CHAPTER - 2

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1. Introduction: A modest attempt is made in this chapter to present the research design and complete methodology of research program has been discussed and incorporated. The parameters covered are research issues in the form of statement of the problem, objectives of the present study, subject scope, a thorough review of literature leading to the identification of concrete research gap arising out of time gaps and the emergence and vanishing of mutual schemes from public and private sector organizations operating in the territory of Karnataka in particular and India in general, sampling, methodology, data processing, data analysis and interpretation, limitations of the study and eventually the chapter scheme glimpses are enumerated.

2. Significance: Today the investing environment is very challenging for investors; on the one hand, there is debt market which has turned in incredible performance over the last couple of years. Interest rates have declined to levels not expected by anyone. Even now there is anticipation that there is still some more downside left gives the high liquidity levels. Therefore, one stay invested, returns could be attractive. But, there is consideration view that is fast gaining credibility debt markets have their run and going forward investors should settle for a good return. The processes of mutual fund, liquidity of the company, availability of schemes and features of the schemes are essential elements to the investors to invest. An attempt is made to dig out the required information with some of the statistical tools.

3. Statement of the problem: With the advent of cross border trade, economic reforms, financial sector reforms, Indian economy has been pulverized and reformed to a considerable extent in the growth path. The financial vibrancy can be achieved in a very short span of time owing to well thought out policy framework and timely implementation of reforms. The
catharsis, hitches and bottlenecks in the wider development of financial market were purged. We experienced capital formation hiccups during 1990s and yester years due to multiplicity of socio economic problems and anarchic policy framework. The inabilities to upsurge capital formation are due to the lack of market forces, government regulations, low economic activity, low investment and declining savings. These caused the nation to look for foreign capital. The primary and secondary market instruments were introduced to raise capital formation through investments by individuals, professionals, institutions and the like.

In the sphere of financial investment, Mutual Funds assumed a centre stage for people from all walks of life, especially middle income groups whose income is raising due to the intervention and growth of service sector. The financial intermediation acted swiftly on garnering the savings of middle class into Mutual Fund schemes. The LPG policy of government of India accelerated the growth of business in Mutual Funds in the country. Banks, insurance companies, joint ventures, NBFCs, FIIs etc., have started their outfits. Presently 42 organizations offer Mutual Fund schemes with Rs.3,49,893 crores of assets Mutual Fund industry is burgeoning at an annual growth rate of 16-18 per cent. Apparently, Mutual Fund schemes look attractive and lucrative but the tag that “Mutual Funds are subject to market risks”, may be noted. The dark side of Mutual Funds story is that nobody knows the proceeds of mutual funds investments (How is the net asset value arrived at? Where do the Mutual Fund companies invest? What is the remuneration for fund managers? How is the fund set up and operated?) The real story remains clandestine and investors are deluded by grand advertisement and advice of financial advisers. What is known with regard to Mutual Fund industry is only a tip of ice burg and a large mass of the ice burg remains concealed; paradoxical and best known to the organizations themselves. A need has arisen to dent the hidden schemes and to tell the general public about the pros and cons of Mutual Fund schemes in
A critical and logical evaluation of Mutual Fund schemes in the light of changed circumstances is the need of the hour. Although SEBI is doing a yeoman service to educate and protect the investors, players are acting under corporate culture and it is impossible for the innocent investor to discern the intricacies of their trade deals. Hence, the present enquiry is a modest attempt in that direction.

4. Review of existing literature: In this section, studies conducted earlier are reviewed. The studies relate to the performance of mutual fund schemes of select organizations and individual investors behavior under mutual fund schemes.

Sharad Panwar and Dr. R. Madhumathi¹ in their study used a sample of Public sector sponsored and private sector sponsored mutual funds of varied net assets to investigate the differences in characteristics of assets held, portfolio diversification, and variable effects of diversification on investment performance for the period May 2002 to 2005. The study found that public-sector sponsored funds do not differ significantly from private sector sponsored funds in terms of mean returns percent. However, there is a significant difference between public-sector sponsored mutual funds and private-sector sponsored mutual funds in terms of average standard deviation, average variance and average coefficient of variance (COV).

Shujing Li² in her article identifies in the mutual fund industry a novel form of product differentiation financial product differentiation over the state space. On the one hand, it is a well documented fact that investors chase past performances of the mutual funds. On the other hand, the mutual funds' performances are determined not only by fund managers' abilities, but also

¹ Sharad Panwar and Dr. R. Madhumathi, IIT Madras, Characteristics and performance evaluation of Selected Mutual Funds in India, Research Paper, submitted for Junior Mathematical Olympiad, Conducted by National Board of Higher Mathematics, GOI, got 44th Rank.
by stochastic noise factors. In such a context, to avoid head-to-head competition created by holding the same portfolio, the mutual fund managers could gain higher profits by holding different portfolios which yield distinct returns at varying states, the author asserts.

Mline, on identifying the decision on determinants of portfolio policies in the case of individual investors, portrayed the association between risk-return preference of investor and his life cycle. He concluded that in the case of an individual investor, his risk-return trade off at various life cycle stages depends on his individual circumstance and risk-taking attitudes. In short, he suggested that an individual's risk tolerance is unique and subject to changes influenced by the investor's wealth position, health, family situation, age and temperament.

Malkief, while analyzing the risk tolerance of individual, suggested that the investment choice must be keyed to two considerations, namely, a person's capacity to bear risk and a person's attitude towards risk.

Pradap Kar and others have estimated that only 9% of the Indian households invest in shares, around 12% invest in mutual funds and they concluded that unless the needs of the investors are critically examined and identified, their savings cannot be transformed into productive capital.

Jaspal Singh and Subbaah Cander, Produced a paper, Captioned 'An Empirical Analysis of Perception of investor towards Mutual Funds'. This paper attempts to study the perceptions of investors towards mutual funds that have crossed Rs.1,20,000 crores mark by November 2002 and

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analyzing the reasons for withdrawal and/or not investing any more in mutual funds. Investor’s perceptions regarding day to day disclosure of net asset value by the funds and provision for more tax relations on investment in mutual funds by the government have emerged as important requirements for the investors. The ineffectiveness of controlling bodies like SEBI and others that resulted in investors’ disillusionment as regards mutual funds investment has emerged as one of the major reasons of withdrawal from mutual funds. The funds have underperformed as against the investors expectations and the management has been inefficient, thereby discouraging investors to keep their savings perked in mutual funds.

Khorana and Servaes (1997, 2001) in their article disclose the determinants of mutual fund starts and the market share at the family level. However, it basically treats the financial products as normal commodities without modeling the special properties of financial products. Unlike most of the empirical work studying mutual fund industry, this paper develops a structural model instead of being reduced form regression model. With a structural model, we can demonstrate the mechanism of financial product differentiation and better understand the assumptions that we need to consistently estimate the model.

P. Mahapatra: The article provides an empirical framework to qualitative and quantitative study of the effect of relative performance evaluation schemes when there are a large number of contestants. It demonstrates that, as long as the measures of quality are not perfect, the mutual fund managers can make the benchmark ineffective by differentiating from each other and seek more rent from investors despite the fact that there is severe competition in the market.

8 P. Mahapatra and Rajdeep Patgiri, Mutual Funds and Bubbles: The Surprising Role of Contractual Incentives, INSEAD, France, Research article.
Nishant Dass: This article concentrates on one of the potential causes of the financial market bubble of the late 1990s: the herding behavior of mutual funds. It shows that the incentives contained in the mutual funds' advisory contracts induce managers to overcome their tendency to herd and argue that investing in bubble stocks amounts to herding and contracts with high incentives induce managers to diverge from the herd, thus reducing their holding of bubble stocks. The differential exposure to bubble stocks significantly impacted the funds' performance both in the period prior to March 2000, as well as afterwards.

Amit Gera: The Indian mutual fund industry needs to widen its range of products with affordable and competitive schemes to tap the semi-urban and rural markets in order to attract more investors. The industry has still not been able to penetrate among retail investors and it needs to share best practices from mature markets as in the US and Britain where mutual funds are the most preferred form of investment. Mutual fund companies need to introduce products for the semi-urban and rural markets that are affordable and yet competitive against low-risk assured returns of government sponsored saving schemes such as post office saving deposits. The industry is also overwhelmed by the scarce technological infrastructure and needs to collaborate with other sectors of the economy such as banking and telecommunications. Mutual fund companies are also required to take advantage of the growing opportunity in the commodities market. Further, the mutual funds could also attract enable the small investors to participate in the real estate boom through real estate mutual funds. With a strong regulatory framework, clear guidelines and the talent to back it up, the Indian mutual fund industry is in a position to cater to the needs of the new breed of investors who are keen to diversify their risks.

M. Rohit Vyas11: The report speaks about mutual funds and all its basics, the real servings come when one moves ahead. Some of the most interesting questions regarding mutual funds are also covered. The report brings on the popular stocks among fund managers, most lucrative sectors for fund managers, a special report on Systematic Investment Plan, whether fund performance persists and the topping of all the servings in the form of portfolio analysis tool and its application. It covers the topic* need of financial advisors for mutual fund investors*. It has also covers questions as to why people don't want to go for financial advisors. The advisors can take further steps to approach more and more people and indulge them for taking their advices.

SEBI Offer Document:12 The particulars of PSU Bank Benchmark Exchange Traded Scheme (PSU Bank BES) have been prepared in accordance with Securities & Exchange Board of India (SEBI) and the units being offered for public subscription have neither been approved nor disapproved by SEBI nor has SEBI certified the accuracy or adequacy of the offer document. This Offer Document sets forth concisely the necessary information about the Scheme that a prospective investor ought to know before investing. Every person who desires to apply for or otherwise acquire any units of the Mutual Fund may do so pursuant to independent inquiry, investigation and analysis and shall not have any claim against the Exchange whatsoever be the reason of any loss which may be suffered by such person.

Ajay Khorana and Henri Servaes:13 Using a new data base, they studied that fees charged by 46,580 mutual fund classes offered for sale in 18

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countries, which accounted for about 86% of the world fund industry in 2002. It examine management fees, total expense ratios, and total shareholder costs (including load charges). Fees vary substantially across funds and from country to country. To explain these differences, it considers fund, sponsor, and national characteristics. Fees differ by investment objectives: larger funds and fund complexes charge lower fees; fees are higher for funds distributed in more countries and funds domiciled in certain foreign locations (especially when selling into countries levying higher taxes). Substantial cross-country differences persist even after controlling for these variables. These remaining differences can explain by a variety of factors, the most robust of which is that fund fees are lower in countries with stronger investor protection.

The World Bank Development Research Group:14 Mutual funds are one of the main channels when investing abroad, U.S. mutual funds invest more for capital flows to emerging economies although in equity than in bonds. World funds invested mainly in mutual funds have become important contributors to developed nations (Canada, Europe, Japan, and the financial market integration). Ten per cent of their investment is in Asia investment allocation and strategies. Kaminsky, Lyons, and Latin America. Mutual funds usually invest in a few and Schmukler provide an overview of mutual fund countries within each region, activity in emerging markets. Mutual fund investment was very responsive to the first, they describe international mutual funds' relative crises of the 1990s. Withdrawals from emerging markets size, asset allocation, and country allocation. during recent crises were large, which squares with Second, they focus on fund behavior during crises, by existing evidence of financial contagion, analyzing data at the level of both investors and fund investments in Asian and Latin American mutual fund managers.

14 The World Bank Development Research Group, Macroeconomic and growth,January 2001,Public Disclosure - POLICYR ESEARCH WORKING PAPER 2529,The study was funded by the Bank's Research Support Budget under the research project "Mutual Funds in Emerging Markets."
Mutual Funds are volatile, because redemptions and injections are large. Among their findings: Equity investment in emerging relative to total funds under management, funds' flows markets has grown rapidly in the 1990s, much of it are not stable. The cash was held by managers during flowing through mutual funds. Collectively, these funds injections and redemptions do not fluctuate hold a sizable share of market capitalization in emerging significantly, so investors' actions are typically reflected economies. Asian and Latin American funds achieved in emerging market inflows and outflows fastest growth, but are smaller than domestic U.S. funds and world funds. This paper— a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to understand the operation of financial markets and the effects of financial globalization.

Massimo Massa and Rajdeep Patgiri: It discloses the impact of contractual incentives on the performance of mutual funds. It finds that high-incentive contracts induce managers to take more risk and reduce the funds' probability of survival. Yet, funds with high-incentive contracts deliver higher risk-adjusted return, and the superior performance remains persistent. The top incentive quintile of funds performs out the bottom quintile by 2.70% per year. Moreover, high-incentive winner funds from one year have a positive alpha of 0.41% per month in the following year. Focusing on funds' holdings, we show that active portfolio rebalancing is the main channel through which incentives increase performance.

Andrea Frazzini and Owen A. Lamont: They use mutual fund flows as a measure for individual investor sentiment for different stocks, and find that high sentiment predicts low future returns at long horizons. Fund flows are dumb money by reallocating across different mutual funds, retail investors

reduce their wealth in the long run. This dumb money effect is strongly related to the value effect. High sentiment also is associated high corporate issuance, interpretable as companies increasing the supply of shares in response to investor demand.

S.Narayan Rao, et.al.\textsuperscript{17} evaluated performance of Indian mutual funds in a bear market through relative performance index, risk-return analysis, Treynor’s ratio, Sharpe’s ratio, Sharpe’s measure, Jensen’s measure, and Fama’s measure. The study used 269 open-ended schemes (out of total schemes of 433) for computing relative performance index. Then, after excluding funds whose returns are less than risk-free returns, 58 schemes are finally used for further analysis. The results of performance measures suggest that most of mutual fund schemes in the sample of 58 were able to satisfy investor’s expectations by giving excess returns over expected returns based on both premium for systematic risk and total risk.

Bijan Roy\textsuperscript{18} conducted an empirical study on conditional performance of Indian mutual funds. This paper uses a technique called conditional performance evaluation on a sample of eighty-nine Indian mutual fund schemes. This paper measures the performance of various mutual funds with both unconditional and conditional form of CAPM, Treynor - Mazuy model and Hendrickson - Merton model. The effect of incorporating lagged information variables into the evaluation of mutual fund managers’ performance is examined in the Indian context. The results suggest that the use of conditioning lagged information variables improves the performance of mutual fund schemes, causing alphas to shift towards right and reducing the number of negative timing coefficients.

\textsuperscript{17} S. Narayan Rao, M. Ravindran, "Performance Evaluation of Indian Mutual Funds", Working paper.
Mishra, et al\textsuperscript{19} measured mutual fund performance using lower partial moment. In this paper, measures of evaluating portfolio performance based on lower partial moment are developed. Risk from the lower partial moment is measured by taking into account only those states in which return is below a pre-specified "target rate" like risk-free rate.

Kshama Fernandes\textsuperscript{20} has profound a paper entitled "Evaluated index fund implementation in India." In this paper, tracking error of index funds in India is measured. The consistency and level of tracking errors obtained by some well-run index fund suggests that it is possible to attain low levels of tracking error under Indian conditions. At the same time, there do seem to be periods where certain index funds appear to depart from the discipline of indexation.

K. Pendaraki et al\textsuperscript{21} studied construction of mutual fund portfolios, developed a multi-criteria methodology and applied it to the Greek market of equity mutual funds. The methodology is based on the combination of discrete and continuous multi-criteria decision aid methods for mutual fund selection and composition. UTADIS multi-criteria decision aid method is employed in order to develop mutual fund's performance models. Goal programming model is employed to determine proportion of selected mutual funds in the final portfolios.

Zakri Y.Bello\textsuperscript{22} has matched a sample of socially responsible stock mutual funds and matched to randomly selected conventional funds of similar net assets to investigate differences in characteristics of assets held, degree of portfolio diversification and variable effects of diversification on investment

\textsuperscript{20}Kshama Fernandes, "Evaluating index fund implementation in India", Working paper, \url{http://www.nse-india.com/content/research/Paper56.pdf}
performance. The study found that socially responsible funds do not differ significantly from conventional funds in terms of any of these attributes. Moreover, the effect of diversification on investment performance is not different between the two groups. Both groups underperformed the Domini 400 Social Index and S & P 500 during the study period.

In the context of operating companies, Demsetz and Lehn\(^2\) (1985) argue that the structure of corporate ownership varies in systematic ways that are consistent with maximizing shareholder value. The argument we make here is analogous with respect to board structure.

To see this, consider a case where fund management pursues a risky strategy to increase expected mutual fund returns, thereby attracting greater net investment inflows and higher management fees.\(^{24}\) Assume also that the investment strategy is executed in a manner such that investors cannot effectively monitor the increased risk. If subsequently the fund adopted policies and procedures to limit this risk-increasing behavior, the expected return to the mutual fund would decrease. This could lead to the seemingly counter-intuitive result that better governance is associated with lower average returns, and greater conflicts of interest are associated with higher returns.\(^{25}\) To be sure, this example compares to non-risk adjusted returns and this is just one scenario. To the extent investors do not know the true risk of the portfolio, they will compare the returns to an improper benchmark and come to an improper conclusion about fund performance. The relation between expected returns and the existence of agency conflicts is ambiguous; in some instances conflicts may lead to a riskier investment strategy than desired by investors and in others it may be a less risky


strategy. In certain cases, an agency conflict may create poorer performance. Consider the case of a fund that allows certain investors to engage in late trading or market timing in return for some pecuniary benefit. These activities reduce the value of the fund to other investors.

B. Paniswara Raju and K. Mallikarjuna Rao: The research paper evaluates the performance of selected mutual fund schemes in the framework of risk and return during the period April, 2000 to March, 2005.

The performance of measures used are Sharpe ratio, Jensen measure, Treynor ratio, Sharpe differential return measure and Fama's components of performance. The results indicate failure of many selected schemes in outperforming the market, low average beta, disproportionate unsystematic risk, miss-match of the risk and return relationship in some schemes in generating mandated return and negative net selectivity in more number of schemes. These can be mainly attributed to the lack of professional management skills in security analysis and consequent poor stock selection, inadequate diversification on the one hand and highly conservative approach in constructing portfolios when market conditions demand aggressive portfolios on the other hand.

5. Need for the study: Considerable research work has been carried out by other researchers on mutual funds in India. A lot number of seminars, conferences, workshops, symposiums have been held by Universities, institutions and related agencies on the vivid dimensions of mutual funds at global, national and state levels. Luminaries, professionals and academicians' contributions to the policy making and value addition are remarkably copious and relevant on the subject mutual funds. Dedicated

journals, columns in the newspapers and the articles by AMFI speak volumes about the functioning of mutual fund industry in India. However, as far as evaluation of the features of different MF schemes are seldom undertaken in the state of Karnataka. The previous research studies only show the positive aspects of and relative income of the schemes under MFs. Though MF is subjected to market risks but they are also prone to innumerable untold risks. Unfortunately nobody has delved deeper and unraveled the hidden secrets, spurious schemes of the MF operations. This study certainly becomes a harbinger of protection to the small investors to know about the correct scenario of MF industry in India. The current research programme thoroughly evaluates the latent and patent intricacies of select MF schemes in Karnataka.

6. Present study: The present study is undertaken to cover the following: The evaluation of mutual fund schemes performance in various facets like company point of view and investors perceptual view. This section covers the present study.

6.1 Objectives: The specific objectives of the present study are to:

(i) review the processes of MF industry in India;
(ii) examine the schemes of MFs operating in the state of Karnataka;
(iii) analyse the extent of diversification in the portfolio of securities of select MFs;
(iv) evaluate, compare and contrast select public and private sector mutual fund schemes;
(v) evaluate the perceptions of investors of MF schemes.
6.2 Hypotheses: Based on the aforesaid objectives the following hypotheses are formulated and tested to find out the degree and direction of variables.

6.2.1 $H_0$: The extension of risk in MFs is independent of awareness of risk in MFs.

$H_1$: The investment in MFs with higher risk is dependent of awareness of MFs.

6.2.2 $H_0$: There is no association between awareness of malpractices of intermediate agency and cluster of latest development in capital market.

$H_1$: Association between awareness of malpractices of intermediate agencies and MFs.

6.2.3 $H_0$: The overall experience of investors is independent of dealing with electronic mode and elements of MFs.

$H_1$: The overall experience of investors is dependent of dealing with electronic mode and elements of MFs.

6.3 Sampling design: The state of Karnataka constitutes the universe for the present study. There are 43 MFs in the state. Of these, ten MFs are purposely brought into the sample. Five of them belong to public-sector, and private-sector sponsored categories. Out of that, well performing schemes of each company are chosen for the sample with star grading schemes, six schemes from each company. Totally sixty schemes are taken from ten companies. These are spread over Insurance, UTI and banking sector. One thousand investors are chosen conveniently through convenient sampling technique, and the printed questionnaire is given to them, of which eight hundred twenty four filled in questionnaire are received.
6.4 Data collection: The study has made use of both the primary and secondary sources of data. The secondary information is gathered from web sites, S&P CNX NIFTY, CRISIL balanced fund index, AMFI reports, news papers, journals, magazines, CD-Rom and the like. The information collected includes net assets, stock per cent, holdings, market capitalization etc. The primary data from fund managers and sample investor respondents is collected through a questionnaire specially designed for the purpose by personal interview method.

6.5 Tools of analysis: The collected information is processed, tabulated, analyzed and interpreted with the help of appropriate statistical tools. The data is analysed with the help of Statistical Package for Social Sciences (SPSS) and other relevant computer packages. The statistical tools used in the study are: Parametric paired t-test, one-way analysis of variance, correlation, non-parametric chi-square test. Sharpe’s information ratio, Trynor’s ratio, Jensen’s alpha, mean, R-squared, standard deviation, coefficient of variance, was used as the measure of mutual fund portfolio diversification. For testing of hypothesis chi-square test are resorted to. Wherever it was found necessary tables, charts, diagrams and graphs were availed to present the data in a lucid manner.

6.6 Scope and limitation: The domain of the study encompasses the mutual fund schemes performance in Karnataka both public sector and private sector sponsored funds, it includes the banking sector, insurance sector, unit trust of India and private companies, individuals (small, medium and large) Investors, Indian and foreign institutional investors, professionals and the like. The study has beset with certain short comings: The results are based on the given indices and they are influenced by innumerable factors. It is presumed the results are near the truth and not the truth per se. The findings of the current study may go in vain owing to changes in the macro environmental factors in general and mutual funds in particular in course of time. A tinge of subjectivity in the study cannot be ruled out.
6.7. Chapter outline: The data on sample public sector sponsored and private sector sponsored mutual funds of varied net asset value are used to investigate the differences in the characteristics of assets held, portfolio diversification and variable effects of diversification on investment performance for the period between 2003 to 2008. The research report is organized into six chapters. These are:

Chapter – 1   Mutual Fund Industry In India – An Overview
In this chapter, origin of the mutual funds is traced, An insight into the mutual fund industry, significance, regulatory framework, establishments of mutual funds, kinds and schemes of mutual funds, growth of mutual fund, FII, challenges and hurdles of mutual funds and the like are incorporated.

Chapter – 2   Research Design and Methodology of the study
In this chapter the statement of the problem, review of existing literature relating to the topic of research and research design and methodology are provided.

Chapter – 3   Profile of sample mutual fund organizations and investors are described in this chapter.

Chapter – 4 : Evaluation of mutual fund schemes of select organisations. Under this chapter diversification of Mutual Fund schemes, comparison of public and private sector mutual fund schemes analysis are presented.

Chapter – 5 : Investors perceptions, investment pattern and factors affecting investments in mutual fund schemes are covered in this chapter.

Chapter –6 : Summary of findings, suggestions and hints for further research in future are incorporated.

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