topped the list due to its aggressive nature.

Only SBI Magnum Multiplier Plus Scheme (0.0089) provided positive Jensen alpha indicating its superior performance compared to expectations.

The relationship between Treynor and Jensen was the highest (0.8929) and the lowest (0.6429) between Sharpe and Treynor models of performance evaluation. The Kendalls Coefficient of Concordance revealed the existence of a significant agreement in the ranking assigned by the three models. All the three measures on the whole assigned first rank to SBI Magnum Multiplier Plus scheme in terms of performance based on total risk and systematic risk.

The Eugene Fama's Decomposition of total returns states that the negative values of return on systematic and unsystematic risk imply that the market return was less than the risk-free return. The return on systematic risk was the highest in the case of HDFC Capital Builder Scheme (-0.0315) and the lowest in the case of SBI Magnum Multiplier Plus scheme (-0.0624). The return on unsystematic risk was the highest in the case of LIC MF Equity Scheme (-0.0079) and the lowest in the case of HDFC Capital Builder Scheme (-0.0835). The return from stock selectivity was positive (except for LIC MF Equity scheme) implying that the sample schemes had earned superior return due to stock selectivity. The SBI Mangum Multiplier Plus scheme provided the highest net superior returns due to selectivity skills assuming higher risk.

SBI Magnum Multiplier Plus Scheme showed high explained and high unexplained risk during the period of study while explained variance was low in the case of HDFC Capital Builder Scheme and unexplained variance was low in the case of LIC MF Equity Scheme.

The Z test revealed the existence of a significant impact of market returns on all the sample schemes with a high degree of positive correlation. The Z test revealed that all the sample schemes were positively and significantly correlated with each other and correlation coefficient of higher time lags consistently decreased.

All the seven schemes studied did not provide adequate returns to cover the risk-free return, systematic risk and total risk. However, SBI Magnum Multiplier Plus Scheme outperformed the market in terms of Sharpe Index and Treynor Index. LIC MF Equity Scheme showed poor performance in terms of Sharpe Index. HDFC Capital Builder Scheme showed poor performance in terms of Treynor Index and Jensen Alpha. The performance of sample schemes were in the same direction as that of market as indicated by the positive beta values. SBI Magnum Multiplier Plus Scheme and UTI Opportunities Scheme were significantly aggressive in nature compared to other sample schemes. Market had a significant impact on the performance of all the sample schemes. The present NAV is significantly related to the past NAV but the extent of impact reduces as the time lag increases.

The conclusions drawn from the opinion survey of investors, brokers and fund managers revealed the following findings:

The profile of investors covered showed that, 41.11 percent were in the age group of 31-45 years, 86.67 percent were male investors, 37.78 percent represented employed category, 50.28 percent were undergraduates, 88.33 percent were married, 50.28 percent were earning less than Rs.10,000 per month and 51.94 percent were saving less than Rs.2,000 per month.

Investors depend on their investments for income and emergency needs (26.67 percent) followed by devotion of savings for long term savings (21.11 percent).

Investors want to balance their income and growth objectives with top priority for income objective and second priority for growth objective.

More than half of the investors covered under the study had an investment time horizon upto five years.

More than half of the investors were willing to take modest risk while one-fourth was ready to take as much risk as possible.

One-third of investors were ready to take average amount of volatility for average returns while one-fourth accepted little volatility for higher returns.

Age, sex, occupation had significant impact on the investors financial dependence, investment objectives, willingness to take risk and on the extent of acceptability for investment volatility.

Educational qualification affected financial needs and investment objectives of investors.

Marital status had a significant impact on investment objective, willingness to take risk and volatility in investment value. Monthly

income and monthly savings had a significant impact on financial needs and investment objectives.

More than half of the investors covered had less than five years of investment experience while less than one-fourth had 6 to 10 years of investment experience.

All the investors covered under the study had invested in bank deposits and mutual funds followed by equity shares and post office savings schemes.

Majority of investors had invested less than 25 percent of their savings in mutual funds.

Majority of the investors had invested less than 25 percent in each type of financial assets.

Investors preferred bank deposit in the first instance, with the highest average score of 4.9 followed by post office savings scheme, equity shares. Investors assigned fourth preference for mutual funds.

Investors were of the opinion that bank deposits and post office savings schemes had the highest degree of safety followed by insurance policies, bonds, debentures and mutual funds.

For majority of respondents, investment experience in mutual funds was less than five years.

From return on investment point of view, less than half preferred funds providing regular income. From stability point of view, more than half chose schemes assuring safety of investment. From the angle of marketability of schemes, more than one-third preferred mutual funds assuring high profitability. From the tax benefit point of view, nearly half accepted schemes to availing tax concessions.

Age, occupation, monthly income and monthly savings had a significant influence on the selection of schemes based on the criteria of return, safety, liquidity and tax benefit.

Investors covered under the study had first preference for private sector joint venture (predominantly) Indian mutual funds, followed by bank sponsored mutual funds, private sector Indian mutual funds and institution sponsored mutual funds.

The most important benefit of investing in mutual funds was profitability followed by tax shelter and capital appreciation.

For investors, the main source of information providers on mutual funds was brokers / agents.

The investors had first preference for growth schemes followed by income schemes and money market schemes.

Goodwill was the most influential factor in the selection of the mutual fund, followed by investor services and the past performance.

The most important factor influencing the choice of mutual fund scheme was capital appreciation followed by fund objective, return on investment and safety.

Very few investors were fully satisfied with the performance, investor services and the opportunities provided by the IMFI and same were the case with the not satisfied category, so it could be inferred that investors in general were moderately satisfied as evident from the average score of 2 each.

Most of the investors subscribed to the following statements:

- Less risky nature of mutual funds compared to shares.
- Suitability of mutual funds to small investors hesitating to enter capital market.
- Ability of mutual funds to weather the market fluctuation.
- Risk and return characteristics of Indian mutual funds being not in conformity with their stated objectives.
- Investing in mutual funds is much better than bank deposit.
- Growth schemes are preferable to income schemes.

From safety of investment point of view, bank deposits and post office savings scheme were very safe investment avenues for investors. While brokers viewed equity shares to be highly safe followed by mutual funds.

The most preferred benefit of investing in mutual funds for investors was profitability followed by tax shelter and capital appreciation, as against brokers' priority for portfolio diversification, liquidity of investment and professional management.

Highest preference was towards private sector joint venture (predominantly) Indian funds for both investors and brokers. Second rating was for bank sponsored mutual funds for investors and private sector Indian funds for brokers.

Investors and brokers had first rating for growth objective. Second preferred mutual fund objective was income.

The entire three category of respondents namely, investors, brokers and fund managers had first choice for the quality of service as the major factor determining the success of mutual fund organisation.

Attitude of investors had a marked bearing of their attributes like age, sex, and occupation. Investors' in general invest less than 25 percent of their savings in each investment avenue. Investors assigned fourth

preference for mutual funds. Age, occupation, monthly income and monthly savings significantly affected the objective of selecting schemes. Private sector mutual funds were the most preferred sector for investors and brokers. Investors preferred mutual funds to enjoy the benefit of profitability and tax shelter while brokers preferred for its portfolio diversification, liquidity and professional management. Investors and brokers had a first choice for the quality of service as the major factor determining the success of the mutual fund organisation.

CONCLUSION

During the eight years of study period, the IMFI had shown a good progress in terms of number of private sector Indian mutual funds, number of schemes launched, funds mobilized and assets under management. There had been a good number of schemes been launched particularly in close-end type with income objective.

The hallmark of any mutual fund is to outperform the market both in rising and falling markets besides ensuring benefits of diversification. Of the sample schemes, Cangrowth Plus Scheme, Franklin India Bluechip scheme, Franklin India Prima Scheme, HDFC Capital Builder Scheme and SBI Magnum Multiplier Plus scheme outperformed the market in terms of absolute returns and Sharpe index. While Only SBI Magnum

Multiplier Plus scheme outperformed market in terms of Treynor index and also had positive Jensen alpha. All the three risk-adjusted performance measures showed significant agreement in ranking the sample schemes.

Of the sample schemes studied, SBI Magnum Multiplier Plus Scheme topped the list in all the three portfolio performance models. All the sample schemes (except LIC MF Equity Scheme) ensured positive returns due to stock selection skills of fund managers. The variance explained by the market was high in the case of SBI Magnum Multiplier Plus scheme. The market performance had a significant positive influence on scheme performance in case of all the schemes covered under the study. The present NAV is positively significantly correlated with that of its past NAV but the impact got reduced as the time lag increased.

The survey of investors' perception revealed that, profile of investors has a significant impact on the investor's decisions relating to investments and particularly mutual fund investments. Investors had high preference for bank deposits while brokers preferred equity shares. Regular income, safety, profitability and tax benefits motivated investors in the choice of scheme. Private sector joint venture (predominantly) Indian mutual funds were highly preferred by both investors and brokers.

Both investors and brokers prefer growth schemes followed by income schemes. Brokers / agents were the main source of information about mutual funds. According to investors, the most important benefit of mutual funds was profitability while portfolio diversification, liquidity of investment and professional management were very important for brokers.

Quality of service was the most important determinant of success for mutual fund according to investors, brokers and fund managers. Goodwill was the main criterion of choosing mutual fund organisation for all the three categories of respondents. For investors, capital appreciation influenced the choice of mutual fund scheme. For brokers, return on investment and safety affected the choice of mutual fund schemes. For fund managers, capital appreciation, liquidity and portfolio manager's background were important criteria of choosing mutual fund schemes. Very few investors were fully satisfied while majority were moderately satisfied with the performance, opportunities provided, and services offered by the IMFI.

Investors and fund managers agreed that, investing in mutual funds were less risky compared to shares. Brokers and fund managers highly agreed that mutual funds were more suitable to small investors who were otherwise hesitant of entering into capital market. Fund managers

viewed that mutual funds have the ability to weather the market fluctuations and accepted that investing in funds is much better in terms of returns than depositing money in banks. Brokers opined that risk and return characteristics of Indian mutual funds were not in conformity with their stated objectives.

SUGGESTIONS

The analysis of the sample investors' opinion shows that majority were moderately satisfied with the performance, investment opportunities and services offered by the Indian mutual funds industry. However, the sample mutual fund schemes were also not performing upto their expectations and does not provide adequate returns commensurate with the risk involved. Hence, for the better future of the Indian Mutual Fund Industry the following suggestions are made:

It is absolutely necessary to harness the savings of the nation especially from rural and semi-urban areas into financial assets and the **units of mutual funds** should certainly become one such asset that can attract these savings through a wide spread and efficient network of operations.

Mutual funds should build confidence in the existing unit holders as well as the public not covered so far. Mutual funds have to prove as an

ideal investment vehicle for retail investors by way of assuring better returns in relation to the risk involved and by way of better customer services.

Mutual funds as institutional investors have to ensure professional market analysis, optimum diversification of portfolio, minimizing of risk and optimizing of return.

The **fund managers** have to provide the benefits of professional management by way of market timing and stock selection skills.

The **Asset Management companies** by way of superior management, efficient market forecasting have to ensure not only out performance but also consistency in the performance.

While millions of potential investors are not fully aware of the modes of investments, most of the investors who have invested are not fully aware of their rights and obligations. Hence, the **Government** should arrange for more number of massive educational programs on investment avenues besides publishing 'Investors guide' enabling the investing public to take more informed investment decision. It would be more enlightening and effective if awareness programs were organised at the collegiate level so that students could become aware of investment avenues even before they start earning.

SEBI and AMFI could carryout research works to introduce many mutual fund products proved successful in foreign countries but not yet introduced in India. Mutual fund activities could be linked with the banking institutions, through electronic clearing and plastic money for easy transactions and e-units of mutual funds.

The role of **investors' redress cell** has to become more dynamic, efficient and wide spread so as to reach out to investors rebuilding confidence among existing unit-holders and generate interest among the potential investors. Mutual fund Ombudsman could be established for early settlement of disputes.

Investors have to make **self-analysis** of one's needs, risk-bearing capacity, and expected returns so as to develop a prudent investment ideology. Investors have to be aware of the mutual fund regulations, the channeling of money, objectives of schemes, besides ensuring better diversification of investment.

SCOPE FOR FURTHER RESEARCH

The present study is confined to the regulated environment of mutual fund industry and to that of growth schemes. During the course of study it was observed that technological and environmental changes have many social implications. Government policies, changes in the financial

environment, income status have significant influence on the size of savings, preference for investment avenues and pattern of holding investments. Thus, there are several other important issues relating to mutual funds increasing the scope of this study. Hence, studies could be carried out in the following areas to substantiate the existing literature and contribute for the growth of the mutual fund industry.

In line with the role of **foreign institutional investors** in the stock market, the role of mutual funds can also be studied in terms of its influence on stock market sentiments, purchase and sale of securities.

As very few studies are available on **money market mutual funds**, studies could be carried out to identify the role of money market mutual funds as a short-term financial instrument and how far they are able to meet the demand and supply of short-term funds in the Indian financial system.

To pick up the pace of economic growth, inflow of foreign currency is a must. Hence, studies could be carried out to know the competency of **offshore funds** and to identify ways and means of improving offshore mutual fund operations.

Distribution as an integral part of mutual funds should be strengthened through advisory role and proper understanding of clients

risk profile to avoid mis-selling and loss of confidence at the industry level. Hence, survey could be carried out to identify better distribution strategies to attract the investing clientele.

The past period had seen a lot of mergers and acquisitions in mutual fund industry. The rate and nature of mutual fund attrition has its impact on the investing society and other existing mutual funds in the industry. The correction of attrition is highly important to avoid its negative impact on the earnings of the existing mutual fund schemes. Hence, research could be carried out on mutual fund attrition and the effect of survivorship bias on the other existing mutual fund schemes.

These are the possible areas of research work which can richly contribute towards the existing literature on mutual funds.

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WEB SITES

www.amfiindia.com

www.sebi.org.in

www.mutualfundsindia.com

APPENDIX A

LIST OF ABBREVIATIONS

AMC	: Asset Management Company
AMFI	: Association of Mutual Funds of India
AUM	: Assets Under Management
BSE	: Bombay Stock Exchange
CAGR	: Compound Annual Growth Rate
CAPM	: Capital Asset Pricing Model
CGR	: Compound Growth Rate
CRL	: Characteristic Regression Line
GDP	: Gross Domestic Product
DJIA	: Dow Jones Industrial Average
ELSS	: Equity Linked Savings Scheme
GDS	: Gross Domestic Savings
IMFI	: Indian Mutual Fund Industry
NAV	: Net Assets Value
SEBI	: Securities And Exchange Board of India
SIP	: Systematic Investment Plan
SWP	: Systematic Withdrawal Plan
UTI	: Unit Trust of India

APPENDIX B1

PERCEPTION OF INDIVIDUAL INVESTORS

QUESTIONNAIRE

A .Profile of Investors:

1.Name (optional) :

2.Age :Below 30years ☐ 31-45 years ☐
46-60 years ☐ Above 60 years ☐

3.Sex :Male ☐ Female ☐

4.Occupation :Business ☐ Agriculture ☐
Professional ☐ Employed ☐
Others _____ (please specify)

5.Education :UptoHigherSecondary☐ Undergraduate ☐
Postgraduate ☐ Others_____
(please specify)

6.Marital Status :Married ☐ Unmarried ☐

7.Monthly Income :Below Rs.10,000 ☐ Rs.10,001-20,000 ☐
Above Rs.20,000 ☐

8.Monthly Savings :Below Rs.2,000 ☐ Rs.2,001-4,000 ☐
Above Rs.4,000 ☐

B Attitude towards Investment:

9. How would you describe your *financial needs*? (Please ✓ **one** statement)

Factor 1 - Depend totally on investments.
Factor 2 - Depend on investments for income and emergency needs.
Factor 3 - Depend somewhat on investments for income and emergency needs.
Factor 4 - Depend on investments to serve only on an emergency.
Factor 5 - Devote investments to long - term savings.
Factor 6 - Don't Depend on investments.

10.What is your investment *objective*? (Please ✓ **one** statement)

Option 1- Capital preservation and satisfactory current income.
Option 2 - First priority for Income and second priority for Growth.
Option 3 - Balanced preference for income and growth.
Option 4 - Basically growth oriented but intends to play it somewhat safe.
Option 5 - Maximize growth, as income is not critical.

11.What is your *investment time horizon*? When do you think you will need or want to tab into your portfolio?

In 5 years ☐ 6-10 years ☐ 11-15 years ☐ Above 15 years ☐

12.Give your *willingness* to take risk? (Please ✓ **one** statement)

Category 1 - Willing to take as much risk as possible.

Category 2 - Willing to take modest risk.

Category 3 - Avoid taking risk.

13. What is your *attitude* towards fluctuation in the value of your portfolio? (Please ✓ **one** statement)

Choice 1 - Accept lower long run returns with maximum stability.

Choice 2 - Accept little volatility for higher returns.

Choice 3 - Take average amount of volatility for average returns.

Choice 4 - Accept higher volatility as growth is the goal.

Choice 5 - Accept substantial volatility, as maximum appreciation is the goal.

14. What is your experience in the field of investments?

☐ Less than 5 years ☐ 6-10 years ☐ 11-15 years ☐ 16-20 years

☐ Above 20 years

15. What is your percentage of investment held by you in the following investment avenues? Give your order of preference (Rank 1, 2, 3,…)

Financial Assets	**Percentage**	**Preference** (Rank)
Bank Deposits	_____	_____
P.O. Saving Schemes	_____	_____
Bonds and Debentures	_____	_____
Equity Shares	_____	_____
Mutual Funds	_____	_____
Insurance Policies	_____	_____

Others _____

(please specify)

16.Please ✓for **each** financial asset to indicate your degree of safety.

Financial Assets	**Absolutely safe**	**Reasonably safe**	**Somewhat safe**	**Not safe**	**Don't know**
Bank Deposits	☐	☐	☐	☐	☐
Savings Scheme	☐	☐	☐	☐	☐
Bonds and Debentures	☐	☐	☐	☐	☐
Equity Shares	☐	☐	☐	☐	☐
Mutual Funds	☐	☐	☐	☐	☐
Insurance Policies	☐	☐	☐	☐	☐
Others _____ (please specify)	☐	☐	☐	☐	☐

C Attitude towards Mutual Funds:

17. How long have you been investing in Mutual Funds? Past _____ years.

18.With what objective do you invest in mutual funds? (Please ✓ only one from each of the 4 sections.)

Return	**Stability**	**Marketability**	**Tax Benefit**
☐ Regular Income	☐ Safety	☐ High Liquidity	☐ Tax Saving
☐ Growth	☐ Speculation	☐ High Profitability	☐ Non-Tax Saving
☐ Both	☐ Both	☐ Both	☐ Both

19. Rank your order of preference separately for each column (1,2,3 ….)

Sector	**Fund Objective**
------ Bank sponsored MF	------ Growth
------ Institution sponsored MF	------ Income
------ Private –Indian MF	------ Balanced
------ Private Joint Venture (Predominantly) Indian	------ ELSS
------ Private Joint Venture (Predominantly) Foreign	------ Money Market
	------ Gilt

20. What factors determine the *success of a mutual fund*? (Please ✓ your degree of importance).

Factors	Very Important	Important	Not Important	Not at all Important
Quality of service	☐	☐	☐	☐
Suitability of product	☐	☐	☐	☐
Research	☐	☐	☐	☐
Risk orientation	☐	☐	☐	☐
No: of investor service center	☐	☐	☐	☐

21.What are the *sources of information* about Mutual Funds? (Please ✓ the sources)

☐ Brokers/ agents ☐ Prospectus ☐ Advertisement ☐ Annual Reports

☐ Newspapers ☐ Magazines ☐ Friends and Relatives ☐ Others_____
(Please specify)

22.What are the benefits of investing in mutual funds? (Please ✓ benefits you enjoy)

☐Portfolio diversification ☐Tax Shelter ☐ Lower cost ☐Liquidity of investment

☐ Assured allotment ☐ High Yielding ☐Convenience ☐Quality of service

☐ Innovation in Schemes ☐ Profitability ☐ Transferability☐Repurchase Facility

☐ Capital appreciation ☐Loan Facility ☐ Professional Management

☐ Wide investment opportunities ☐Transparency in operation

☐Others_____ (please specify).

23. To what extent the following factors are important in your choice of mutual fund organization. (Please ✓for each factor indicating your importance).

Factors	Very Important	Important	Not Important	Not at all Important
Goodwill	☐	☐	☐	☐
Volume of business	☐	☐	☐	☐
Sector represented	☐	☐	☐	☐
Investor services	☐	☐	☐	☐
Past performance	☐	☐	☐	☐
Infrastructure	☐	☐	☐	☐
Suggestions(friends, relatives etc)	☐	☐	☐	☐
Background Experience	☐	☐	☐	☐
Investment Philosophy & Methodology	☐	☐	☐	☐
Others_____ (Please specify)	☐	☐	☐	☐

24. To what extent the following factors are important in the choice of a mutual fund scheme?
(Please ✓ for **each** factor)

Factors	**Very Important**	**Important**	**Not Important**	**Not at all Important**
Capital Appreciation	☐	☐	☐	☐
Objective of the fund	☐	☐	☐	☐
Return on Investment	☐	☐	☐	☐
Tax benefit	☐	☐	☐	☐
Liquidity	☐	☐	☐	☐
Safety	☐	☐	☐	☐
Loan facility	☐	☐	☐	☐
Convenience of reinvestment	☐	☐	☐	☐
Fund Managers Background	☐	☐	☐	☐
Early Bird Incentive	☐	☐	☐	☐
Others_____ (Please specify)	☐	☐	☐	☐

25.Give your degree of satisfaction.	**Fully Satisfied**	**Moderately Satisfied**	**Not Satisfied**
a. Mutual Fund Industry performance	☐	☐	☐
b. Investment opportunities in M F industry	☐	☐	☐
c. Services to Investors by Mutual Funds	☐	☐	☐

26. Please ✓ your degree of agreement relating to mutual fund.

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
a. Investing in funds are less risky compared to shares.	☐	☐	☐	☐	☐
b. Mutual Funds are more suitable to small investors who are otherwise hesitant of entering into capital market.	☐	☐	☐	☐	☐
c. Mutual funds have the ability to weather the market fluctuations.	☐	☐	☐	☐	☐
d. Risk and return characteristics of Indian MFs are not in conformity with their stated objectives.	☐	☐	☐	☐	☐
e. Investing in funds is much better in terms of returns than depositing money in banks.	☐	☐	☐	☐	☐
f. Growth schemes are highly preferred to income schemes.	☐	☐	☐	☐	☐

APPENDIX B2

PERCEPTION OF BROKERS

QUESTIONNAIRE

BROKER / AGENT : Mr.

1. Please ✓for **each** financial asset to indicate your degree of safety.

Financial Assets	**Absolutely safe**	**Reasonably safe**	**Somewhat safe**	**Not safe**	**Don't know**
Bank Deposits	☐	☐	☐	☐	☐
Savings Scheme	☐	☐	☐	☐	☐
Bonds and Debentures	☐	☐	☐	☐	☐
Equity Shares	☐	☐	☐	☐	☐
Mutual Funds	☐	☐	☐	☐	☐
Insurance Policies	☐	☐	☐	☐	☐
Others _____ (please specify)	☐	☐	☐	☐	☐

2. What are the benefits of investing in mutual funds? (Please ✓ benefits you enjoy)

☐Portfolio diversification ☐Tax Shelter ☐ Lower cost ☐Liquidity of investment
☐ Assured allotment ☐ High Yielding ☐Convenience ☐Quality of service
☐ Innovation in Schemes ☐ Profitability ☐ Transferability☐Repurchase Facility
☐ Capital appreciation ☐Loan Facility ☐ Professional Management
☐ Wide investment opportunities ☐Transparency in operation
☐Others_____ (please specify).

3. Rank your order of preference separately for each column (1,2,3 ….)

Sector	**Fund Objective**
------ Bank sponsored MF	------ Growth
------ Institution sponsored MF	------ Income
------ Private –Indian MF	------ Balanced
------ Private Joint Venture (Predominantly) Indian	------ ELSS
------ Private Joint Venture (Predominantly) Foreign	------ Money Market
	------ Gilt

4. What factors determine the success of a mutual fund? (Please ✓ your degree of importance.)

Factors	**Very Important**	**Important**	**Not Important**	**Not at all Important**
Quality of service	☐	☐	☐	☐
Suitability of product	☐	☐	☐	☐
Research	☐	☐	☐	☐
Risk orientation	☐	☐	☐	☐
No: of investor service center	☐	☐	☐	☐

5.To what extent the following factors are important in the choice of a mutual fund organisation? (Please ✓ for each factor)

Factors	Very Important	Important	Not Important	Not at all Important
Goodwill	☐	☐	☐	☐
Volume of business	☐	☐	☐	☐
Sector represented	☐	☐	☐	☐
Investor services	☐	☐	☐	☐
Past performance	☐	☐	☐	☐
Infrastructure	☐	☐	☐	☐
Suggestions(friends, relatives etc)	☐	☐	☐	☐
Background Experience	☐	☐	☐	☐
Investment Philosophy & Methodology	☐	☐	☐	☐
Others_____ (Please specify)	☐	☐	☐	☐

6. To what extent the following factors are important in the choice of a mutual fund scheme? (Please ✓ for **each** factor)

Factors	Very Important	Important	Not Important	Not at all Important
Capital Appreciation	☐	☐	☐	☐
Objective of the fund	☐	☐	☐	☐
Return on Investment	☐	☐	☐	☐
Tax benefit	☐	☐	☐	☐
Liquidity	☐	☐	☐	☐
Safety	☐	☐	☐	☐
Loan facility	☐	☐	☐	☐
Convenience of reinvestment	☐	☐	☐	☐
Fund Managers Background	☐	☐	☐	☐
Early Bird Incentive	☐	☐	☐	☐
Others_____ (Please specify)	☐	☐	☐	☐

7. Please ✓ your degree of agreement relating to mutual fund.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a. Investing in funds are less risky compared to shares.	☐	☐	☐	☐	☐
b. Mutual Funds are more suitable to small investors who are otherwise hesitant of entering into capital market.	☐	☐	☐	☐	☐
c. Mutual funds have the ability to weather the market fluctuations.	☐	☐	☐	☐	☐
d. Risk and return characteristics of Indian MFs are not in conformity with their stated objectives.	☐	☐	☐	☐	☐
e. Investing in funds is much better in terms of returns than depositing money in banks.	☐	☐	☐	☐	☐
f. Growth schemes are highly preferred to income schemes.	☐	☐	☐	☐	☐

APPENDIX B3

PERCEPTION OF FUND MANAGERS

QUESTIONNAIRE

Scheme Manager : Mr.

1. What factors determine the *success of a mutual fund*? (Please ✓ your degree of importance).

Factors	**Very Important**	**Important**	**Not Important**	**Not at all Important**
Quality of service	☐	☐	☐	☐
Suitability of product	☐	☐	☐	☐
Research	☐	☐	☐	☐
Risk orientation	☐	☐	☐	☐
No: of investor service center	☐	☐	☐	☐

2. To what extent the following factors are important in your choice of mutual fund organization. (Please ✓for each factor indicating your importance).

Factors	**Very Important**	**Important**	**Not Important**	**Not at all Important**
Goodwill	☐	☐	☐	☐
Volume of business	☐	☐	☐	☐
Sector represented	☐	☐	☐	☐
Investor services	☐	☐	☐	☐
Past performance	☐	☐	☐	☐
Infrastructure	☐	☐	☐	☐
Suggestions(friends, relatives etc)	☐	☐	☐	☐
Background Experience	☐	☐	☐	☐
Investment Philosophy & Methodology	☐	☐	☐	☐
Others_____ (Please specify)	☐	☐	☐	☐

3. To what extent the following factors are important in the choice of a mutual fund scheme? (Please ✓ for **each** factor)

Factors	**Very Important**	**Important**	**Not Important**	**Not at all Important**
Capital Appreciation	☐	☐	☐	☐
Objective of the fund	☐	☐	☐	☐
Return on Investment	☐	☐	☐	☐
Tax benefit	☐	☐	☐	☐
Liquidity	☐	☐	☐	☐
Safety	☐	☐	☐	☐
Loan facility	☐	☐	☐	☐
Convenience of reinvestment	☐	☐	☐	☐
Fund Managers Background	☐	☐	☐	☐
Early Bird Incentive	☐	☐	☐	☐
Others_____	☐	☐	☐	☐

(Please specify)

4. Please ✓ your degree of agreement relating to mutual fund.

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
a. Investing in funds are less risky compared to shares.	☐	☐	☐	☐	☐
b. Mutual Funds are more suitable to small investors who are otherwise hesitant of entering into capital market.	☐	☐	☐	☐	☐
c. Mutual funds have the ability to weather the market fluctuations.	☐	☐	☐	☐	☐
d. Risk and return characteristics of Indian MFs are not in conformity with their stated objectives.	☐	☐	☐	☐	☐
e. Investing in funds is much better in terms of returns than depositing money in banks.	☐	☐	☐	☐	☐
f. Growth schemes are highly preferred to income schemes.	☐	☐	☐	☐	☐