

A COMPARATIVE STUDY OF SYSTEMATIC INVESTMENT PLAN AND LUMP SUM IN MUTUAL FUND

Submitted in partial fulfillment of the requirements for the award of
Master of Business Administration

By

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SCHOOL OF BUSINESS ADMINISTRATION

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119**

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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **JIBIN K ANTONY (39410080)** who carried out the project entitled “**A Comparative Study Of Systematic Investment Plan And Lumpsum In Mutual Fund**” under my supervision from January 2021 to March 2021.

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DECLARATION

I, **JIBIN K ANTONY (39410080)** hereby declare that the Project Report entitled **A Comparative Study Of Systematic Investment Plan And Lump sum In Mutual Fund** done by me under the guidance of **Dr.M.LAVANYA** at **SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY, CHENNAI** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

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SIGNATURE OF THE CANDIDATE

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ABSTRACT

This paper aims at helping taxpayers, get a better returns on their investment.

In INDIA, if any individual invest in Equity linked mutual fund scheme, they Get a deduction up to *Rs 1,50,000* under section 80c of the income tax act 1961.

The investor has to make a choice if he/she wants to invest this money as SIP Or Lump sum. The returns in these two will differ. Present paper compares the Performance of 9 Equity linked mutual fund schemes invested in two different Ways by the investors and compares the returns on these investment after the Lock-in period. The result may help the investor better plan his/her investments The result of the study show the SIP is the best option followed by the lump sum Method with lowest possible returns.

Keywords: Mutual fund, Systematic investment plan, Net Asset Value, Asset under Management, Discounting rate .

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CHAPTER- 1

INTRODUCTION

1.1 INTRODUCTION

This project report entitled 'A comparative study of Systematic Investment plan and Lump sum in Mutual fund' is conducted to find out advantageous of SIP and Lump Sum plan in mutual fund.

Saving a part of one's income is most essential for one's own well-being as it acts as a safeguard in time of need. When one put away a regular amount of money, it is best to invest it to maximize the gain. There are a number of investment opportunities to do this. In today's complex financial market, it is becoming increasingly difficult to select the right investment avenues. Each investment carries some risk and that it is vital to choose wisely. One make investment for a higher return than what he can get by keeping the money in a commercial or cooperative bank or even in investment bank. But the return is higher if the risk is also higher. Return and risk go together and they have a trade-off. All investment is risky to some extent or other. The art of investment is to see that the return is maximized with the minimum of risk, which is inherent in investment.

However locating risk relating to market volatility is not always possible. Hence there occurs a need to maximize returns by spreading or averaging risk. Mutual funds professionally managed financial instruments that involve the diversification of investment into a number of financial products, such as shares, bonds and government securities. This helps to reduce investors risk exposure, while increasing the profit potential. a mutual fund is a type of professionally managed collective investment scheme that pools money from man investors to purchase securities. While there is no legal definition for mutual fund, the term is most commonly applied only to those collective investment schemes regularly available to the general public and open ended innature.

Mutual funds are pools of money invested by an investment company on a number of securities like stocks, bonds, or government securities. Because most mutual funds invest in a large number of securities, they offer investors the benefit of diversification, which can help reduce market risk.

Investment to Mutual Funds could be made as Lump sum and in Systematic Investment Plan. Lump sum is the one time investment of a huge amount into Mutual Funds Schemes. Usually big players and investors undertake lump sum investments especially in those stocks related to assets that are likely to appreciate in the long run. But to get the right benefit timing the market is most important.

A Systematic Investment Plan or SIP is a smart and hassle free mode for investing money in mutual funds. SIP allows you to invest a certain pre-determined amount at a regular interval (weekly, monthly, quarterly, etc.). A SIP is a planned approach towards investments and helps you inculcate the habit of saving and building wealth for the future. It has been observed that stocks with good fundamentals are considered one of the best investment avenues. Historically investment in equity stocks has given phenomenal returns amongst all the other asset classes if investment was done with discipline and with long term time horizon. Selection of stocks and decision of the right price to enter is an integral part of equity investment and this is the step where most of the investors falter. Equity Systematic Investment Plan (SIP) is an instrument which helps you avoid the risk of timing the markets and facilitate wealth creation in a disciplined manner by averaging cost of Investments.

1.2 INDUSTRY PROFILE

AN OVERVIEW OF FINANCIAL SERVICES INDUSTRY

The Indian financial services industry has undergone a metamorphosis since 1990. Before its emergence the commercial banks and other financial institutions dominated the field and they met the financial needs of the Indian industry. It was only after the economic liberalization that the financial service sector gained some prominence. Now this sector has developed into an industry. In fact, one of the world's largest industries today is the financial services industry.

Financial service is an essential segment of financial system. Financial services are the foundation of a modern economy. The financial service sector is indispensable for the prosperity of a nation.

Meaning of Financial Services

In general, all types of activities which are of financial nature may be regarded as financial services. In a broad sense, the term financial services means mobilization and allocation of savings. Thus, it includes all activities involved in the transformation of savings into investment. Financial services refer to services provided by the finance industry. The finance industry consists of a broad range of organizations that deal with the management of money. These organizations include banks, credit card companies, insurance companies, consumer finance companies, stock brokers, investment funds and some government sponsored enterprises. Financial services may be defined as the products and services offered by financial institutions for the facilitation of various financial transactions and other related activities. Financial services can also be called financial intermediation. Financial intermediation is a process by which funds are mobilized from a large number of savers and make them available to all those who are in need of it and particularly to corporate customers. There are various institutions which render financial services. Some of the institutions are banks, investment companies, accounting firms, financial institutions, merchant banks, leasing companies, venture capital companies, factoring

companies, mutual funds etc. These institutions provide variety of services to corporate enterprises. Such services are called financial services. Thus, services rendered by financial service organizations to industrial enterprises and to ultimate consumer markets are called financial services. These are the services and facilities required for the smooth operation of the financial markets. In short, services provided by financial intermediaries are called financial services.

Functions of financial services

1. Facilitating transactions (exchange of goods and services) in the economy.
2. Mobilizing savings (for which the outlets would otherwise be much more limited).
3. Allocating capital funds (notably to finance productive investment).
4. Monitoring managers (so that the funds allocated will be spent as envisaged).
5. Transforming risk (reducing it through aggregation and enabling it to be carried by those more willing to bear it).

Scope of Financial Services

The scope of financial services is very wide. This is because it covers a wide range of services.

The financial services can be broadly classified into two:

- a) Fund based services and
- b) Non-fund services (or fee-based services)

Non-fund based Services

Today, customers are not satisfied with mere provision of finance. They expect more from financial service companies. Hence, the financial service companies or financial intermediaries provide services on the basis of non-fund activities also. Such services are also known as fee based services. These include the following:

1. Securitization
2. Merchant banking

3. Credit rating
4. Loan syndication
5. Business opportunity related services
6. Project advisory services
7. Services to foreign companies and NRIs.
8. Portfolio management
9. Merger and acquisition
10. Capital restructuring
11. Debenture trusteeship
12. Custodian services
13. Stock broking

The most important fund based and non-fund based services (or types of services) may be briefly discussed as below:

A. Asset/ Fund Based Service

1. Equipment leasing/Lease financing: A lease is an agreement under which a firm acquires right to make use of a capital asset like machinery etc. on payment of an agreed fee called lease rentals. The person (or the company) which acquires the right is known as lessee. He does not get the ownership of the asset. He acquires only the right to use the asset. The person (or the company) who gives the right is known as lessor.

2 Hire purchase and consumer credit: Hire purchase is an alternative to leasing. Hire purchase is a transaction where goods are purchased and sold on the condition that payment is made in installments. The buyer gets only possession of goods. He does not get ownership. He gets ownership only after the payment of the last installment. If the buyer fails to pay any installment, the seller can repossess the goods. Each installment includes interest also.

3. Bill discounting: Discounting of bill is an attractive fund based financial service provided by the finance companies. In the case of time bill (payable after a specified period), the holder need not wait till maturity or due date. If he is in need of money, he can discount the bill with his banker. After deducting a certain amount (discount), the banker credits the net amount in the customer's account. On the due date, the drawee makes payment to the banker. If he fails to make payment, the banker will recover the amount from the customer who has discounted the bill.

4. Venture capital: Venture capital simply refers to capital which is available for financing the new business ventures. It involves lending finance to the growing companies. It is the investment in a highly risky project with the objective of earning a high rate of return. In short, venture capital means long term risk capital in the form of equityfinance.

5. Housing finance: Housing finance simply refers to providing finance for house building. It emerged as a fund based financial service in India with the establishment of National Housing Bank (NHB) by the RBI in 1988. It is an apex housing finance institution in the country. Till now, a number of specialized financial institutions/companies have entered in the file of housing finance. Some of the institutions are HDFC, LIC Housing Finance, Citi Home, In Bank Housing etc.

6. Insurance services: Insurance is a contract in which the insurance company undertakes to indemnify the insured on the happening of certain event for a payment of consideration. It is a contract between the insurer and insured under which the insurer undertakes to compensate the insured for the loss arising from the risk insuredagainst.

7. Factoring: Factoring is an arrangement under which the factor purchases the account receivables (arising out of credit sale of goods/services) and makes immediate cash payment to the supplier or creditor. The factor undertakes the responsibility of collecting the account receivables. The financial institution (factor) undertakes the risk. For this type of service as well

as for the interest, the factor charges a fee for the intervening period. This fee or charge is called factor age.

8. Forfeiting: Forfeiting is a form of financing of receivables relating to international trade. It is a non-recourse purchase by a banker or any other financial institution of receivables arising from export of goods and services. The exporter surrenders his right to the forfeiter to receive future payment from the buyer to whom goods have been supplied. In short, forfeiting is a technique by which a forfeiter (financing agency) discounts an export bill and pay ready cash to the exporter. The exporter need not bother about collection of export bill. He can just concentrate on export trade

9. Mutual fund: Mutual funds are financial intermediaries which mobilize savings from the people and invest them in a mix of corporate and government securities. The mutual fund operators actively manage this portfolio of securities and earn income through dividend, interest and capital gains. The incomes are eventually passed on to mutual fundshareholders.

B. Non-Fund Based/Fee Based Financial Services

1. Merchant banking: Merchant banking is basically a service banking, concerned with providing non-fund based services of arranging funds rather than providing them. The merchant banker merely acts as an intermediary. Its main job is to transfer capital from those who own it to those who need it. Today, merchant banker acts as an institution which understands the requirements of the promoters on the one hand and financial institutions, banks, stock exchange and money markets on the other. SEBI (Merchant Bankers) Rule, 1992 has defined a merchant banker as, “any person who is engaged in the business of issue management either by making arrangements regarding selling, buying or subscribing to securities or acting as manager, consultant, advisor, or rendering corporate advisory services in relation to such issue management”.

2. Credit rating: Credit rating means giving an expert opinion by a rating agency on the relative willingness and ability of the issuer of a debt instrument to meet the financial obligations in time

and in full. It measures the relative risk of an issuer's ability and willingness to repay both interest and principal over the period of the rated instrument. It is a judgment about a firm's financial and business prospects. In short, credit rating means assessing the Creditworthiness of a company by an independent organization.

3. Stock broking: Now stock broking has emerged as a professional advisory service. Stockbroker is a member of a recognized stock exchange. He buys, sells, or deals in shares/securities. It is compulsory for each stock broker to get himself/herself registered with SEBI in order to act as a broker. As a member of a stock exchange, he will have to abide by its rules, regulations and bylaws.

4. Custodial services: In simple words, the services provided by a custodian are known as custodial services (custodian services). Custodian is an institution or a person who is handed over securities by the security owners for safe custody. Custodian is a caretaker of a public property or securities. Custodians are intermediaries between companies and clients (i.e. security holders) and institutions (financial institutions and mutual funds). There is an arrangement and agreement between custodian and real owners of securities or properties to act as custodians of those who hand over it. The duty of a custodian is to keep the securities or documents under safe custody. The work of custodian is very risky and costly in nature. For rendering these services, he gets a remuneration called custodial charges.

5. Loan syndication: Loan syndication is an arrangement where a group of banks participate to provide funds for a single loan. In loan syndication, a group of banks comprising 10 to 30 banks participate to provide funds wherein one of the banks is the lead manager. This lead bank is decided by the corporate enterprises, depending on confidence in the lead manager.

6. Securitization (of debt): Loans given to customers are assets for the bank. They are called loan assets. Unlike investment assets, loan assets are not tradable and transferable. Thus loan assets are not liquid. The problem is how to make the loan of a bank liquid. This problem can be

solved by transforming the loans into marketable securities. Now loans become liquid. They get the characteristic of marketability. This is done through the process of securitization. Securitization is a financial innovation. It is conversion of existing or future cash flows into marketable securities that can be sold to investors. It is the process by which financial assets such as loan receivables, credit card balances, hire purchase debtors, lease receivables, trade debtors etc. are transformed into securities. Thus, any asset with predictable cash flows can be securitized.

1.3 FINANCIAL SERVICES INDUSTRY IN INDIA

India has a diversified financial sector, which is undergoing rapid expansion. The sector comprises commercial banks, insurance companies, non-banking financial companies, co-operatives, pension funds, mutual funds and other smaller financial entities. The financial sector in India is predominantly a banking sector with commercial banks accounting for more than 60 per cent of the total assets held by the financial system. India's services sector has always served the country's economy well, accounting for about 57 per cent of the gross domestic product (GDP). In this regard, the financial services sector has been an important contributor. The Government of India has introduced reforms to liberalize, regulate and enhance this industry. At present, India is undoubtedly one of the world's most vibrant capital markets. Challenges remain, but the future of the sector looks good. The advent of technology has also aided the growth of the industry. About 75 per cent of the insurance policies sold by 2020 would, in one way or another, be influenced by digital channels during the pre-purchase, purchase or renewal stages, as per a report by Boston Consulting Group (BCG) and Google India.

Investments/Developments

- India has moved a step closer to having a Singapore- or Dubai-like financial hub, with the Securities and Exchange Board of India (SEBI) approving a framework for international financial centers (IFCs)

- The RBI has allowed bonds issued by multilateral financial institutions like World Bank Group, the Asian Development Bank and the African Development Bank in India as eligible securities for interbank borrowing. The move will further develop the corporate bonds market, RBI said in a notification.
- Maharashtra's plans to promote Mumbai as a global financial centre have received further encouragement as Wall Street firm JPMorgan Chase & Co. and the Japanese government arm Japan External Trade Organization (Jetro) agreed to partner with the state government to hold road shows to attract financial services companies to Mumbai.
- Yes Bank Ltd has signed a memorandum of understanding (MoU) with the US government's development finance institution Overseas Private Investment Corp. (OPIC) to explore US\$ 220 million of financing to lend to micro, small and medium enterprises (MSMEs) in India, the bank said in a press release.
- Bandhan Financial Services Pvt. Ltd has raised Rs.1600 crore (US\$ 252.97 million) from two international institutional investors to help convert its microfinance business into a full service bank.
- JP Morgan Asset Management (UK) Ltd, JP Morgan Investment Management Inc. and JP Morgan Chase Bank NA, have acquired a 4.11 per cent stake in Mahindra & Mahindra Financial Services Ltd for Rs.113.75 crore (US\$ 17.98 million).

1.4 Statement of the problem

An investment sector, the Systematic Investment plan and Lump Sum Investment plans are the most relevant investments in the Mutual Funds. Systematic investment plan means, investing with a fixed sum regularly regardless of the NAV or market level, investors automatically buy more units when the markets are low. This results in a lower average price, which transfer to higher returns. Lump sum is the one time investment of a huge amount into Mutual Funds Schemes. Usually big players and investors undertake lump sum investments especially in those stocks related to assets that are likely to appreciate in the long run. But to get the right benefit timing the market is most important.

1.5 Scope of the study

In current scenario where changes are inevitable, most investors want to invest in such investment avenues which will give them fair return. The study reveals those mutual funds are best to invest in by such conservative investors. The scope of the study is that will help to find which plan is more secure to invest in on the basis of the return of the 9 funds that have been selected. The investors will also give the details of 9 best funds from different fund families. The investors will get an idea of how to compare between mutual funds.

1.6 Objectives of the study

- To analyze the returns of Systematic Investment plan and Lump Sum Investment plan of selected mutual funds schemes.
- To compare the Systematic Investment plan and Lump Sum Plan in mutual fund for the last five years.
- To analyze the performance of systematic investment plan and Lump Sum plan for five years

CHAPTER-2

LITERATURE REVIEW

In India, though the Mutual Fund Industry has been in existence since 1964, (with the establishment of UTI); no major study has been carried out regarding the aspect of investor behaviour or preferences with reference to Mutual funds.

Madhusudhan V Jambodekar (1996)¹⁵¹ conducted a study to assess the awareness of MFs among investors, to identify the information sources influencing the buyer decision and the factors influencing the choice of a particular fund. The study revealed that income schemes and open-ended schemes were preferred over growth schemes and close-ended schemes during the prevalent market conditions. Investors looked for Safety of Principal, Liquidity and Capital Appreciation in order of importance; Newspapers and Magazines were the first source of information through which investors get to know about MFs / Schemes and the investor service was the major differentiating factor in the selection of MFs.

V. Raja Rajan (1998)¹⁵² examined the relationship between the stages in life cycle of individual investors, their investment size and their investment in risky assets, on the basis of primary data collected from 405 individual investors. The study revealed that the size of investment in financial assets and the percentage of risky assets in financial investments decline as the investors move up through the various stages in life cycle. It was also found that stage in life cycle of individual investors was an important variable in determining the size of investment in financial assets and the percentage of financial assets in risk category.

R. Shanmugham (2000)¹⁵³ conducted a survey of 201 individual investors to study the information sourcing by investors, their perceptions of various investment strategy dimensions and the factors motivating share investment decisions. It was found that among the various factors, psychological and sociological factors dominate the economic factors in investment decisions.

A. Chakarabarti and H. Rungta (2000)¹³⁴ examined the importance of brand effect in determining the competitive position of the AMCs. Their study revealed that brand image factor, though cannot be easily captured by computable performance measures, influences the investor's perception and fund/scheme selection behavior.

Madhusudan Karmakar (2001)¹³³ attempted to investigate the investment behavior of household sectors of a rural block in West Bengal with a sample of 50 investors. The objective of the study

was to investigate the factors, which play significant role in the choice of investment of households. The study found that LIC was the most popular investment avenue followed by Recurring Deposits in Post Office, Recurring Deposits in Banks and Bank Fixed Deposits. Very few investors who were educated and belong to high-income categories only had invested in shares and debentures. It was concluded that investors in general were risk averse which appeared to decrease with income and education and safety had been given the highest priority in the choice of investment.

Tapan K Panda and Nalini Prava Tripathy (2001)¹⁵⁶ identified important characteristics being considered by the Indian investors in the purchase decision of the mutual funds. They conducted a survey of 350 respondents and used Factor Analysis for identification of the key features preferred by the respondents in a mutual fund product. They found that the buying objective of a mutual fund product by a small investor could be due to multiple reasons depending upon customers risk return trade off.

T. R. Rajeswarl and V.E. Rama Moorthy (2001)¹⁵⁷ conducted a survey of 350 mutual fund investors in 10 Urban and Semi Urban centres to study the factors influencing the fund/scheme selection behaviour of Retail Investors by conducting Factor Analysis using Principal Component Analysis. The survey revealed that the investors were basically influenced by the intrinsic qualities of the product followed by efficient fund management and general image of the fund/scheme in their selection of fund schemes. It was revealed that the investors were influenced by the infrastructural facilities of the sponsor and the reputation enjoyed by the sponsor, in their selection of the schemes. They also found that investors were influenced by the extent and quality of disclosure of information subsequent to their investment regarding disclosure of NAV, portfolio of investment and disclosure of deviation of investment from the stated objectives and the attached fringe benefits to the scheme in their selection of the scheme. Hence, AMCs should take steps to be as transparent as¹²⁹.

M R Shollapur and A B Kuchanur (2008) attempted to measure the degree of investors' agreeableness with the selected perceptions as well as to trace the gaps between their perceptions and the underlying realities. They found that failure to deal with these gaps tends to lead the

investment clientele to a wrong direction and hence, there was a need to help investors develop a realistic perspective of the investment avenues and their attributes.

B. B. S. Parihar et al (2009)¹⁷³ analyzed the impact of different demographic variables on the attitude of investors towards mutual funds. Apart from this, they also focused on the benefits delivered by mutual funds to investors. They surveyed 200 respondents of Agra region, having different demographic profiles. The study revealed that the majority of investors had still not formed any attitude towards mutual fund investments. The main reason behind this had been observed to be the lack of awareness of investors about the concept and working of the mutual funds. They also revealed that in India mutual funds were back in fashion and by the end of August 2006, the assets under management of mutual funds surpassed the figure of Rs. 300,000 Crores. They concluded that there was a lot of scope for the growth of mutual fund companies in India, provided there were funds to satisfy everybody's needs and sharp improvements in service standards and disclosure.

G.S. Popli and D.N. Rao (2009)¹⁷⁴ conducted a survey to find out the response of customers towards provision of Mutual Fund products by Banks and to understand the perception of Indian customers. They used questionnaire using convenient sampling method with a sample size of 100 customers of banks located in and around Delhi. The study reported that the "Customer Relationship Management" should be the focus area for the Mutual Fund companies since as high as 90% of the customers said that they would prefer to buy Mutual Fund Products from banks due to existing personal relationship with banks. The study concluded that opportunities exist for banks to cross-sell Mutual Fund Products in India. These opportunities were based on customer's high usage rate of Mutual Fund Products, the low penetration of banks to Mutual Fund schemes and customer's willingness to buy these products from banks.

Nidhi Walia and Ravi Kiran (2009)¹⁷⁵ conducted a survey to understand the investor's risk and return perception towards mutual funds with a sample of 100 individual investors from different regions of Punjab. The study revealed that the preferences of varied investors who desire to invest in mutual funds but also required some innovations and added quality dimensions in

existing services. The critical gaps identified in the study also provide the key information input regarding the discrepancies in existing framework of mutual funds which could be extremely beneficial to AMCs in designing more lucrative solutions to suit investor's expectations. The study had got significant managerial implications that could be used by AMCs in restructuring their existing practices and finally innovating new ways of service delivery by acknowledging Investor Oriented Service Quality Arrangements (IOSQA).

Abhi jeet Chandra and Dinesh Sharma (2010)¹⁷⁶ identified the major psychological biases that influence the individual investors' behavior and that, in return, may drive a momentum effect in stock returns. The study used a structured questionnaire in which potential investors were asked for their reactions to some specific situations. The study was undertaken within the geographical area of Delhi and National Capital Region (NCR). The results revealed some psychological and cognitive peculiarities. They found that the individual investors' behavior was driven by some psychological factors such as conservatism, under confidence, opportunities, representativeness and informational inferiority complex.

Syed Tabassum Sultana (2010)¹⁷⁷ discussed the characteristics of the Indian individual investors and made an attempt to discover the relationship between a dependent variable i.e., Risk Tolerance level and independent variables such as Age, Gender of an individual investor on the basis of the survey of 150 investors. It was found that the individual investor still prefers to invest in financial products which gave risk free returns. The investment product designers could design products which could cater to the investors who were low risk tolerant. And Television was the media that was largely influencing the investor's decisions as they seem to spend long time watching TVs. of a sample of major mutual fund schemes over the same period would be considered for the analysis. The study used the Granger causality test to analyze these effects. The results of these causality tests would identify the specific macroeconomic factors which affect the returns and volatility of particular mutual fund schemes, would enable fund managers to manage the risk profiles of their portfolios more effectively and would enable investors to understand the specific risk factors affecting their investments, so that they can take more informed investment decisions pertaining to mutual funds.

T.S.Somashekar (2008)¹⁹³ examined the impact of growing fund size on the performance of actively managed funds. It was sought to be studied choosing a sample of diversified equity

funds and controlling for various fund characteristics. He found that the beta adjusted fund performance actually improved with size. But on further decomposition of fund performance into bear and bull phases, it was found that both beta and market adjusted returns were negatively correlated with fund size in bear phases, showing that larger funds found it more difficult to be nimble footed in falling markets. And their better performance in bullish markets help them to show overall better results with increases in size.

D.N. Rao and S.B.Rao (2009)¹⁹⁴ evaluated the performance of 14 balanced mutual fund schemes for the period of April 2006 to April 2009 based on fund size. They found the standard deviation of the performance variables to be significantly low. Correlation coefficients were less than the critical value and the ANOVA of performance variables of Balanced Funds indicated that the observed value of F is less than the critical value, implying that the fund size did not significantly impact the performance of balanced funds. Finally they concluded that there was no conclusive evidence by way of statistical significance to suggest that the fund size affects the performance of Balanced Funds.

Rajesh Chakrabarti (2009)¹⁹⁵ examined the Asset Management Industry (AMI) in India. He reported that AMI consists of a vibrant and rapidly growing mutual funds sector, an insurance sector that is dominated by unit-linked insurance plans, and Venture Capital Funds, both domestic and foreign. Also Foreign Institutional Investors form a category that pool foreign retail or institutional funds and invest in Indian debt and equity. Private Equity funds - both domestic and foreign - constitute a booming segment as well. In the last decade or so, this industry had witnessed a wide range of regulatory changes that have brought about increased competition and a very impressive growth rate. Mutual Funds and Insurance sectors had been opened up to private players only 16 and 8 years ago respectively. Venture Funds had been allowed even more recently. The Indian equity market with its remarkable bull run throughout most of this decade right up to the crisis had boosted major growth in the asset management industry. He also reported that India stands poised at the threshold of major regulatory changes that can open up new segments like Real Estates and Pension Funds to retail investors and private and foreign fund managers. The rapid growth of the sector was likely to continue once the dampening effects of the ongoing crisis are behindus.

D.N.Rao (2010)¹⁹⁶ examined the portfolio turnover strategies of selected 9 equity/growth oriented mutual funds, the effect of portfolio turnover ratio on fund performance and the relationship between Portfolio Turnover Ratio and Fund performance for a period of three years during 30th September 2006 to 30th September 2009 in six half-yearly periods. The effect of change of Portfolio Ratios on Absolute Fund Return (AFR) and Performance of Fund relative to Benchmark index (FPB) was analyzed. The findings of the study were of mixed nature and lacks evidence that was statistically significant to suggest that increase in portfolio turnover ratio would result in enhanced performance of the fund which implies that high portfolio turnover ratios did not necessarily improve the fund performance consistently over a long time period. There was no conclusive evidence to suggest that there was significant relationship between portfolio turnover ratio and measures of fund performance used for this study, absolute fund return and fund performance relative to Benchmarkindex.

D. N. Rao and S. B. Rao (2010)¹⁹⁷ examined the portfolios of the investor groups to identify their propensity for specific fund categories and identify the dominant investor groups in terms of quantum of investment and investor folios. Ten hypotheses had been formulated and tested for statistical significance. The study found that Corporate were the dominant investor group in the Indian Mutual Fund Industry and they were more oriented towards non-equity funds which offer high security & liquidity and hence their propensity towards Liquid/Money Market and Debt-oriented funds; The second dominant group in the industry was the Retail investors' group and the portfolio of this group was highly skewed towards equity oriented schemes which offer high return, capital appreciation coupled with high risk. The volatility in Indian stock markets and mutual funds was attributed to Foreign Institutional investors. The study brought to the fore that the Files were not in a position to influence the trading patterns in the industry. The findings of the study had significant implications for AMCs and their fund managers in terms of structuring their product offerings, investment philosophies, asset allocation and marketing strategies.

CHAPTER-3

RESEARCH METHODOLOGY

Research methodology

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. When we talk of research methodology we not only talk of the research methods but also consider the logic behind the methods we use in the context of our research study and explain why are using a particular method or technique and why we are not using others so that research results are capable of being evaluated either by the researcher himself or by others.

In this study, I have selected 9 mutual funds of 9 different fund families but of the same growth scheme. Thus it will help in comparison and also the data of five years are collected and values under the two plans are calculated. The analysis of those values helped to find the returns for comparison.

3.1 Types of research

Descriptive and narrative research was used. Nine mutual funds are in turn selected on the basis of market capitalization and past performance. It will give the investor an idea about the financial performance of mutual funds wherein he could make his investment.

3.2 Research design

Research design is purely and simply the framework or plane for a study that guides the collection and analysis of data. It is blue print that is followed in completing a study. The research design specifies the methods, data collection and data analysis.

3.3 Sources of data

There are mainly two types of data, Primary data and secondary data. Primary data is one where the researcher freshly collects and uses in his study. Whereas secondary data are those which were collected by someone else who has collected for his needs. These can be mainly published or unpublished. The data that is used here is secondary data and has been collected from published source of various sites that were important for my study. Due care was taken for its analysis and interpretation. Secondary data has been collected from various sources such as

- ❖ Publications of the company
- ❖ Business magazines
- ❖ Journals, textbooks
- ❖ Website of RBI, NSE, BSE

3.4 Data processing and analysis plan

The data that were collected from secondary sources were processed and made into a table and chart format for easy analysis. Analysis was made on the basis of findings the values of each plan for each month. Then they were analyzed by making charts again to compare between the 9 mutual funds. Returns of each fund under SIP and Lump Sum plan was then calculated and compared.

3.5 DURATION OF THE STUDY

Six weeks

3.6 TOOLS FOR DATA ANALYSIS

Return

$$\text{StandardReturn} = (\text{Ending Value} - \text{Beginning Value}) / \text{Beginning Value} * 100$$

3.7 LIMITATIONS OF THE STUDY

- The analysis is based on historical data. The past performance may not always indicate the future performance of the scheme and no AMC guarantees return and safety of principal amount being invested.
- The study is based on secondary data. So the analysis may not be perfect and may be sometimes biased.
- Data for 5 years was only taken for analysis so it may not give an accurate result.
- Period of the study is also small and it is one of the main limitations of the study.

CHAPTER-3

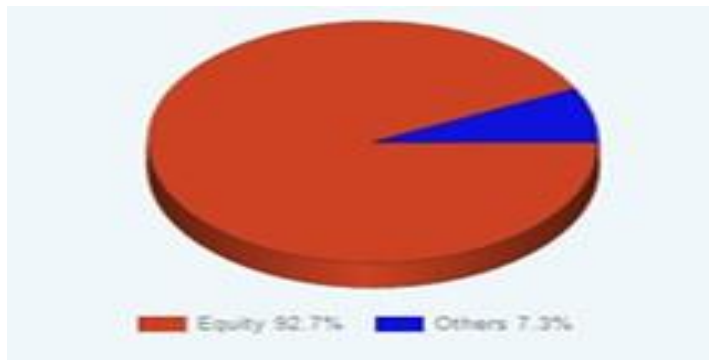
DATA ANALYSIS & INTERPRETATIONS

FRANKLIN INDIA OPPORTUNITIES FUND- GROWTH (G)

Description	Franklin Templeton has over 200 different open ended mutual funds and 7 close ended funds in the fund family. Included in these are 36 state and federal tax free income funds, an area of investment pioneered by Franklin.
Objective	The scheme aims to generate capital appreciation by capitalising on the long-term growth opportunities in the Indian Economy. The scheme will invest in a broad range of stocks without any limitation either qualitative or quantitative and across market capitalisation.
Fund Family	Franklin Templeton Mutual Fund
Type	Open-ended
Class	Equity
Category	Multi Cap
Options	Dividend
NAV	Rs.54.9561
AUM	7424.52
Fund Size in Rs Cr	450.36
Face Value (Rs/Unit)	10.00
Minimum Initial Investment	5000
Fund Manager	Hari Shyamsunder
SIP	Yes
Load Structure	Entry Load 0.00 Exit Load 1%
Expense Ratio	2.82

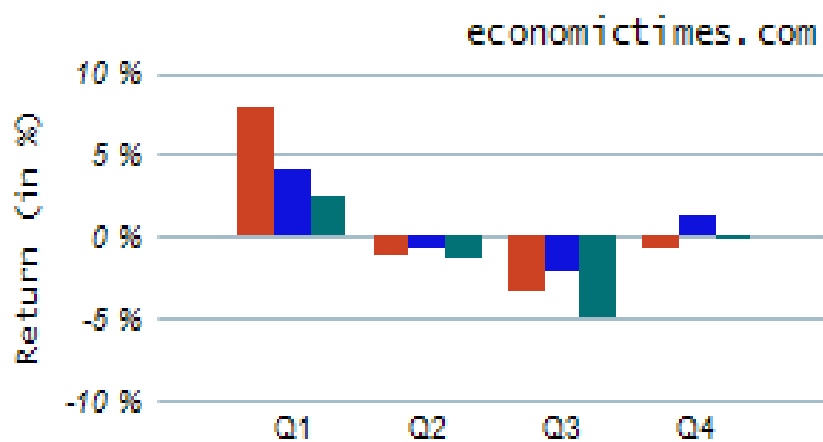
Benchmark	S&P BSE 200
Risk Factor	Moderately High

ASSET ALLOCATION

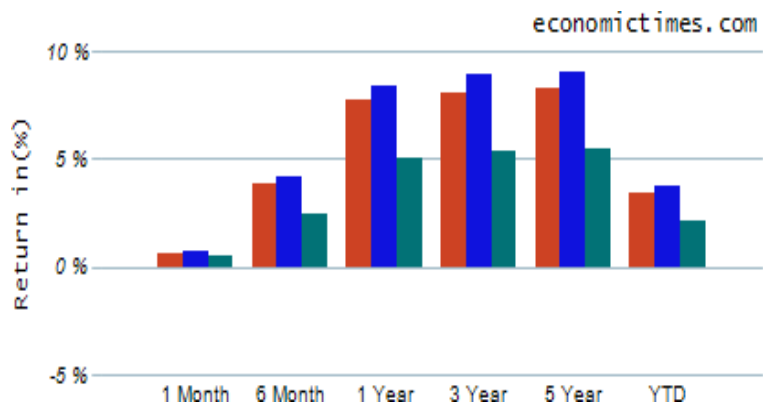


RETURNS

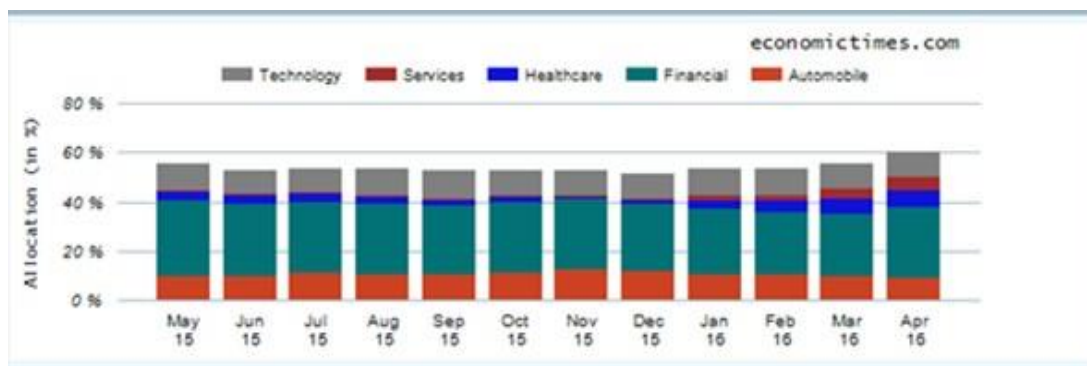
Quarterly Returns



Annual Returns



SECTOR ALLOCATION



PERFORMANCE

BEST AND WORST PERFORMANCE (Last One Year)

Performance	Best (In %) Period	Worst (In %) Period
Month	32.39 (May 11, 2009 – Jun 10, 2009)	-34.53 (May 12, 2006 – Jun 13, 2006)
Quarter	77.94 (Mar 09, 2009 – Jun 10, 2009)	-38.91 (Sep 02, 2008 – Dec 02, 2008)
Year	122.86 (Apr 23, 2003 – Apr 22, 2004)	-60.15 (Jan 14, 2008 – Jan 13, 2009)

PORTFOLIO

PORTFOLIO SUMMARY

Total Market Value (mil) 5,209.3970 INR	Top 10 Equity Holding (%) 39.0744	Market Capital (mil) 465629
Number of Holdings (L) 46	Number of Stock Holdings (L) 41	Number of Bond Holdings (L) 0
Number of Holdings (S) 0	Number of Stock Holdings (S) 0	Number of Bond Holdings (S) 0
Earnings Yield 0.0490	Book Value Yield 0.3626	Revenue Yield 0.5968

DATA ANALYSIS

**TABLE SHOWING CALCULATION OF SIP AND LUMP SUM
VALUE OF FRANKLIN INDIA OPPORTUNITIES FUND(G)**

FRANKLIN INDIA OPPORTUNITIES FUND (G)								
Date	NAV	SIP Investment					Lump sum Investment	
		Investment	Unit	Total Unit	Total Investment	Value	Total unit	Value
01-Apr-11	31.733	10000	315.1294	315.1294	10000	10000	18907.76164	600000
01-May-11	31.061	10000	321.9471	637.0764969	20000	19788.23	18907.76164	587293.98
01-Jun-11	30.888	10000	323.7503	960.8268206	30000	29678.02	18907.76164	584022.94
01-Jul-11	31.164	10000	320.8831	1281.709891	40000	39943.21	18907.76164	589241.48
01-Aug-11	30.99	10000	322.6847	1604.394628	50000	49720.19	18907.76164	585951.53
01-Sep-11	28.814	10000	347.0535	1951.448144	60000	56229.03	18907.76164	544808.24
01-Oct-11	27.496	10000	363.6893	2315.137407	70000	63657.02	18907.76164	519887.81
01-Nov-11	29.254	10000	341.8336	2656.971003	80000	77727.03	18907.76164	553127.66
01-Dec-11	27.63	10000	361.9254	3018.896446	90000	83412.11	18907.76164	522421.45
01-Jan-12	26.032	10000	384.1426	3403.03904	100000	88587.91	18907.76164	492206.85
01-Feb-12	28.998	10000	344.8514	3747.890409	110000	108681.3	18907.76164	548287.27
01-Mar-12	29.581	10000	338.0548	4085.945241	120000	120866.3	18907.76164	559310.5
01-Apr-12	29.643	10000	337.3478	4423.293013	130000	131119.7	18907.76164	560482.78
01-May-12	28.917	10000	345.8173	4769.110353	140000	137908.4	18907.76164	546755.74
01-Jun-12	26.863	10000	372.2592	5141.369594	150000	138112.6	18907.76164	507919.2
01-Jul-12	28.821	10000	346.9692	5488.338818	160000	158179.4	18907.76164	544940.6
01-Aug-12	28.818	10000	347.0053	5835.344162	170000	168162.9	18907.76164	544883.87
01-Sep-12	28.817	10000	347.0174	6182.361547	180000	178157.1	18907.76164	544864.97
01-Oct-12	31.143	10000	321.0994	6503.460992	190000	202537.3	18907.76164	588844.42
01-Nov-12	30.158	10000	331.587	6835.047967	200000	206131.4	18907.76164	570220.28
01-Dec-12	32.556	10000	307.163	7142.211009	210000	232521.8	18907.76164	615561.09
01-Jan-13	33.494	10000	298.5609	7440.771945	220000	249221.2	18907.76164	633296.57
01-Feb-13	33.116	10000	301.9688	7742.740782	230000	256408.6	18907.76164	626149.43
01-Mar-13	31.009	10000	322.487	8065.227802	240000	250094.6	18907.76164	586310.78
01-Apr-13	30.439	10000	328.5259	8393.753706	250000	255497.5	18907.76164	575533.36
01-May-13	31.731	10000	315.1492	8708.902929	260000	276342.2	18907.76164	599962.18
01-Jun-13	31.622	10000	316.2355	9025.138462	270000	285392.9	18907.76164	597901.24
01-Jul-13	31.414	10000	318.3294	9343.467869	280000	293515.7	18907.76164	593968.42
01-Aug-13	29.726	10000	336.4058	9679.873709	290000	287743.9	18907.76164	562052.12
01-Sep-13	28.359	10000	352.6217	10032.49545	300000	284511.5	18907.76164	536205.21

01-Oct-13	30.236	10000	330.7316	10363.22703	310000	313342.5	18907.76164	571695.08
01-Nov-13	33.274	10000	300.535	10663.76198	320000	354826	18907.76164	629136.86
01-Dec-13	33.409	10000	299.3205	10963.08252	330000	366265.6	18907.76164	631689.41
01-Jan-14	33.948	10000	294.5682	11257.65069	340000	382174.7	18907.76164	641880.69
01-Feb-14	32.129	10000	311.2453	11568.89598	350000	371697.1	18907.76164	607487.47
01-Mar-14	33.376	10000	299.6165	11868.51247	360000	396123.5	18907.76164	631065.45
01-Apr-14	36.617	10000	273.0972	12141.60967	370000	444589.3	18907.76164	692345.51
01-May-14	37.125	10000	269.3603	12410.96994	380000	460757.3	18907.76164	701950.65
01-Jun-14	41.73	10000	239.6358	12650.60569	390000	527909.8	18907.76164	789020.89
01-Jul-14	43.756	10000	228.5401	12879.14578	400000	563539.9	18907.76164	827328.02
01-Aug-14	43.904	10000	227.7697	13106.91545	410000	575446	18907.76164	830126.37
01-Sep-14	48.024	10000	208.2292	13315.14467	420000	639446.5	18907.76164	908026.34
01-Oct-14	48.19	10000	207.5119	13522.65661	430000	651656.8	18907.76164	911165.03
01-Nov-14	51.365	10000	194.6851	13717.3417	440000	704591.3	18907.76164	971197.18
01-Dec-14	54.096	10000	184.8566	13902.19825	450000	752053.3	18907.76164	1022834.3
01-Jan-15	53.786	10000	185.922	14088.12024	460000	757743.6	18907.76164	1016972.9
01-Feb-15	57.551	10000	173.7589	14261.87917	470000	820785.4	18907.76164	1088160.6
01-Mar-15	59.896	10000	166.9561	14428.83522	480000	864229.5	18907.76164	1132499.3
01-Apr-15	58.628	10000	170.567	14599.40219	490000	855933.8	18907.76164	1108524.2
01-May-15	56.411	10000	177.2704	14776.67258	500000	833566.9	18907.76164	1066605.7
01-Jun-15	57.88	10000	172.7713	14949.44383	510000	865273.8	18907.76164	1094381.2
01-Jul-15	57.863	10000	172.822	15122.26584	520000	875019.7	18907.76164	1094059.8
01-Aug-15	59.186	10000	168.9589	15291.22472	530000	905026.4	18907.76164	1119074.8
01-Sep-15	54.017	10000	185.1269	15476.35162	540000	835986.1	18907.76164	1021340.6
01-Oct-15	55.213	10000	181.1168	15657.46839	550000	864495.8	18907.76164	1043954.2
01-Nov-15	55.84	10000	179.0831	15836.55148	560000	884313	18907.76164	1055809.4
01-Dec-15	55.735	10000	179.4205	16015.97195	570000	892650.2	18907.76164	1053824.1
01-Jan-16	55.125	10000	181.4059	16197.37785	580000	892880.5	18907.76164	1042290.4
01-Feb-16	51.547	10000	193.9977	16391.37556	590000	844926.2	18907.76164	974638.39
01-Mar-16	48.818	10000	204.8425	16596.21804	600000	810194.2	18907.76164	923039.11
TOTAL INVESTMENT						600000		600000
TOTAL UNIT						16596.2		18907.76
AVERAGE UNIT PRICE						36.1528		31.733

RETURN

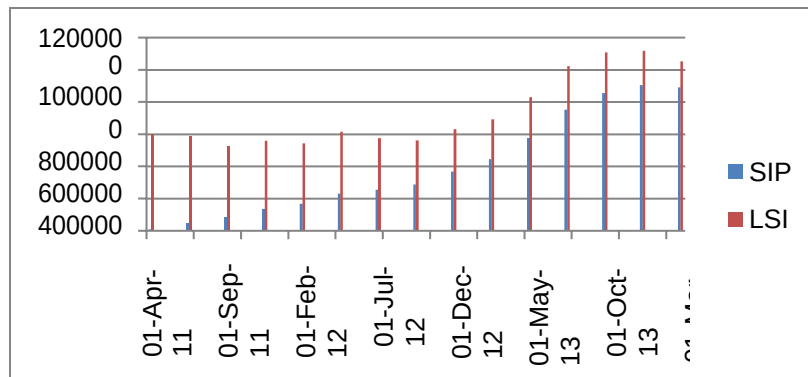
a) **Standard return = (Ending Value – Beginning Value)/ Beginning Value*100**

$$\begin{aligned}\text{Beginning Value} &= \text{Total Unit * Average Unit Price} \\ &= 16596.218 * 36.15282 \\ &= \underline{600000} \\ \text{SIP} &= (810194.2 - 600000) / 600000 * 100 \\ &= \underline{35.0323}\end{aligned}$$

Lump Sum = (Ending Value – Beginning Value)/ Beginning Value*100

$$\begin{aligned}\text{Lump Sum} &= (923039.1 - 600000) / 600000 * 100 \\ &= \underline{53.83985}\end{aligned}$$

CHART SHOWING THE COMPARISON OF SIP VALUE AND LUMP SUMVALUE OF FRANKLIN INDIA OPPORTUNITIES FUND-GROWTH



Interpretation

This graph shows the comparison of SIP value and Lump Sum value of FRANKLIN INDIA OPPORTUNITIES FUND-GROWTH. In April 2011 the NAV of the mutual fund is 31.733. Then NAV is increased gradually in every year. So the unit purchased in SIP is decreased. After 5 years SIP value is increased up to 810194.2. But in the case of Lump sum plan the unit purchased is constant so its value increased with increase of NAV and its value is 923039.

b) **CAGR (Last fiveyear)**

$$\begin{aligned}
 \text{CAGR (Lastfiveyear)} &= [\text{Nth root of (NAV at the end/ NAV at the beginning)}] - 1 * 100 \\
 &= [5\sqrt{(48.818/31.733)}] - 1 * 100 \\
 &= \underline{\underline{8.99}}
 \end{aligned}$$

1. **RATIOS**

Market Index Return (X)	X ²	Stock Index Return (Y)	Y ²	XY
-4.110	16.8921	-0.152	0.0231	0.62472
19.903	396.12941	15.19	230.736	4592.3406
9.653	93.180409	0.476	0.22658	2.18713813
13.161	173.21192	36.672	1344.84	17699.3811
-6.922	47.914084	-5.664	32.0809	-222.063962
$\Sigma X =$ 31.695	$\Sigma X^2 =$ 727.32792	$\Sigma Y =$ 46.522	$\Sigma Y^2 =$ 1607.9023	$\Sigma XY =$ 1474.21

$$\begin{aligned}
 \text{Coefficient of correlation} &= \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2} \sqrt{N\sum Y^2 - (\sum Y)^2}} \\
 &= \frac{5 \cdot 1474.21 - (31.695)(46.522)}{\sqrt{5 \cdot 727.32792 - (31.695)^2} \sqrt{5 \cdot 1607.9023 - (46.522)^2}} \\
 &= \frac{108888.299}{332.783} \\
 &= \underline{\underline{-232.79}}
 \end{aligned}$$

BETA

$$\begin{aligned}
 \text{Beta Value}(\beta) &= \frac{N\sum XY - (\sum X)(\sum Y)}{N\sum X^2 - (\sum X)^2} \\
 &= \frac{5 \cdot 1474.21 - (31.685)(46.522)}{5 \cdot 727.32792 - (31.685)^2} \\
 &= \frac{5896.81}{2632.700} \\
 &= \underline{\underline{2.23}}
 \end{aligned}$$

ALPHA

$$\begin{aligned}\text{Alpha Value } (\alpha) &= \bar{y} - \beta \bar{x} \\ &= 9.304 - (2.23 * 6.337) \\ &= \underline{\underline{-4.82}}\end{aligned}$$

$$\begin{aligned}\text{S.D of Stock Return} &= \sqrt{\frac{N \Sigma y^2 - (\Sigma y)^2}{N^2}} \\ &= \sqrt{\frac{5 * 1607.9023 - (46.522)^2}{5^2}} \\ &= \underline{\underline{15.32}}\end{aligned}$$

SHARPE RATIO

$$\begin{aligned}\text{SharpeRatio} &= \frac{R_i - R_f}{\text{S.D}} \\ &= \frac{8.99 - 7.6}{15.32} \\ &= \underline{\underline{5.92}}\end{aligned}$$

TREYNOR'S RATIO

$$\text{Treynor'sRatio} = \frac{R_i - R_f}{\beta}$$

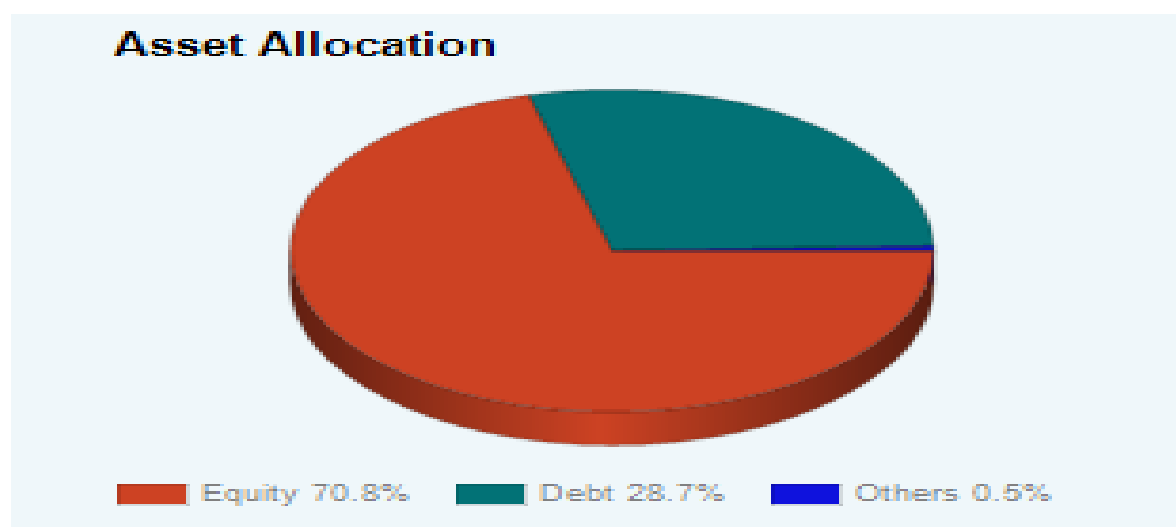
$$= \frac{8.996 - 7.6}{}$$

Description	HDFC Balanced fund is a balanced fund which invests your money in both equity securities and debt securities. It has more than 66% exposure to equity and 32% exposure to debt. Its equity portion has mid cap bias which means most of your money will be invested in stocks of medium sized and small sized companies. HDFC Balanced fund has 38.87% exposure to mid-sized companies, 34.56% exposure to large size companies and 24.27% exposure to small sized companies. Its debt portion has allocation in corporate debentures and government securities. It currently holds close to 1% of its assets in cash and equivalents such as T-bills, banker's acceptance and money market instruments. 11-09-2000
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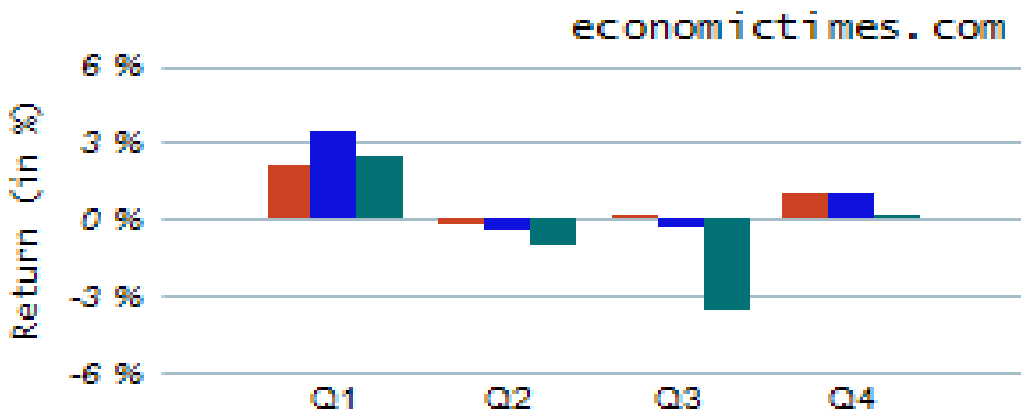
$$= \frac{2.23}{0.62}$$

HDFC BALANCED FUND

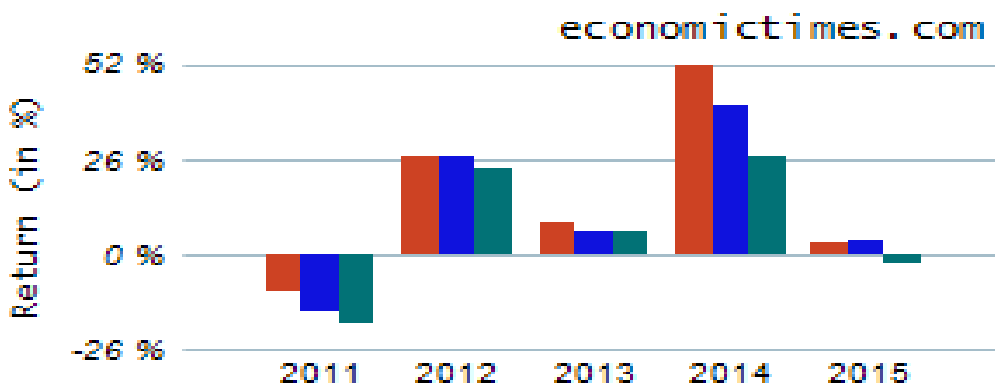
Objective	To generate objective capital appreciation along with current income from a combined portfolio of equity and equity related & debt and money market instruments
Fund Family	HDFC Mutual Fund
Type	Open-ended
Class	Hybrid
Category	Equity-oriented
Options	Growth
NAV	Rs 107.43
AUM	Rs 5282.23 Cr
Fund Size	Rs 4879.06 Cr
Face Value	Rs 10.00
Minimum Initial investment	Rs 5000
Fund Manager	Chirag Setalvad and Rakesh Vyas
SIP	Available
Load Structure	Entry-NILExit-1.00%
Expense Ratio	2.09%
Benchmark	CRISIL Balance Fund- Aggressive Index
Risk Factor	Moderately High



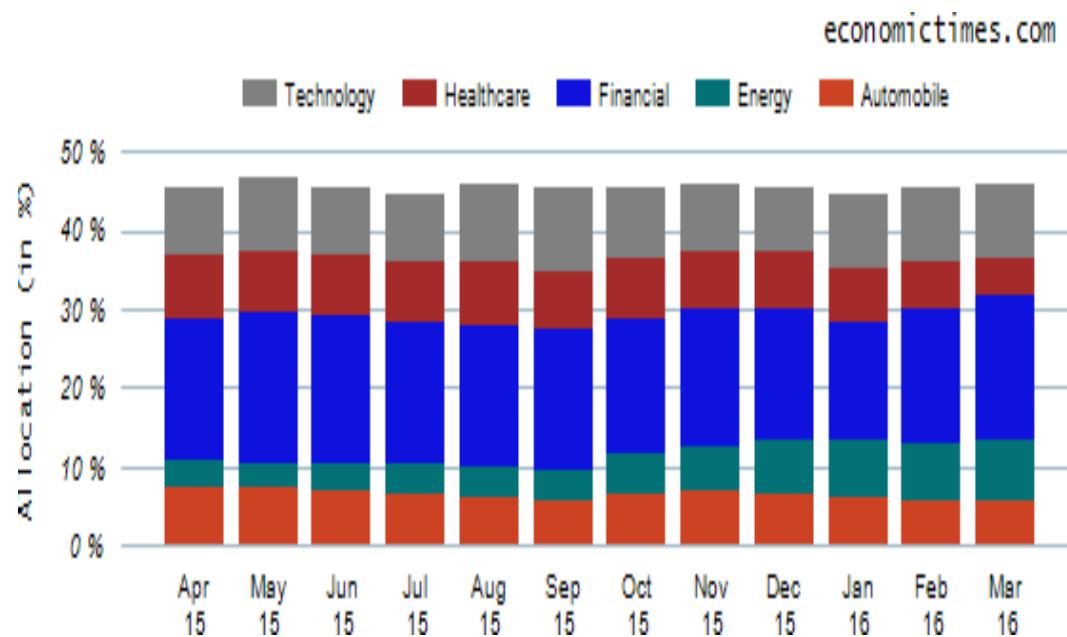
QUARTERLY RETURN



ANNUAL RETURNS



SECTOR ALLOCATION



BEST AND WORST PERFORMANCE:

Performance	Best (Period)	Worst (Period)
Month	23.11 (May 11, 2009 - Jun 10, 2009)	-25.59 (Sep 26, 2008 - Oct 27, 2008)
Quarter	59.06 (Mar 09, 2009 - Jun 10, 2009)	-31.66 (Sep 02, 2008 - Dec 02, 2008)
Year	100.65 (Mar 09, 2009 - Mar 11, 2010)	-39.43 (Jan 14, 2008 - Jan 13, 2009)

PORTFOLIO SUMMARY:

Total Market Value (mil) 52,822.3100 INR	Top 10 Equity Holding(%) 30.7223	Market Capital (mil) 405855
Number of Holdings (L) 94	Number of Stock Holdings (L) 66	Number of Bond Holdings (L) 25
Number of Holdings (S) 1	Number of Stock Holdings (S) 0	Number of Bond Holdings (S) 0
Earnings Yield 0.0611	Book Value Yield 0.4877	Revenue Yield 0.8511
Avg Credit Quality Government	Yield to Maturity 8.0997	Modified Duration 6.4241

DATA ANALYSIS

**TABLE SHOWING CALCULATION OF SIP AND LUMP SUM VALUE OF
HDFC BALANCEDFUND**

HDFC BALANCED FUND								
		SIP Investment					Lump sum Investment	
Date	NAV	Investment	Units	Total Unit	Total Investment	Value	Total Unit	Value
01-Apr-11	55.069	10000	181.5904	181.5903684	10000	10000	10895.422	600000
01-May-11	56.391	10000	177.3333	358.9236308	20000	20240.06	10895.42	614403.6292
01-Jun-11	57.006	10000	175.4201	534.3437621	30000	30460.8	10895.42	621104.3125
01-Jul-11	57.617	10000	173.5599	707.9036489	40000	40787.28	10895.42	627761.4141
01-Aug-11	58.152	10000	171.9631	879.86678	50000	51166.01	10895.42	633590.4638

01-Sep-11	55.335	10000	180.7174	1060.584228	60000	58687.43	10895.42	602898.0657
01-Oct-11	54.084	10000	184.8976	1245.481795	70000	67360.64	10895.42	589267.8953
01-Nov-11	56.029	10000	178.479	1423.960797	80000	79783.1	10895.42	610459.4872
01-Dec-11	53.566	10000	186.6856	1610.646381	90000	86275.88	10895.42	583624.0677
01-Jan-12	191.113	10000	52.32506	1662.971445	100000	317815.5	10895.42	2082256.402
01-Feb-12	207.67	10000	48.15332	1711.124766	110000	355349.3	10895.42	2262651.871
01-Mar-12	214.815	10000	46.55168	1757.67645	120000	377575.3	10895.42	2340499.647
01-Apr-12	214.167	10000	46.69253	1804.368984	130000	386436.3	10895.42	2333439.415
01-May-12	205.965	10000	48.55194	1852.920922	140000	381636.9	10895.42	2244075.18
01-Jun-12	55.576	10000	179.9338	2032.854707	150000	112977.9	10895.42	605523.8619
01-Jul-12	58.46	10000	171.0571	2203.91184	160000	128840.7	10895.42	636946.2532
01-Aug-12	58.631	10000	170.5582	2374.470077	170000	139217.6	10895.42	638809.37
01-Sep-12	57.787	10000	173.0493	2547.519379	180000	147213.5	10895.42	629613.6355
01-Oct-12	63.376	10000	157.7884	2705.307816	190000	171451.6	10895.42	690508.1379
01-Nov-12	61.917	10000	161.5065	2866.814349	200000	177504.5	10895.42	674611.7201
01-Dec-12	62.54	10000	159.8977	3026.712014	210000	189290.6	10895.42	681399.5668
01-Jan-13	64.365	10000	155.3639	3182.075954	220000	204814.3	10895.42	701283.7083
01-Feb-13	63.914	10000	156.4602	3338.536198	230000	213379.2	10895.42	696369.8739
01-Mar-13	61.287	10000	163.1667	3501.702938	240000	214608.9	10895.42	667747.6055
01-Apr-13	60.827	10000	164.4007	3666.103615	250000	222998.1	10895.42	662735.7123
01-May-13	61.72	10000	162.022	3828.12565	260000	236271.9	10895.42	672465.3224
01-Jun-13	60.407	10000	165.5437	3993.669379	270000	241245.6	10895.42	658159.6359
01-Jul-13	58.156	10000	171.9513	4165.620682	280000	242255.8	10895.42	633634.0455
01-Aug-13	58.718	10000	170.3055	4335.92621	290000	254596.9	10895.42	639757.2716
01-Sep-13	57.527	10000	173.8314	4509.757628	300000	259432.8	10895.42	626780.8263
01-Oct-13	60.24	10000	166.0027	4675.760284	310000	281667.8	10895.42	656340.1008
01-Nov-13	65.037	10000	153.7586	4829.518914	320000	314097.4	10895.42	708605.4305
01-Dec-13	66.662	10000	150.0105	4979.529415	330000	331945.4	10895.42	726310.488
01-Jan-14	69.688	10000	143.4967	5123.026143	340000	357013.4	10895.42	759280.029
01-Feb-14	68.651	10000	145.6643	5268.690445	350000	361700.9	10895.42	747981.4784
01-Mar-14	71.292	10000	140.2682	5408.958638	360000	385615.5	10895.42	776756.2826
01-Apr-14	74.266	10000	134.6511	5543.609757	370000	411701.7	10895.42	809159.2617
01-May-14	77.046	10000	129.7926	5673.402348	380000	437113	10895.42	839448.5293
01-Jun-14	85.609	10000	116.8101	5790.212497	390000	495694.3	10895.42	932746.0108
01-Jul-14	90.974	10000	109.9215	5900.134013	400000	536758.8	10895.42	991199.9391
01-Aug-14	90.63	10000	110.3387	6010.472753	410000	544729.1	10895.42	987451.9146
01-Sep-14	95.088	10000	105.1657	6115.638494	420000	581523.8	10895.42	1036023.697
01-Oct-14	96.462	10000	103.6678	6219.30626	430000	599926.7	10895.42	1050994.004
01-Nov-14	100.141	10000	99.8592	6319.165458	440000	632807.5	10895.42	1091078.254
01-Dec-14	103.947	10000	96.20287	6415.368331	450000	666858.3	10895.42	1132546.223
01-Jan-15	105.461	10000	94.82178	6510.190113	460000	686571.2	10895.42	1149041.889

01-Feb-15	108.569	10000	92.10732	6602.297437	470000	716804.8	10895.42	1182904.854
01-Mar-15	110.115	10000	90.81415	6693.111585	480000	737012	10895.42	1199749.173
01-Apr-15	108.429	10000	92.22625	6785.337835	490000	735727.4	10895.42	1181379.495
01-May-15	107.072	10000	93.3951	6878.732933	500000	736519.7	10895.42	1166594.41
01-Jun-15	108.03	10000	92.56688	6971.299813	510000	753109.5	10895.42	1177032.223
01-Jul-15	108.102	10000	92.50523	7063.80504	520000	763611.5	10895.42	1177816.693
01-Aug-15	110.781	10000	90.26819	7154.073226	530000	792535.4	10895.42	1207005.523
01-Sep-15	105.556	10000	94.73644	7248.80967	540000	765155.4	10895.42	1150076.954
01-Oct-15	107.534	10000	92.99384	7341.803513	550000	789493.5	10895.42	1171628.094
01-Nov-15	108.478	10000	92.18459	7433.988104	560000	806424.2	10895.42	1181913.371
01-Dec-15	108.435	10000	92.22115	7526.20925	570000	816104.5	10895.42	1181444.868
01-Jan-16	108.987	10000	91.75406	7617.963313	580000	830259	10895.42	1187459.14
01-Feb-16	103.058	10000	97.03274	7714.996051	590000	795092.1	10895.42	1122860.194
01-Mar-16	98.972	10000	101.0387	7816.034729	600000	773568.6	10895.42	1078341.508
TOTAL INVESTMENT AMOUNT						600000		600000
TOTAL UNIT						7816.04		10895.42
AVERAGE UNIT PRICE						76.7653		55.06901

RETURN

a) Standard return = (Ending Value – Beginning Value)/ BeginningValue*100

BeginningValue = Total Unit * Average UnitPrice

= 7816.04* 76.7653

= 600000

SIP = (773568.6-600003.39)/600003.39*100

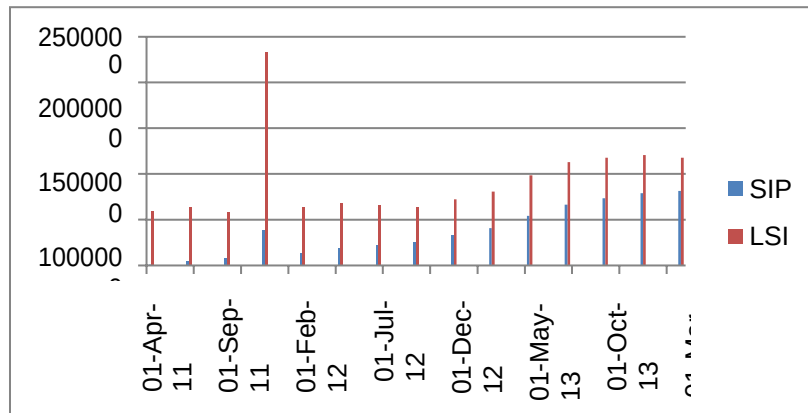
= 28.93%

Lump Sum = (Ending Value – Beginning Value)/ Beginning Value*100

Lump sum = (1078342-599999.99)/599999.99*100

$$= 79.72\%$$

CHART SHOWING THE COMPARISON OF SIP VALUE AND LUMP SUM VALUE OF HDFC BALANCED FUND



Interpretation

This graph shows the comparison of SIP value and Lump Sum value of HDFC BALANCED FUND. In April 2011 the NAV of the mutual fund is 55.069. Then it increased but unit purchased is decreased. After 5 years SIP value is increased up to 773568.6 and Lump sum value is 1078341.508.

b) CAGR (Last fiveyear)

$$\text{CAGR (Lastfiveyear)} = [\text{Nth root of (NAV at the end / NAV at the beginning)}] - 1 * 100$$

$$= 5\sqrt{(98.972/55.069)} - 1 * 100$$

$$= \underline{12.44}$$

2. RATIOS

Market Index Return (X)	X ²	Stock Index Return (Y)	Y ²	XY
-6.521	42.523441	-9.660	93.3156	62.99286
23.912	571.783744	0.213	0.045369	5.093256
12.796	163.737616	0.372	0.138384	4.760112
1.775	3.150625	25.096	629.809216	44.5454
-5.864	34.386496	2.247	5.049009	-13.16408
$\Sigma X =$ 26.098	$\Sigma X^2 =$ 815.51922	$\Sigma Y =$ 18.268	$\Sigma Y^2 =$ 728.357578	$\Sigma XY =$ 104.21522

$$\begin{aligned}
 \text{Coefficient of correlation} &= \frac{\Sigma XY - (\Sigma X * \Sigma Y)}{\sqrt{\Sigma X^2 - (\Sigma X)^2} * \sqrt{\Sigma Y^2 - (\Sigma Y)^2}} \\
 &= \frac{5 * 104.21522 - (26.098 * 18.268)}{\sqrt{5 * 815.51922 - (26.098)^2} * \sqrt{5 * 728.357578 - (18.268)^2}} \\
 &= \frac{44.3178}{3060.5893} \\
 &= \underline{\underline{0.014}}
 \end{aligned}$$

BETA

$$\begin{aligned}\text{Beta Value } (\beta) &= \frac{N\sum XY - (\sum X * \sum Y)}{N\sum X^2 - (\sum X)^2} \\&= \frac{5*104.21522 - (26.098*18.268)}{5*815.51922 - (26.098)^2} \\&= \frac{44.3178}{3396.490} \\&= \underline{\underline{0.013}}\end{aligned}$$

ALPHA

$$\begin{aligned}\text{Alpha Value } (\alpha) &= \bar{y} - \beta \bar{x} \\&= 3.6 - (0.013 * 5.21) \\&= \underline{\underline{3.532}}\end{aligned}$$

S.D of Stock Return

$$\begin{aligned}&= \sqrt{\frac{N\sum y^2 - (\sum y)^2}{N^2}} \\&= \sqrt{\frac{5*728.357578 - (18.268)^2}{5^2}} \\&= \underline{\underline{11.503}}\end{aligned}$$

SHARPE RATIO

$$\begin{aligned}\text{Sharpe Ratio} &= \frac{\text{Ri-Rf}}{\text{S.D}} \\ &= \frac{12.440-7.6}{11.503} \\ &= \underline{\underline{0.0365}}\end{aligned}$$

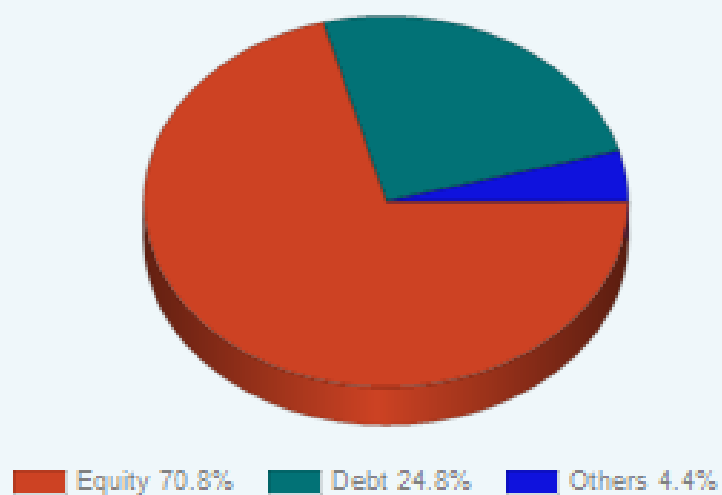
TREYNOR'S RATIO

$$\begin{aligned}\text{Treynor's Ratio} &= \frac{\text{Ri-Rf}}{\beta} \\ &= \frac{12.440-7.6}{0.0365} \\ &= \underline{\underline{132.60}}\end{aligned}$$

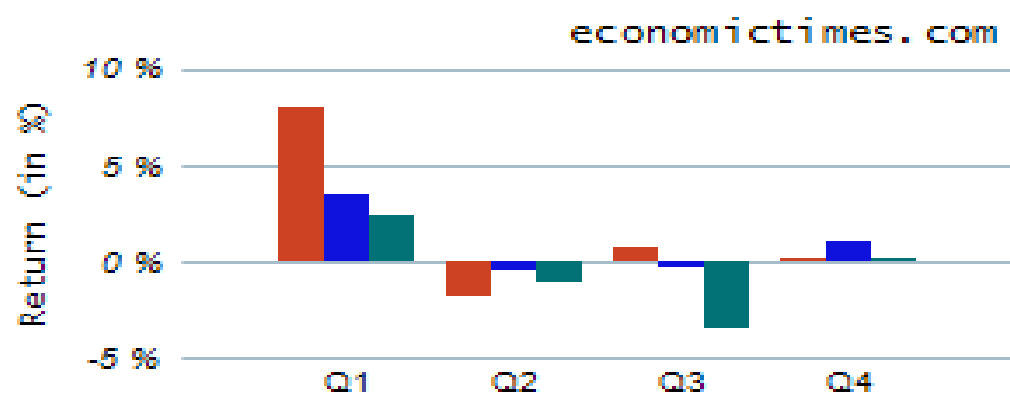
TATA BALANCED FUND

Description	Tata Balanced Fund aims at seeking a combination of equity & debt investments which optimise the returns of the portfolio & at the same time manages the volatility of the fund. The scheme actively manages the combination of the equity and debt investments depending upon the existing market conditions & outlook. The likely equity to debt investment ratio is 70 to 30. Earlier known as Tata Equity Growth Fund, Tata Twin Balanced has been merged in to this fund. 08-10-1995
Objective	To provide income distribution & medium to long term capital gains while at all times emphasizing the importance of capital appreciation.
Fund Family	Tata Mutual Fund
Type	Open-ended
Class	Hybrid
Category	Equity-oriented
Options	Growth
NAV	Rs 164.76
AUM	Rs 5814.97 Cr.
Fund size	Rs 5279.28 Cr
Face Value	Rs 10.00
Minimum Initial investment	Rs 5000
Fund Manager	Akhil Mittal and Pradeep Gokhale
SIP	Available
Load Structure	Entry-NIL Exit-1.00%
Expense Ratio	2.28%
Benchmark	CRISIL Balance Fund- Aggressive Index
Risk Factor	Moderately High

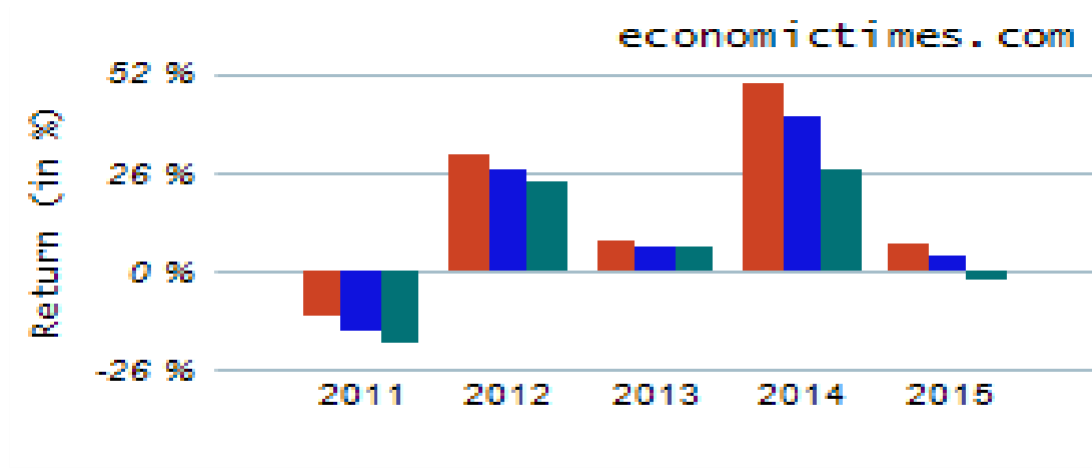
Asset Allocation



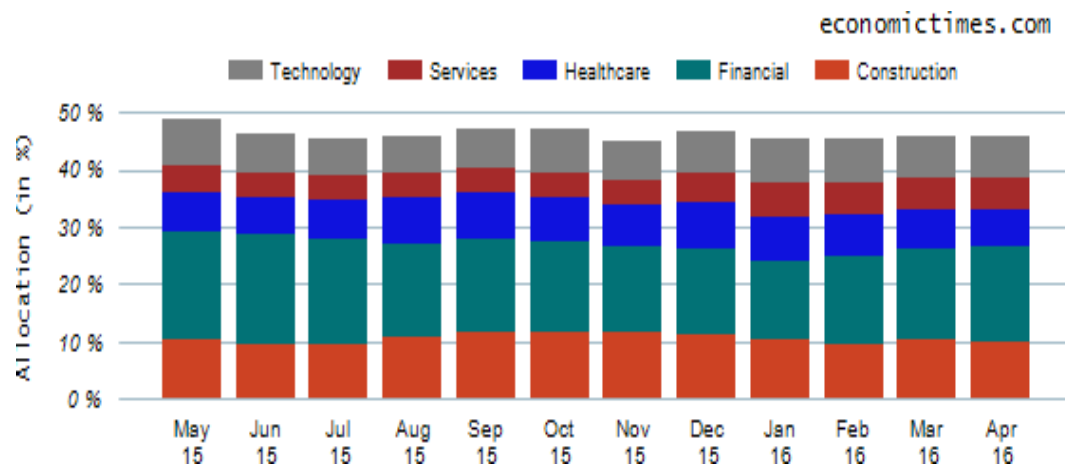
QUARTERLY RETURN



ANNUAL RETURN:



SECTOR ALLOCATION



BEST AND WORST PERFORMANCE

Performance	Best(Period)	Worst(Period)
Month	28.00 (May 11, 2009 - Jun 10, 2009)	-25.07 (Sep 24, 2008 - Oct24, 2008)
Quarter	56.94 (Mar 09, 2009 - Jun 10, 2009)	-33.70 (Feb 23, 2000 - May 24, 2000)
Year	120.81 (Jan 04, 1999 - Jan 04, 2000)	-47.16 (Jan 14, 2008 - Jan 13,2009)

PORTFOLIO SUMMARY

Total Market Value (mil)58,149.7000 INR	Top 10 Equity Holding(%)21.75 79	Market Capital (mil)327718
Number of Holdings (L)122	Number of Stock Holdings (L)76	Number of Bond Holdings (L)35
Number of Holdings (S)0	Number of Stock Holdings (S)0	Number of Bond Holdings (S)0
Earnings Yield0.040 4	Book Value Yield0.2841	Revenue Yield0.50 19
Avg Credit QualityAA A	Yield to Maturity -	Modified Duration -

DATA ANALYSIS

**TABLE SHOWING CALCULATION OF SIP AND LUMP SUM VALUE OF TATA
BALANCEDFUND**

TATA BALANCED FUND								
		SIP Investment					Lump sum Investment	
Date	NAV	Investment	Units	Total Unit	Total Investment	Value	Total Unit	Value
01-Apr-11	82.676	10000	120.9541	120.9540858	10000	10000	7257.24515	600000
01-May-11	83.35	10000	119.976	240.9300906	20000	20081.52	7257.245	604891.3708
01-Jun-11	83.209	10000	120.1793	361.1093982	30000	30047.55	7257.245	603868.0992
01-Jul-11	84.194	10000	118.7733	479.8827074	40000	40403.24	7257.245	611016.4855
01-Aug-11	84.27	10000	118.6662	598.5488994	50000	50439.72	7257.245	611568.0362
01-Sep-11	80.146	10000	124.7723	723.32119	60000	57971.3	7257.245	581639.1578
01-Oct-11	79.256	10000	126.1734	849.4946027	70000	67327.54	7257.245	575180.2097
01-Nov-11	81.788	10000	122.2673	971.761928	80000	79478.46	7257.245	593555.5541
01-Dec-11	78.627	10000	127.1828	1098.944702	90000	86406.73	7257.245	570615.4026
01-Jan-12	75.408	10000	132.6119	1231.556627	100000	92869.22	7257.245	547254.331
01-Feb-12	81.246	10000	123.083	1354.639609	110000	110059	7257.245	589622.1273
01-Mar-12	83.841	10000	119.2734	1473.912996	120000	123574.3	7257.245	608454.678
01-Apr-12	85.71	10000	116.6725	1590.585496	130000	136329.1	7257.245	622018.469
01-May-12	85.354	10000	117.1591	1707.744622	140000	145762.8	7257.245	619434.8897
01-Jun-12	81.37	10000	122.8954	1830.640038	150000	148959.2	7257.245	590522.0257
01-Jul-12	86.6	10000	115.4734	1946.113479	160000	168533.4	7257.245	628477.417
01-Aug-12	88.216	10000	113.3581	2059.4716	170000	181678.3	7257.245	640205.1249
01-Sep-12	88.552	10000	112.928	2172.399597	180000	192370.3	7257.245	642643.5592
01-Oct-12	94.234	10000	106.1188	2278.518408	190000	214713.9	7257.245	683879.2253
01-Nov-12	94.288	10000	106.058	2384.576442	200000	224836.9	7257.245	684271.1166
01-Dec-12	98.514	10000	101.5084	2486.084858	210000	244914.2	7257.245	714940.2339
01-Jan-13	99.205	10000	100.8014	2586.886228	220000	256632	7257.245	719954.9902
01-Feb-13	98.171	10000	101.8631	2688.749304	230000	263957.2	7257.245	712450.9989
01-Mar-13	94.555	10000	105.7586	2794.507857	240000	264234.7	7257.245	686208.801
01-Apr-13	94.353	10000	105.985	2900.492829	250000	273670.2	7257.245	684742.8375
01-May-13	97.708	10000	102.3458	3002.838594	260000	293401.4	7257.245	709090.8945
01-Jun-13	98.822	10000	101.192	3104.030636	270000	306746.5	7257.245	717175.4654
01-Jul-13	97.083	10000	103.0046	3207.035281	280000	311348.6	7257.245	704555.1163
01-Aug-13	94.012	10000	106.3694	3313.404681	290000	311499.8	7257.245	682268.1169
01-Sep-13	92.564	10000	108.0334	3421.438042	300000	316702	7257.245	671759.6262

01-Oct-13	97.014	10000	103.0779	3524.515948	310000	341927.4	7257.245	704054.3664
01-Nov-13	102.623	10000	97.44404	3621.959991	320000	371696.4	7257.245	744760.2536
01-Dec-13	102.425	10000	97.63241	3719.592405	330000	380979.3	7257.245	743323.3191
01-Jan-14	106.032	10000	94.31115	3813.903556	340000	404395.8	7257.245	769500.2018
01-Feb-14	102.385	10000	97.67056	3911.574113	350000	400486.5	7257.245	743033.0293
01-Mar-14	105.852	10000	94.47153	4006.04564	360000	424047.9	7257.245	768193.8977
01-Apr-14	111.654	10000	89.5624	4095.608038	370000	457291	7257.245	810300.4332
01-May-14	113.153	10000	88.37592	4183.983953	380000	473430.3	7257.245	821179.0435
01-Jun-14	126.87	10000	78.82084	4262.804794	390000	540822	7257.245	920726.6732
01-Jul-14	135.215	10000	73.95629	4336.761086	400000	586395.2	7257.245	981288.3827
01-Aug-14	134.949	10000	74.10207	4410.863154	410000	595241.6	7257.245	979357.9555
01-Sep-14	141.479	10000	70.68187	4481.545022	420000	634044.5	7257.245	1026747.765
01-Oct-14	144.9	10000	69.01311	4550.558134	430000	659375.9	7257.245	1051574.801
01-Nov-14	149.865	10000	66.72672	4617.284855	440000	691969.4	7257.245	1087607.022
01-Dec-14	156.483	10000	63.90471	4681.18956	450000	732526.6	7257.245	1135635.469
01-Jan-15	158.621	10000	63.04335	4744.232915	460000	752535	7257.245	1151151.459
01-Feb-15	168.268	10000	59.42901	4803.661921	470000	808302.6	7257.245	1221162.102
01-Mar-15	174.094	10000	57.44023	4861.102155	480000	846288.7	7257.245	1263442.811
01-Apr-15	172.765	10000	57.88209	4918.984249	490000	849828.3	7257.245	1253797.932
01-May-15	165.709	10000	60.34675	4979.331001	500000	825120	7257.245	1202590.812
01-Jun-15	170.113	10000	58.78446	5038.115456	510000	857048.9	7257.245	1234551.719
01-Jul-15	169.869	10000	58.86889	5096.984349	520000	865819.6	7257.245	1232780.951
01-Aug-15	173.941	10000	57.49076	5154.475108	530000	896574.6	7257.245	1262332.453
01-Sep-15	165.768	10000	60.32527	5214.800382	540000	864447	7257.245	1203018.989
01-Oct-15	168.808	10000	59.2389	5274.03928	550000	890300	7257.245	1225081.014
01-Nov-15	168.442	10000	59.36762	5333.406896	560000	898369.7	7257.245	1222424.862
01-Dec-15	168.276	10000	59.42618	5392.833077	570000	907484.4	7257.245	1221220.16
01-Jan-16	169.905	10000	58.85642	5451.689497	580000	926269.3	7257.245	1233042.212
01-Feb-16	162.821	10000	61.41714	5513.106636	590000	897649.5	7257.245	1181631.888
01-Mar-16	154.348	10000	64.78866	5577.895295	600000	860937	7257.245	1120141.251
TOTAL INVESTMENT AMOUNT						600000		600000
TOTAL UNIT						5577.9		7257.245
AVERAGE UNIT PRICE						107.57		82.68

RETURN

Standard Return = **(Ending Value - Beginning Value) / Beginning Value *100**

Beginning Value = **Total Unit * Average Unit Price**

= 5577.9 * 107.57

= 600010.40

SIP = (860937-600010.40)/600010.40*100

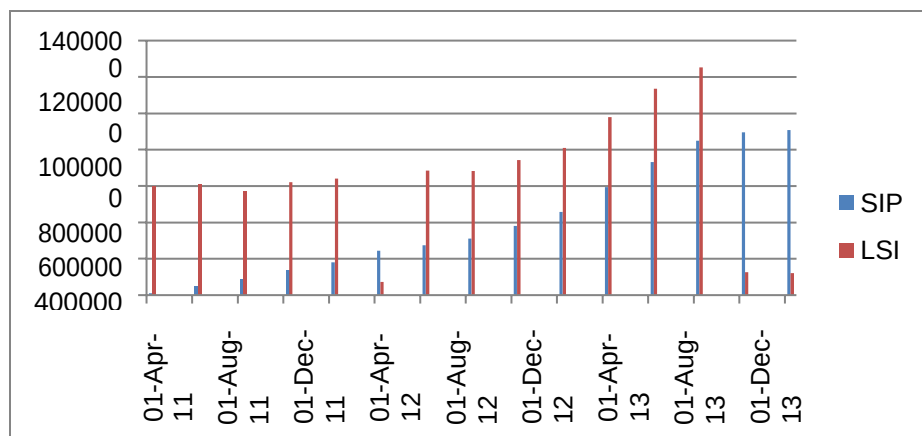
= 43.49%

Lump Sum = **(Ending Value – Beginning Value)/ Beginning Value*100**

Lump sum = (1120141-600010.40)/600010.40*100

= 86.69%

CHART SHOWING THE COMPARISON OF SIP VALUE AND LUMP SUM VALUE OF TATA BALANCEDFUND



Interpretation

This graph shows the comparison of SIP value and Lump Sum value of TATA BALANCED FUND. In April 2011 the NAV of the mutual fund is 82.676. Then it increased so the unit purchased is also decreased. After 5 years SIP value is increased up to 860937 and Lump sum plan value is increased upto 1120141.251

b) **CAGR (Last fiveyear)**

$$\begin{aligned}
 \text{CAGR (Lastfiveyear)} &= [\text{Nth root of (NAV at the end/ NAV at the beginning)}] - 1 * 100 \\
 &= [5\sqrt{(154.348/82.676)}] - 1 * 100 \\
 &= \underline{\underline{13.29}}
 \end{aligned}$$

RATIOS

Market Index Return (X)	X ²	Stock Index Return (Y)	Y ²	XY
-6.521	-42.5234	2.028	4.112	-13.2245
22.769	518.427	19.628	385.258	446.9099
12.720	161.798	14.974	224.220	190.4692
13.070	170.824	32.277	1041.80	421.863
-5.227	-27.321	-0.806	-0.649	4.2196
$\Sigma X =$ 36.811	$\Sigma X^2 =$ 781.204	$\Sigma Y =$ 68.101	$\Sigma Y^2 =$ 1654.741	$\Sigma XY =$ 1050.237

$$\begin{aligned}
 \text{Coefficient of correlation} &= \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{\sqrt{N\Sigma X^2 - (\Sigma X)^2} * \sqrt{N\Sigma Y^2 - (\Sigma Y)^2}} \\
 &= \frac{5*1050.237 - (36.811*68.101)}{\sqrt{5*781.204 - (36.811)^2} * \sqrt{5*1654.741 - (68.101)^2}} \\
 &= \frac{2744.319}{3045.522} \\
 &= \underline{0.9010}
 \end{aligned}$$

BETA

$$\begin{aligned}
 \text{Beta Value } (\beta) &= \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{N\Sigma X^2 - (\Sigma X)^2} \\
 &= \frac{5*1050.237 - (36.811*68.101)}{5*781.204 - (36.811)^2} \\
 &= \frac{2744.319}{2550.970} \\
 &= \underline{1.075}
 \end{aligned}$$

ALPHA

$$\begin{aligned}
 \text{Alpha Value } (\alpha) &= \bar{y} - \beta \bar{x} \\
 &= 13.62 - (1.075*7.36) \\
 &= \underline{5.708}
 \end{aligned}$$

$$\begin{aligned}
 \text{S.D of Stock Return} &= \sqrt{\frac{N\Sigma y^2 - (\Sigma y)^2}{N^2}} \\
 &= \sqrt{\frac{5*1654.741 - (68.101)^2}{5^2}} \\
 &= \underline{\underline{12.059}}
 \end{aligned}$$

SHARPE RATIO

$$\begin{aligned}
 \text{SharpeRatio} &= \frac{\text{Ri-Rf}}{\text{S.D}} \\
 &= \frac{13.29-7.6}{12.059} \\
 &= \underline{\underline{0.0391}}
 \end{aligned}$$

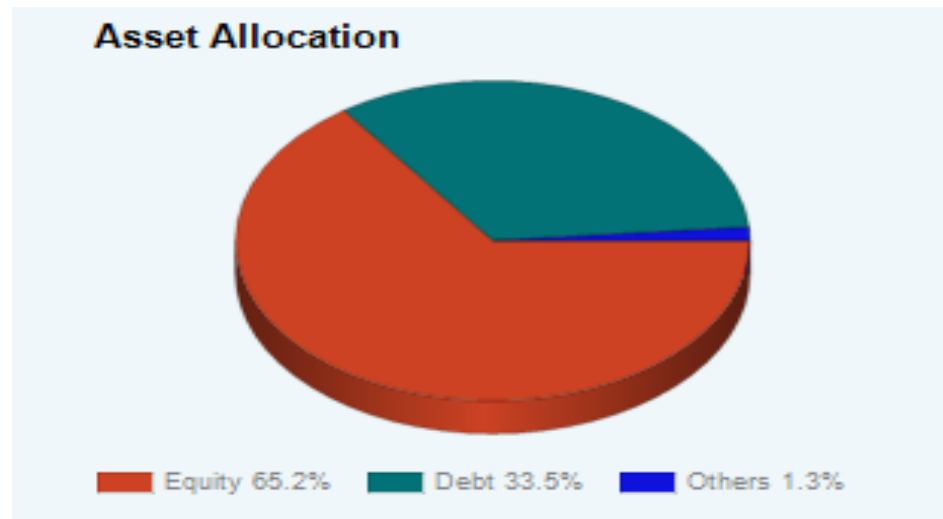
TREYNOR'S RATIO

$$\begin{aligned}
 \text{Treynor'sRatio} &= \frac{\text{Ri-Rf}}{\beta} \\
 &= \frac{13.29-7.6}{1.075} \\
 &= \underline{\underline{4.923}}
 \end{aligned}$$

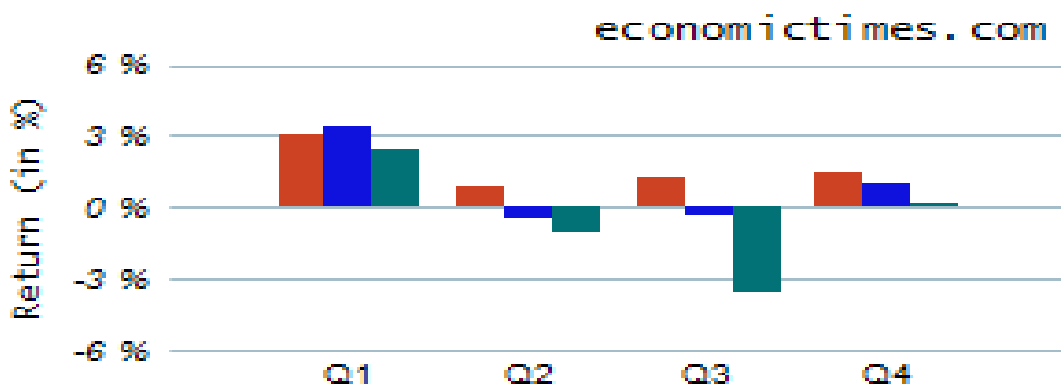
ICICI PRUDENTIAL BALANCED ADVANTAGE FUND

Description	ICICI Prudential Balanced Advantage Fund (earlier called 'ICICI Pru Equity – Volatility Advantage Plan', or 'ICICI PruVAP') has adeptly managed the volatile markets of the last five years to deliver compounded annual returns of 15 per cent. ICICI Prudential Balanced Advantage is classified as an equity-oriented balanced fund in most places. It seeks to hold at least 65 per cent in equities, like most other balanced funds, and the rest in debt. This fund uses an in-house model, based on a long-term, historical mean Price to Book Value (P/BV), with a view to limit the downside risk during a falling market, while aiming to capture the upside in a rising market. The fund will have the flexibility to hedge its equity positions with derivatives, and also take on derivative positions in the index. 30-12-2006
Objective	To seek low volatility returns by using arbitrage and other derivative strategies in equity markets and investments in short-term debt portfolio. The fund invests in equity with usage of derivatives.
Fund Family	ICICI Prudential Mutual Fund
Type	Open-ended
Class	Hybrid
Category	Equity-oriented
Options	Growth
Inception	November 2006
NAV	Rs 25.95
AUM	Rs 11360.23
Fund size	Rs 10515.06
Face Value	Rs 10.00
Minimum Initial investment	Rs 5000
Fund Manager	Manish Banthia (Since: Nov 2009) Manish Gunwani (Since: Jan 2012)
SIP	Available
Load Structure	Entry-NIL Exit-1.00%
Expense Ratio	2.25%
Benchmark	CRISIL Balance Fund- Aggressive Index

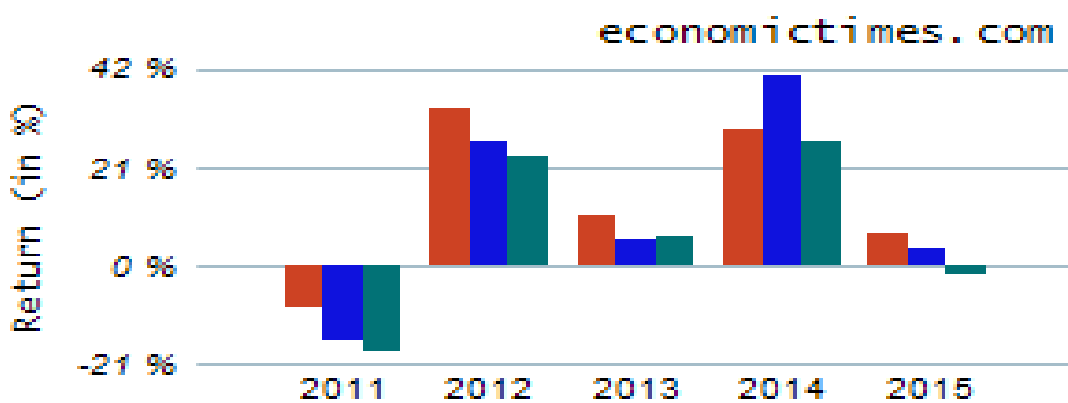
Risk Factor	Moderately High
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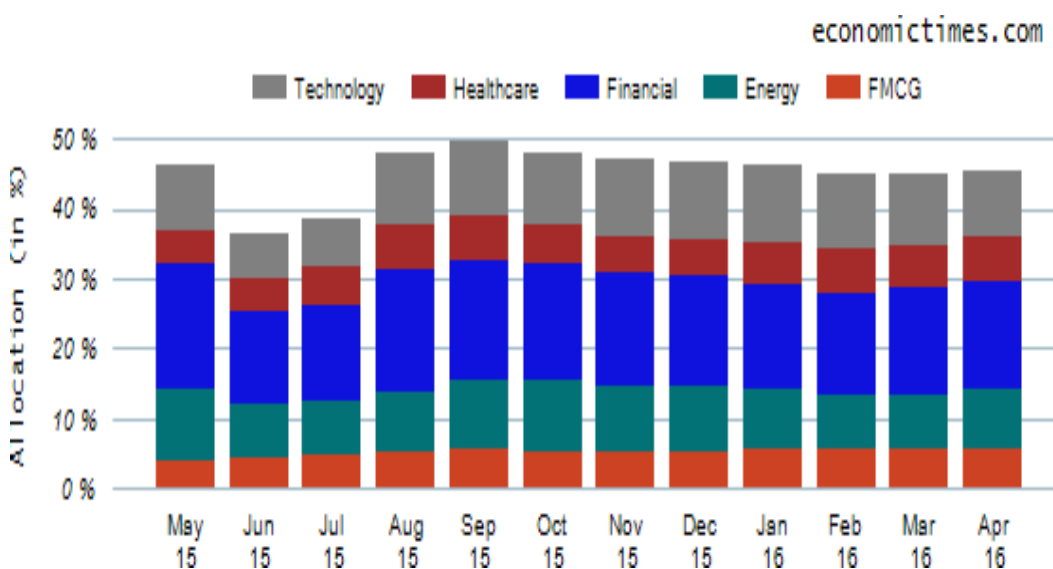
QUARTERLY RETURN



ANNUAL RETURN:



SECTOR ALLOCATION:



BEST AND WORST PERFORMANCE:

Performance	Best (Period)	Worst (Period)
Month	16.85 (May 11, 2009 - Jun 10, 2009)	-25.94 (Sep 24, 2008 - Oct 24, 2008)
Quarter	42.54 (Mar 09, 2009 - Jun 10, 2009)	-28.77 (Jul 28, 2008 - Oct 27, 2008)
Year	62.43 (Mar 09, 2009 - Mar 11, 2010)	-41.22 (Oct 26, 2007 - Oct 27, 2008)

PORTFOLIO SUMMARY:

Total Market Value (mil) 113,602.3000 INR	Top 10 Equity Holding(%) 25.8109	Market Capital (mil) 625658
Number of Holdings (L) 94	Number of Stock Holdings (L) 69	Number of Bond Holdings (L) 16
Number of Holdings (S) 1	Number of Stock Holdings (S) 0	Number of Bond Holdings (S) 0
Earnings Yield 0.0514	Book Value Yield 0.3757	Revenue Yield 0.5112
Avg Credit Quality AAA	Yield to Maturity -	Modified Duration -

DATA ANALYSIS

**TABLE SHOWING CALCULATION OF SIP AND LUMP SUM VALUE OF
ICICI PRUDENTIAL BALANCED ADVANTAGEFUND**

ICICI PRUDENTIAL BALANCED ADVANTAGE FUND								
		SIP Investment					Lump sum Investment	
Date	NAV	Investment	Units	Total Unit	Total Investment	Value	Total Unit	Value
01-Apr-11	13.91	10000	718.9073	718.9073	10000	10000	43134.43566	600000
01-May-11	13.92	10000	718.3908	1437.298105	20000	20007.19	43134.4357	600431.34
01-Jun-11	14.02	10000	713.2668	2150.564866	30000	30150.92	43134.4357	604744.79
01-Jul-11	14.29	10000	699.7901	2850.354929	40000	40731.57	43134.4357	616391.09
01-Aug-11	14.55	10000	687.2852	3537.640153	50000	51472.66	43134.4357	627606.04
01-Sep-11	13.82	10000	723.589	4261.229154	60000	58890.19	43134.4357	596117.9
01-Oct-11	13.55	10000	738.0074	4999.236534	70000	67739.66	43134.4357	584471.6
01-Nov-11	13.95	10000	716.8459	5716.082412	80000	79739.35	43134.4357	601725.38
01-Dec-11	13.49	10000	741.2898	6457.372257	90000	87109.95	43134.4357	581883.54
01-Jan-12	12.86	10000	777.605	7234.977233	100000	93041.81	43134.4357	554708.84
01-Feb-12	13.88	10000	720.4611	7955.438328	110000	110421.5	43134.4357	598705.97
01-Mar-12	14.45	10000	692.0415	8647.479851	120000	124956.1	43134.4357	623292.6
01-Apr-12	14.81	10000	675.2194	9322.699297	130000	138069.2	43134.4357	638820.99
01-May-12	14.79	10000	676.1325	9998.831819	140000	147882.7	43134.4357	637958.3
01-Jun-12	14.3	10000	699.3007	10698.13252	150000	152983.3	43134.4357	616822.43
01-Jul-12	14.94	10000	669.344	11367.47656	160000	169830.1	43134.4357	644428.47
01-Aug-12	14.91	10000	670.6908	12038.16737	170000	179489.1	43134.4357	643134.44
01-Sep-12	15.19	10000	658.3278	12696.49522	180000	192859.8	43134.4357	655212.08
01-Oct-12	16.18	10000	618.047	13314.54219	190000	215429.3	43134.4357	697915.17
01-Nov-12	16.29	10000	613.8735	13928.41573	200000	226893.9	43134.4357	702659.96
01-Dec-12	16.97	10000	589.2752	14517.69093	210000	246365.2	43134.4357	731991.37
01-Jan-13	17.29	10000	578.369	15096.05992	220000	261010.9	43134.4357	745794.39
01-Feb-13	17.31	10000	577.7008	15673.76068	230000	271312.8	43134.4357	746657.08
01-Mar-13	16.77	10000	596.3029	16270.0636	240000	272849	43134.4357	723364.49
01-Apr-13	16.66	10000	600.2401	16870.30369	250000	281059.3	43134.4357	718619.7
01-May-13	17.14	10000	583.4306	17453.73427	260000	299157	43134.4357	739324.23
01-Jun-13	17.19	10000	581.7336	18035.46783	270000	310029.7	43134.4357	741480.95
01-Jul-13	17.06	10000	586.1665	18621.6343	280000	317685.1	43134.4357	735873.47
01-Aug-13	16.74	10000	597.3716	19219.00587	290000	321726.2	43134.4357	722070.45
01-Sep-13	16.56	10000	603.8647	19822.8706	300000	328266.7	43134.4357	714306.26

01-Oct-13	17.37	10000	575.7052	20398.57584	310000	354323.3	43134.4357	749245.15
01-Nov-13	18.45	10000	542.0054	20940.58126	320000	386353.7	43134.4357	795830.34
01-Dec-13	18.63	10000	536.7687	21477.34991	330000	400123	43134.4357	803594.54
01-Jan-14	19.1	10000	523.5602	22000.91012	340000	420217.4	43134.4357	823867.72
01-Feb-14	18.49	10000	540.8329	22541.74301	350000	416796.8	43134.4357	797555.72
01-Mar-14	19.01	10000	526.0389	23067.78193	360000	438518.5	43134.4357	819985.62
01-Apr-14	20.01	10000	499.7501	23567.53206	370000	471586.3	43134.4357	863120.06
01-May-14	20.15	10000	496.2779	24063.80997	380000	484885.8	43134.4357	869158.88
01-Jun-14	21.61	10000	462.7487	24526.5587	390000	530018.9	43134.4357	932135.16
01-Jul-14	22.3	10000	448.4305	24974.98919	400000	556942.3	43134.4357	961897.92
01-Aug-14	22.48	10000	444.8399	25419.82905	410000	571437.8	43134.4357	969662.11
01-Sep-14	23.32	10000	428.8165	25848.64552	420000	602790.4	43134.4357	1005895
01-Oct-14	23.48	10000	425.8944	26274.5399	430000	616926.2	43134.4357	1012796.6
01-Nov-14	24.19	10000	413.394	26687.93386	440000	645581.1	43134.4357	1043422
01-Dec-14	24.51	10000	407.9967	27095.9306	450000	664121.3	43134.4357	1057225
01-Jan-15	24.61	10000	406.3389	27502.26948	460000	676830.9	43134.4357	1061538.5
01-Feb-15	25.17	10000	397.2984	27899.56785	470000	702232.1	43134.4357	1085693.7
01-Mar-15	25.57	10000	391.0833	28290.65116	480000	723392	43134.4357	1102947.5
01-Apr-15	25.45	10000	392.9273	28683.57846	490000	729997.1	43134.4357	1097771.4
01-May-15	25.35	10000	394.4773	29078.05578	500000	737128.7	43134.4357	1093457.9
01-Jun-15	25.67	10000	389.5598	29467.61558	510000	756433.7	43134.4357	1107261
01-Jul-15	25.76	10000	388.1988	29855.81434	520000	769085.8	43134.4357	1111143.1
01-Aug-15	26.46	10000	377.9289	30233.74329	530000	799984.8	43134.4357	1141337.2
01-Sep-15	25.47	10000	392.6188	30626.36205	540000	780053.4	43134.4357	1098634.1
01-Oct-15	25.81	10000	387.4467	31013.80878	550000	800466.4	43134.4357	1113299.8
01-Nov-15	26.26	10000	380.8073	31394.61609	560000	824422.6	43134.4357	1132710.3
01-Dec-15	26.41	10000	378.6445	31773.26054	570000	839131.8	43134.4357	1139180.4
01-Jan-16	26.37	10000	379.2188	32152.47935	580000	847860.9	43134.4357	1137455.1
01-Feb-16	25.37	10000	394.1663	32546.64569	590000	825708.4	43134.4357	1094320.6
01-Mar-16	24.27	10000	412.0313	32958.67701	600000	799907.1	43134.4357	1046872.8
TOTAL INVESTMENT AMOUNT						600000		600000
TOTAL UNIT						32958.68		43134.436
AVERAGE UNIT PRICE						18.2		13.91

RETURN:

Standard Return = **(Ending Value - Beginning Value) / Beginning Value *100**

Beginning Value = **Total Unit * Average Unit Price**

= 32958.68 * 18.2

= 599847.98

SIP = **(799907.1-599847.98)/599847.98*100**

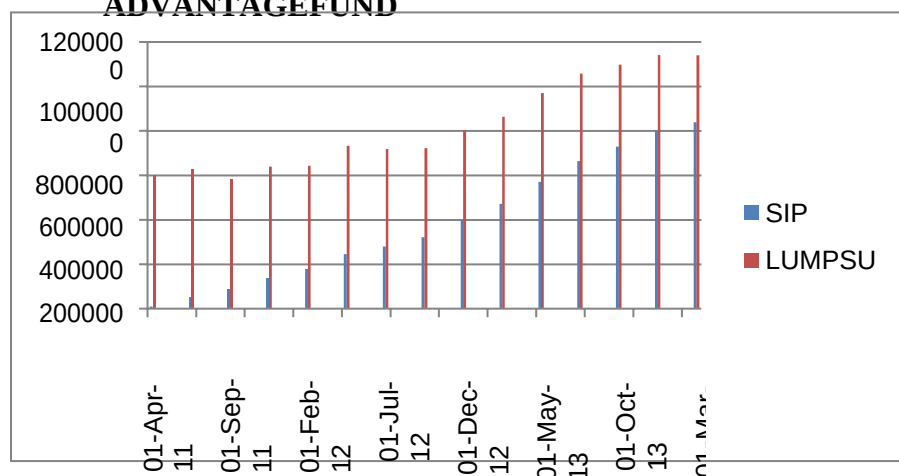
= 33.35%

Lump sum = **(Ending Value - Beginning Value) / Beginning Value *100**

Lump sum = **(1046872.754-599999.92)/599999.92*100**

= 74.48%

CHART SHOWING THE COMPARISON OF SIP VALUE AND LUMP SUM VALUE OF ICICI PRUDENTIAL BALANCED ADVANTAGEFUND



Interpretation

This graph shows the comparison of SIP value and Lump Sum value of ICICI PRUDENTIAL BALANCED ADVANTAGE FUND. In April 2011 the NAV of the mutual fund is 13.91. Then NAV is increased gradually in every year. So the unit purchased in SIP is decreased. After 5 years SIP value is increased up to 799907.1. But in the case of LSIP the unit purchased is constant so its value increased with increase of NAV and its value is 1046872.8

b) **CAGR (Last five year)**

CAGR (Last five year) = [Nth root of (NAV at the end/ NAV at the beginning)] – 1*100

$$= [5\sqrt{(24.27/14.14)}] - 1 * 100$$

$$= \underline{\underline{11.41}}$$

RATIOS

Market Index Return (X)	X²	Stock Index Return (Y)	Y²	XY
-6.211	38.56521	4.820	23.2324	-29.93702
22.769	518.427361	19.288	372.026944	439.168472
12.720	161.7984	19.536	381.655296	248.49792
13.070	170.8249	23.095	533.379025	301.85165
-5.942	35.307364	101.455	10293.11703	-602.84561
ΣX = 36.406	ΣX² = 924.93454	ΣY = 168.194	ΣY² = 11603.4109	ΣXY = 356.735412

$$\begin{aligned}
 \text{Coefficient of correlation} &= \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{\sqrt{N\Sigma X^2 - (\Sigma X)^2} * \sqrt{N\Sigma Y^2 - (\Sigma Y)^2}} \\
 &= \frac{5*356.735412 - (36.406*168.194)}{\sqrt{5*24.93454 - (36.406)^2} * \sqrt{5*11603.4109 - (168.194)^2}} \\
 &= \frac{-4339.593704}{9903.550379} \\
 &= \underline{\underline{-0.4381}}
 \end{aligned}$$

BETA

$$\begin{aligned}
 \text{Beta Value } (\beta) &= \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{N\Sigma X^2 - (\Sigma X)^2} \\
 &= \frac{5*356.735412 - (36.406*168.194)}{5*24.93454 - (36.406)^2} \\
 &= \frac{-4339.593704}{3299.2758} \\
 &= \underline{\underline{-1.315}}
 \end{aligned}$$

ALPHA

$$\begin{aligned}
 \text{Alpha Value } (\alpha) &= \bar{y} - \beta x \\
 &= 33.638 - (-1)*7.28 \\
 &= \underline{\underline{40.918}}
 \end{aligned}$$

$$\begin{aligned}
 \text{S.D of Stock Return} &= \sqrt{\frac{N\sum y^2 - (\sum y)^2}{N^2}} \\
 &= \sqrt{\frac{5 \cdot 11603.4109 - (168.194)^2}{5^2}} \\
 &= \underline{\underline{34.48}}
 \end{aligned}$$

SHARPE RATIO

$$\begin{aligned}
 \text{Sharpe Ratio} &= \frac{\text{Ri-Rf}}{\text{S.D}} \\
 &= \frac{11.41 - 7.6}{34.48} \\
 &= \underline{\underline{3.204}}
 \end{aligned}$$

TREYNOR'S RATIO

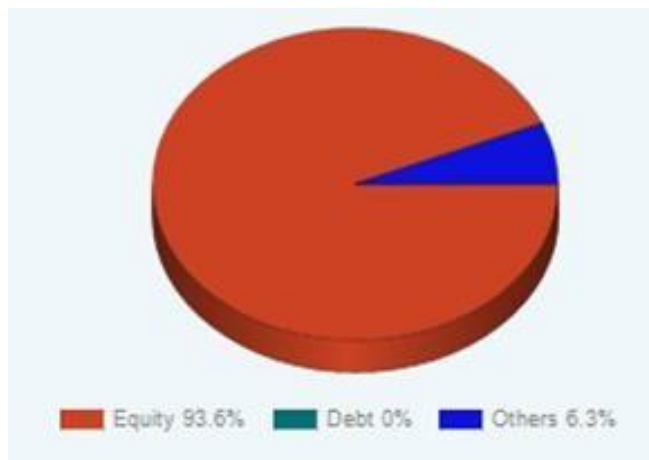
$$\begin{aligned}
 \text{Treynor's Ratio} &= \frac{\text{Ri-Rf}}{\beta} \\
 &= \frac{11.41 - 7.6}{-1.315} \\
 &= \underline{\underline{2.203}}
 \end{aligned}$$

L&T MID CAP FUND – GROWTH

Description	L&T Midcap Fund predominantly invests in companies whose market capitalization falls between the highest and lowest constituent of the CNX Midcap index. Mid-Caps are also attractive due to the presence of new businesses and growth opportunities present in sunrise sectors.
Objective	The scheme aims to generate capital appreciation by investing primarily in midcap stocks. The investment universe would primarily comprise of companies that have a market capitalization ranging from Rs. 300 to Rs. 3000 corer.
Fund Family	L&T Mutual Fund
Type	Open-ended
Class	Equity
Category	Small Cap
Options	Growth
NAV	Rs. 87.85
AUM	Rs.412.93 Cr.
Fund Size in Rs Cr	379.02
Face Value (Rs/Unit)	10.00
Minimum Initial Investment	5000
Fund Manager	SoumendranathLahiri
SIP	Yes
Load Structure	Entry Load:0.00 Exit Load:1.00%
Expense Ratio	2.84

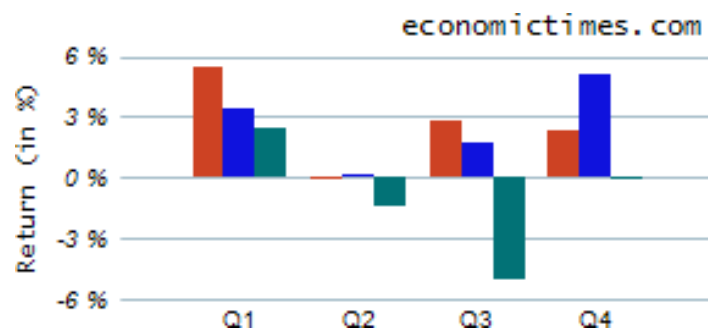
Benchmark	Nifty Free Float Midcap 100
Risk Factor	In High

ASSET ALLOCATION

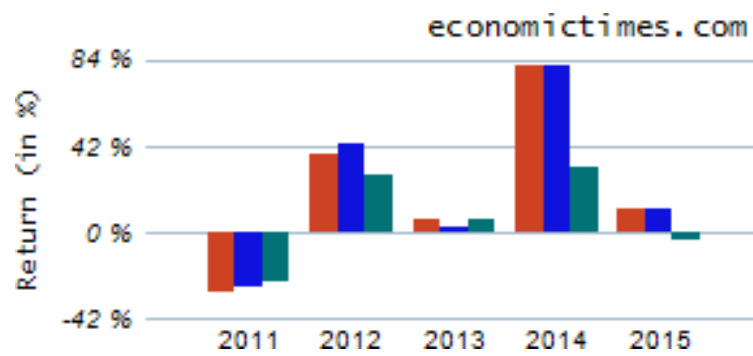


RETURNS

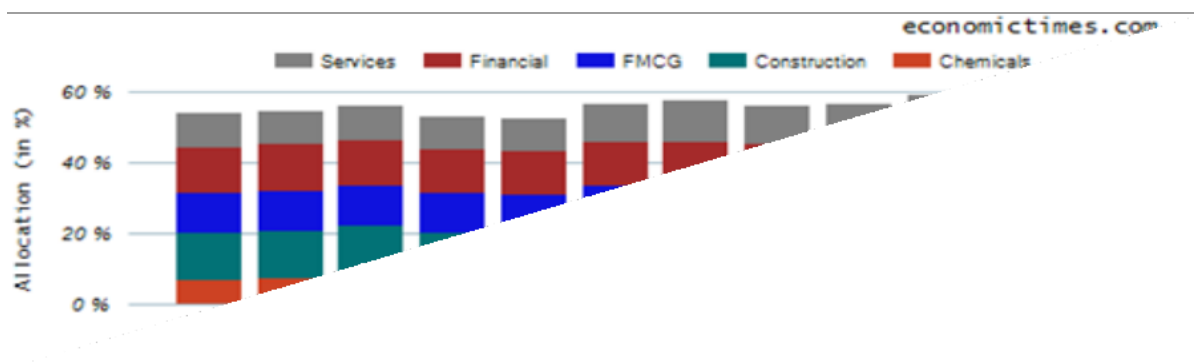
Quarterly Return



Annual Returns



SECTOR ALLOCATION



PERFORMANCE

BEST AND WROST PERFORMANCE *(last one year)*

Performance	Best (in %) Period	Worst (in %) Period
Month	44.64 (May 11,2009 – Jun 10,2009)	-35.19 (Sep 26,2008 – Oct 27,2008)
Quarter	104.84 (Mar 09,2009 – Jun 10,2009)	-45.92 (Sep 02,2008 – Dec 02,2008)
Year	174.84 (Mar 09,2009 – Mar 09,2010)	-63.34 (Jan 14,2008 – Jan 13,2009)

PORTFOLIO SUMMARY

Total Market Value (mil) 3,963.4930 INR	Top 10 Equity Holding(%) 24.7941	Market Capital (mil) 48450
Number of Holdings (L) 72	Number of Stock Holdings (L) 68	Number of Bond Holdings (L) 3
Number of Holdings (S) 0	Number of Stock Holdings (S) 0	Number of Bond Holdings (S) 0
Earnings Yield 0.0501	Book Value Yield 0.4002	Revenue Yield 0.8870

DATA ANALYSIS

**TABLE SHOWING CALCULATION OF SIP AND LUMP SUM VALUE OF L & T
MIDCAPFUND**

L & T MIDCAP FUND								
		SIP Investment					Lump sum Investment	
Date	NAV	Investment	Unit	Total Unit	Total Investment	Value	Total Unit	Value
01-Apr-11	39.58	10000	252.6529	252.6529	10000	10000	15159.1713	600000
01-May-11	39.44	10000	253.5497	506.2025957	20000	19964.63	15159.1713	597877.7
01-Jun-11	39.53	10000	252.9724	759.1750217	30000	30010.19	15159.1713	599242
01-Jul-11	38.93	10000	256.8713	1016.046329	40000	39554.68	15159.1713	590146.5
01-Aug-11	38.35	10000	260.7562	1276.802522	50000	48965.38	15159.1713	581354.2
01-Sep-11	36.24	10000	275.9382	1552.740712	60000	56271.32	15159.1713	549368.4
01-Oct-11	34.44	10000	290.36	1843.100758	70000	63476.39	15159.1713	522081.9
01-Nov-11	35.09	10000	284.9815	2128.082235	80000	74674.41	15159.1713	531935.3
01-Dec-11	33.56	10000	297.9738	2426.056013	90000	81418.44	15159.1713	508741.8
01-Jan-12	30.67	10000	326.0515	2752.107529	100000	84407.14	15159.1713	464931.8
01-Feb-12	34.73	10000	287.9355	3040.043032	110000	105580.7	15159.1713	526478
01-Mar-12	36.47	10000	274.198	3314.241003	120000	120870.4	15159.1713	552855
01-Apr-12	37.42	10000	267.2368	3581.477774	130000	134018.9	15159.1713	567256.2
01-May-12	36.66	10000	272.7769	3854.254643	140000	141297	15159.1713	555735.2
01-Jun-12	35.05	10000	285.3067	4139.561348	150000	145091.6	15159.1713	531329
01-Jul-12	37.08	10000	269.6872	4409.24851	160000	163494.9	15159.1713	562102.1
01-Aug-12	37.58	10000	266.099	4675.347499	170000	175699.6	15159.1713	569681.7
01-Sep-12	37.44	10000	267.094	4942.441516	180000	185045	15159.1713	567559.4
01-Oct-12	39.83	10000	251.067	5193.508551	190000	206857.4	15159.1713	603789.8
01-Nov-12	39.98	10000	250.1251	5443.633614	200000	217636.5	15159.1713	606063.7
01-Dec-12	42	10000	238.0952	5681.728852	210000	238632.6	15159.1713	636685.2
01-Jan-13	42.87	10000	233.2634	5914.992206	220000	253575.7	15159.1713	649873.7
01-Feb-13	41.89	10000	238.7205	6153.712665	230000	257779	15159.1713	635017.7
01-Mar-13	39.06	10000	256.0164	6409.72905	240000	250364	15159.1713	592117.2

01-Apr-13	38.02	10000	263.0195	6672.748513	250000	253697.9	15159.1713	576351.7
01-May-13	39.79	10000	251.3194	6924.06794	260000	275508.7	15159.1713	603183.4
01-Jun-13	39.68	10000	252.0161	7176.084069	270000	284747	15159.1713	601515.9
01-Jul-13	38.18	10000	261.9172	7438.001303	280000	283982.9	15159.1713	578777.2
01-Aug-13	36.39	10000	274.8008	7712.802073	290000	280668.9	15159.1713	551642.2
01-Sep-13	36.39	10000	274.8008	7987.602842	300000	290668.9	15159.1713	551642.2
01-Oct-13	38.34	10000	260.8242	8248.427047	310000	316244.7	15159.1713	581202.6
01-Nov-13	41.21	10000	242.6595	8491.086595	320000	349917.7	15159.1713	624709.4
01-Dec-13	42.15	10000	237.2479	8728.334519	330000	367899.3	15159.1713	638959.1
01-Jan-14	45.19	10000	221.2879	8949.622415	340000	404433.4	15159.1713	685043
01-Feb-14	42.79	10000	233.6995	9183.321877	350000	392954.3	15159.1713	648660.9
01-Mar-14	44.85	10000	222.9654	9406.287318	360000	421872	15159.1713	679888.8
01-Apr-14	49.53	10000	201.8978	9608.185157	370000	475893.4	15159.1713	750833.8
01-May-14	51.14	10000	195.5417	9803.726808	380000	501362.6	15159.1713	775240
01-Jun-14	59.49	10000	168.0955	9971.822286	390000	593223.7	15159.1713	901819.1
01-Jul-14	65.8	10000	151.9757	10123.79797	400000	666145.9	15159.1713	997473.5
01-Aug-14	65.27	10000	153.2097	10277.00771	410000	670780.3	15159.1713	989439.1
01-Sep-14	69.65	10000	143.575	10420.58273	420000	725793.6	15159.1713	1055836
01-Oct-14	73.02	10000	136.9488	10557.53151	430000	770911	15159.1713	1106923
01-Nov-14	76.24	10000	131.1647	10688.69626	440000	814906.2	15159.1713	1155735
01-Dec-14	79.37	10000	125.9922	10814.68844	450000	858361.8	15159.1713	1203183
01-Jan-15	82.36	10000	121.4182	10936.10661	460000	900697.7	15159.1713	1248509
01-Feb-15	85.72	10000	116.6589	11052.7655	470000	947443.1	15159.1713	1299444
01-Mar-15	87.71	10000	114.0121	11166.77758	480000	979438.1	15159.1713	1329611
01-Apr-15	87.26	10000	114.6	11281.37763	490000	984413	15159.1713	1322789
01-May-15	84.64	10000	118.1474	11399.52508	500000	964855.8	15159.1713	1283072
01-Jun-15	86.28	10000	115.9017	11515.42679	510000	993551	15159.1713	1307933
01-Jul-15	87.4	10000	114.4165	11629.84327	520000	1016448	15159.1713	1324912
01-Aug-15	92.42	10000	108.2017	11738.04496	530000	1084830	15159.1713	1401011
01-Sep-15	87.04	10000	114.8897	11852.93466	540000	1031679	15159.1713	1319454
01-Oct-15	88.6	10000	112.8668	11965.80148	550000	1060170	15159.1713	1343103
01-Nov-15	87.72	10000	113.9991	12079.80057	560000	1059640	15159.1713	1329763
01-Dec-15	90.42	10000	110.595	12190.39557	570000	1102256	15159.1713	1370692
01-Jan-16	91.41	10000	109.3972	12299.79279	580000	1124324	15159.1713	1385700
01-Feb-16	85.21	10000	117.3571	12417.14991	590000	1058065	15159.1713	1291713
01-Mar-16	77.23	10000	129.4834	12546.63327	600000	968976.5	15159.1713	1170743
TOTAL INVESTMENT						600000		600000
TOTAL UNIT						1246.63		15159.2
AVERAGE UNIT PRICE						481.296		39.58

1) RETURN

$$\text{a) Standard return} = \frac{(\text{Ending Value} - \text{Beginning Value})}{\text{Beginning Value}} \times 100$$

$$\text{Beginning Value} = \text{Total Unit} \times \text{Average Unit Price}$$

$$= 1246.63 \times 481.296$$

$$= \underline{600000}$$

$$\text{SIP} = \frac{(968976.5 - 600000)}{600000} \times 100$$

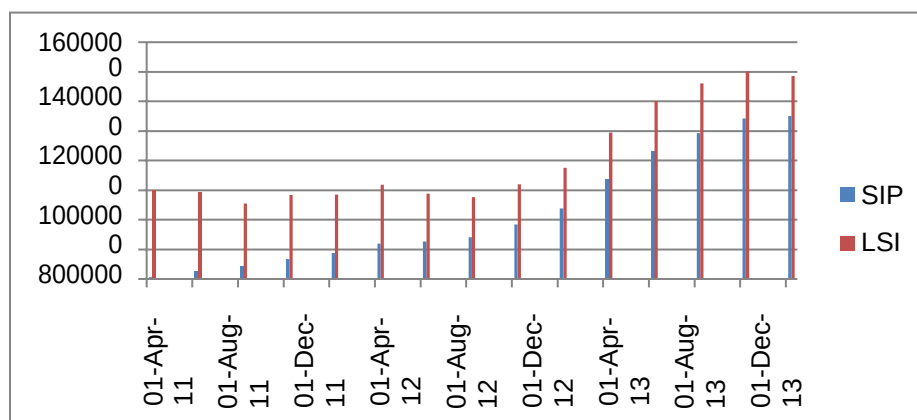
$$= \underline{61.4960}$$

$$\text{Lump Sum} = \frac{(\text{Ending Value} - \text{Beginning Value})}{\text{Beginning Value}} \times 100$$

$$\text{Lump Sum} = \frac{(1170743 - 600000)}{600000} \times 100$$

$$= \underline{95.1238}$$

CHART SHOWING THE COMPARISON OF SIP VALUE AND LUMP SUM VALUE OF L&T MID CAP FUND –GROWTH



Interpretation

This graph shows the comparison of SIP value and Lump Sum value of L&T MID CAP FUND – GROWTH. In April 2011 the NAV of the mutual fund is 39.58. Then NAV is increased gradually in every year. So the unit purchased in SIP is decreased. After 5 years SIP value is

increased up to 968976.5. But in the case of Lump sum plan the unit purchased is constant so its value increased with increase of NAV and its value is 1170743

b) CAGR last five year = [Nth root of (NAV at the end/ NAV at the beginning)] –1*100

$$= [5\sqrt{(77.23/ 39.58)}] -1*100$$

$$= \underline{14.30}$$

3. RATIOS

Market Index Return (X)	X²	Stock Index Return (Y)	Y²	XY
-1.8	3.24	-2.05	4.20	3.69
13.7	187.69	8.3	68.89	113.71
11.9	141.61	28.4	806.56	337.96
22.2	492.84	62.7	3931.29	1391.94
-4.1	16.81	1.7	2.89	6.97
ΣX = 41.9	ΣX² = 842.19	ΣY = 99.05	ΣY² = 4813.83	ΣXY = 1854.27

$$\begin{aligned}
 \text{Coefficient of correlation} &= \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{\sqrt{N\Sigma X^2 - (\Sigma X)^2} * \sqrt{N\Sigma Y^2 - (\Sigma Y)^2}} \\
 &= \frac{5*1854.27 - (41.9*99.05)}{\sqrt{5*842.19 - (41.9)^2} * \sqrt{5*4813.83 - (99.05)^2}} \\
 &= \underline{0.8656}
 \end{aligned}$$

BETA

$$\begin{aligned}
 \text{Beta Value}(\beta) &= \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{N\Sigma X^2 - (\Sigma X)^2} \\
 &= \frac{5*1854.27 - (41.9*99.05)}{5*842.19 - (41.9)^2} \\
 &= \underline{2.085}
 \end{aligned}$$

ALPHA

$$\begin{aligned}
 \text{Alpha Value}(\alpha) &= \bar{y} - \beta \bar{x} \\
 &= 19.81 - (2.085*8.38) \\
 &= \underline{2.33}
 \end{aligned}$$

$$\begin{aligned}
 \text{S.D of Stock Return} &= \sqrt{\frac{N\sum y^2 - (\sum y)^2}{N^2}} \\
 &= \sqrt{\frac{5 \cdot 4813.83 - (99.05)^2}{25}} \\
 &= \underline{\underline{23.881}}
 \end{aligned}$$

SHARPE RATIO

$$\begin{aligned}
 \text{Sharpe Ratio} &= \frac{R_i - R_f}{\text{S.D}} \\
 &= \frac{14.3041 - 7.6}{23.881} \\
 &= \underline{\underline{0.280}}
 \end{aligned}$$

TREYNOR'S RATIO

$$\begin{aligned}
 \text{Treynor's Ratio} &= \frac{R_i - R_f}{\beta} \\
 &= \frac{14.3041 - 7.6}{}
 \end{aligned}$$

2.085

= 3.21

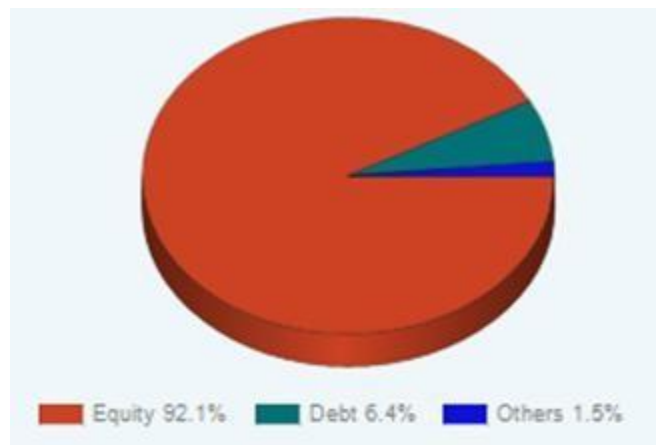
RELIANCE SMALL CAP FUND – GROWTH

Description	Reliance Mutual Fund, a part of the Reliance Anil Dhirubhai Ambani Group, is one of the fastest growing mutual funds in India. RMF offers investors a well-rounded portfolio of products to meet varying investor requirements and has presence in 160 cities across the country.
Objective	The scheme seeks to generate long-term capital appreciation by investing predominantly in equity and equity related instruments of small cap companies.
Fund Family	Reliance Mutual Fund
Type	Open-ended
Class	Equity
Category	Small Cap
Options	Growth
NAV	Rs 26.08 as on 18 May 2016
AUM	Rs.1994.66 Cr.
Fund Size in Rs Cr	1831.89
Face Value (Rs/Unit)	10.00
Minimum Initial Investment	5000
Fund Manager	Sunil B Singhania
SIP	Yes
Load Structure	Entry Load: 0.00 Exit Load: 1%

Expense Ratio	2.52
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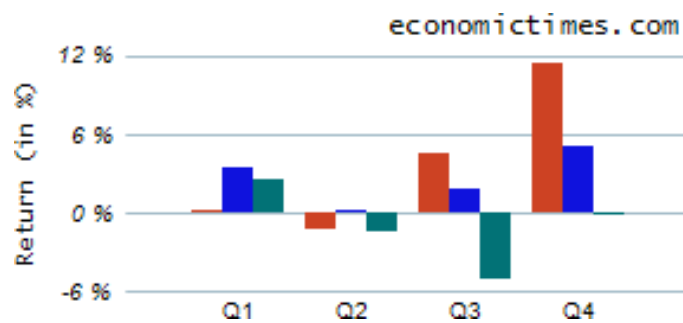
Benchmark	S&P BSE Small Cap
Risk Factor	High Risk

ASSET ALLOCATION



RETURNS

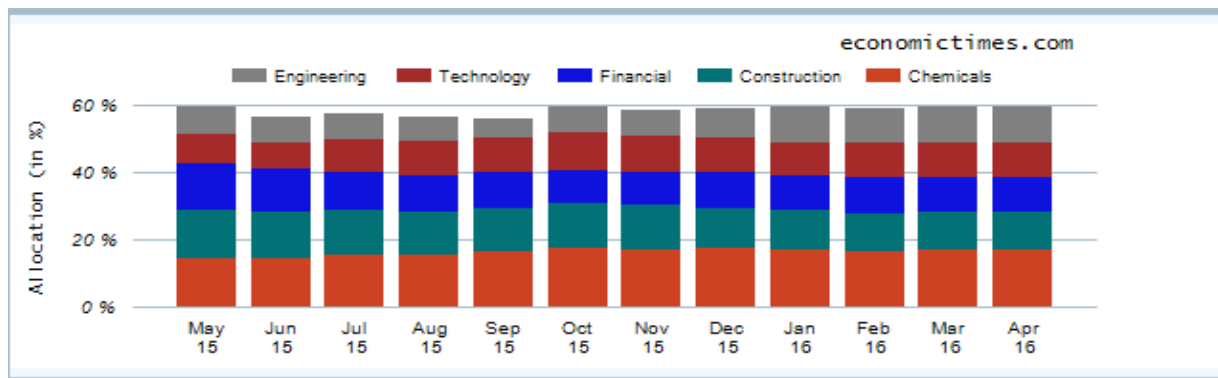
Quarterly Returns



Annual Returns



SECTOR ALLOCATION



PERFORMANCE

BEST AND WROST PERFORMANCE*(last one year)*

Performance	Best (in %) Period	Worst (in %) Period
Month	26.12 (May 07,2014 – Jun 06,2014)	-15.51 (Jan 12, 2016 - Feb 11, 2016)
Quarter	46.86 (Apr 04,2014 –Jul 04,2014)	-19.93 (Nov 30, 2015 - Feb 29, 2016)
Year	150.05 (Sep 13,2013 – Sep 15,2014)	-25.07 (Dec 31, 2010 - Jan 02, 2012)

PORTFOLIO

PORTFOLIO SUMMARY

Total Market Value (mil) 18,715.0300 INR	Top 10 Equity Holding(%) 27.9371	Market Capital (mil) 24964.1
Number of Holdings (L) 74	Number of Stock Holdings (L) 69	Number of Bond Holdings (L) 0
Number of Holdings (S) 1	Number of Stock Holdings (S) 0	Number of Bond Holdings (S) 0
Earnings Yield 0.0614	Book Value Yield 0.6052	Revenue Yield 1.3768

DATA ANALYSIS

**TABLE SHOWING CALCULATION OF SIP AND LUMP SUM VALUE OF
RELIANCE SMALL CAP MUTUALFUND**

RELIANCE SMALL CAP MUTUALFUND								
Date	NAV	SIP investment					Lump Sum investment	
		Investment	Unit	Total unit	Total investment	Value	Total unit	Value
01-Apr-11	9.624	10000	1039.069	1039.069	10000	10000	62344.13965	600000
01-May-11	9.762	10000	1024.38	2063.44925	20000	20143.39	62344.13965	608603.4913
01-Jun-11	9.844	10000	1015.847	3079.29647	30000	30312.59	62344.13965	613715.7107
01-Jul-11	9.728	10000	1027.961	4107.25699	40000	39955.4	62344.13965	606483.7905
01-Aug-11	9.968	10000	1003.21	5110.46727	50000	50941.14	62344.13965	621446.3845
01-Sep-11	8.991	10000	1112.223	6222.6906	60000	55948.21	62344.13965	560536.1596
01-Oct-11	8.741	10000	1144.034	7366.72446	70000	64392.54	62344.13965	544950.1247
01-Nov-11	9.05	10000	1104.972	8471.69684	80000	76668.86	62344.13965	564214.4638
01-Dec-11	8.329	10000	1200.624	9672.32116	90000	80560.76	62344.13965	519264.3391
01-Jan-12	7.676	10000	1302.762	10975.083	100000	84244.74	62344.13965	478553.6165
01-Feb-12	8.693	10000	1150.351	12125.4339	110000	105406.4	62344.13965	541957.6065
01-Mar-12	8.957	10000	1116.445	13241.8791	120000	118607.5	62344.13965	558416.4588
01-Apr-12	9.202	10000	1086.72	14328.5994	130000	131851.8	62344.13965	573690.7731
01-May-12	9.203	10000	1086.602	15415.2016	140000	141866.1	62344.13965	573753.1172
01-Jun-12	8.795	10000	1137.01	16552.2113	150000	145576.7	62344.13965	548316.7082
01-Jul-12	9.336	10000	1071.123	17623.3338	160000	164531.4	62344.13965	582044.8878
01-Aug-12	9.383	10000	1065.757	18689.091	170000	175359.7	62344.13965	584975.0623
01-Sep-12	9.561	10000	1045.916	19735.0067	180000	188686.4	62344.13965	596072.3192
01-Oct-12	10.3	10000	970.6853	20705.692	190000	213310	62344.13965	642269.3267
01-Nov-12	10.63	10000	940.4684	21646.160	200000	230163.6	62344.1396	662905.236

				4			5	9
01-Dec-12	10.9	10000	917.5154	22563.675 7	210000	245921.5	62344.1396 5	679488.778
01-Jan-13	10.99	10000	909.6698	23473.345 5	220000	258042.5	62344.1396 5	685349.127 2
01-Feb-13	10.29	10000	972.2897	24445.635 3	230000	251423.4	62344.1396 5	641209.476 3
01-Mar-13	9.637	10000	1037.667	25483.302 6	240000	245582.6	62344.1396 5	600810.473 8
01-Apr-13	9.488	10000	1053.963	26537.265 5	250000	251785.6	62344.1396 5	591521.197
01-May-13	9.577	10000	1044.168	27581.433 8	260000	264147.4	62344.1396 5	597069.825 4
01-Jun-13	9.478	10000	1055.075	28636.508 7	270000	271416.8	62344.1396 5	590897.755 6
01-Jul-13	9.275	10000	1078.167	29714.675 8	280000	275603.6	62344.1396 5	578241.895 3
01-Aug-13	8.764	10000	1141.031	30855.707 3	290000	270419.4	62344.1396 5	546384.039 9
01-Sep-13	8.652	10000	1155.802	32011.509 5	300000	276963.6	62344.1396 5	539401.496 3
01-Oct-13	9.108	10000	1097.936	33109.445 3	310000	301560.8	62344.1396 5	567830.423 9
01-Nov-13	10.34	10000	966.744	34076.189 3	320000	352484.1	62344.1396 5	644887.780 5
01-Dec-13	11.23	10000	890.1549	34966.344 2	330000	392811.9	62344.1396 5	700374.064 8

01-Jan-14	12.3	10000	813.074 2	35779.4185	340000	440051.1	62344.1396 5	766770.573 6
01-Feb-14	11.7	10000	855.066 3	36634.4847	350000	428440.3	62344.1396 5	729114.713 2
01-Mar-14	12.15	10000	823.316 3	37457.801	360000	454962.5	62344.1396 5	757231.920 2
01-Apr-14	13.5	10000	740.521 3	38198.3224	370000	515830.1	62344.1396 5	841895.261 8
01-May-14	13.87	10000	721.136 5	38919.4589	380000	539696.1	62344.1396 5	864526.184 5
01-Jun-14	16.76	10000	596.694 3	39516.1532	390000	662251.2	62344.1396 5	1044825.43 6
01-Jul-14	19.31	10000	517.839 6	40033.9928	400000	773096.4	62344.1396 5	1203927.68 1
01-Aug-14	18.79	10000	532.339 6	40566.3324	410000	762038.6	62344.1396 5	1171134.66 3
01-Sep-14	20.65	10000	484.28 5	41050.6174	420000	847654.2	62344.1396 5	1287344.14
01-Oct-14	21.97	10000	455.145 4	41505.7628	430000	911923.1	62344.1396 5	1369763.09 2
01-Nov-14	22.93	10000	436.20 5	41941.9678	440000	961519.6	62344.1396 5	1429239.40 1
01-Dec-14	22.99	10000	434.952 8	42376.9206	450000	974287.8	62344.1396 5	1433354.11 5
01-Jan-15	24.29	10000	411.776 8	42788.6974	460000	1039124	62344.1396 5	1514027.43 1
01-Feb-15	25.09	10000	398.501 6	43187.1991	470000	1083740	62344.1396 5	1564463.84
01-Mar-15	24.92	10000	401.300 2	43588.4993	480000	1086182	62344.1396 5	1553553.61 6
01-Apr-15	24.47	10000	408.630 3	43997.1295	490000	1076698	62344.1396 5	1525685.78 6
01-May-15	23.89	10000	418.655 3	44415.7848	500000	1060915	62344.1396 5	1489152.12
01-Jun-15	24.04	10000	416.059 9	44831.8447	510000	1077533	62344.1396 5	1498441.39 6
01-Jul-15	24.1	10000	414.886 1	45246.7308	520000	1090582	62344.1396 5	1502680.79 8
01-Aug-15	26.38	10000	379.03 2	45625.7628	530000	1203744	62344.1396 5	1644825.43 6
01-Sep-15	24.1	10000	414.972 2	46040.735	540000	1109490	62344.1396 5	1502369.07 7
01-Oct-15	25.1	10000	398.358 8	46439.0938	550000	1165761	62344.1396 5	1565024.93 8
01-Nov-15	26.65	10000	375.262 7	46814.3564	560000	1247509	62344.1396 5	1661346.63 3
01-Dec-15	27.45	10000	364.338 5	47178.695	570000	1294914	62344.1396 5	1711159.60 1

01-Jan-16	27.99	10000	357.283 2	47535.9782	580000	1330484	62344.1396 5	1744950.12 5
01-Feb-16	25.35	10000	394.477 3	47930.4555	590000	1215037	62344.1396 5	1580423.94
01-Mar-16	22.66	10000	441.286 8	48371.7423	600000	1096152	62344.1396 5	1412780.54 9
TOTAL INVESTMENT						600000		600000
TOTAL UNIT						48371.74		62344.1396 5
AVERAGE UNIT PRICE						12.40394		9.624

1) RETURN

$$\text{a) Standard return} = \frac{(\text{Ending Value} - \text{Beginning Value})}{\text{Beginning Value}} \times 100$$

$$\text{Beginning Value} = \text{Total Unit} * \text{Average Unit Price}$$

$$= 48371.74 * 12.40394$$

$$= \underline{600000}$$

$$\text{SIP} = \frac{(1096152 - 600000)}{600000} \times 100$$

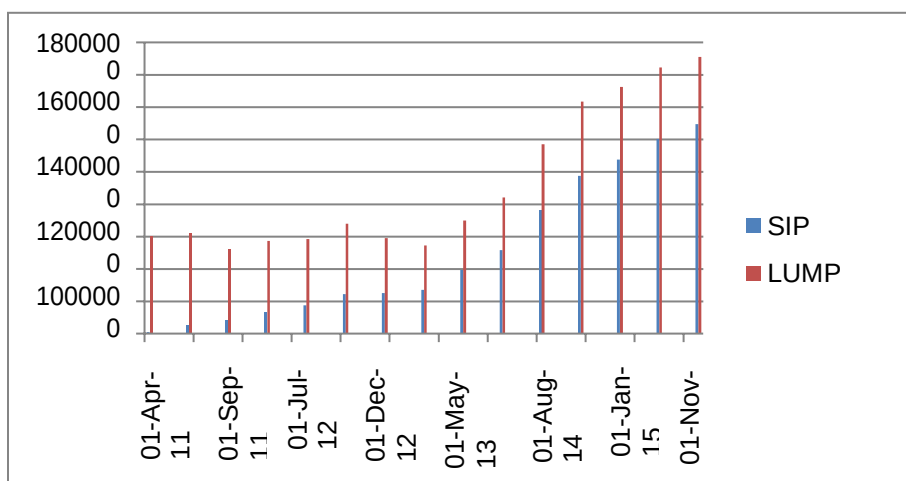
$$= \underline{82.69}$$

$$\text{Lump Sum} = \frac{(\text{Ending Value} - \text{Beginning Value})}{\text{Beginning Value}} \times 100$$

$$\text{Lump Sum} = \frac{(1412780.549 - 600000)}{600000} \times 100$$

$$= \underline{135.46}$$

CHART SHOWING THE COMPARISON OF SIP VALUE AND LUMP SUM VALUE OF RELIANCE SMALL CAP FUND –GROWTH



Interpretation

This graph shows the comparison of SIP value and Lump Sum value of RELIANCE SMALL CAP FUND – GROWTH. In April 2011 the NAV of the mutual fund is 9.624. Then it increased but unit purchased is decreased. After 5 years SIP value is increased up to 1096152 and Lump sum value is 1412780.549.

b) **CAGR (Last fiveyear)**

$$\text{CAGR (Lastfiveyear)} = [\text{Nth root of (NAV at the end / NAV at the beginning)}] - 1 * 100$$

$$= [5\sqrt{(22.661 / 9.624)}] - 1 * 100$$

$$= \underline{\underline{18.68}}$$

RATIOS

Market Index Return (X)	X²	Stock Index Return (Y)	Y²	XY
-5.20	27.04	-5.91	34.928	30.732
23.91	571.688	8.89	79.032	212.559
12.79	163.584	47.83	2287.708	611.745
11.47	131.560	36.23	1312.612	415.558
-4.77	22.752	11.51	132.480	-54.90
ΣX = 38.2	ΣX² = 916.624	ΣY = 98.55	ΣY² = 3846.76	ΣXY = 1215.693

$$\begin{aligned}
 \text{Coefficient of correlation} &= \frac{N\sum XY - (\sum X * \sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2} * \sqrt{N\sum Y^2 - (\sum Y)^2}} \\
 &= \frac{5 * 1215.693 - (38.2 * 98.55)}{\sqrt{5 * 916.624 - (38.2)^2} * \sqrt{5 * 3846.76 - (98.55)^2}} \\
 &= \underline{\underline{0.4242}}
 \end{aligned}$$

BETA

$$\begin{aligned}
 \text{Beta Value}(\beta) &= \frac{N\sum XY - (\sum X * \sum Y)}{N\sum X^2 - (\sum X)^2} \\
 &= \frac{5 * 1215.693 - (38.2 * 98.55)}{5 * 916.624 - (38.2)^2} \\
 &= \underline{\underline{0.740}}
 \end{aligned}$$

ALPHA

$$\begin{aligned}
 \text{Alpha Value}(\alpha) &= \bar{y} - \beta \bar{x} \\
 &= 19.71 - (0.740 * 7.64) \\
 &= \underline{\underline{14.056}}
 \end{aligned}$$

$$\begin{aligned}
 \text{S.D of Stock Return} &= \frac{\sqrt{N\sum y^2 - (\sum y)^2}}{N^2} \\
 &= \frac{\sqrt{5 \cdot 3846.76 - (98.55)^2}}{5^2} \\
 &= \underline{\underline{19.51}}
 \end{aligned}$$

SHARPE RATIO

$$\begin{aligned}
 \text{Sharpe Ratio} &= \frac{R_i - R_f}{\text{S.D}} \\
 &= \frac{18.68 - 7.6}{19.51} \\
 &= \underline{\underline{0.029}}
 \end{aligned}$$

TREYNOR'S RATIO

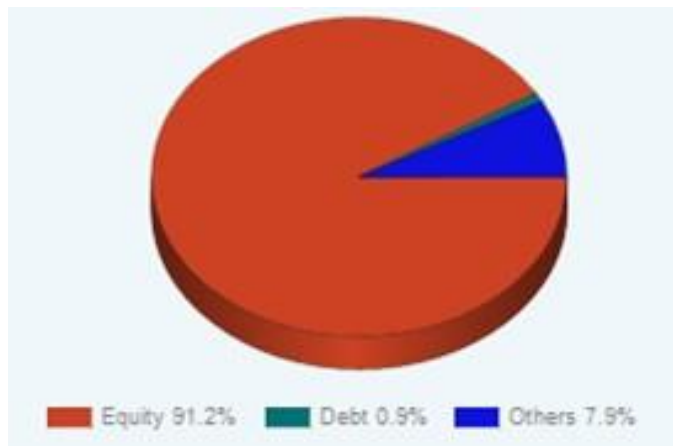
$$\begin{aligned}
 \text{Treynor's Ratio} &= \frac{R_i - R_f}{\beta} \\
 &= \frac{18.68 - 7.6}{0.740} \\
 &= \underline{\underline{20.23}}
 \end{aligned}$$

UTI MID CAP FUND - GROWTH

Description	The first introduction of a mutual fund in India occurred in 1963, when the Government of India launched Unit Trust of India(UTI).In 1996,SEBI, the regulator of mutual funds in India, formulated the Mutual Fund Regulation which is a comprehensive regulatory framework.
Objective	An open-ended equity fund with the objective to provide 'Capital appreciation' by investing primarily in mid- cap stocks.
Fund Family	UTI Mutual Fund
Type	Open-ended
Class	Equity
Category	Mid Cap
Options	Growth
NAV	Rs 79.65 as on 18 May 2016
AUM	Rs. 3227.12 Cr.
Fund Size in Rs Cr	3057.25
Face Value (Rs/Unit)	10.00
Minimum Initial Investment	5000
Fund Manager	LalitGopalanNambiar
SIP	Yes
Load Structure	Entry Load: 0.00 Exit Load: 1%
Expense Ratio	2.42
Benchmark	Nifty Free Float midcap 100 In

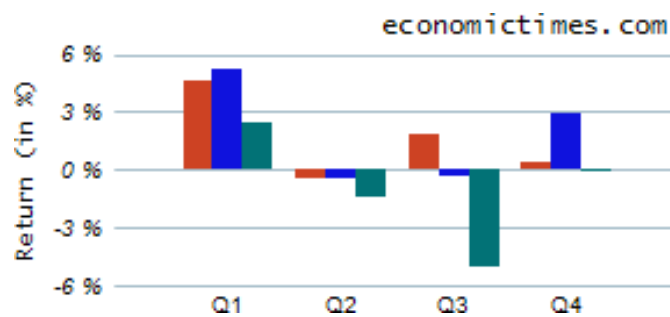
Risk Factor	High Risk
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ASSET ALLOCATION

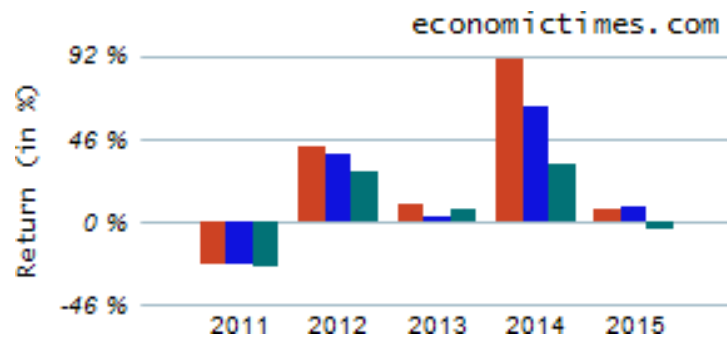


RETURNS

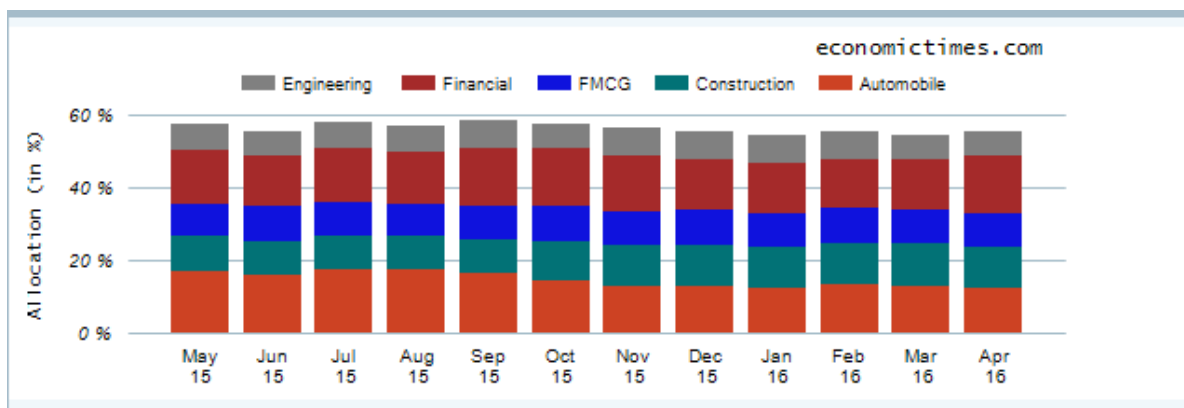
Quarterly Returns



Annual Returns



SECTOR ALLOCATION



PERFORMANCE

Best and worst performance(*last one year*)

Performance	Best (in %) Period	Worst (in %) Period
Month	40.71 (May 06, 2009 – Jun 05, 2009)	-35.82 (May 15, 2006 – Jun 14, 2006)
Quarter	81.68 (Mar 06, 2009 – Jun 05, 2009)	-43.51 (Sep 02, 2008 – Dec 02, 2008)
Year	155.41 (Mar 09, 2009 – Mar 09, 2010)	-61.66 (Jan 01, 2008 – Dec 31, 2008)

PORTFOLIO

PORTFOLIO SUMMARY

Total Market Value (mil) 32,271.2400 INR	Top 10 Equity Holding(%) 24.3318	Market Capital (mil) 88845.2
Number of Holdings (L) 102	Number of Stock Holdings (L) 90	Number of Bond Holdings (L) 3
Number of Holdings (S) 0	Number of Stock Holdings (S) 0	Number of Bond Holdings (S) 0
Earnings Yield 0.0474	Book Value Yield 0.3817	Revenue Yield 0.7455

DATA ANALYSIS

**TABLE SHOWING CALCULATION OF SIP AND LUMP SUM VALUE OF UTI
MID CAPFUND**

UTI MID CAP FUND								
Date	NAV	SIP investment					Lump Sum investment	
		Investment	Unit	Total unit	Total investment	Value	Total unit	Value
01-Apr-11	31.11	10000	321.4401	321.4401	10000	10000	19286.40309	600000.0001
01-May-11	30.94	10000	323.2062	644.646306	20000	19945.36	19286.40309	596721.3116
01-Jun-11	31.6	10000	316.4557	961.102002	30000	30370.82	19286.40309	609450.3376
01-Jul-11	31.68	10000	315.6566	1276.75857	40000	40447.71	19286.40309	610993.2499
01-Aug-11	32.59	10000	306.8426	1583.60116	50000	51609.56	19286.40309	628543.8767
01-Sep-11	30.09	10000	332.3363	1915.93748	60000	57650.56	19286.40309	580327.8699
01-Oct-11	29.59	10000	337.952	2253.88949	70000	66692.59	19286.40309	570684.6674
01-Nov-11	30.66	10000	326.1579	2580.04735	80000	79104.25	19286.40309	591321.1187
01-Dec-11	28.16	10000	355.1136	2935.16099	90000	82654.13	19286.40309	543105.1119
01-Jan-12	25.46	10000	392.773	3327.93397	100000	84729.2	19286.40309	491031.8227
01-Feb-12	28.87	10000	346.3803	3674.31429	110000	106077.5	19286.40309	556798.4572
01-Mar-12	29.58	10000	338.0663	4012.38055	120000	118686.2	19286.40309	570491.8034
01-Apr-12	30.75	10000	325.2033	4337.5838	130000	133380.7	19286.40309	593056.8959
01-May-12	30.67	10000	326.0515	4663.63532	140000	143033.7	19286.40309	591513.9828
01-Jun-12	29.1	10000	343.6426	5007.27793	150000	145711.8	19286.40309	561234.3299
01-Jul-12	30.69	10000	325.839	5333.11697	160000	163673.4	19286.40309	591899.7108

01-Aug-12	30.55	10000	327.3322	5660.44921	170000	172926.7	19286.40309	589199.6144
01-Sep-12	30.83	10000	324.3594	5984.8086	180000	184511.6	19286.40309	594599.8073
01-Oct-12	33.28	10000	300.4808	6285.28937	190000	209174.4	19286.40309	641851.4948
01-Nov-12	33.58	10000	297.7963	6583.08568	200000	221060	19286.40309	647637.4158
01-Dec-12	35.39	10000	282.5657	6865.65137	210000	242975.4	19286.40309	682545.8054
01-Jan-13	36.34	10000	275.1789	7140.83024	220000	259497.8	19286.40309	700867.8883
01-Feb-13	34.929	10000	286.2951	7427.1253	230000	259422.1	19286.40309	673654.7735
01-Mar-13	32.355	10000	309.0712	7736.19654	240000	250304.6	19286.40309	624011.572
01-Apr-13	31.688	10000	315.5769	8051.77341	250000	255144.6	19286.40309	611147.5411
01-May-13	32.981	10000	303.2049	8354.97829	260000	275555.5	19286.40309	636084.8603
01-Jun-13	34.13	10000	292.9974	8647.97565	270000	295155.4	19286.40309	658244.9375

01-Jul-13	32.464	10000	308.033 5	8956.00916	280000	290747.9	19286.4030 9	626113.789 9
01-Aug-13	30.423	10000	328.698 7	9284.70785	290000	282468.7	19286.4030 9	586750.241 2
01-Sep-13	29.996	10000	333.377 8	9618.08563	300000	288504.1	19286.4030 9	578514.947 1
01-Oct-13	31.927	10000	313.214 5	9931.30015	310000	317076.6	19286.4030 9	615756.991 5
01-Nov-13	34.88	10000	286.697 2	10217.9974	320000	356403.7	19286.4030 9	672709.739 8
01-Dec-13	37.179	10000	268.96 9	10486.9664	330000	389894.9	19286.4030 9	717049.180 5
01-Jan-14	39.79	10000	251.319 4	10738.2859	340000	427276.4	19286.4030 9	767405.979
01-Feb-14	38.372	10000	260.606 7	10998.8926	350000	422049.5	19286.4030 9	740057.859 4
01-Mar-14	40.657	10000	245.960 1	11244.8527	360000	457182	19286.4030 9	784127.290 4
01-Apr-14	44.728	10000	223.573 6	11468.4263	370000	512959.8	19286.4030 9	862642.237 4
01-May-14	45.836	10000	218.169 1	11686.5954	380000	535666.8	19286.4030 9	884011.572
01-Jun-14	51.921	10000	192.600 3	11879.1957	390000	616779.7	19286.4030 9	1001369.33 5
01-Jul-14	58.633	10000	170.552 4	12049.7481	400000	706512.9	19286.4030 9	1130819.67 2
01-Aug-14	58.532	10000	170.846 7	12220.5948	410000	715295.9	19286.4030 9	1128871.74 6
01-Sep-14	63.37	10000	157.803 4	12378.3982	420000	784419.1	19286.4030 9	1222179.36 4
01-Oct-14	67.79	10000	147.514 4	12525.9126	430000	849131.6	19286.4030 9	1307425.26 5
01-Nov-14	71.418	10000	140.020 7	12665.9333	440000	904575.6	19286.4030 9	1377396.33 6
01-Dec-14	73.584	10000	135.899 1	12801.8324	450000	942010	19286.4030 9	1419170.68 5
01-Jan-15	75.874	10000	131.797 5	12933.6299	460000	981326.2	19286.4030 9	1463336.54 8
01-Feb-15	78.378	10000	127.586 8	13061.2167	470000	1023712	19286.4030 9	1511629.70 1
01-Mar-15	79.283	10000	126.130 4	13187.3471	480000	1045532	19286.4030 9	1529083.89 6
01-Apr-15	80.194	10000	124.697 6	13312.0447	490000	1067546	19286.4030 9	1546653.80 9
01-May-15	77.985	10000	128.229 8	13440.2745	500000	1048140	19286.4030 9	1504050.14 5
01-Jun-15	79.641	10000	125.563 5	13565.838	510000	1080397	19286.4030 9	1535988.42 8

01-Jul-15	79.475	10000	125.825 7	13691.6637	520000	1088145	19286.4030 9	1532786.88 6
01-Aug-15	83.777	10000	119.364 5	13811.0282	530000	1157047	19286.4030 9	1615756.99 2
01-Sep-15	78.977	10000	126.619 1	13937.6474	540000	1100754	19286.4030 9	1523182.25 7
01-Oct-15	80.065	10000	124.898 5	14062.5459	550000	1125918	19286.4030 9	1544165.86 3
01-Nov-15	79.53	10000	125.738 7	14188.2846	560000	1128394	19286.4030 9	1533847.63 8
01-Dec-15	80.439	10000	124.317 8	14312.6024	570000	1151291	19286.4030 9	1551378.97 8
01-Jan-16	80.877	10000	123.644 5	14436.247	580000	1167560	19286.4030 9	1559826.42 3
01-Feb-16	75.295	10000	132.810 9	14569.0579	590000	1096977	19286.4030 9	1452169.72 1
01-Mar-16	70.457	10000	141.930 5	14710.9884	600000	1036492	19286.4030 9	1358862.10 3
TOTAL INVESTME NT						600000		600000
TOTAL UNIT						14710.99		19286.4030 9
AVERAGE UNIT PRICE						40.78584		31.1099999 9

RETURN

$$\text{a) Standard return} = \frac{(\text{Ending Value} - \text{Beginning Value})}{\text{Beginning Value}} \times 100$$

$$\text{Beginning Value} = \text{Total Unit} * \text{Average Unit Price}$$

$$= 14710.99 * 40.78584$$

$$= \underline{600000}$$

$$\text{SIP} = \frac{(1036492 - 600000)}{600000} \times 100$$

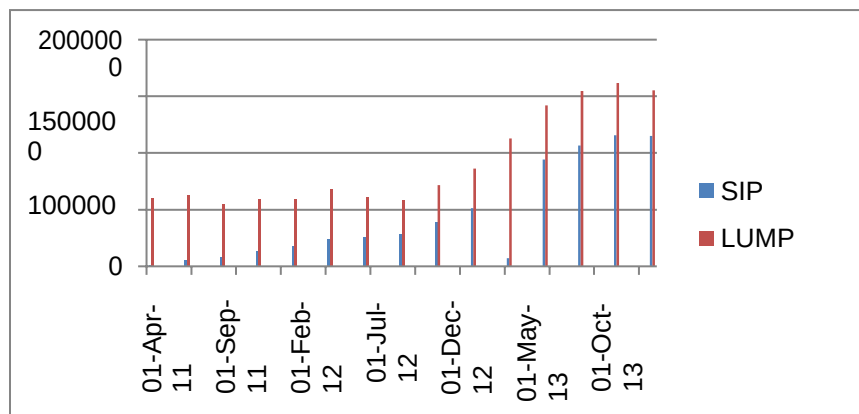
$$= \underline{72.74}$$

$$\text{LumpSum} = \frac{(\text{Ending Value} - \text{Beginning Value})}{\text{Beginning Value}} \times 100$$

$$\text{LumpSum} = \frac{(1358862 - 600000)}{600000} \times 100$$

$$= \underline{126.4}$$

CHART SHOWING THE COMPARISON OF SIP VALUE AND LUMP SUM VALUE OF UTI MID CAP FUND -GROWTH



Interpretation

This graph shows the comparison of SIP value and Lump Sum value of UTI MID CAP FUND - GROWTH. In April 2011 the NAV of the mutual fund is 31.11. Then it increased so the unit purchased is also decreased. After 5 years SIP value is increased up to 1036492 and Lump sum plan value is increased up to 1358862.

a) CAGR last five year = [Nth root of (NAV at the end/ NAV at the beginning)] –1*100

$$= [5\sqrt{(70.457/31.11)}]-1*100$$

$$= \underline{17.76}$$

RATIOS

Market Index Return (X)	X ²	Stock Index Return (Y)	Y ²	XY
-0.052	2.704	-2.66	-7.07	0.138
23.91	571.68	13.33	177.68	318.72
12.79	163.58	34.23	1171.69	437.80
8.64	74.64	42.77	1829.27	369.53
-4.77	-22.75	2.58	6.656	-12.306
$\Sigma X =$ 40.518	$\Sigma X^2 =$ 789.854	$\Sigma Y =$ 90.25	$\Sigma Y^2 =$ 3178.226	$\Sigma XY =$ 1113.887

$$\begin{aligned}
 \text{Coefficient of correlation} &= \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{\sqrt{N\Sigma X^2 - (\Sigma X)^2} * \sqrt{N\Sigma Y^2 - (\Sigma Y)^2}} \\
 &= \frac{5*1113.887 - (40.518*90.25)}{\sqrt{5*789.854 - (40.518)^2} * \sqrt{5*3178.226 - (90.25)^2}} \\
 &= \underline{\underline{0.452}}
 \end{aligned}$$

BETA

$$\begin{aligned}
 \text{Beta Value } (\beta) &= \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{N\Sigma X^2 - (\Sigma X)^2} \\
 &= \frac{5*1113.887 - (40.518*90.25)}{5*789.854 - (40.518)^2} \\
 &= \underline{\underline{0.82}}
 \end{aligned}$$

ALPHA

$$\begin{aligned}
 \text{Alpha Value } (\alpha) &= \bar{y} - \beta \bar{x} \\
 &= 18.05 - (0.82*8.10) \\
 &= \underline{\underline{11.408}}
 \end{aligned}$$

$$\begin{aligned}
 \text{S.D of Stock Return} &= \sqrt{\frac{N\Sigma y^2 - (\Sigma y)^2}{N^2}} \\
 &= \sqrt{\frac{5*3178.226 - (90.25)^2}{5^2}} \\
 &= \underline{\underline{17.60}}
 \end{aligned}$$

SHARPE RATIO

$$\begin{aligned}
 \text{Sharpe Ratio} &= \frac{\text{Ri-Rf}}{\text{S.D}} \\
 &= \frac{17.76-7.6}{17.60} \\
 &= \underline{\underline{0.032}}
 \end{aligned}$$

TREYNOR'S RATIO

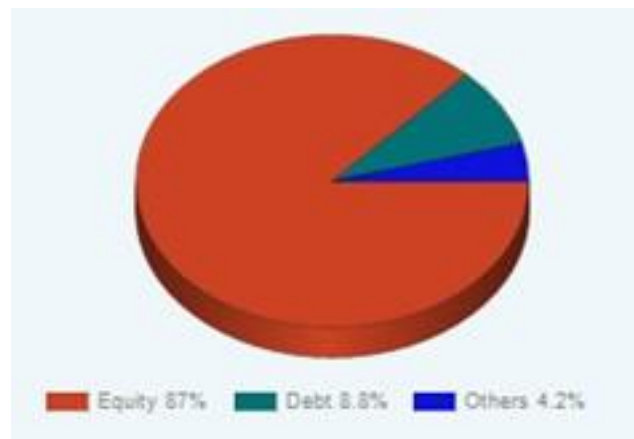
$$\begin{aligned}
 \text{Treynor's Ratio} &= \frac{\text{Ri-Rf}}{\beta} \\
 &= \frac{17.76-7.6}{0.82} \\
 &= \underline{\underline{15.1}}
 \end{aligned}$$

SBI BLUE CHIP FUND – GROWTH

Description	SBI Blue-chip Fund invests in stocks of blue-chip companies, i.e. in stocks of companies with market capitalization equal to or more than the least market capitalized stock of S&P BSE 100 Index.
Objective	The scheme would invest in stocks of companies whose market capitalization is at least equal to or more than the least market capitalized stock of BSE 100 Index.
Fund Family	SBI Mutual Fund
Type	Open-ended
Class	Equity
Category	Large Cap
Options	Growth
NAV	Rs 28.91 as on 18 May 2016
AUM	Rs. 5624.47 Cr.
Fund Size in Rs Cr	4100.07
Face Value (Rs/Unit)	10.00
Minimum Initial Investment	5000
Fund Manager	SohiniAndani
SIP	Yes
Load Structure	Entry Load: 0.00 Exit Load: 1%
Expense Ratio	2.08
Benchmark	S&P BSE 100

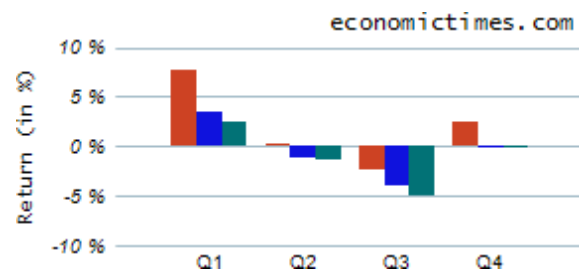
Risk Factor	High Risk
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ASSET ALLOCATION



RETURNS

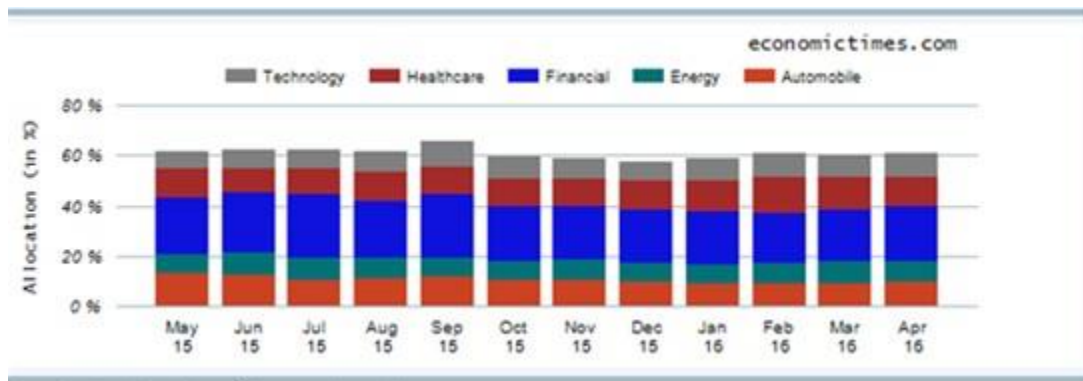
Quarterly Return



Annual Return



SECTOR ALLOCATION



PERFORMANCE

BEST AND WROST PERFORMANCE*(last one year)*

Performance	Best (in %) Period	Worst (in %) Period
Month	37.24 (May 11,2009 – Jun 10,2009)	-30.90 (Sep 24,2008 – Oct 24,2008)
Quarter	87.78 (Mar 09, 2009 – Jun 10, 2009)	-39.45 (Sep 02,2008 – Dec 02,2008)
Year	111.87 (Mar 09,2009 – Mar 11,2010)	-57.14 (Dec 03,2007 – Dec 02,2008)

PORTFOLIO

PORTFOLIO SUMMARY

Total Market Value (mil)51,244.1700 INR	Top 10 Equity Holding(%)36.2664	Market Capital (mil)614825
Number of Holdings (L)60	Number of Stock Holdings (L)53	Number of Bond Holdings (L)0
Number of Holdings (S)1	Number of Stock Holdings (S)0	Number of Bond Holdings (S)0
Earnings Yield0.0475	Book Value Yield0.3162	Revenue Yield0.6593

DATA ANALYSIS

TABLE SHOWING CALCULATION OF SIP AND LUMP SUM VALUE OF SBI BLUECHIPFUND

SBI BLUECHIP FUND								
Date	NAV	SIP investment					Lump Sum investment	
		Investment	Unit	Total unit	Total investment	Value	Total unit	Value
01-Apr-11	15	10000	666.6667	666.6667	10000	10000.0005	40000	600000
01-May-11	14.52	10000	688.7052	1355.3719 3	20000	19680.0004 8	40000	580800
01-Jun-11	14.34	10000	697.3501	2052.722	30000	29436.0335 4	40000	573600
01-Jul-11	14.34	10000	697.3501	2750.0720 7	40000	39436.0335 4	40000	573600
01-Aug-11	14.2	10000	704.2254	3454.2974 3	50000	49051.0234 5	40000	568000
01-Sep-11	13.14	10000	761.035	4215.3324 3	60000	55389.4681 7	40000	525600
01-Oct-11	12.6	10000	793.6508	5008.9832 3	70000	63113.1886 6	40000	504000
01-Nov-11	13.3	10000	751.8797	5760.8629 3	80000	76619.4769 2	40000	532000
01-Dec-11	12.69	10000	788.0221	6548.8849 9	90000	83105.3505 3	40000	507600
01-Jan-12	11.98	10000	834.7245	7383.6095 3	100000	88455.6421 9	40000	479200
01-Feb-12	13.3	10000	751.8797	8135.4892 3	110000	108202.006 8	40000	532000
01-Mar-12	13.72	10000	728.863	8864.3522	120000	121618.912 2	40000	548800
01-Apr-12	14	10000	714.2857	9578.6379 2	130000	134100.930 9	40000	560000
01-May-12	13.76	10000	726.7442	10305.382 1	140000	141802.057 8	40000	550400
01-Jun-12	12.97	10000	771.01	11076.392 1	150000	143660.805 9	40000	518800
01-Jul-12	13.94	10000	717.3601	11793.752 2	160000	164404.906 3	40000	557600
01-Aug-12	14.2	10000	704.2254	12497.977 6	170000	177471.281 9	40000	568000
01-Sep-12	14.47	10000	691.085	13189.062	180000	190845.735	40000	578800

				6		8		
01-Oct-12	15.46	10000	646.8305	13835.893 1	190000	213902.907 8	40000	618400
01-Nov-12	15.58	10000	641.8485	14477.741 7	200000	225563.214 9	40000	623200
01-Dec-12	16.32	10000	612.7451	15090.486 8	210000	246276.743 8	40000	652800
01-Jan-13	16.72	10000	598.0861	15688.572 9	220000	262312.938 5	40000	668800
01-Feb-13	16.86	10000	593.1198	16281.692 7	230000	274509.338 7	40000	674400
01-Mar-13	16.215	10000	616.7129	16898.405 6	240000	274007.646 9	40000	648600
01-Apr-13	16.183	10000	617.9324	17516.338	250000	283466.897 9	40000	647320
01-May-13	16.871	10000	592.7331	18109.071 1	260000	305518.138 5	40000	674840
01-Jun-13	16.653	10000	600.4924	18709.563 5	270000	311570.361	40000	666120
01-Jul-13	16.366	10000	611.0229	19320.586 4	280000	316200.716 2	40000	654640
01-Aug-13	15.781	10000	633.6734	19954.259 8	290000	314898.173 2	40000	631240

01-Sep-13	15.255	10000	655.5228	20609.7825	300000	314402.232 6	40000	610200
01-Oct-13	16.403	10000	609.6446	21219.4271	310000	348062.262 9	40000	656120
01-Nov-13	17.507	10000	571.2001	21790.6272	320000	381488.510 5	40000	700280
01-Dec-13	17.441	10000	573.3616	22363.9888	330000	390050.329 1	40000	697640
01-Jan-14	17.87	10000	559.5971	22923.5859	340000	409644.480 3	40000	714800
01-Feb-14	17.384	10000	575.2416	23498.8275	350000	408503.617 5	40000	695360
01-Mar-14	18.053	10000	553.9246	24052.7521	360000	434224.333 1	40000	722120
01-Apr-14	19.129	10000	522.7665	24575.5186	370000	470105.094 4	40000	765160
01-May-14	19.22	10000	520.2914	25095.8099	380000	482341.466 6	40000	768800
01-Jun-14	21.237	10000	470.8763	25566.6862	390000	542959.715 2	40000	849480
01-Jul-14	22.701	10000	440.5092	26007.1954	400000	590389.343 8	40000	908040
01-Aug-14	22.777	10000	439.0394	26446.2348	410000	602365.890 6	40000	911080
01-Sep-14	24.278	10000	411.8955	26858.1304	420000	652061.689 1	40000	971120
01-Oct-14	24.576	10000	406.901	27265.0314	430000	670065.411 9	40000	983040
01-Nov-14	25.593	10000	390.7318	27655.7633	440000	707793.948 9	40000	1023720
01-Dec-14	26.493	10000	377.4582	28033.2214	450000	742684.135 8	40000	1059720
01-Jan-15	26.373	10000	379.1757	28412.3971	460000	749320.149 2	40000	1054920
01-Feb-15	27.985	10000	357.3343	28769.7314	470000	805120.933 4	40000	1119400
01-Mar-15	28.944	10000	345.4947	29115.2262	480000	842711.105 8	40000	1157760
01-Apr-15	28.703	10000	348.3956	29463.6218	490000	845694.336 3	40000	1148120
01-May-15	27.827	10000	359.3632	29822.985	500000	829884.203 6	40000	1113080
01-Jun-15	28.169	10000	355.0002	30177.9852	510000	850083.664 5	40000	1126760
01-Jul-15	28.717	10000	348.2258	30526.211	520000	876621.200 4	40000	1148680
01-Aug-15	29.402	10000	340.1129	30866.3239	530000	907531.654 9	40000	1176080

01-Sep-15	27.299	10000	366.3138	31232.6377	540000	852619.775 8	40000	1091960
01-Oct-15	27.858	10000	358.9633	31591.601	550000	880078.820 2	40000	1114320
01-Nov-15	28.248	10000	354.0074	31945.6083	560000	902399.544 6	40000	1129920
01-Dec-15	28.242	10000	354.0826	32299.6909	570000	912207.870 9	40000	1129680
01-Jan-16	28.54	10000	350.3854	32650.0763	580000	931833.178 8	40000	1141600
01-Feb-16	27.408	10000	364.857	33014.9333	590000	904873.292 4	40000	1096320
01-Mar-16	26.071	10000	383.5679	33398.5013	600000	870732.326 6	40000	1042840
TOTAL INVESTMENT						600000		600000
TOTAL UNIT						33398.5013		40000
AVERAGE UNIT PRICE						17.9648779 6		15

RETURN

$$\text{a) Standard return} = (\text{Ending Value} - \text{Beginning Value}) / \text{Beginning Value} * 100$$

$$\text{Beginning Value} = \text{Total Unit} * \text{Average Unit Price}$$

$$= 33398.5013 * 17.96487796$$

$$= \underline{600000}$$

$$\text{SIP} = (870732.3266 - 600000) / 600000 * 100$$

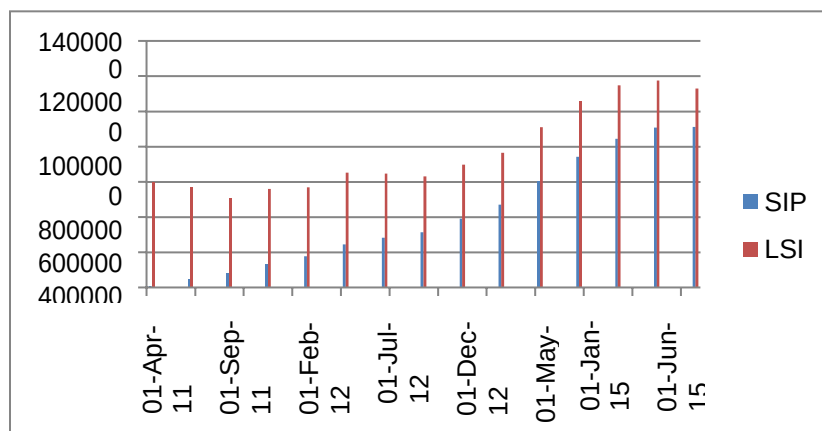
$$= \underline{45.12}$$

$$\text{LumpSum} = (\text{Ending Value} - \text{Beginning Value}) / \text{Beginning Value} * 100$$

$$\text{LumpSum} = (1042840 - 600000) / 600000 * 100$$

$$= \underline{73.80}$$

CHART SHOWING THE COMPARISON OF SIP VALUE AND LUMP SUM VALUE OF SBI BLUE CHIP FUND –GROWTH



Interpretation

This graph shows the comparison of SIP value and Lump Sum value of SBI BLUE CHIP FUND – GROWTH. In April 2011 the NAV of the mutual fund is 15. Then NAV is increased gradually in every year. So the unit purchased in SIP is decreased. After 5 years SIP value is increased up to 870732.3266. But in the case of Lump sum plan the unit purchased is constant so its value increased with increase of NAV and its value is 1042840

b) **CAGR (Last fiveyear)**

$$\begin{aligned}
 \text{CAGR lastfiveyear} &= [\text{Nth root of (NAV at the end/ NAV at the beginning)}] - 1 * 100 \\
 &= [5 \sqrt{(26.071/15)}] - 1 * 100 \\
 &= \underline{11.68}
 \end{aligned}$$

RATIOS

Market Index Return (X)	X ²	Stock Index Return (Y)	Y ²	XY
-90.428	8177.223	-0.117	0.013689	10.58008
19.783	391.3671	2.069	4.280761	40.93103
12.183	148.4255	0.887	0.786769	10.80632
13.966	195.0492	1.532	2.347024	21.39591
-6.779	45.95484	0.071	0.005041	-0.48131
ΣX = -51.275	ΣX ² = 8958.02	ΣY = 4.442	ΣY ² = 7.433284	ΣXY = 83.23203

$$\text{Coefficient of correlation} = \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{\sqrt{N\Sigma X^2 - (\Sigma X)^2} * \sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

$$= \frac{5 * 83.23203 - (-51.275 * 4.442)}{\sqrt{5 * 8958.02 - (-51.275)^2} * \sqrt{5 * 7.433284 - (4.442)^2}}$$

$$= \frac{643.923}{875.256}$$

$$= \underline{\underline{0.735}}$$

BETA

$$\text{Beta Value}(\beta) = \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{N\Sigma X^2 - (\Sigma X)^2}$$

$$= \frac{5 * 83.23203 - (-51.275 * 4.442)}{5 * 8958.02 - (-51.275)^2}$$

$$= \frac{643.923}{42160.974}$$

$$= \underline{\underline{0.0152}}$$

ALPHA

$$\text{Alpha Value}(\alpha) = \bar{y} - \beta \bar{x}$$

$$= 0.8884 - 0.0152 * 10.255$$

$$= \underline{\underline{8.9546}}$$

$$\begin{aligned}
 \text{S.D of Stock Return} &= \sqrt{\frac{N\sum y^2 - (\sum y)^2}{N^2}} \\
 &= \sqrt{\frac{5 * 7.433284 - (4.442)^2}{5^2}} \\
 &= \underline{\underline{0.83}}
 \end{aligned}$$

SHARPE RATIO

$$\begin{aligned}
 \text{SharpeRatio} &= \frac{\text{Ri-Rf}}{\text{S.D}} \\
 &= \frac{11.68-7.6}{0.83} \\
 &= \underline{\underline{5.92}}
 \end{aligned}$$

TREYNOR'S RATIO

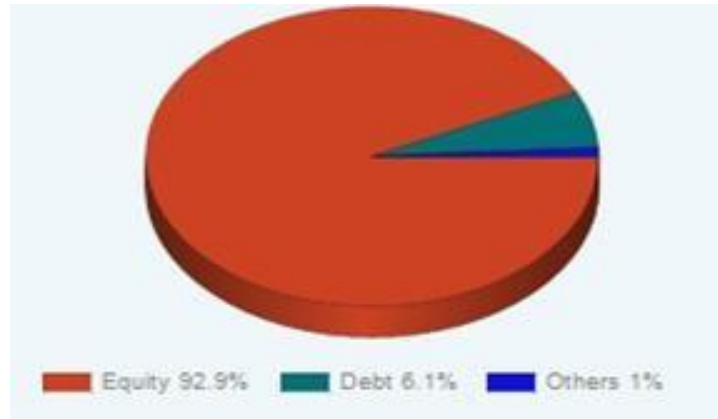
$$\begin{aligned}
 \text{Treynor'sRatio} &= \frac{\text{Ri-Rf}}{\beta} \\
 &= \frac{11.68-7.6}{0.0152} \\
 &= \underline{\underline{268.42}}
 \end{aligned}$$

KOTAK SELECT FOCUS FUND REGULAR PLAN - DIVIDEND

Description	Kotak Select Focus Fund is an open-ended scheme. The investment objective of the scheme is to generate long-term capital appreciation from a portfolio of equity and related securities, generally focused on a few selected sectors.
Objective	The scheme aims to generate capital appreciation from a diversified portfolio of equity and equity related instruments, generally focused on a few selected sectors.
Fund Family	Kotak Mahindra Mutual Fund
Type	Open-ended
Class	Equity
Category	Multi Cap
Options	Growth
NAV	Rs. 22.848 as on 18 May, 2016
AUM	Rs. 4424.71Cr.
Fund Size in Rs Cr	3870.57
Face Value (Rs/Unit)	10.00
Minimum Initial Investment	5000
Fund Manager	Harsha Upadhyaya
SIP	Yes
Load Structure	Entry Load N.A Exit Load 1.00%

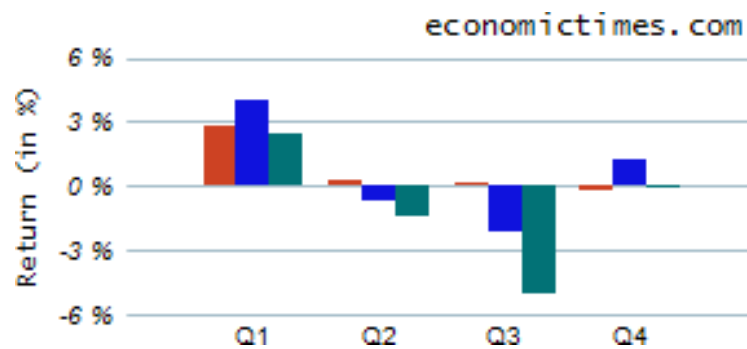
Expense Ratio	2.15
Benchmark	Nifty 50
Risk Factor	Moderately High

ASSET ALLOCATION

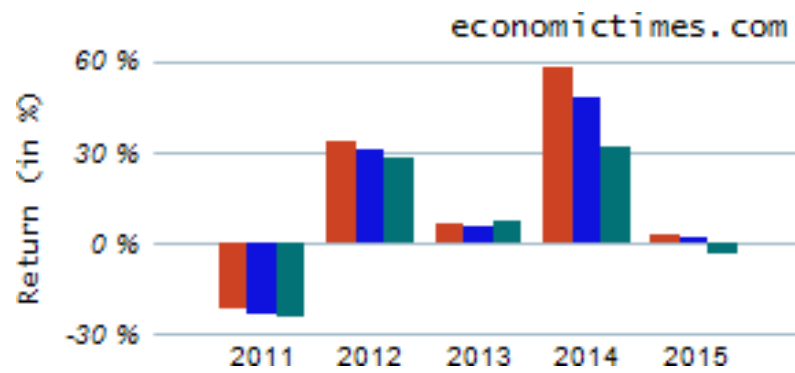


RETURNS

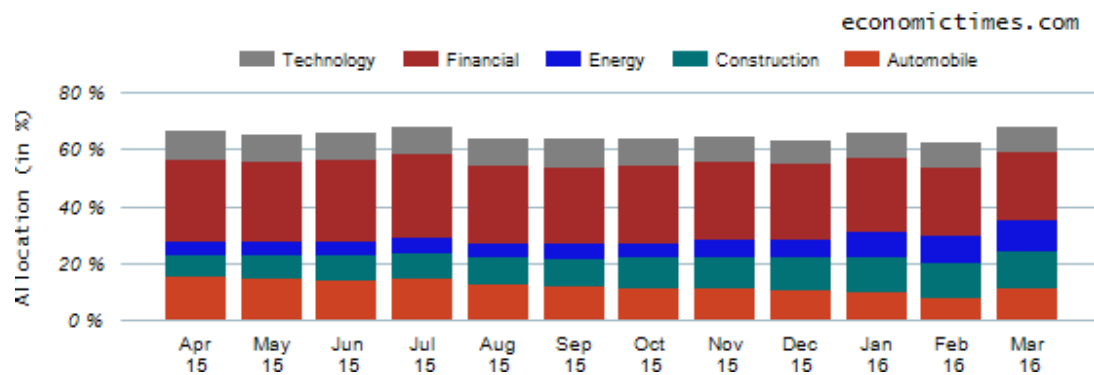
Quarterly Returns



Annual Returns



SECTOR ALLOCATION



PERFORMANCE

BEST AND WROST PERFORMANCE (Last One Year)

Performance	Best (in %) Period	Worst (in %) Period
Month	18.85 (May 07,2014 – Jun 06,2014)	-12.36 (Jul 27,2011 – Aug 26,2011)
Quarter	24.63 (Feb 21,2014 – May 23,2014)	-19.81 (Nov 10,2010 – Feb 09, 2011)
Year	77.91 (Jan 29,2014 – Jan 29,2015)	-22.47 (Dec 31,2010 – Jan 02,2012)

PORTFOLIO

PORTFOLIO SUMMARY

Total Market Value (mil) 42,194.9300 INR	Top 10 Equity Holding(%) 39.0949	Market Capital (mil) 539362
Number of Holdings (L) 56	Number of Stock Holdings (L) 52	Number of Bond Holdings (L) 0
Number of Holdings (S) 0	Number of Stock Holdings (S) 0	Number of Bond Holdings (S) 0
Earnings Yield 0.0485	Book Value Yield 0.3325	Revenue Yield 0.7103

DATA ANALYSIS

**TABLE SHOWING CALCULATION OF SIP AND LUMP SUM VALUE OF KOTAK
SELECT FOCUSFUND**

KOTAK SELECT FOCUS FUND								
Date	NAV	SIP investment					Lump Sum investment	
		Investment	Unit	Total unit	Total investment	Value	Total unit	Value
01-Apr-11	11.757	10000	850.5571	850.5571	10000	9999.99982	51033.4269	600000
01-May-11	11.709	10000	854.0439	1704.600998	20000	19959.1731	51033.4269	597550.3956
01-Jun-11	11.641	10000	859.0327	2563.633727	30000	29843.2602	51033.4269	594080.1225
01-Jul-11	11.695	10000	855.0663	3418.699995	40000	39981.6964	51033.4269	596835.9276
01-Aug-11	11.62	10000	860.5852	4279.285193	50000	49725.2939	51033.4269	593008.4206
01-Sep-11	10.792	10000	926.6123	5205.897498	60000	56182.0458	51033.4269	550752.7431
01-Oct-11	10.441	10000	957.7627	6163.660164	70000	64354.7758	51033.4269	532840.0103
01-Nov-11	10.959	10000	912.492	7076.15218	80000	77547.5517	51033.4269	559275.3254
01-Dec-11	10.447	10000	957.2126	8033.364777	90000	83924.5618	51033.4269	533146.2108
01-Jan-12	9.902	10000	1009.897	9043.261768	100000	89546.378	51033.4269	505332.9932
01-Feb-12	10.936	10000	914.4111	9957.672887	110000	108897.111	51033.4269	558101.5566
01-Mar-12	11.152	10000	896.7001	10854.37303	120000	121047.968	51033.4269	569124.7768
01-Apr-12	11.234	10000	890.1549	11744.52792	130000	131938.027	51033.4269	573309.5178
01-May-12	11.151	10000	896.7806	12641.30847	140000	140963.231	51033.4269	569073.7434
01-Jun-12	10.405	10000	961.0764	13602.38488	150000	141532.815	51033.4269	531002.8069
01-Jul-12	11.365	10000	879.8944	14482.27929	160000	164591.104	51033.4269	579994.8967
01-Aug-12	11.383	10000	878.503	15360.78232	170000	174851.785	51033.4269	580913.4984
01-Sep-12	11.42	10000	875.6567	16236.43907	180000	185420.134	51033.4269	582801.7352
01-Oct-12	12.382	10000	807.624	17044.06304	190000	211039.589	51033.4269	631895.8919
01-Nov-12	12.334	10000	810.767	17854.83002	200000	220221.473	51033.4269	629446.2874
01-Dec-12	12.89	10000	775.7952	18630.62521	210000	240148.759	51033.4269	657820.8727
01-Jan-13	13.381	10000	747.3283	19377.95351	220000	259296.396	51033.4269	682878.2853
01-Feb-13	13.185	10000	758.4376	20136.39113	230000	265498.317	51033.4269	672875.7337
01-Mar-13	12.486	10000	800.897	20937.28814	240000	261422.98	51033.4269	637203.3683
01-Apr-13	12.225	10000	817.9959	21755.28405	250000	265958.347	51033.4269	623883.6439
01-May-13	12.89	10000	775.7952	22531.07924	260000	290425.611	51033.4269	657820.8727
01-Jun-13	12.911	10000	774.5333	23305.61258	270000	300898.764	51033.4269	658892.5747

01-Jul-13	12.746	10000	784.559 9	24090.17244	280000	307053.338	51033.4269	650472.0593
01-Aug-13	12.432	10000	804.375 8	24894.54825	290000	309489.024	51033.4269	634447.5632
01-Sep-13	12.165	10000	822.030 4	25716.57866	300000	312842.179	51033.4269	620821.6382
01-Oct-13	12.636	10000	791.389 7	26507.96834	310000	334954.688	51033.4269	644858.3823
01-Nov-13	13.86	10000	721.500 7	27229.46906	320000	377400.441	51033.4269	707323.2968
01-Dec-13	13.69	10000	730.460 2	27959.92925	330000	382771.431	51033.4269	698647.6143
01-Jan-14	14.066	10000	710.934 2	28670.86342	340000	403284.365	51033.4269	717836.1828
01-Feb-14	13.428	10000	744.712 5	29415.57596	350000	394992.354	51033.4269	685276.8564
01-Mar-14	14.052	10000	711.642 5	30127.21843	360000	423347.673	51033.4269	717121.7148
01-Apr-14	15.032	10000	665.247 5	30792.46591	370000	462872.347	51033.4269	767134.4732
01-May-14	15.174	10000	659.02 2	31451.48792	380000	477244.878	51033.4269	774381.2198
01-Jun-14	17.289	10000	578.402 5	32029.89037	390000	553764.775	51033.4269	882316.9177
01-Jul-14	18.179	10000	550.085 3	32579.97563	400000	592271.377	51033.4269	927736.6676
01-Aug-14	18.052	10000	553.955 2	33133.93087	410000	598133.72	51033.4269	921255.4224
01-Sep-14	19.529	10000	512.05 9	33645.98986	420000	657072.536	51033.4269	996631.7939
01-Oct-14	19.792	10000	505.254 6	34151.24451	430000	675921.431	51033.4269	1010053.585
01-Nov-14	20.982	10000	476.59 9	34627.8435	440000	726561.412	51033.4269	1070783.363
01-Dec-14	22.179	10000	450.87 7	35078.72046	450000	778010.941	51033.4269	1131870.375
01-Jan-15	22.193	10000	450.592 5	35529.31298	460000	788502.043	51033.4269	1132584.843
01-Feb-15	23.732	10000	421.37 2	35950.68497	470000	853181.656	51033.4269	1211125.287
01-Mar-15	24.004	10000	416.597 2	36367.28221	480000	872960.242	51033.4269	1225006.379
01-Apr-15	23.051	10000	433.820 7	36801.10286	490000	848302.222	51033.4269	1176371.523
01-May-15	22.493	10000	444.582 8	37245.68562	500000	837767.207	51033.4269	1147894.871
01-Jun-15	22.92	10000	436.300 2	37681.9858	510000	863671.114	51033.4269	1169686.145
01-Jul-15	23.176	10000	431.480 8	38113.46664	520000	883317.703	51033.4269	1182750.702
01-Aug-15	24.231	10000	412.694	38526.16112	530000	933527.41	51033.4269	1236590.967

			5					
01-Sep-15	22.293	10000	448.571 3	38974.73242	540000	868863.71	51033.4269	1137688.186
01-Oct-15	22.931	10000	436.090 9	39410.8233	550000	903729.589	51033.4269	1170247.512
01-Nov-15	22.985	10000	435.066 3	39845.88965	560000	915857.774	51033.4269	1173003.317
01-Dec-15	22.99	10000	434.971 7	40280.86138	570000	926057.003	51033.4269	1173258.484
01-Jan-16	23.01	10000	434.593 7	40715.45503	580000	936862.62	51033.4269	1174279.153
01-Feb-16	21.586	10000	463.263 2	41178.71826	590000	888883.812	51033.4269	1101607.553
01-Mar-16	20.594	10000	485.578 3	41664.29658	600000	858034.524	51033.4269	1050982.394
TOTAL INVESTMENT						600000		600000
TOTAL UNIT						4664.29658		51033.4269
AVERAGE UNIT PRICE						128.63676		11.757

RETURN

$$\text{a) Standard return} = \frac{(\text{Ending Value} - \text{Beginning Value})}{\text{Beginning Value}} \times 100$$

$$\text{Beginning Value} = \text{Total Unit} * \text{Average Unit Price}$$

$$= 4664.29658 * 128.63676$$

$$= \underline{600000}$$

$$\text{SIP} = \frac{(858034.524 - 600000)}{600000} \times 100$$

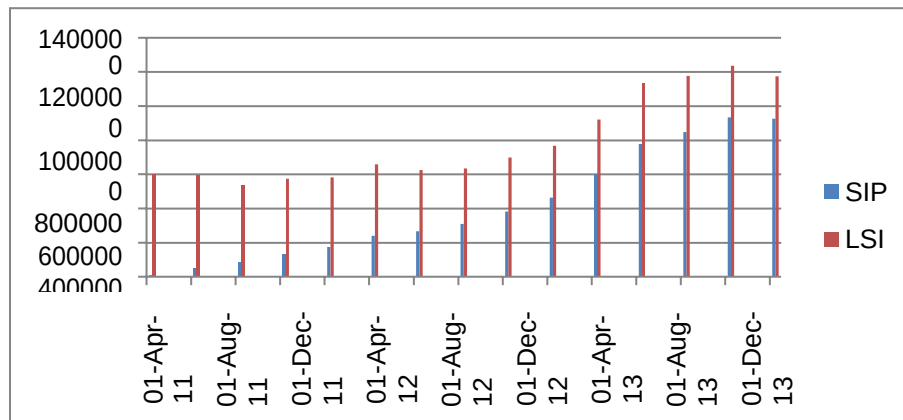
$$= \underline{43.005}$$

$$\text{Lump Sum} = \frac{(\text{Ending Value} - \text{Beginning Value})}{\text{Beginning Value}} \times 100$$

$$\text{Lump Sum} = \frac{(1050982.394 - 600000)}{600000} \times 100$$

$$= \underline{75.16}$$

CHART SHOWING THE COMPARISON OF SIP VALUE AND LUMP SUM VALUE OF KOTAK SELECT FOCUS FUND REGULAR PLAN -DIVIDEND



Interpretation

This graph shows the comparison of SIP value and Lump Sum value of KOTAK SELECT FOCUS FUND REGULAR PLAN - DIVIDEND. In April 2011 the NAV of the mutual fund is 11.757. Then it increased so the unit purchased is also decreased. After 5 years SIP value is increased up to 858034.524 and Lump sum plan value is increased up to 1050982.394

b) CAGR (Last five year)

$$\begin{aligned}
 \text{CAGR (Last five year)} &= [\text{Nth root of (NAV at the end / NAV at the beginning)}] - 1 * 100 \\
 &= [5\sqrt{(20.594/11.757)}] - 1 * 100 \\
 &= \underline{11.86}
 \end{aligned}$$

RATIOS

Market Index Return (X)	X ²	Stock Index Return (Y)	Y ²	XY
-0.52	0.27	-0.03	9	0.015
0.23	0.052	0.23	0.052	0.052
0.13	0.016	0.17	0.028	0.022
0.12	0.014	0.29	0.084	0.034
-0.08	6.4	0.04	1.6	-0.003
$\Sigma X =$ -0.12	$\Sigma X^2 =$ 6.752	$\Sigma Y =$ 0.7	$\Sigma Y^2 =$ 10.764	$\Sigma XY =$ 0.1222

$$\begin{aligned}
 \text{Coefficient of correlation} &= \frac{N \Sigma XY - (\Sigma X * \Sigma Y)}{\sqrt{N \Sigma X^2 - (\Sigma X)^2} * \sqrt{N \Sigma Y^2 - (\Sigma Y)^2}} \\
 &= \frac{5 * 0.1222 - (-0.12 * 0.7)}{\sqrt{5 * 6.752 - (-0.12)^2} * \sqrt{5 * 10.764 - (0.7)^2}} \\
 &= \underline{0.014}
 \end{aligned}$$

BETA

$$\begin{aligned}\text{Beta Value}(\beta) &= \frac{N\Sigma XY - (\Sigma X * \Sigma Y)}{N\Sigma X^2 - (\Sigma X)^2} \\&= \frac{5*0.1222 - (-0.12*0.7)}{5*6.752 - (-0.12)^2} \\&= \underline{\underline{33.74}}\end{aligned}$$

ALPHA

$$\begin{aligned}\text{Alpha Value}(\alpha) &= \bar{y} - \beta \bar{x} \\&= 0.14 - (33.74 * (-0.02)) \\&= \underline{\underline{0.126}}\end{aligned}$$

S.D of Stock Return

$$\begin{aligned}&= \sqrt{\frac{N\Sigma y^2 - (\Sigma y)^2}{N^2}} \\&= \sqrt{\frac{5*10.764 - (0.7)^2}{5^2}} \\&= \underline{\underline{1.46}}\end{aligned}$$

SHARPE RATIO

$$\begin{aligned}\text{SharpeRatio} &= \frac{\text{Ri-Rf}}{\text{S.D}} \\ &= \frac{11.86-7.6}{1.46} \\ &= \underline{\underline{1.99}}\end{aligned}$$

TREYNOR'S RATIO

$$\begin{aligned}\text{Treynor'sRatio} &= \frac{\text{Ri-Rf}}{\beta} \\ &= \frac{11.86-7.6}{1.99} \\ &= \underline{\underline{1.07}}\end{aligned}$$

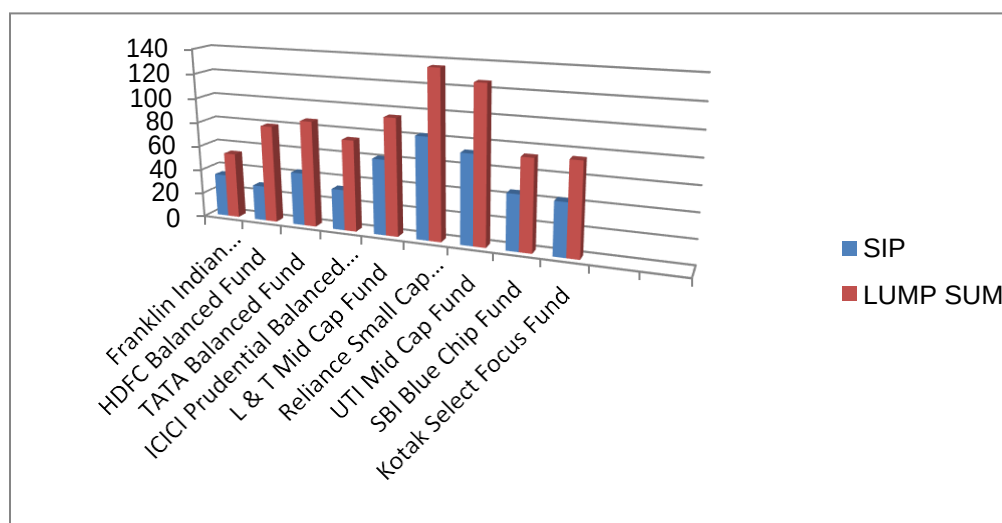
CHAPTER-5

FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 TABLE SHOWING RETURN OF 9 MUTUAL FUNDS

MUTUAL FUND	SIP RETURN	LUMP SUM RETURN
Franklin Indian Opportunities Fund(G)	35.032	53.839
HDFC Balanced Fund	28.93	79.72
TATA Balanced Fund	43.49	86.69
ICICI Prudential Balanced Advantage Fund	33.35	74.48
L & T Mid Cap Fund	61.496	95.12
Reliance Small Cap Mutual Fund	82.69	135.46
UTI Mid Cap Fund	72.74	126.4
SBI Blue Chip Fund	45.12	73.80
Kotak Select Focus Fund	43.005	75.16

CHART SHOWING RETURN OF 9 MUTUAL FUNDS



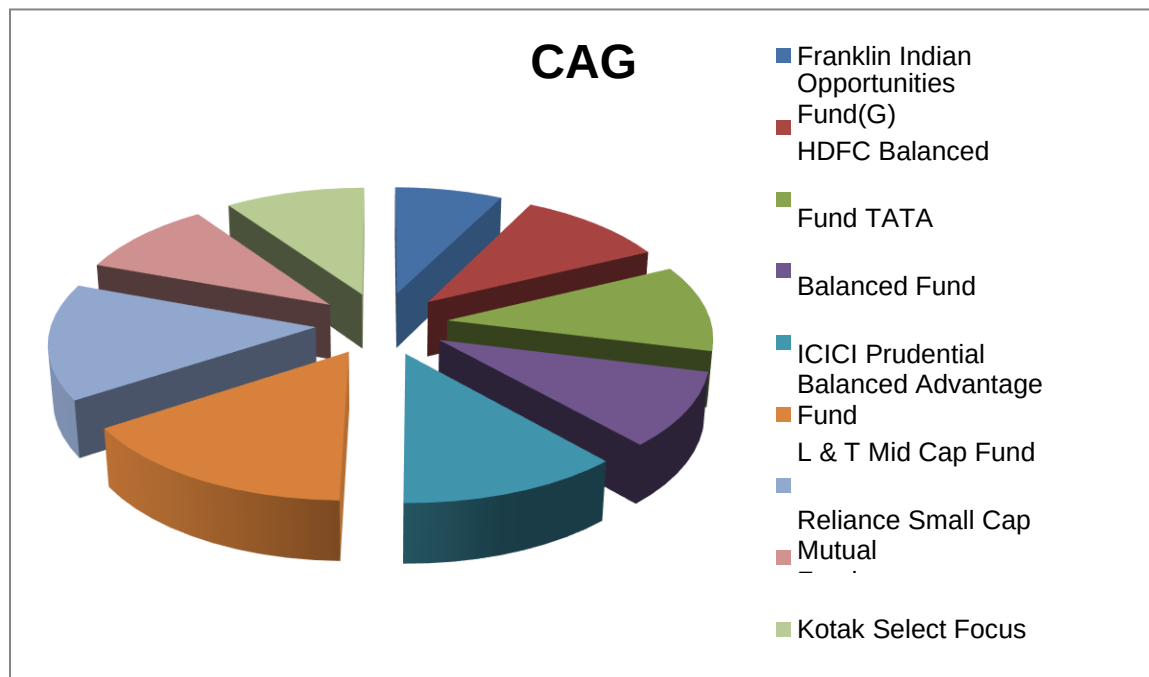
Interpretation

From the table we can infer that the return of 9 mutual funds. UTI Mid Cap Fund has the highest SIP return 72.74 and HDFC Balanced Fund has the lowest SIP return 28.93. Reliance Small Cap Mutual Fund has the highest Lump sum return 135.46 and 53.839 is the lowest Lump Sum return is for Franklin Indian Opportunities Fund(G).

TABLE SHOWING CAGR OF 9 MUTUALFUNDS

MUTUAL FUND	CAGR
Franklin Indian Opportunities Fund(G)	8.99
HDFC Balanced Fund	12.44
TATA Balanced Fund	13.29
ICICI Prudential Balanced Advantage Fund	11.41
L & T Mid Cap Fund	14.30
Reliance Small Cap Mutual Fund	18.68
UTI Mid Cap Fund	17.76
SBI Blue Chip Fund	11.68
Kotak Select Focus Fund	11.68

CHART SHOWING CAGR OF 9 MUTUALFUNDS



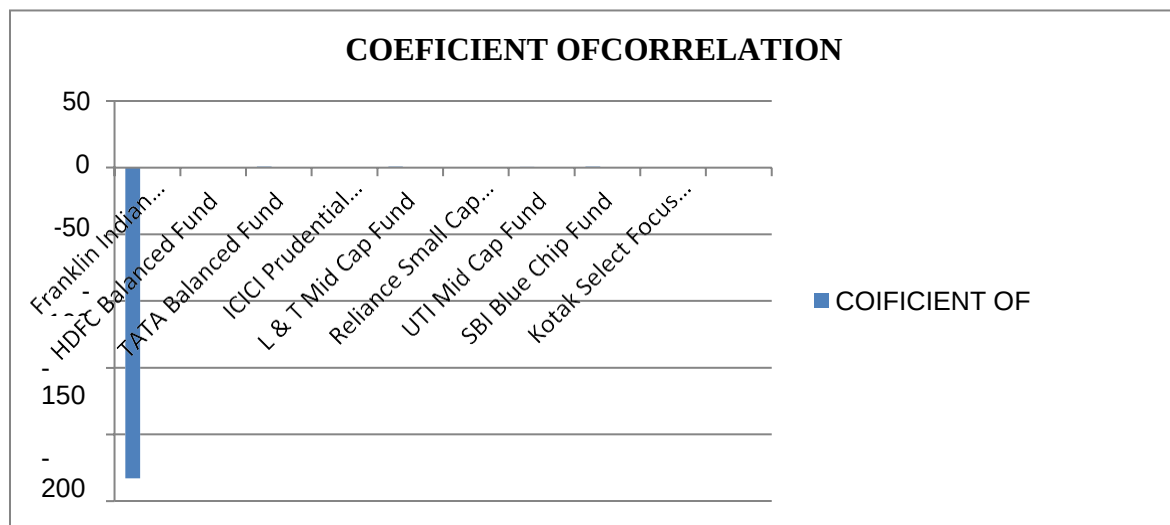
Interpretation

From the table we can infer that the CAGR of 9 mutual funds. Reliance Small Cap Mutual Fund has the highest CAGR 18.68 and Franklin Indian Opportunities Fund (G) has the lowest CAGR 8.99.

TABLE SHOWING COEFFICIENT OF CORRELATION OF 9 MUTUALFUNDS

MUTUAL FUND	COEFFICIENT OF CORRELATION
Franklin Indian Opportunities Fund(G)	-232.79
HDFC Balanced Fund	0.014
TATA Balanced Fund	0.9010
ICICI Prudential Balanced Advantage Fund	-0.4381
L & T Mid Cap Fund	0.8656
Reliance Small Cap Mutual Fund	0.4242
UTI Mid Cap Fund	0.452
SBI Blue Chip Fund	0.735
Kotak Select Focus Fund	0.014

CHART SHOWING COEFFICIENT OF CORRELATION OF 9 MUTUALFUNDS



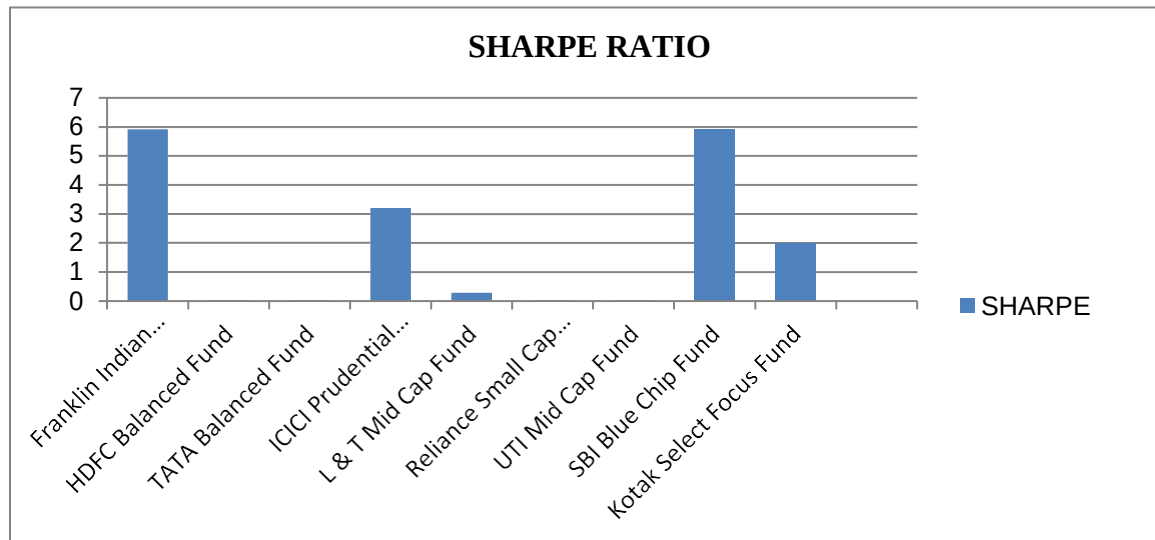
Interpretation

From the table we can infer that the coefficient of correlation of 9 mutual funds. TATA Balanced Fund has the highest coefficient of correlation 0.9010 and Franklin Indian Opportunities Fund (G) has the lowest coefficient of correlation 8.99.

TABLE SHOWING SHARPE RATIO OF 9 MUTUAL FUNDS

MUTUAL FUND	SHARPE RATIO
Franklin Indian Opportunities Fund(G)	5.92
HDFC Balanced Fund	0.0365
TATA Balanced Fund	0.0391
ICICI Prudential Balanced Advantage Fund	3.204
L & T Mid Cap Fund	0.280
Reliance Small Cap Mutual Fund	0.029
UTI Mid Cap Fund	0.032
SBI Blue Chip Fund	5.92
Kotak Select Focus Fund	1.99

CHART SHOWING SHARPE RATIO OF 9 MUTUALFUNDS



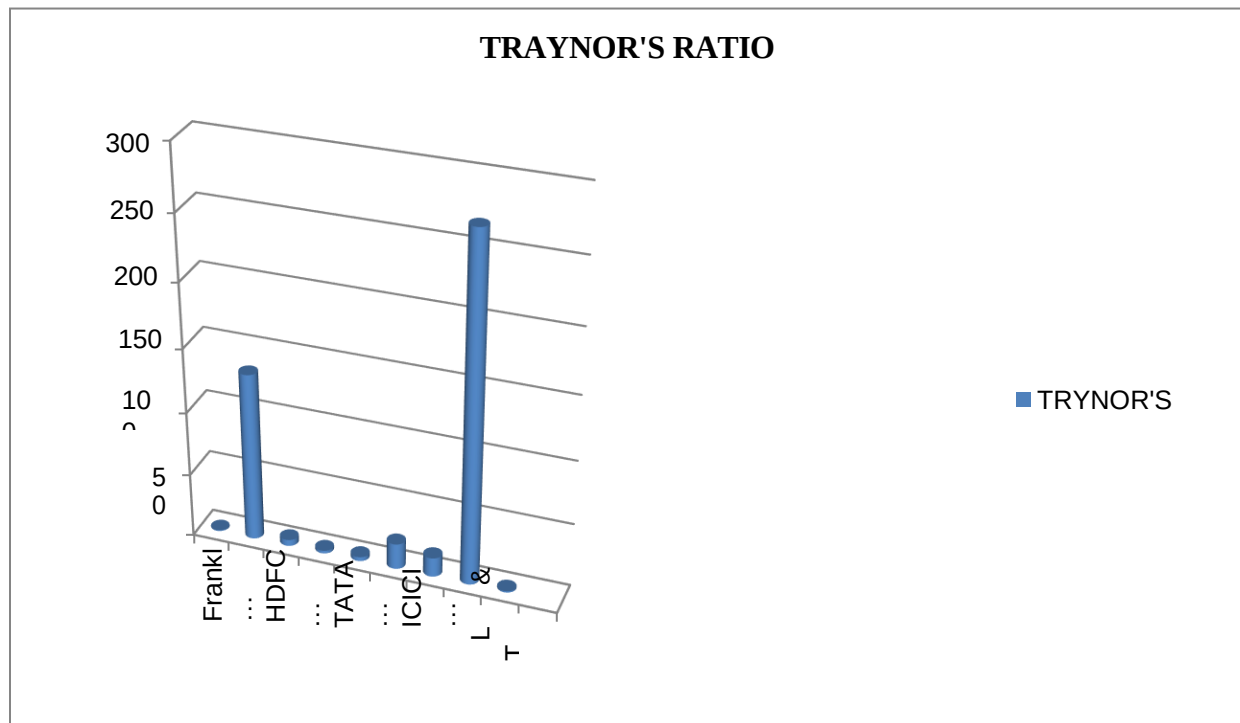
Interpretation

From the table we can infer that the Sharpe ratio of 9 mutual funds. Franklin Indian Opportunities Fund (G) and SBI Blue Chip Fund have the highest Sharpe ratio 5.92. Reliance Small Cap Mutual Fund has the lowest Sharpe ratio 0.029

TABLE SHOWING TREYNOR'S RATIO OF 9 MUTUALFUNDS

MUTUAL FUND	TREYNOR'S RATIO
Franklin Indian Opportunities Fund(G)	0.62
HDFC Balanced Fund	132.60
TATA Balanced Fund	4.923
ICICI Prudential Balanced Advantage Fund	2.203
L & T Mid Cap Fund	3.21
Reliance Small Cap Mutual Fund	20.23
UTI Mid Cap Fund	15.11
SBI Blue Chip Fund	268.42
Kotak Select Focus Fund	1.07

3.14 CHART SHOWING TRYNOR'S OF 9 MUTUAL FUNDS



Interpretation

From the table we can infer that the Traynor's ratio of 9 mutual funds. HDFC Balanced Fund has the highest Traynor's ratio 132.60. Franklin Indian Opportunities Fund(G) has the lowest Traynor's ratio 0.62

CHAPTER-4

FINDINGS, SUGGESTIONS & CONCLUSION

5.1 FINDINGS

- In case of FRANKLIN INDIA OPPORTUNITIES FUND-GROWTH. NAV of the mutual fund in April 2011 is 31.733 and then value is increased up to 810194.2 after 5 years. But in the case of Lump sum plan the unit purchased is constant so its value increased with increase of NAV and its value is 923039.
- SIP value of HDFC BALANCED FUND is 773568.6 and Lump sum value is 1078341.508.
- In case of TATA BALANCED FUND, April 2011 the NAV of the mutual fund is 82.676. Then it increased so the unit purchased is also decreased. After 5 years SIP value is increased up to 860937 and Lump sum plan value is increased up to 1120141.251
- In case of ICICI PRUDENTIAL BALANCED ADVANTAGE FUND SIP value is 799907.1 and Lump sum value is 1046872.8
- In case of L&T MID CAP FUND – GROWTH, April 2011 the NAV of the mutual fund is 39.58. Then NAV is increased gradually in every year. So the unit purchased in SIP is decreased. After 5 years SIP value is increased up to 968976.5. But in the case of Lump sum plan the unit purchased is constant so its value increased with increase of NAV and its value is 1170743
- In case of RELIANCE SMALL CAP FUND – GROWTH, NAV of the mutual fund is 9.624. Then it increased but unit purchased is decreased. After 5 years SIP value is increased up to 1096152 and Lump sum value is 1412780.549.

- In case of UTI MID CAP FUND – GROWTH, SIP value is 1036492 and Lump sum value is 1358862.
- In case of SBI BLUE CHIP FUND – GROWTH, NAV of the mutual fund is 15. Then NAV is increased gradually in every year. So the unit purchased in SIP is decreased. After 5 years SIP value is increased up to 870732.3266. But in the case of Lump sum plan the unit purchased is constant so its value increased with increase of NAV and its value is 1042840.
- SIP of KOTAK SELECT FOCUS FUND REGULAR PLAN – DIVIDEND is 858034.524 and Lump sum value is 1050982.394.
- UTI Mid Cap Fund has the highest SIP return 72.74 and HDFC Balanced Fund has the lowest SIP return 28.93. Reliance Small Cap Mutual Fund has the highest Lump sum return 135.46 and 53.839 is the lowest Lump Sum return is for Franklin Indian Opportunities Fund (G).
- Reliance Small Cap Mutual Fund has the highest CAGR 18.68 and Franklin Indian Opportunities Fund (G) has the lowest CAGR 8.99.
- TATA Balanced Fund has the highest coefficient of correlation 0.9010 and Franklin Indian Opportunities Fund (G) has the lowest coefficient of correlation 8.99.
- Franklin Indian Opportunities Fund (G) **and** SBI Blue Chip Fund has the highest Sharpe ratio 5.92. Reliance Small Cap Mutual Fund has the lowest Sharpe ratio 0.029
- HDFC Balanced Fund has the highest Traynor's ratio 132.60. Franklin Indian Opportunities Fund (G) has the lowest Traynor's ratio 0.6

- Investing Lump sum at the right time offer better returns than systematic investing
- A person investing in Lump Sum will get the best returns if the NAV keeps rising from the time he invests. He will also lose the maximum if the NAV keeps falling. By the investing through SIP one can avoid the worst situation in the long run it is always safer to invest in SIP

5.2 SUGGESTIONS

- Large cap funds, Franklin India Opportunities Fund Growth (G), Kotak Select Focus Fund Regular Plan – Dividend, SBI Blue Chip Fund – Growth are effective in both SIP and Lump Sum plan investment. So investment in above mentioned funds good returns.
- Balanced funds, HDFC Balanced Fund, ICICI Prudential Balanced Advantage Fund, TATA Balanced Fund are more effective in Lump Sum plan than SIP investment plan.
- Mid and Small cap funds, L and T Mid Cap Fund, UTI Mid Cap Fund – Growth, Reliance Small Cap Fund – Growth are not much effective in SIP investment plan. So the investors those who are investing in those funds should take some care about growth of the fund.
- Awareness programs regarding SIP is very important
- The mutual fund companies should concentrate innovative schemes for SIP

5.3 CONCLUSION

My study on the topic “A Comparative Study of Systematic Investment Plan and Lump Sum Plan in the Mutual Fund” was really a good experience. During this project i found that mutual fund is currently a highly trusted investment instrument. Main advantage to mutual fund is diversification, by minimizing risk and maximizing returns. Specific features of mutual funds include liquidity, transfer of money, purchase of units and high competition. Investment in mutual funds is highly liquid as funds are required to redeem shares daily.

Systematic investment plan is a simple process of investing the same amount of money every month over a extended period of time regardless of whether the market up or down. Systematic investment plan is more helpful for the investors to invest in mutual fund without sufferings. The main advantage of systematic investment plan is the advantage of rupee cost averaging from my study. I found that investors are getting a moderate return through the SIP investment. Systematic investment plan will reduce the risk when the market is volatile.

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