PERFORMANCE EVALUATION OF SELECTED SCHEMES OF MUTUAL FUNDS IN INDIA: AN EMPIRICAL STUDY

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Submitted By

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CERTIFICATE

This is to certify that the Dissertation work done on "**Performance Evaluation of Selected Schemes of Mutual Funds in India: An Empirical Study**" is a bonafide work carried out by **Ms Samikshya Mishra** under my supervision and guidance. The dissertation is submitted towards the partial fulfilment of the award of Degree of **Master of Philosophy in Management**.

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I certify that the dissertation work was appreciated by all who remain present and no negative comments made for this dissertation work.

Signature of Head of Department | *Signature of supervisor*

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DECLARATION

I, **Ms. Samikshya Mishra**, hereby declare that the subject matter of this dissertation entitled **“Performance Evaluation of Selected Schemes of Mutual Funds in India: An Empirical Study**” is a record of original work done by me, that the contents of this dissertation do not form basis for the award of any previous degree to me or the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University or institute.

This is being submitted to the Mizoram University for the **Degree of Master of Philosophy (M.Phil.) in Management.**

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A C K N O W L E D G E M E N T

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Samikshya Mishra

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CHAPTER-1
INTRODUCTION

1.1 INTRODUCTION:

A country requires a large investment as well as production in order to accomplish economic development. For this to happen there must be facilities for savings. Savings, in the form of investment, can be a productive resource. In this scenario, the role of the financial system is important as they are dealing with the public savings by giving them an interest in the form of return. The growth of economy coupled with the capital market in any country is essential to strengthen the financial position. In India, the investors are abruptly increasing which not only enhance their financial strength but also contributes substantially to the growth of county's economy.

1.2 FINANCIAL SYSTEM:

A system is being formulated by combining different parts which are joined together in order to accomplish a goal. The system which allows the exchange of funds between lenders, investors and borrowers is known as a financial system. Financial systems function at national, global, and firm-specific levels. It comprises of complex, closely related services, markets, and institutions which are used to provide an efficient and regular linkage between investors and depositors. The medium of exchange in the financial system is money, credit, and finance. The modern financial system comprises of both public and private sector banks, financial instruments, financial markets and financial intermediaries. The formal Indian financial system comes under the purview of regulatory bodies such as Ministry of Finance (MOF), Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI). The financial system of a county focussed on the following issues:

i. Allocation and mobilization of savings
ii. Provisions of funds
iii. Facilitating financial transactions
iv. Developing financial markets
v. Provision of legal financial framework
vi. Provision of financial and advisory services

The financial system is probably the most crucial institutional and functional medium for the transformation of the economy. An efficient, articulate and well developed financial system is vital for the rapid growth of the economy. The liberalization and globalization of Indian economy since the nineties has a great implication on the future course of the financial system.

1.3 INDIAN FINANCIAL SYSTEM:

The different components of the Indian financial system are shown in the Fig.1.1.

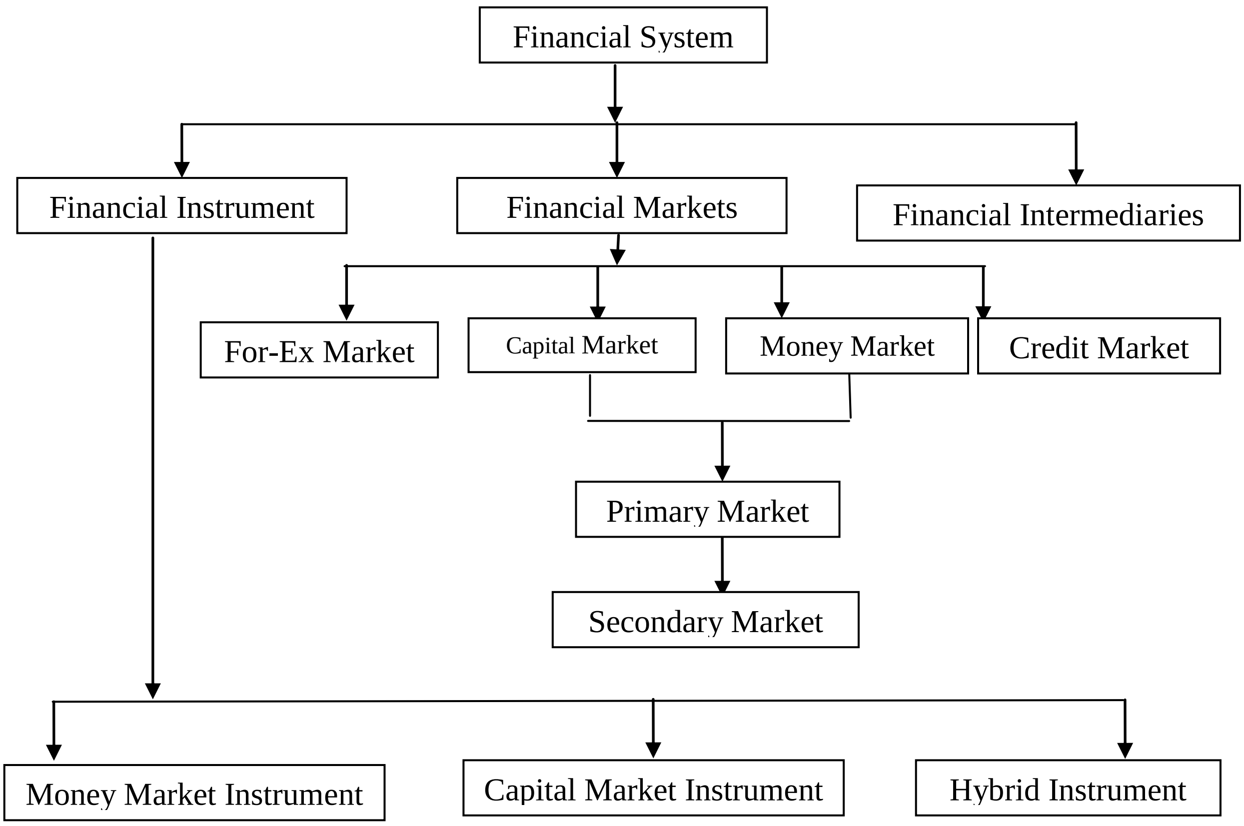

Fig. 1.1: Indian Financial System

1.3.1 Financial Markets:

The market where the securities, commodities and fungible items are being traded at a demand and supply cost, as well as a low transaction cost, is termed as a financial market. Securities consist of stocks and bonds, and commodities contain precious metals and agricultural products. A financial market is a broad term describing any marketplace where buyers and sellers participate in the trade of assets such as equities, bonds, currencies, and derivatives. The financial market has broadly classified into different category such as

a. Capital Market
b. Money Market
c. For-ex Market
d. Credit Market

a. Capital Market:

A capital market is a place where individuals, as well as institutions, trade financial securities. Both public and private sector organizations and institutions frequently sell securities on the capital markets in order to raise funds. Thus, this type of market is composed of both the primary and secondary markets. When any government or corporation requires capital (funds) to finance its operations and to engage in its own long-term investments they raise money through the sale of securities - stocks and bonds in the company's name. These are bought and sold in the capital markets.

b. Money Market:

The money market is that segment of the financial market where financial instruments with high liquidity and very short maturities are traded. Money market securities are composed of negotiable certificates of deposits (CDs), bankers' acceptances, treasury bills (TBs), commercial papers (CPs) etc. Money market investments are also named as cash investments because of their short maturities period.

The money market is typically a safe place to put money due to the highly liquid nature of the securities and short maturities. Because they are extremely conservative, money market securities offer significantly lower returns than most other securities. However, there are risks in the money market that any investor needs to be aware of, including the risk of default on securities such as commercial paper.

c. For-Ex Market:

For-Ex or Foreign exchange market is also called as Interbank Market. This market is that part of the financial system where the trading of currencies among banks and financial institutions, excluding retail investors and smaller trading parties are being done. While some interbank trading is performed by banks on behalf of large customers, most interbank trading takes place from the banks' own accounts. The forex is the largest market in the world in terms of the total cash value traded, and any person, firm or country may participate in this market.

d. Credit Market:

A credit market is that segment of the financial market where the exchange of debt securities and short-term commercial paper are being taken place. Debt is also being issued to the investors by the companies and government in the form of junk bonds, short-term commercial paper etc.

1.3.2 Financial Instruments:

Financial instruments can be traded for any kind of assets. That can be cash, evidence of an ownership interest in an entity, or a contractual right to receive or deliver cash or another financial instrument. According to International Accounting Standards, IAS 32 and 39 a financial instrument is defined as "any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity".

Financial instruments can be classified as

i. Cash instruments

ii. Derivative instruments

i. Cash Instruments:

Cash instruments are those whose value is directly determined by the markets. That can be securities, and instruments such as loans and deposits, where both borrower and lender have to agree to a transfer.

ii. Derivative Instruments:

Instruments which derive their value from the value and characteristics of one or more underlying variables such as an asset, index, or interest rate are called as a derivative instrument. They can be exchange-traded derivatives and over-the-counter (OTC) derivatives.

1.3.3 Financial Intermediaries:

Financial intermediary resembles an intermediary institution or a component in between borrowers and lenders and facilitates the channelling of funds between them. A commercial bank is a typical financial intermediary. Others financial intermediary may include financial institutions like investment banks, insurance companies, broker-dealers, mutual funds and pension funds. Financial intermediaries provide extensive benefits to the consumer in multiple ways which include liquidity, safety, etc.

1.3.3.1 Classification of Financial Intermediaries:

i. Banks
ii. Mutual savings bank
iii. Saving Banks
iv. Credit Unions
v. Financial advisor and Brokers
vi. Insurance Companies
vii. Collective Investment schemes
viii. Pension Funds
ix. Stock Exchanges

1.4 SHARE MARKET:

The market or the place where the shares or the collective shares of different companies are traded is known as share market. The share markets are entangled with securities and as such, there are several forms of securities and derivatives in the share market. Share markets primarily can be divided into three groups such as,

i. Bond Market
ii. Commodities Market
iii. Derivatives Market

1.5 PORTFOLIO MANAGEMENT:

A portfolio is a collection of securities or investment tools such as stocks, shares, bonds mutual fund and other money market instruments. The process of merging together all the broad assets classes so as to gain maximum return with a minimum risk is known as portfolio construction. A portfolio can be constructed in two approaches.

(i) Traditional Approach
(ii) Modern Approach

Portfolio Management reckons the decisions with regards to the policymaking, investment mix, and asset allocation for the institutions and the individuals as well. It also holds the risk against performance. Portfolio management determines the strengths, weakness, opportunities, and threats in the choice of debt and equity, domestic and international, growth and safety, and many other trade-offs encountered in the attempt to maximize return at a given appetite for risk.

1.6 CONSTRAINTS OF PORTFOLIO MANAGEMENT:

i. Asset Allocation:

The key factor for an effective portfolio management is the long-term mix of assets. Asset allocation is to optimize the risk of the investors with a maximum return. Some investors weight their portfolio towards more volatile instruments whereas some investors are attracted towards more stable instruments.

ii. Diversification:

In the process of investing it is always uncertain to predict the frontrunners and losers. Diversification is the path to spread the risk and reward within an asset class. Because it is always uncertain that which subset or sector of the asset class will outperform or underperform. Proper diversification occurs within a different class of securities, sectors and geographical regions.

iii. Rebalancing:

Using this approach the portfolio returns to its original target allocation at annual intervals. It is important for maintaining the asset mix that best reflects an investor’s risk/return profile. Otherwise, the volatility of the market may expose the portfolio to greater risk or reduced return opportunities.

1.7 ASSET UNDER MANAGEMENT (AUM):

Mutual fund manager assembles funds by offering a scheme to the investor which is organized in different securities and assets. The market value of these assets is known as Asset Under Management (AUM). AUM of a scheme is calculated by multiplying NAV by the number of units sold by the scheme. Changes in market prices or NAV reflect a change of AUM.

1.8 ASSET MANAGEMENT COMPANY (AMC):

A trustee appoints the Asset Management Company (AMC) only by the approval of SEBI and it performs as a company which is registered under Companies Act 1956 and its amendments. The AMC holds the responsibility of amending to manage the different schemes of mutual funds and managing the total affairs. It is mandatory for the AMC to be registered with the SEBI. The minimum amount to be always maintained by the AMC is Rs. 10 crores in the form of cash. The quarterly report must be submitted by the AMC to the mutual fund's trustees.

1.9 COMMITMENTS OF AN ASSET MANAGEMENT COMPANY:

Every AMC has some obligations (Pathak, 2003). Those are as follows:

i. The AMC shall shoulder and initiates the essential steps and apply mechanism in the schemes so that it is not against the trust deed and provisions of investment of funds pertaining to any schemes.

ii. The AMC shall adopt the degree of care for all investments and takes the decisions.

iii. The AMC shall submit to the trustee's quarterly reports.

iv. With the request of an AMC, the trustees can terminate the assignments of the AMC.

v. An AMC shall not deal in securities through any broker associated with a sponsor or a firm.

vi. The registrars and share transfer agents to be appointed by AMC are to be registered with the SEBI.

vii. The AMC shall need to take measures in informing the investors through different communication medium to take back their unclaimed amounts.

1.10 SIGNIFICANCE AND SCOPE OF THE STUDY:

India is one of the fastest growing economy in the world. As per Central Statistics Office report India has achieved a GDP growth of 7.9 percent for the financial year 2015-16. A GDP growth of 7.9 is an indication of a good economy. As the Indian economy is prospering investment interest of among Indian as well as foreign investors are growing. As per AMFI financial report, the Assets Under Management of Indian Mutual Fund industry as on 31st January 2017 is Rs.17.83 Lakh Crore.

Mutual funds have generated an alternative platform for investment for both the urban and rural areas which ultimately facilitate the investors to take part in the capital market. As the mutual fund industry has proved to be one of the most emerging sectors since the nineties, so this period is also known as the decade of mutual fund (Lal, 2001). Since there is a remarkable growth in mutual fund industry it requires a study of the performance of mutual funds. So an attempt is made to evaluate the best mutual funds among all the available funds. Performance evaluation is a backward-looking exercise (ex-post). It is anticipated that the performance measurement results will be helpful in future in decision making. The results and information developed from the performance analysis will help the investors to control their investment. This study shall help the mutual fund industry in general and the investors, in particular. It is perceived that the Indian investors are reluctant in shouldering any risk and thus, express their willingness for investing their fund with safe securities for a straightforward return. Many investment alternatives are open to the customers. The past experiences reveal that the public has a confidence in investing the amount in the mutual fund and it is gaining importance in the monetary sector. So it becomes important for them as well as fund houses to know the performance of their mutual funds.

The present study has covered growth as well as balanced schemes of top 5 Asset Management Companies of Mutual funds in India that include ICICI Prudential Mutual Fund, HDFC Mutual Fund, Reliance Mutual Fund, Birla Sun Life Mutual Fund and SBI Mutual Fund. Further, the oldest growth and balanced schemes of each AMC have been selected.

1.11 REVIEW OF LITERATURE:

Globally, a mutual fund is an accepted phenomenon for the investors and business class of people to get a high-end return. While the investors are allured for the adequate return, the academicians try to extract the reasons behind it through research and most of the research outputs concentrate on gaining the return on funds and on comparison with the benchmark fund schemes.

Jensen (1968) substantially contributed his knowledge in developing a composite portfolio evaluation technique focussing primarily on risk-adjusted return. Based on the evaluation of 115 fund managers on security issues for the period 1945-66, he inferred that the net returns from 39 funds had the above average returns while 76 funds downsized their return. However, gross returns indicated that, while 48 funds reached to the average results, 67 funds show below average results.

The performances of 86 funds with random portfolios undertaken by Friend, Blume, and Crockett (1970) revealed that the mutual funds are in the framework of high risk and high turnover of funds surpassed the degree of expectation in the market. They also observed that the size of the fund has no relevance on their performances.

Kaplan and Garrick (1981) in their study revealed that risk postulates a factor of uncertainty and potential loss which may occur to the investors and may drop down the expected return.

Based on the growth schemes, Shome (1994) analysed the performance of the various mutual fund between April 1993 to March 1994 with BSE SENSEX as the market portfolio and concluded that the average rate of return of 10 schemes was lower while the standard deviation was abruptly high as compared to the market. Their analysis also deduced that the size does not have any dominance in the performance.

Gupta and Sehgal (1996) through their research found out the investment performance of 80 schemes which are managed by 25 mutual funds during June 1992 - June 1996. Out of the 25 mutual funds, 15 were from private sectors and 10 were from public sectors. The study mainly focused on the diversification and consistency of the funds. It also deduced that mutual fund which portfolio is diversified across industries not only performs well but also supports consistency of performance.

Sahadevan and Thiripalraju (1997) in their studies on monthly average return and standard deviation of 10 selected private sector funds deduced that, in terms of the rate of return, 5 funds i.e., Alliance 95, ICICI Power, Kothari Prima, Kothari Pioneer Blue Chip and Morgan Stanley Growth Fund excelled the performance in the market, during the period of comparison. They further concluded that performance of a fund has a little significance to its size.

A study of three fund characteristics of 34 mutual fund schemes on 91- days treasury bills as the risk free rate , BSE-SENSEX as the market portfolio covering the period from January 1994 to December 1997 undertaken by Chander (2000) found that, most of the schemes under study were having higher return and highly volatile compared to the market. The analysis also showed that in terms of return, open-end schemes are superior to close-end schemes. The average annual return of the selected schemes was 7.34 percent which is for the diversification and 4.1 percent because of stock selectivity.

Sarkar and Majumdar (2001) on a study on the operational analysis of different mutual funds for a period three years i.e. 1996 to 1999 observed that the income-related products given by the public and the private mutual funds are less expensive than others scheme because of income generating a low cost per rupee.

The results also indicated that the cost-effectiveness is favourable towards private sector mutual funds as against their rival operating in public sector.

Using Market Index and Fund index NAV of both closed-end and open-end schemes from April 1994 to March 1999, the evaluation of the performance of 73 selected schemes with different investment objectives undertaken by Gupta (2001) on both the public and private sector found that, the samples are inadequately diversified and both the risk and return do not conform to the objectives of the study. Hence, there was no evidence of market timing abilities of mutual fund industry in India.

The research work on mutual funds undertaken by Chalam (2003) visualised that, the return, capital appreciation, tax saving purpose, liquidity, marketability, and safety are the important variables of the investments on mutual funds. It was also found that the degree of preference to invest by the investors are more in real estate followed by mutual fund schemes, gold, and precious metals.

Elango (2004) carried out a research on the comparative analysis of Net Asset Value (NAV) of some selected private/ foreign, and public sectors funds of India in order to find out the best performing fund in terms of increasing NAV. It also exposed that whether the future rise or fall of NAV is associated with past performance or not. The study which had covered a period from April 1999 to March 2002 found out the sector which was most fluctuating during this period. For this study 15 public as well as foreign/ private sectors funds were selected. After that Average NAV were calculated for both the sectors which results came out to be satisfactory for private/ foreign funds as 17.83 and poor for public sector fund by 11.98. Maximum NAV for the private sector was recorded as 52.30 in the year 2000-01. Further, it concluded that the public sector schemes were growing at 23 percent whereas private/foreign sector has achieved a growth rate of 78 percent. It also showed that for any of the sectors past NAV has an influence on future performance.

It acts as an indicator. In the end, it concluded that private/ foreign sector are performing more consistently than public sectors.

Rao and Mishra (2007) from their research opined that Indian Mutual Funds industry has been growing at a healthy pace of 16.68 percent for the past eight years and the trend will move further. According to study, they found out that 54 percent of people invest for security while 38 percent of current spending. Further, 53 percent of the people prefer long-term investment whereas 23 percent people each prefer medium term and small term investment.

Puri (2010) has attempted to study the performance of selected balanced schemes of mutual funds based on risk-return relationship models and various measures. A total of 30 schemes offered by various mutual funds have been studied over the time period September 2007 to August 2010. The tools that have been used for the analysis were mean return, beta risk, total risk, Sharpe ratio, Treynor ratio and Jensen Alpha. The study found HDFC (Growth) Mutual fund to be the best performer and JM Financial (Dividend) Mutual fund least performer when measured against the risk-return relationship models.

Vyas (2012), in his study on Mutual Fund Investor's Behaviour and Perception in Indore City, found that 48.2 percent investors have their investments in an equity fund, 23.7 percent have in debt fund, 26.4 percent in a balanced fund and only 1.7 percent in other types of funds. Singh (2012), in his paper on 'A study on investors' attitude towards mutual funds as an investment option', viewed that, the factors responsible for investing in mutual funds is concerned with return potential, liquidity, flexibility, transparency, and affordability.

Bahil and Rani (2012) had considered 29 open-ended, growth-oriented equity schemes for the period from April 2005 to March 2011. The return of the fund schemes had been calculated by taking the monthly NAV of different schemes. BSE-SENSEX was the market portfolio. Performance tools such as Treynor measure, Jensen Measure, Sharpe ratio were used for the analysis. Findings of this paper showed that 14 out of 29 i.e. (48.2%) of the schemes are outperforming the benchmark return whereas the rest of the schemes are underperforming and for that diversification was the real root cause. The study also concluded that for all the schemes Sharpe ratio was positive which indicate that all the schemes have a higher return than the risk-free rate of return.

Ahmad, Roomi, and Ramzan (2015) in their paper "A Comparative Study on Performance of Open and Close-ended Mutual Funds in Pakistan" focused on income, balance and equity schemes of open-ended and close-ended mutual funds of Pakistan. Their study consisted of 73 different funds covering a period from 2007 to 2012. The study used Sortino measure, Sharpe measure, Treynor measure, Jensen measure and information measure for the evaluation. After analyzing the performance of the selected funds it revealed that open-ended funds are performing better than the close-ended fund. However, market portfolio of Karachi Stock Exchange (KSE) i.e. KSE 100 performance was found to be greater than the performance of selected samples mutual funds. Most risk adjusted funds returns are negative, which probably due to mutual fund industry set back by financial crisis during the sample period.

1.12 RESEARCH GAP:

Studies have been carried out on the mutual fund performance both in India and abroad. In India studies related to a mutual fund with different schemes taken into account have been conducted by different scholars. They have conducted the performance analysis by considering different sectors and net assets value (NAV) of the schemes. However, with the change of time, there is always a necessity to identify and/or evaluate the scenario cooperating the changes took place.

From the review of the above related literatures pertaining to the topic, it could be drawn that, there exist research gap as most of the works are confined to all type of schemes or any particular one scheme i.e. either growth or income or balanced and no affirmative work has been undertaken by comparing two schemes of the latest top Asset Management Companies of Mutual fund in India. Hence, the present study aims to bridge the gap by evaluating the mutual funds with most recent possible data.

1.13 RESEARCH DESIGN:

1.13.1 Statement of the Problem:

The Mutual Fund industry is one of the fastest growing sectors in Indian Capital market. Mutual Fund industry came into the Indian Capital Market in 1963 and started operating in 1964 in order to provide the benefits of diversification of risk, assured returns, professional management to the retail investors. Liberalization, privatization and globalization (LPG) of the economy have motivated mutual fund industry thereby growing in an astounding manner. People find mutual fund investment interesting as it is perceived to be a financial instrument of high potential gain. This scope of the high rate of return is just one side of the coin. In reality, the mutual fund also has a fluctuating rate of return. Generally, fund managers diversify the investment into different funds. However, diversification is no way a guarantee for any return. The ignorance of the investors about mutual funds coupled with aggressive selling by promising higher returns to the investors have resulted in the loss of investors' confidence due to inability to provide higher returns. All mutual funds set a higher target for mobilization of savings from the investor by launching new schemes and expanding investor base. In absence of a conducive and viable platform in mutual funds of India and information thereto, the investors are in an illusion and cannot find a track for investment. This is coupled with the misleading of information due to non-prevailing of transparency in the investment sector. A conceptual framework is required to understand the process of investment as well as the job of the fund manager, which can be exposed through this performance analysis. This study, by analyzing the latest performance scenario of mutual funds is an attempt to redress the problem among the investors by making aware of various positive and negative factors associated with the mutual funds.

1.13.2 Objectives of the Study:

The objectives of the present study are:

a) To assess and compare the performance of growth schemes and balanced schemes of mutual funds in India.

b) To examine the performance of growth schemes and balanced schemes with the benchmark index.

1.13.3 Hypotheses:

In order to find out whether there are any significant differences in performances of the growth schemes and balance schemes or not, the following five hypotheses have been framed.

a. H_{01}: There is no significant difference in the performances of the balanced schemes and growth schemes of ICICI Mutual fund.

H_{A1}: There is a significant difference in the performances of the balanced schemes and growth schemes of ICICI Mutual fund.

b. H_{02}: There is no significant difference in the performances of the balanced schemes and growth schemes of HDFC Mutual fund.

H_{A2}: There is a significant difference in the performances of the balanced schemes and growth schemes of HDFC Mutual fund.

c. H_{03}: There is no significant difference in the performances of the balanced schemes and growth schemes of Reliance Mutual fund.

H_{A3}: There is a significant difference in the performances of the balanced schemes and growth schemes of Reliance Mutual fund.

d. H_{04}: There is no significant difference in the performances of the balanced schemes and growth schemes of Birla Sun Life Mutual fund.

H_{A4}: There is a significant difference in the performances of the balanced schemes and growth schemes of Birla Sun Life Mutual fund.

e. H_{05}: There is no significant difference in the performances of the balanced schemes and growth schemes of SBI Mutual fund.

H_{A5}: There is a significant difference in the performances of the balanced schemes and growth schemes of SBI Mutual fund.

1.14 METHODOLOGY:

1.14.1 Data Source:

The present study is based on secondary data. Monthly Net Assets Value (NAV) of the selected schemes has been collected from www.amfi.com website. The yield to maturity (YTM) of 91 days treasury bills is taken as the risk-free rate of return which is collected from RBI website on weekly basis. Then the risk-free rate was converted into a monthly risk-free rate of return. NSE Nifty 100 has been taken as the market portfolio and the data is collected from www.nseindia.com website.

NIFTY 100 is a diversified 100 stock index which represents the top 100 companies out of NIFTY 500 and it includes major sectors of the economy. This index intends to measure the performance of large market capitalisation companies. The NIFTY 100 tracks the behaviour of a combined portfolio of two indices viz.

NIFTY 50 and NIFTY Next 50 and it is regulated by India Index Services & Products Ltd. (IISL). The NIFTY 100 index represents near about 77% of the free float market capitalization of that stocks those are listed on NSE till 31st March 2016.

1.14.2 Period of the Study:

The performance evaluation of selected mutual fund schemes has covered a period of 5 years i.e. April-2012 to March-2017.

1.14.3 Sample:

The present study has covered the top five Asset Management Companies which are selected on the basis their highest Assets Under Management. Two schemes i.e. growth scheme and balanced scheme from each AMC have been taken. Five oldest schemes from each scheme have been taken. Thus a total of 10 schemes i.e. five growth schemes and five balanced schemes were selected for the study.

1.14.4 Tools of Analysis:

Average return, standard deviation (risk) and beta have been calculated for the selected schemes. Three performance analysis measures viz Treynor ratio, Sharpe ratio, and Jensen alpha have been calculated from the obtained data.

The Sharpe ratio measure applies the mechanism of the standard deviation of returns to measure the total risk while the Treynor ratio performance measure applies beta which is also known as a systematic risk to measure the total risk. Further, on the basis of both rate of return performance and diversification the Sharpe ratio measure assesses the portfolio. These two measures provide the same ranking for a completely diversified portfolio without any unsystematic risk. This is due to the total variance of the diversified portfolio which is its systematic variance. On the other hand, a poorly diversified portfolio reaches a high rank on Treynor performance measure but it ranks in a lower state in Sharpe ratio.

1.15 CHAPTER DESIGN:

The present study has been divided into five chapters.

Chapter-1: INTRODUCTION

Chapter-1 introduces the concept of a financial system. It also introduces the share market and different types of the market of a financial system. A discussion has been made on Indian financial system, portfolio management and different components of a portfolio. Review of literature on different studies in the mutual fund industry, objectives of the study, research hypotheses, the methodology used are the other components of this chapter.

Chapter-2: GROWTH AND DEVELOPMENT OF MUTUAL FUND INDUSTRY

In chapter-2, the concept of mutual fund industry has been discussed along with advantage, disadvantage, and types of the mutual fund. Global and Indian historical perspective, as well as the different phases of the industry, has been briefly discussed. The chapter also discusses the structure of a mutual fund and the recent development of the mutual fund in India.

Chapter-3: PERFORMANCE EVALUATION OF GROWTH SCHEMES

The profile of the selected AMC and the selected growth schemes has been briefly covered in chapter-3. Appraisal of the growth schemes has been done in this chapter. It also describes the three model i.e. Sharpe Model, Jensen model, and Treynor model.

Chapter-4: PERFORMANCE EVALUATION OF BALANCED SCHEMES

In chapter-4 the profile of the selected balanced schemes has been discussed. Along with that evaluation of the schemes has been done on the basis of different parameters. Hypotheses testing and comparison between balanced and growth schemes have also been described here.

Chapter-5: CONCLUSION AND SUGGESTIONS

In chapter-5 research findings of the analysis of selected mutual fund schemes, conclusions related to the performance of the schemes are discussed. Suggestions to the AMC and Government are finally presented in this chapter.

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CHAPTER-2
GROWTH AND DEVELOPMENT OF MUTUAL FUND INDUSTRY

2.1 MUTUAL FUND- AN INTRODUCTION:

A mutual fund is recognised as a financial intermediary that acts as a depository podium of the investors' savings which is carried out for collective investment through a diversified portfolio of securities (Pathak, 2006). Among all the financial instruments available in the market, a mutual fund is one of the most attractive instruments that play a major role in the development of the country (Bahil and Rani, 2012). Mutual fund schemes offer new opportunities and platform for the investors for investment. According to Securities and Exchange Board of India (SEBI) Regulation 1996 "Mutual Fund is a fund established in the form of trust to raise money through the sale of units to the public for investing in securities including money market instruments or gold or real estate assets." A mutual fund is primarily associated with the investment that facilitates the investors to pool their resources in order to purchase stocks, bonds and other securities. These collective funds are referred to as Assets Under Management or AUM (Nafees, Shah and Khan, 2011). The notion of a mutual fund connotes to the sense of allowing a group of investors to pool their money together with a predetermined goal. Investments in securities are accelerated through industries and different sectors. Risk can be reduced by diversification as all the stocks may or may not perform in equal direction. Investors can regain their units based on the amount they have invested through a mutual fund (Singh, 2012).The profits and losses must be shared by the investors in proportion to their investment. A number of different schemes having different objectives are being launched by the Mutual funds from time to time. It is mandatory for a mutual fund to be registered with SEBI which controls securities market. The money which is being collected from the investors is invested in capital market instruments such as bonds, debentures, shares and another form of securities. Hence a mutual fund is a most appropriate platform for the investors to invest their money with relatively low risk. After investing the money the investors regain their units as per their unit value which is known as Net Assets Value (NAV) (Maheswari, 2015).The fund manager in a mutual fund owns the responsibilities for investing the accumulated money from the investors into specific securities i.e. stocks or bonds. Generally, mutual funds are instituted to purchase stocks.

Mutual funds from the days of yore have been recognised a viable podium to strengthen the finance through investment by the public. It involves a mechanism of mixing both corporate and government securities enabling income through dividend, interest and capital gain. It is considered an effective platform to enhance economy by mobilizing savings and investing them in various securities such as debt, equity, capital market or share market etc. In the financial sector mutual fund is regarded as a gateway for the savings and investments. In the process, it pulls a large number of investors who invest with a hope to yield appropriate return.

2.2 TYPES OF MUTUAL FUNDS IN INDIA:

2.2.1 By Investment Objective:

While taking into account the investment objective, the Mutual fund can be divided into four types. Those are as follows:

i. Growth Schemes

ii. Income Schemes

iii. Balanced Schemes

iv. Money Market Schemes

i. Growth Schemes:

It provides capital appreciation over the medium to long-term. Such schemes normally invest a major part of their corpus in equities and involve comparatively high risks. The investors are facilitated with multiple options such as dividend, capital appreciation in investment which requires clear indication during investment. However, the investors are given change option at a later period. Comparatively, growth schemes are good for investors having a long-term outlook seeking appreciation over a period of time.

ii. Income Schemes:

Income schemes are also known as debt schemes. It aims at providing safety of investments as well as regular income to the investors. Such schemes invest in instruments like bonds, debentures, government securities and commercial paper. This is relatively low risk-low return investment avenue which is ideal for investors seeking a steady income, and/or who primarily seeks current income rather than growth of capital. It facilitates gaining of high dividends and interest as it is invested in stocks and bonds.

iii. Balanced Schemes:

The balanced scheme provides both growth and income periodically. It aims at distributing regular income and providing capital appreciation to the investors by balancing the investments of the corpus between the high growth equity shares and income earning securities.

iv. Money Market Schemes:

It provides easy liquidity, preservation of capital and moderate income. This scheme invests money in safer and short-term instruments like treasury bills, certificate of deposits, commercial paper and inter-bank call money.

2.2.2 By Structure:

A mutual fund can be divided into two types by its structure. Those are

i. Open-ended scheme

ii. Close-ended scheme

i. Open-ended scheme:

This type of fund or scheme facilitates for continuous subscription or repurchases which, however, does not have a fixed maturity period. Conveniently, the investors can purchase or sell the units at Net Asset Value (NAV) related prices which are declared on a daily basis. The key feature of open-end schemes is liquidity.

ii. Close-ended scheme:

The maturity period in such a scheme is stipulated which may vary from 5 to 7 years. Further, such scheme is open for investment only during a specified period at the time of launch of the scheme. During the time of public issue, the investors can invest money and operates for a specific time. The investor, however, can buy or sell the units of the scheme on the stock exchanges where the units are listed. Here, the investors are provided with an exit route as some close-ended funds give an option of selling back the units to the mutual fund through periodic repurchase at NAV related prices. SEBI Regulations stipulate that at least one of the two exit routes is provided to the investor i.e. either repurchase facility or through listing on stock exchanges. These mutual funds schemes disclose NAV generally on weekly basis.

2.2.3 By Nature:

While taking into account nature, a mutual fund can be divided into following types.

i. Equity fund

ii. Debt fund

i. Equity fund:

An equity fund which otherwise is known as a stock fund is invested in the stock. This is also identified as equity securities. However, equity fund/stock fund is contrasted with the bond fund and money fund. Fund assets are typically in stock, with some amount of cash, which is generally quite small, as opposed to bonds, notes, or other securities.

ii. Debt fund:

Debt funds are concerned with an investment of debt or fixed income securities which comprise of Treasury Bills, Government Securities, Corporate Bonds, Money Market instruments and other debt securities of different time horizons. The debt securities signify to a fixed maturity date and pay a fixed rate of interest. The return, however, comprises i) Interest Income and ii) Capital appreciation/depreciation in the value of the security due to changes in market dynamics. There are different types of Debt Mutual Funds that invest in various fixed income securities of different time horizons. Examples of such fund include i. Liquid Funds/ Money Market Funds, iii) Ultra Short Term Funds, iv) Floating Rate Funds, v) Short Term and Medium Term Income Funds, vi) Income Funds, Gilt Funds and other dynamically managed debt funds etc. Benefits of such funds include i) Stability to the investment portfolio; ii) Freedom to withdraw money; iii) Better post Tax Returns etc. The additional advantages here include i) Non-tax deduction at source, ii) Market linked return etc.

2.2.4 Other Schemes:

Mutual fund scheme can also be classified as:

i. Tax Savings schemes

ii. Sector Specific schemes

iii. Index schemes

i. Tax Savings Schemes:

Many tax savings schemes are available which provide relief to the taxpayer as per the tax law promulgated from time to time by the Government. Section 88 of Income Tax Act provides provision for such tax saving options to the taxpayers.

ii. Sector Specific Schemes:

In Sector specific schemes, funds are invested in the securities of specific sectors or industries such as, Pharmaceuticals, Software, Fast Moving Consumer Goods (FMCG), Petroleum stocks, etc. which has been mentioned in the offer documents. The returns of such funds depend upon the performance of the respective sectors/industries. Such types of funds are comparatively risky as that of diversified funds as it may provide high returns. The investors not only require to keep a vigilant in the performance of such sectors/industries but also exit at an appropriate time. However, they may seek the advice of an expert before stepping down from the scheme.

iii. Index Schemes:

These schemes are designed in order to track the performance of a particular market index i.e. either BSE SENSEX or NSE Nifty 50. It invests only in those shares which comprise the market index and in exactly in the same proportion. Each stock percentage must be equal to the stock index weighted. The return value is more or less similar to the Index value. Index funds are the mirror of their benchmark index.

2.3 SIGNIFICANCE OF MUTUAL FUNDS:

Multiple needs and benefits are associated with investments in mutual funds. Some of them are pointed as below:

a. Investments in mutual funds in some cases find the platform for the salaried group for tax efficient. Further, the domestic equity mutual funds investors do not need to pay capital gains tax if they remain invested for a period of above 1 year.

b. Mutual Funds allow investing savings across a variety of securities and diversifying assets according to objectives and risk tolerance

c. Mutual Funds provide investors with the freedom to earn on their personal savings. Investments can be as less as Rs. 500.

d. The professional fund managers take the responsibility to invest the public money according to market movements and trend analysis.

e. Mutual Funds provide relatively high liquidity.

Multiple key benefits and objectives of investments in mutual funds can well be understood from the Figure 2.1.

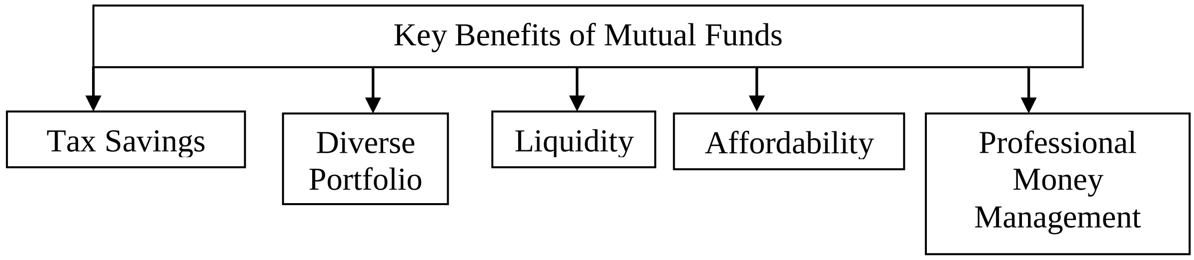

Fig-2.1: Benefits of Mutual fund

2.4 ADVANTAGES OF MUTUAL FUNDS:

Mutual funds being the financial intermediaries facilitate savings and investment for future gain. This is being materialised through mobilization of savings from investors by selling their units or shares. The collected sum in the form of savings is invested in various shares and other securities of a large number of companies and institutions. It is a commodious and strain-free method of investing in securities as it allows an investor to pool his/her investment with other investors with common financial objectives (Pandey, 2011). The advantages of mutual funds by the investors can be explicitly discussed under the following headings:

i. Professional Management:

Invariably, standard investors are lacking behind the knowledge of the capital market and do not have enormous resources to collect the investment advantages. In such situation, the investors require the help of an expert. Identifying an expert is too difficult and even costly who has a depth of knowledge in this regard. Mutual funds are generally managed by professional managers so as to develop an organised investment strategy for the companies.

ii. Affordability:

This connotes to the sense of various types of investment in different schemes. The mutual funds specify low amount as the minimum investments which open multiple options for the investors for investment. It otherwise means that the mutual funds leave a wide range of options to the investors who can afford their investments.

iii. Portfolio Diversification:

Mutual Fund trims down risk by diversifying the capital investment of the investors in different companies and sectors. Investing all the funds in a single platform may cause the investors to undertake all the risk.

iv. Tax Benefits:

Investors of mutual fund get an advantage of tax benefits. Under section 80C of Income Tax rules, dividends received from mutual funds' debt schemes are tax-exempt to the overall limit of Rs. 3, 00,000.

v. Diversification:

The investors of a small group are away from investing in many securities reason being that they have small savings and hence, limit their investment to either single or few securities. Hence, diversification for such investors is out of reach due to investment risk. Mention may be made that, the mutual funds invariably invest in a large number of shares and securities such as, government bonds, corporate bonds etc. which help the investment risk of the investors.

vi. Flexibility:

It gives the sense to various opportunities and options to the investors who can invest without attending to the mutual fund office physically. The mutual funds make a smooth and convenient passage to the investors for buying, selling and share transfer through phone and online. The mutual funds also promote the investors to switch over from the existing scheme to another scheme in the event of loss or less profit.

vii. Simplicity:

It is a convenient and risk-free method of investment in the stock market securities for small investors and meagre understanding investors about the stock markets. Such investors generally concentrate on the financial goals and leave the options to the fund managers to manage their investment at a reasonable fee.

viii. Liquidity:

It denotes to the sense of converting the shares into cash in a convenient and easy manner. It otherwise means to get cash in hand instantly from the invested amount on request of the investor.

ix. Transparency:

Mutual Funds patently announce their portfolio on a monthly basis which helps the investors to know the positioning of their money. The investors, here, can take the option of withdrawing their investment if they are unhappy with the investment portfolio.

2.5 DISADVANTAGES OF MUTUAL FUNDS:

There are many disadvantages of mutual funds also. Following discussions visualises the disadvantages of the same.

i. Brokerage Fees:

High brokers' fees are paid by the mutual fund's investors. Such fees are collected by the brokers at the time of buying and selling of shares which are not included in the expense ratio. The expense ratio is the percentage of mutual fund's profit that holders must pay towards management fees, administrative fees, operating costs, and all other costs.

ii. Cost of Diversification:

The diversification option provides the investor advantages as well as disadvantages as they restrain the possibilities for large gains from individual shares.

iii. Hidden cost:

The soft or hidden money which is used by the mutual fund for research purpose is known as a hidden cost. This money is used for giving incentives to the employees. Further, turnover ratios which the investors should always examine also include the hidden brokerage cost. Mention may be made that, turnover ratio of a firm happens to be the percentage of mutual fund's holdings that are sold over in the past year.

iv. High Fees and Expenses:

It also constitutes one of the important disadvantages of sales fee, management fee and fund expenses are included in the expenses of the mutual fund. This refers to the initial charges of the loaded funds that comprise sales load or front-end load and it is charged at the time of selling units to the investors. Such charges are levied on the investors while repurchasing the units which are otherwise known as back-end load from the shareholder. Some funds even charge a penalty for early redemption of investment.

v. Risks of ownership:

The mutual fund's investors face ownership risks. When the market falls, the worth of investors' investment reduces, and in a stock market crash their investment, the value may be totally eroded.

2.6 STRUCTURE OF MUTUAL FUND:

Mutual Funds are constituted under a legal framework in India. Open and closed-end funds are operated under unit Trusts regulatory structure. A mutual fund in India is allowed to issue open-end and closed-end schemes under a common legal structure. The structure that is required to be followed by any mutual fund in India is laid down under SEBI (Mutual Fund) Regulations, 1996. The different components of mutual funds are as follows.

i. Trustees
ii. Asset Management Companies
iii. Custodian and Depositories
iv. Bankers
v. Transfer Agents

i. Trustees:

Trust Deed is a document which creates a trust which is executed by the fund sponsor in support of the trustees. Most of the Indian funds are managed by Boards of Trustees. The boards of trustees are regulated by the Indian Trusts Act, where the trusts are a corporate body; it would also require complying with the Companies Act, 1956.

The management of a portfolio of securities is not directly done by the trustees. For this specialist function, Asset Management Companies are appointed.

They ensure that the Fund is managed by the AMC as per the defined objectives and in accordance with the trusts deeds and SEBI regulations.

ii. Asset Management Company:

An Asset Management Company (AMC) acts as the investment manager of the Trust under the board supervision and the guidance of the Trustees. The AMC must be approved and registered under SEBI as an AMC. All the time a net worth of minimum Rs. 10 crores must be possessed by the AMC of the mutual fund. Both the dependent as well as independent directors of the AMC must have ample professional proficiency in financial services. The AMC cannot act as a Trustee of any other Mutual Fund. Apart from the role as a fund manager, AMC can also carry out specific activities such as advisory services and financial consulting, provided these activities are run independent of one another and the AMC's resources are properly segregated by the activity.

iii. Custodian and Depositories:

Buying and selling of large volume of securities is the business of the mutual fund. Physical delivery, as well as safekeeping of the securities, is a dedicated task. The custodian is appointed by the Board of Trustees for safekeeping of securities or participating in any clearance system through approved depository companies on behalf of the Mutual Fund and it must fulfil its responsibilities in accordance with its agreement with the Mutual Fund. The concept of dematerialization of shares leads to that the dematerialized shares are kept with the Depository participant while the custodian holds the physical securities. Thus, deliveries of a fund's securities are given or received by a custodian or a depository participant, at the instructions of the AMC, although under the overall direction and responsibilities of the Trustees.

iv. Bankers:

The activities of a firm include dealing in money on a constant basis mostly with respect to buying and selling units, paying for the investment made, receiving the proceeds from the sale of the investments and discharging its obligations towards operating expenses. Thus the Fund's banker plays an important role to determine the quality of service that the fund gives in timely delivery of remittances etc.

2.7 HISTORICAL PERSPECTIVE IN GLOBAL CONTEXT:

Mutual fund attracts the public attention in the 1980s and 90s when the mutual fund investments and returns reached the peak level. However, the idea for pooling funds for investment purposes was initiated long back. Historians are not certain about the origin of the investment concept. Some cited that the first close-ended investment company was started by King William I in 1822 in the Netherlands whereas some other pointed that Adriaan van Ketwich, a Dutch merchant created the first investment trust in 1774 (Sharmacharjee, 2014).

The concept of investment and spreading risk gained momentum in Great Britain and France. In 1868 the first investment trust named “The Foreign and Colonial Government Trust” was formed in London which has become the real initiate in the field of modern-day concept of a mutual fund. The Trust was established with a motive to provide platforms for the small investors to invest their money in foreign and colonial companies. The Scottish American Trust was founded by Robert Fleming at Dundee during 1873.

In the 1890s this concept was heading towards the United States. The first close-ended fund formed in the U.S was Boston Personal Property Trust in 1893. Later in 1907, the establishment of Alexander Fund in Philadelphia was the leading step in the evolution of mutual fund industry. This fund has the facilities of semi-annual issues and permits the investors of withdrawing on demand. Massachusetts Investment Trust (MIT), the first open-ended mutual fund in the U.S. was launched in Boston on March 21, 1924. In the beginning, State Street Investor’s Trust was the custodian of the MIT but later in 1924, they started their own fund with Richard Paine, Richard Saltonstall and Paul Cabot. The first no-load fund was launched in 1928 by Saltonstall, Scudder, Stevens and Clark. MIT became public in 1928 and gradually it is known as Massachusetts Financial Service (MFS) Investment Management. There were 19 numbers of open-ended and 700 numbers of close-ended funds were competing with each other by 1929 which showed a rising trend in the industry.

Subsequent to World War-II the mutual fund industry showed a remarkable growth worldwide. During this period mutual fund companies expanded their wings in Asia, Far East, Latin America and Canada. In Canada, a number of closed-ended investment companies were started which are generally known as investment trusts. In 1932 Canadian Investment Fund Ltd. (CIF), the first Canadian Mutual fund was established and by 1951 it had an asset of $51 million. CIF changed its name to Spectrum United Canadian Investment Fund in November 1996 and again CI Canadian Investment Fund in August 2002. Later in 1930 two funds were organised namely Commonwealth International Corporation Limited (CWICL) and Corporate Investors Limited (CIL).

Meanwhile, a huge number of mutual funds came out and expanded their branches in many of the countries of Europe, the Far East and Latin America. Countries in Pacific area like Hongkong, Thailand, Singapore and Korea. Thus mutual fund culture is now worldwide in scope. The growth of mutual fund industry is a continuous phenomenon. The number of open-ended funds was found to be 100 at the beginning of the 1950s. Thus, the situation of 1929 was gradually improving. As a result in 1954, the mutual fund industry began to grow in adding of some 50 new funds and during the 1960s, 100 new funds were established which reflect a significant rise in growth of funds.

Later in 1970s many no-load funds and index funds were materialized. The first index fund was established in 1971 by William Fouse and John McQuown of Wells Fargo Bank. Vanguard Group, a mutual fund powerhouse which was popular for low-cost index fund was established by John Bogle in 1976.

The State Advisors and the American Stock Exchange (ASE) introduced the Exchange Traded Funds (ETFs) in 1993 is a significant development in mutual fund industry in the global platform. It was started with Standard and Poor depository receipts popularly known as spiders. Later Diamonds, Qubes, Webs and Vipers were added to the fund. These newcomers with strange nicknames have exploded in popularity within a very short time.

Table-2.1: Total number of Mutual funds of different countries

Sl no	Name of the country	No of mutual funds (up to 2014)
1	Trinidad and Tobago	43
2	Malta	63
3	Costa Rica	66
4	Slovakia	67

5	Romania	72
6	Croatia	82
7	Bulgaria	103
8	Czech Republic	106
9	Slovenia	111
10	Portugal	137
11	Greece	143
12	Hungary	189
13	Poland	278
14	Argentina	302
15	Finland	352
16	Turkey	395
17	Mexico	486
18	Sweden	510
19	Denmark	530
20	Netherlands	561
21	Liechtenstein	587
22	Norway	616
23	Italy	719
24	Switzerland	815
25	Austria	938
26	Belgium	1,209
27	United Kingdom	1,920
28	Germany	2,039
29	Spain	2,238
30	Chile	2,418
31	Canada	3,164
32	Ireland	3,462
33	France	7,082
34	United States	7,923
35	Brazil	8,560
36	Luxembourg	9,839

Source: http://topforeignstocks.com/2016/04/14/number-of-mutual-funds-by-country/

Table-2.1 describes the total number of mutual funds exists in worldwide. It has covered 36 different countries across the globe such as Argentina, Brazil, Canada, Chile, Costa Rica, Mexico, Trinidad and Tobago, United States, Austria, Belgium, Germany, United Kingdom etc. Among all the countries Trinidad and

Tobago have the least number of mutual funds which is 43 and Luxembourg has the highest number mutual fund which is 9839 followed by Brazil with 8560, the United States with 7923 etc.

2.8 MUTUAL FUNDS IN INDIA- ITS EVOLUTION:

The origin of Unit Trust of India (UTI) in Indian soil established the notion of mutual fund in 1963. The primary objective of UTI is to attract the small and significant investors which are otherwise known as retail investors to invest their money. This could be achieved through a united effort of Government of India and the Reserve Bank of India (RBI). The journey of mutual funds in India started with the effort of both Central Government and RBI. At the same period of time, SBI mutual fund came into the industry which provided the mutual fund's sector with an adequate financial support. The first scheme launched by UTI was Unit scheme 1964 (www.amfi.com). This was the first open-ended equity scheme which became popular within a short span of time. In 1986 another scheme was brought by UTI named as Master share scheme. These two schemes became so popular that attract the attention of banks as well as other financial institutions to come into the business of mutual fund industry and as a result, other public sector banks and financial institutions initiate their business. Later on, the year 1993 witnessed another milestone in the history of mutual fund consequent upon of joining of the private companies.

The year 1992 brought dynamic scenario in the history of a mutual fund with the passing of the Securities and Exchange Board of India (SEBI) Act and subsequently, the SEBI Mutual Fund Regulations came into operation in 1996. Like this, the journey of mutual funds in India started growing exponentially with the setting of the foreign institutions in India, through joint ventures and acquisitions. As the industry expanded, a non-profit organization, the Association of Mutual Funds in India (AMFI), was established in 1995 with the objectives to promote healthy and ethical marketing practices in the Indian mutual fund industry. However, SEBI takes the responsibility for making AMFI certification mandatory for all those who are engaged in selling or marketing mutual fund products. To explain more explicitly, the history of mutual funds in India can be broadly divided into four distinct phases as discussed below (www.amfi.com).

2.8.1 1st Phase – (1964-1987):

The first phase of the growth of Mutual Fund in India primarily rests on the institution of UTI. The other features of UTI are discussed below.

i. UTI was established in 1963 by an Act of Parliament which was set up by the RBI and it started functioning under the Regulatory and administrative control of the RBI.

ii. In 1978 UTI was de-linked from the RBI and the Industrial Development Bank of India (IDBI) took over the regulatory and administrative control in place of `RBI. The first scheme launched by UTI was Unit Scheme 1964 and at the end of 1988, UTI had an Asset Under Management of Rs. 6,700 crores.

2.8.2 2nd Phase – (1987-1993) (Entry of Public Sector Funds):

This period is also unique in the sense that many non-financial organisations supported the Mutual Funds and hence, there was a tremendous growth of the same.

i. During 1987 to 1993 many mutual funds were instituted by various public sector banks, Life Corporation of India (LIC), and General Insurance Company (GIC). To discuss some of them, SBI Mutual Fund was the first non-UTI Mutual Fund established in June 1987 followed by Canbank Mutual Fund in December, 1987; LIC Mutual Funds in June 1989; Punjab National Bank Mutual Fund in August, 1989; Indian Bank Mutual Fund in November 1989, Bank of India in June 1990; Bank of Baroda Mutual Fund in October 1992; GIC mutual fund in December 1990.

ii. At the end of 1993, the mutual fund industry had assets under management of Rs. 47,004 crores (www.amfi.com).

2.8.3 3rd Phase- (1993-2003) (Entry of Private Sector Funds):

The total scenario of Mutual Funds in India dynamically changed during the 3rd phase which commences from 1993 and ends with 2003. The foregoing discussions visualised its growth during the phase.

i. Penetration of private sector funds in 1993 witnessed a new era in the history of mutual funds of India which provided a wider dimension of choice to the Indian investors in investment.

ii. The first Mutual Fund Regulations in India (MFRI) became effective.

iii. There was a clear guideline for every private sector to register with MFRI before the operation of the mutual funds in India.

iv. The Kothari Pioneer which was merged with Franklin Templeton became the first private sector mutual fund who registered in July 1993.

v. The 1993 SEBI Mutual Fund Regulations were substituted by a more comprehensive and revised Mutual Fund Regulations in 1996.

vi. The increase of firms in mutual fund sector in both from India and outside resulted in several mergers and acquisitions.

vii. As of 2003, a total number of 33 mutual funds were operating with total assets of Rs.1, 21,805 crores.

viii. The Unit Trust of India with Rs.44,541 cores of assets under management was way ahead of other mutual funds.

2.8.4 4th Phase- (2003 to present):

This phase remarkably witnessed many changes in the organisational setup of UTI. To highlight the importance of this phase it can be mentioned that,

a. The Unit Trust of India Act, 1963 was repealed.

b. Consequently, UTI was divided into two separate entities such as,

(i) Specified Undertaking of UTI (SUUTI) with assets management of Rs. 29,835 cr. until the end of January 2003 and it comprises Unit Scheme 64 schemes, assured return and other schemes. This division of UTI started functioning under an administrator and under the rules framed by Government of India which, however, was excluded from the purview of the Mutual Fund Regulations.

(ii) UTI Mutual Fund (UTI MF) happens to be the second split unit of UTI is and the same was sponsored by various financial organisations and insurance companies like State Bank of India (SBI), Punjab National Bank (PNB), Bank of Baroda (BOB), Life Insurance Company (LIC), India. This unit of UTI is registered with SEBI and functions under the Mutual Fund Regulations. With the bifurcation of the erstwhile UTI, it had more than Rs. 76,000 crores of assets under management in March 2000 and with the setting up of a UTI Mutual Fund; it conforms to the SEBI Mutual Fund Regulations. Further, the mutual fund industry entered its current phase of consolidation and growth with recent mergers among different private sector funds (Gokhale, 2011).

Table-2.2 placed below depicts the different phases Mutual Funds in India.

Table-2.2: History of Mutual Funds in India

Year	Description
1964	Unit Trust of India, single mutual fund entity in India
1987	Entry of Public sector funds
1988-1992	i. Eight new funds established by banks, LIC, and GIC ii. Total number of schemes increased up to 167
1993	i. AUM shoots up to Rs. 61,000 Cr. ii. Entry of Private and Foreign players into the sector iii. Kothari Pioneer Mutual Fund first entrant
1996	SEBI formulate Mutual fund Regulation, a comprehensive regulatory framework
2004	i. 45 Mutual fund organisation ii. AUM nearly Rs. 10 lakh Cr.

Source: Compiled from different sources

In 1964 UTI was the one and only investment platform available for the investors to invest. While in 1987 different Public sector funds entered into the mutual fund market which increased the platform for the investors. Total schemes increased to 167 as well as eight new funds were started by banks in between 1988 to 1992. Private and foreign players came into the business in 1993 and AUM of UTI increased up to Rs. 61,000 Cr. A comprehensive framework has been framed by SEBI in order to regulate the mutual fund industry.

Table-2.3 mentioned below clearly depicts the growth of Assets Under Management over the years commencing from 1st phase till March 2017 of the 4th phase.

Table- 2.3: Growth of Assets Under Management

Phases	Year	Growth in Rs. (in Crores)
Phase 1 **(**1964-1987)	March-1986	25
Phase 11 **(**1987-1993)	March-1987	4564
Phase 111 **(**1993-2003)	March-1993	47733
Phase 1V **(**2003-Present)	Jan-2003	121805
	Feb-2003	87190
	March-2003	79464
	March-2004	139616
	March-2005	149554
	March-2006	231862
	March-2007	326388
	March-2008	505152
	March-2009	417300
	March-2010	613979
	March-2011	592250
	March-2012	587217
	March-2013	701443
	March-2014	825240
	March-2015	1082757
	March-2016	10630922
	March-2017	13681009

Source: Compiled from different websites

Table-2.3 shows the Growth of Asset Under Management from March 1986 to March 2017. There is tremendous growth in the AUM of the mutual fund industry since the day of its commencement. The AUM was Rs. 25 during Phase-1 which is increased to Rs. 4594 in Phase-11, Rs. 47733 in Phase-111 and Rs. 121805 in Phase-1V. Until March 2017 the AUM has reached to Rs. 13681009.

2.9 COMPREHENSIVE LIST OF TOTAL MUTUAL FUNDS IN INDIA:

With the development of the mutual fund industry, there is thirty-nine (39) number of players exist in this sector. This includes both public and private player in the industry. The following Table-2.4 represents the name of the total mutual funds along with their starting year, a total number of schemes hold by each mutual fund and Asset Under Management.

Table-2.4: Total Mutual funds in India

Sl no	Name of Mutual fund	Year of Establishment	Total Schemes	AUM as on 31 March 2017 (in crore)	Status
1	Canara Robeco Asset Management Company	1987	142	9939.78	Private
2	SBI Asset Management Company	1987	652	157025.28	Public
3	ICICI Prudential Asset Management Company	1993	1529	242961.36	Public
4	Taurus Asset Management Company	1993	65	1876.07	Private
5	Baroda Pioneer Asset Management Company	1994	111	10323.65	Public
6	Birla Sun Life Asset Management Company	1994	806	195049.01	Private
7	JM Financial Asset Management	1994	179	13667.94	Private
8	LIC Nomura Mutual Fund Asset Management Company	1994	176	21475.30	Public
9	Principal Asset	1994	123	5346.84	Private

	Management Company				
10	Shriram Asset Management Company	1994	4	40.56	Private
11	Reliance Asset Management Company	1995	1015	210890.64	Private
12	Tata Asset Management Company	1995	324	42619.16	Private
13	DSP BlackRock Asset Management Company	1996	398	64176.79	Private
14	Escorts Asset Management Company	1996	60	242.56	Private
15	Franklin Templeton Asset Management Company	1996	200	81615.34	Private
16	Sahara Asset Management Company	1996	68	67.27	Private
17	Sundaram Asset Management Company	1996	479	29369.69	Private
18	L&T Asset Management Company	1997	246	39299.89	Private
19	Kotak Mahindra Asset Management Company	1998	431	92216.28	Private
20	HDFC Asset Management Company	2000	1173	23177.61	Private
21	IDFC Asset Management	2000	453	60636.02	Private

	Company				
22	HSBC Global Asset Management Company	2002	155	8812.36	Private
23	UTI Asset Management Company	2003	1220	136810.09	Public
24	BNP Paribas Asset Management Company	2004	114	5890	Private
25	Quantum Asset Management Company	2005	15	961.85	Private
26	Mirae Asset Management Company	2007	55	7456.67	Private
27	BOI AXA Asset Management Company	2008	76	3552.34	Private
28	Edelweiss Asset Management Company	2008	70	6917.55	Private
29	Axis Asset Management Company	2009	263	57699.85	Private
30	Motilal Oswal Asset Management Company	2009	31	8115.10	Private
31	Peerless Asset Management Company	2009	57	1061.87	Private
32	DHFL Pramerica Asset Management Company	2010	491	26116.96	Private
33	IDBI Asset Management	2010	92	7718.95	Private

	Company				
34	IIFL Asset Management Company	2011	18	564.71	Private
35	Indiabulls Asset Management Company	2011	56	10819.94	Private
36	Union KBC Asset Management Company	2011	60	3416.23	Private
37	IIFCL Asset Management Asset	2012	1	415.71	Public
38	PPFAS Asset Management Company	2012	1	696.12	Private
39	IL & FS Infra Asset Management Company	2013	12	1046.36	Private

Source: Compiled from different websites

Table -2.4 describes the comprehensive list of the total number of mutual funds exists in India as on 31.01.2018. Total thirty-nine (39) mutual funds are working in India out of which six (6) are public and thirty-three (33) are private mutual funds. The total number of schemes available in India is eleven thousand four hundred twenty-one (11421) which are offered by the different public as well as private mutual funds. The first private Asset management company was Canara Robeco Asset Management Company which was established in 1987. It holds a total number of 142 schemes and the asset size as on 31st March 2017 is 9939.78 cr. The first public Asset Management Company was SBI Asset Management Company established in 1987. It has total 652 schemes and the asset size as on 31st March 2017 is 157025.28 Cr. The highest AUM is held by ICICI Prudential Asset Management Company i.e. 242961.36 cr. whereas the lowest is recorded by Shriram Asset Management Company i.e. 40.56 cr. as on 31st March 2017.

2.10 RECENT DEVELOPMENT IN MUTUAL FUND INDUSTRY:

The mutual fund industry has undergone several changes in accordance with the time. Several developments are being undertaken by the AMC in the mutual fund industry in order to make it more popular and attractive. Some of them are as follows:

i. A new investment plan called as Systematic investment plan (SIP) has been introduced. In this plan, an investor can invest a fixed amount at a fixed interval in the mutual fund scheme. The SIP accounts in India have reached to 9.26 lakhs till Dec-2017. SIP is gaining more popularity among the Indian investors as it is a very convenient method of investing.

ii. Total assets of mutual fund industry have reached to 21.27 trillion in Dec-2017. The total number of accounts in mutual fund till Dec 2017 is 6.65 cr.

iii. About 99% of the total investors are individual investors whereas 1% is institutional investors.

iv. There is a total number of 11856 schemes available for the investors which include different sectors of a mutual fund to invest.

v. Roundabout 80% of the total investors are investing in equity oriented scheme.

2.11 CONCLUSION:

Mutual funds are the financial intermediaries which act as the basis of savings in the form of investment. Globally, it is recognised as an investment platform where capital collected from the investors is invested in different portfolios. It is mainly concern with the higher return involving a low risk. The investment facilitates the investors to pool their resources in order to purchase stocks, bonds and other securities. Investments in securities are accelerated through industries and different sectors. Risk can be reduced by diversification as all the stocks may or may not perform in equal direction. Investors can regain their units based on the amount they have invested through a mutual fund.

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CHAPTER-3
PERFORMANCE EVALUATION GROWTH SCHEMES

3.1 INTRODUCTION:

In this chapter, the profiles of the selected mutual funds along with their growth schemes are being introduced. The chapter deals with the performance analysis of the selected mutual fund schemes on the basis of different parameters such as average return, Standard deviation and Beta by taking into account. Standard performance evaluation measures i.e. Sharpe index, Treynor index, and Jensen index have been used to evaluate the risk-return relation of the selected five growth schemes of the five selected mutual funds during the period April 2012 to March-2017.

3.2 PROFILE OF SELECTED MUTUAL FUNDS:

For the current study, top five Asset Management Companies have been selected on the basis of their highest Asset Under Management (AUM). A brief introduction of the selected schemes has been discussed below.

3.2.1 ICICI Prudential Mutual Fund:

ICICI Prudential Asset Management Company Ltd. is a joint venture between ICICI Bank of India and Prudential Plc, which is one of the largest financial players in the UK. It got registered in 1993. It is one of the leading AMC in India. Till 31st March 2017, it has launched total 1433 schemes which include both open-ended and close-ended schemes. It offers a wide range of investment solution in a different asset class such as equity, fixed income and gold.

3.2.2 HDFC Mutual Fund:

HDFC Mutual fund started its business in 1999 with its AMC, HDFC Asset Management Company which is a joint venture between Housing Development Finance Corporation Ltd. and Standard Life Investments Ltd. This is also one of the leading Mutual funds in the country. The mutual fund has a total number of 857 schemes available for the investors.

3.2.3 Reliance Mutual Fund:

Reliance Mutual Fund is one of the top mutual funds in India which is incorporated in 1995 and Reliance Capital Asset Management Limited is operating as the AMC of the mutual fund which is a combination of two groups i.e. Reliance Capital Limited and Nippon Life Insurance Company. It is one of the fastest growing mutual funds in India. It has come out with 1005 schemes so far and it is continuously attempting to launch latest products and services to raise the worth of customers.

3.2.4 Birla Sun Life Mutual Fund:

Birla Sun Life Mutual fund started its operation in 1994 with Aditya Birla Sun Life Asset Management Company Ltd as its AMC which is formed jointly between Aditya Birla Group and the Sun Life Financial Incorporation which is one of the topmost financial service providers in Canada. Until now 605 number of schemes have been launched which is well diversified.

3.2.5 SBI Mutual Fund:

SBI Mutual fund is a foremost investment company in India. State Bank of India Financial Private Limited is the AMC of this mutual fund. In 1992 it was incorporated and among all the schemes discussed above, it is the oldest mutual fund. Since inception, it has come out with 562 schemes. It is only one public sector mutual fund among all the mutual funds conferred above.

Table-3.1 shows the number of balanced schemes and growth schemes of selected AMCs.

Table-3.1: Total number of balanced and growth Schemes (as on 31.03.2017)

AMC	No. of Balanced Schemes	No. of Growth Schemes
ICICI Prudential Mutual Fund	5	8
HDFC Mutual Fund	14	35
Reliance Mutual Fund	8	18
Birla Sun Life Mutual Fund	7	14
SBI Mutual Fund	4	16

Source: Compiled from different sources

Table-3.1 shows the total number of balanced and growth schemes of the selected Asset Management Companies. On analyzing the Table-3.1 it can be said that ICICI Prudential Mutual Fund has five (5) balanced schemes and eight (8) growth schemes, HDFC Mutual Fund has fourteen (14) balanced schemes and thirty-five (35) growth schemes, Reliance Mutual Fund has eight (8) balanced schemes and eighteen (18) growth schemes, Birla Sun Life Mutual Fund has seven (7) balanced schemes and fourteen (14) growth schemes and SBI Mutual Fund has four (4) balanced schemes and sixteen (16) growth schemes. The highest number of balanced and growth schemes are held by HDFC Mutual Fund.

3.3 PROFILE OF SELECTED MUTUAL FUND GROWTH SCHEMES:

3.3.1 ICICI Prudential Balanced Advantage Fund-Growth Plan:

It is an open-ended growth scheme with an objective to provide capital appreciation and income distribution among the distributors by applying different strategies and arbitrage opportunities. This was launched on 8th November 2006. The major top holdings companies under this portfolio are given in Table-3.2.

Table-3.2: Top Holdings of ICICI Prudential Balanced Advantage Fund-Growth Plan (as on 31.03.2017)

Sl no	Companies	Sector	Asset Size (in Cr.)
1	HDFC Bank	Banking/Finance	601.87
2	Motherson Sumi	Automotive	596.68
3	HUL	Cons Nondurable	531.63
4	ICICI Bank	Banking/Finance	520.62
5	Infosys	Technology	480.49
6	Bajaj Finserv	Banking/Finance	413.37
7	SBI	Banking/Finance	407.10
8	Axis Bank	Banking/Finance	398.39
9	Britannia	Food & Beverage	384.83
10	Maruti Suzuki	Automotive	368.51

Source: www.moneycontrol.com

Table-3.2 describes the top holding companies of ICICI Prudential Balanced Advantage Fund-Growth Plan. The companies are from the different sector such as banking, automobiles, technology etc. HDFC Bank has the highest asset size having 601.87 cr. among all companies followed by Motherson Sumi, HUL, ICICI Bank, Infosys, Bajaj Finserv, SBI, Axis Bank, Britannia, and Maruti Suzuki.

3.3.2 HDFC Capital Builder Fund - Growth Option:

This scheme was launched on 16 December 1993 in order to achieve capital appreciation in long-term. This is an open-ended growth scheme. Following companies in Table- 3.3 are under this portfolio.

Table-3.3: Top Holdings of HDFC Capital Builder Fund - Growth Option (as on 31.03.2017)

Sl no	Companies	Sector	Asset Size (in Cr.)
1	HDFC Bank	Banking/Finance	132.19
2	Axis Bank	Banking/Finance	63.82
3	Infosys	Technology	59.43
4	Vedanta	Metals & Mining	52.45
5	Reliance	Oil & Gas	52.30
6	ICICI Bank	Banking/Finance	50.94
7	GAIL	Oil & Gas	50.78
8	Larsen	Engineering	43.05
9	SBI	Banking/Finance	42.60

Source: www. moneycontrol.com

Table-3.3 describes the top holding companies of HDFC Capital Builder Fund - Growth Option. The companies comprise of the different sector such as banking, engineering, metals, oil & gas, technology etc. HDFC Bank has the highest asset size having 132.19 cr. among all companies followed by Axis Bank, Infosys, Vedanta, Reliance, ICICI Bank, GAIL, Larsen and SBI.

3.3.3 Reliance Banking Fund-Dividend Plan-Dividend Option:

An open-ended growth dividend scheme has been launched on 21 May 2003 with an aim to produce continuous returns by keenly investing in either equity or fixed income securities of companies in the banking sector. The holdings companies of this portfolio are as shown in Table- 3.4.

Table-3.4: Top Holdings of Reliance Banking Fund-Dividend Plan-Dividend Option (as on 31.03.2017)

Sl No	Companies	Sector	Asset Size (in Cr.)
1	HDFC Bank	Banking/Finance	585.15
2	ICICI Bank	Banking/Finance	348.30
3	SBI	Banking/Finance	203.09
4	Indus land Bank	Banking/Finance	154.59

5	Rel Capital	Banking/Finance	144.41
6	Yes Bank	Banking/Finance	109.85
7	Federal Bank	Banking/Finance	106.10
8	Muthoot Finance	Banking/Finance	84.13
9	ICICI Prudential	Banking/Finance	81.18
10	Max Financial	Manufacturing	77.43

Source: www.moneycontrol.com

Table-3.4 describes the top holding companies of Reliance Banking Fund-Dividend Plan-Dividend Option. Most of the companies are from the banking sector and one is from manufacturing. Out of all the companies HDFC Bank is leading with highest asset size of 585.15 cr. followed by ICICI Bank, SBI, Indus land Bank, Rel Capital, Yes Bank, Federal Bank, Muthoot Finance, ICICI Prudential and Max Financial.

3.3.4 Birla Sun Life Dividend Yield Plus - Growth - Regular Plan:

It is an open-ended growth type scheme launched on 7 February 2013. The primary objective of the scheme is to offer capital growth and income by investing in a well-diversified portfolio of dividend paying companies that have a comparatively high dividend yield. Top holdings companies are presented below.

Table-3.5: Top Holdings of Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (as on 31.03.2017)

Sl No	Companies	Sector	Asset Size (in Cr.)
1	Vedanta	Metals & Mining	75.38
2	ICICI Bank	Banking/Finance	65.54
3	HPCL	Oil & Gas	55.59
4	BPCL	Oil & Gas	30.68
5	Dalmia Bharat	Cement	30.36
6	Mahanagar Gas	Oil & Gas	30.99
7	Axis Bank	Banking/Finance	26.17
8	Federal Bank	Banking/Finance	29.94
9	Hind Zinc	Metals & Mining	27.74
10	IIFL Holdings	Banking/Finance	25.76

Source: www.moneycontrol.com

Table-3.5 describes the top holding companies of Birla Sun Life Dividend Yield Plus - Growth - Regular Plan. The companies comprise of the different sector such as banking, metals & mining, oil & gas, and cement etc. Vedanta has the highest asset size having 75.38 cr. among all companies followed by ICICI Bank, HPCL, BPCL, Dalmia Bharat, Mahanagar Gas, Axis Bank, Federal Bank, Hind Zinc and IIFL Holdings.

3.3.5 SBI Arbitrage Opportunities Fund-Regular Plan – Growth:

The scheme was launched on 15 September 2006 with an objective to provide capital appreciation along with regular income to the unitholders by classifying profitable arbitrage opportunities between the spot and derivative market segments as also through the investment of surplus cash in debt and money market instruments. Major holdings companies of the scheme have been depicted in the following Table-3.6.

Table-3.6: Top Holdings of SBI Arbitrage Opportunities Fund-Regular Plan – Growth (as on 31.03.2017)

Sl No	Companies	Sector	Asset size (in Cr.)
1	Century	Conglomerates	28.79
2	Tata Comm	Telecommunication	21.18
3	Tata Motors (D)	Automotive	16.87
4	Indiabulls Hsg	Banking & Financial Services	14.66
5	Vedanta	Metals & Mining	12.12
6	TV 18 Broadcast	Media & Entertainment	10.43
7	CESC	Utilities	10.07
8	IDFC Bank	Banking & Financial Services	9.62
9	Aurobindo Pharm	Pharmaceuticals	9.02
10	Bharat Fin	Banking & Financial Services	8.98

Source: www.moneycontrol.com

Table-3.6 describes the top holding companies of SBI Arbitrage Opportunities Fund-Regular Plan – Growth. The companies comprises of different sector such as banking, metals & mining, telecommunication, automobiles, media & entertainment, utilities etc. Century has the highest asset size having 28.79 cr. among all companies followed by Tata Comm, Tata Motors (D), Indiabulls Hsg, Vedanta, TV 18 Broadcast, CESC, IDFC Bank, Aurobindo Pharm, and Bharat Fin.

3.4 PERFORMANCE ANALYSIS OF SELECTED GROWTH SCHEMES:

The performance of the selected mutual fund schemes has been analyzed on the basis of the risk-return relationship using the important risk-adjusted performance evaluation measures such as Sharpe ratio, Treynor ratio, and Jensen alpha. Along with that different parameter such as average return, standard deviation and beta have also been computed.

3.4.1 Return:

Monthly adjusted Net Asset Value (NAV) data of different schemes are used for calculating the return of the portfolio. The formula used for this is as follows:

$$R_p = \frac{NAV_t - NAV_{t-1}}{NAV_{t-1}} * 100 \quad \text{------------ 3.1}$$

Where R_p= Daily return of the portfolio

NAV_t= Today's NAV

NAV_{t-1}= Yesterday's NAV

The average return of the mutual fund scheme is calculated as follows:

$$\overline{R_p} = \frac{\sum_{p=1}^{n} R_p}{n} \quad \text{-------------- 3.2}$$

Where, $\bar{R}_p$ =average return of mutual fund scheme.

n =number of observations

Correspondingly, the daily returns of the market index and average return of market index were calculated as given formula,

$$R_{mt} = \frac{P_t - P_{t-1}}{P_{t-1}} *100 \quad \text{-------------- 3.3}$$

Where, R_{mt} =Daily return of market index

P_t = Closing price of today and

P_{t-1} = Closing price of the previous trading day.

$$\bar{R}_m = \frac{\sum_{m=1}^{n} R_{mt}}{n}$$

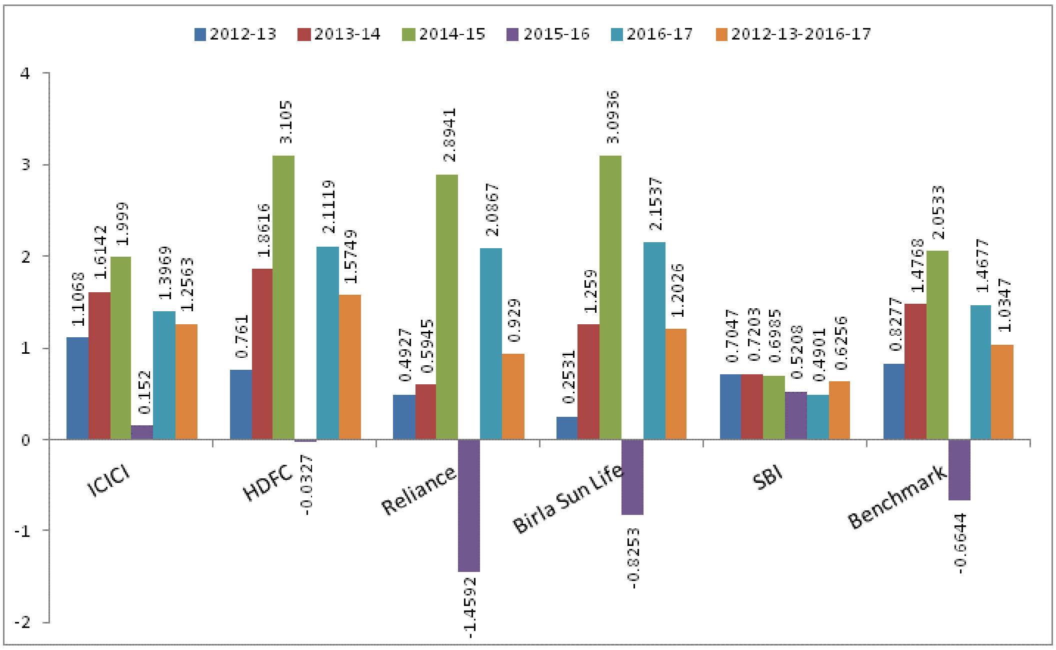
Where, $\bar{R}_m$= average return of the market index.

The analysis of average return of the growth schemes and benchmark have been presented in the following Table- 3.7 and supplemented with Graph 3.1.

Table-3.7: Year-wise monthly average return of selected growth schemes and benchmark

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Advantage Fund-Growth Plan	1.1068	1.6142	1.9990	0.1520	1.3969	1.2563
HDFC Capital Builder Fund - Growth Option	0.7610	1.8616	3.1050	-0.0327	2.1119	1.5749
Reliance Banking Fund-Dividend Plan-Dividend Option	0.4927	0.5945	2.8941	-1.4592	2.0867	0.9290
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.2531	1.2590	3.0936	-0.8253	2.1537	1.2026
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	0.7047	0.7203	0.6985	0.5208	0.4901	0.6256
Benchmark (Nifty 100)	0.8277	1.4768	2.0533	-0.6644	1.4677	1.0347

Source: Calculated from Secondary data



Graph 3.1: Year-wise monthly average return of selected growth schemes and benchmark

Table-3.7 shows the year-wise monthly average return of the selected growth schemes as well as for the benchmark index. For the year 2012-13, all the growth schemes are giving the positive return and while comparing with the benchmark index only one scheme i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (1.10) is performing superior to the market which reveals that in 2012-13 except one scheme market performance is better than all other schemes under study. In 2013-14 all the schemes under study are having positive value in terms of average return. While comparing with the market return, out of five schemes two schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (1.61) and HDFC Capital Builder Fund - Growth Option (1.86) have a greater return than the market and three schemes i.e. Reliance Banking Fund-Dividend Plan-Dividend Option (0.59), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (1.25) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.72) have a lower return.

For the year 2014-15, all the schemes have a positive return. In comparison with the benchmark index, three schemes out of five schemes have outperformed the market i.e. HDFC Capital Builder Fund - Growth Option (3.10), Reliance Banking Fund-Dividend Plan-Dividend Option (2.89) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (3.09) and two schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (1.99) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.69) has underperformed the market.

For the year 2015-16, out of five schemes, three schemes are reflecting negative value i.e. HDFC Capital Builder Fund - Growth Option (0.03), Reliance Banking Fund-Dividend Plan-Dividend Option (-1.45), and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (-0.82) and two schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.15) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.52) are having positive value. When compared with the market return, three schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.15), HDFC Capital Builder Fund - Growth Option (-0.03) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.52) are showing better performance while Reliance Banking Fund Dividend Plan-Dividend Option (-1.45), and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan(-0.82) are having a lower return.

In 2016-17 all the schemes are having a positive average return. Three schemes i.e. HDFC Capital Builder Fund - Growth Option (2.11), Reliance Banking

Fund-Dividend Plan-Dividend Option (2.08) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (2.15) are having the higher return than the market while ICICI Prudential Balanced Advantage Fund-Growth Plan (1.39) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.49) are having lower return than the benchmark index.

By considering the whole study period it is clear from the Table- 3.7 that every scheme has a positive average return value during the study period. The return is highest in case of HDFC Capital Builder Fund - Growth Option with (1.57) followed by ICICI Prudential Balanced Advantage Fund-Growth Plan (1.26), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (1.20), Reliance Banking Fund-Dividend Plan-Dividend Option (0.93) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth with lowest value 0.63. HDFC Capital Builder Fund - Growth Option scheme performed better than other schemes during the study period.

3.4.1.1 Ranking of the growth schemes based on average return:

The ranking of the growth schemes under study on the basis of their monthly average return during the study period has been shown in Table- 3.8.

Table-3.8: Ranking of the growth schemes on the basis of monthly average return

Scheme Name	Avg. Return	Rank
ICICI Prudential Balanced Advantage Fund-Growth Plan	1.2563	2
HDFC Capital Builder Fund - Growth Option	1.5749	1
Reliance Banking Fund-Dividend Plan-Dividend Option	0.9290	4
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	1.2026	3
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	0.6256	5

Source: Calculated from Secondary data

On analysis of Table-3.8 it can be said that HDFC Capital Builder Fund - Growth Option is leading with highest average return of 1.57 during the study period followed by ICICI Prudential Balanced Advantage Fund-Growth Plan with 1.26, Birla Sun Life Dividend Yield Plus - Growth - Regular Plan with 1.20, Reliance Banking Fund-Dividend Plan-Dividend Option with 0.93 and SBI Arbitrage Opportunities Fund-Regular Plan – Growth with 0.63.

3.4.2 Risk:

The risk of the mutual fund schemes and the market index were measured by standard deviation (σ).It is a tool that measures the variation in the returns of the mutual fund schemes from its expected rate of return for a certain period of time. Higher standard deviation signifies the higher risk as well as the higher volatility of the schemes. The standard deviations are calculated by using the following formula.

$$\sigma_p = \sqrt{\frac{1}{n-1}\sum(R_{pt} - \bar{R}_p)^2}$$

$$\sigma_m = \sqrt{\frac{1}{n-1}\sum(R_{mt} - \bar{R}_m)^2}$$

Where σ_p is the risk of the mutual fund schemes.

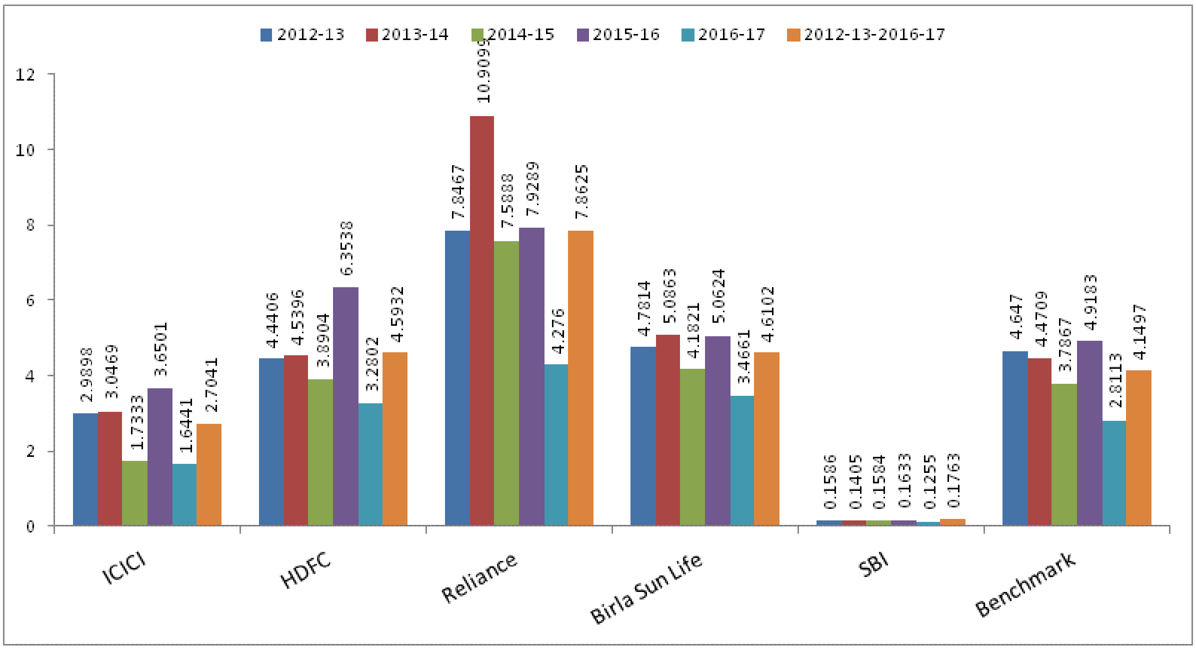
σ_m is the risk of the market index.

The standard deviation of the growth schemes and the benchmark is presented in the following Table-3.8 and supplemented with Graph 3.2.

Table-3.9: Year-wise standard deviation of the monthly return of selected growth schemes and benchmark

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Advantage Fund-Growth Plan	2.9898	3.0469	1.7333	3.6501	1.6441	2.7041
HDFC Capital Builder Fund - Growth Option	4.4406	4.5396	3.8904	6.3538	3.2802	4.5932
Reliance Banking Fund-Dividend Plan-Dividend Option	7.8467	10.9099	7.5888	7.9289	4.2760	7.8625
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	4.7814	5.0863	4.1821	5.0624	3.4661	4.6102
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	0.1586	0.1405	0.1584	0.1633	0.1255	0.1763
Benchmark (Nifty100)	4.6470	4.4709	3.7867	4.9183	2.8113	4.1497

Source: Calculated from Secondary data



Graph 3.2: Year-wise monthly standard deviation of monthly return of selected growth schemes and benchmark

Table-3.9 represents the risk in terms of standard deviation of the growth schemes as well as for the market. On analysis of the table it could be found that, for the year 2012-13, out of five schemes three schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (2.98), HDFC Capital Builder Fund - Growth Option (4.44) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.15) is having a less standard deviation as compared to the market and two schemes i.e. Reliance Banking Fund-Dividend Plan-Dividend Option (7.85) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (4.78) are having higher standard deviation. It indicates that two schemes are riskier than the market and three schemes are lesser risky as compared to the market in the year 2012-13.

In 2013-14, ICICI Prudential Balanced Advantage Fund-Growth Plan (3.05) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.14) is having a lower risk than the market as it has lower standard deviation than the market. HDFC Capital Builder Fund - Growth Option (4.54), Reliance Banking Fund-Dividend Plan-Dividend Option (10.91) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (5.09) are riskier than the market.

For the year 2014-15, ICICI Prudential Balanced Advantage Fund-Growth Plan(1.73) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.16) are showing lesser value than the market which indicates that both the schemes are having lower risk and HDFC Capital Builder Fund - Growth Option (3.89), Reliance Banking Fund-Dividend Plan-Dividend Option (7.59) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (4.18) are riskier as indicated by the higher standard deviation value.

Out of five schemes, two schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (3.65) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.16) is having lower risk than the market. HDFC Capital Builder Fund - Growth Option (6.35), Reliance Banking Fund-Dividend Plan-Dividend Option (7.93), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (5.06) is having a higher risk than the benchmark for the year 2015-16.

For the year 2016-17, ICICI Prudential Balanced Advantage Fund-Growth Plan (1.64) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.12) are having lower risk as compared to the market in terms of standard deviation. HDFC Capital Builder Fund - Growth Option (3.28), Reliance Banking Fund-Dividend Plan-Dividend Option (4.28) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (3.47) is having a higher risk than the benchmark for the year 2016-17.

Considering five years as a whole, the standard deviation of the selected schemes ranges between 0.1763 to 7.8625. The maximum standard deviation is seen in Reliance Banking Fund-Dividend Plan-Dividend Option (7.86) which indicates that it involves high risk. Conversely, the minimum standard deviation is shown by SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.18) which involves less risk. While comparing with the benchmark index two schemes i.e. HDFC Capital Builder Fund - Growth Option (4.59) and Reliance Banking Fund-Dividend Plan-Dividend Option (7.86) are having a higher risk.

3.4.3 Beta:

Beta which is also known as the systematic risk measures the volatility of the returns of an investment in response to its market return. It is calculated by using the following formula.

$$\beta = \frac{r_p.\sigma_m.\sigma_p}{\sigma_m^2}$$

Where,

$r_p = return\ of\ the\ portfolio$

σ_p=*Standard deviation of porfolio*

σ_m=*Standard deviation of market*

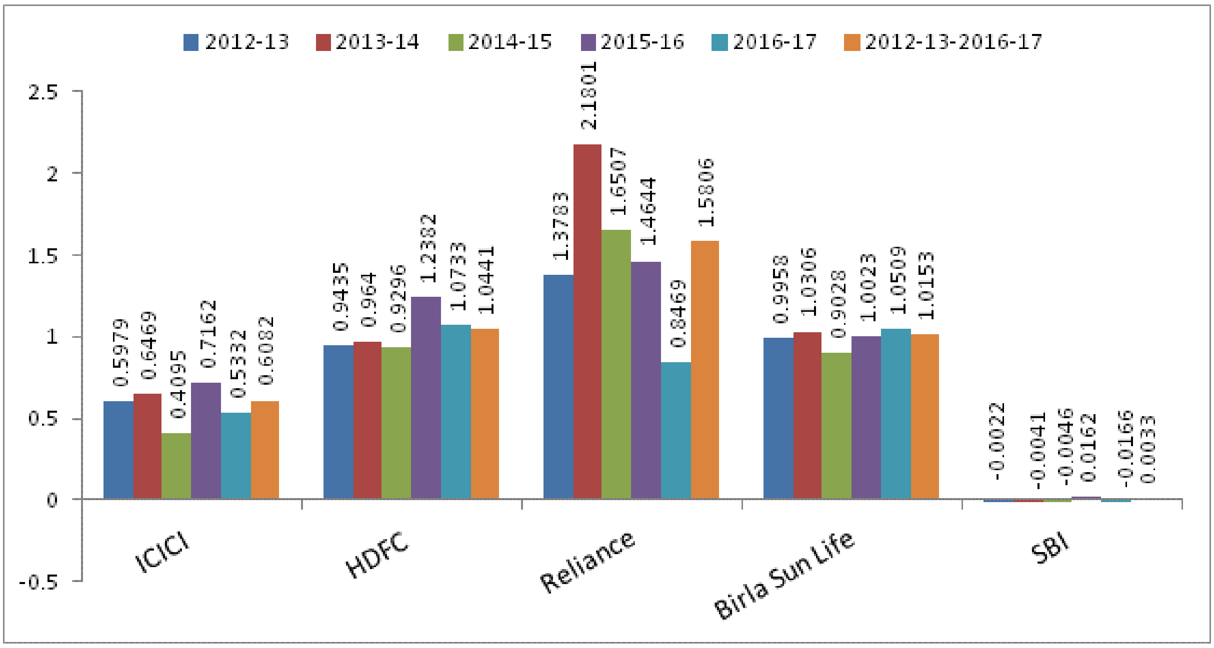
A scheme having beta value more than one suggests that the scheme is more volatile than the benchmark index. It is said to be aggressive fund. If the beta is less than one than it indicates that the investment is less risky as compared to the market index. Such investment is said to be defensive. If the beta is equal to one it represents that the portfolio and the benchmark index are moving in the same direction. When it shows a negative value it concludes that the stock and the market are in the opposite direction. When the beta equals to zero this means that fund has no relation to the market.

The beta value of the selected growth schemes has been presented in Table- 3.10 and supplemented with Graph 3.3.

Table-3.10: Year-wise monthly beta of selected growth schemes

Scheme Name	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2012-13-2016-17**
ICICI Prudential Balanced Advantage Fund-Growth Plan	0.5979	0.6469	0.4095	0.7162	0.5332	0.6082
HDFC Capital Builder Fund - Growth Option	0.9435	0.9640	0.9296	1.2382	1.0733	1.0441
Reliance Banking Fund-Dividend Plan-Dividend Option	1.3783	2.1801	1.6507	1.4644	0.8469	1.5806
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.9958	1.0306	0.9028	1.0023	1.0509	1.0153
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	-0.0022	-0.0041	-0.0046	0.0162	-0.0166	0.0033

Source: Calculated from Secondary data



Graph 3.3: Year-wise monthly beta of selected growth schemes

On analysis of the Table-3.10 which represents the Year-wise monthly beta value for the entire growth schemes under study revealed that, in the year 2012-13, three schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.6), HDFC Capital Builder Fund - Growth Option (0.94) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.1) are having a beta value of less than one. So it can be said to be defensive funds which are less volatile than the market. Reliance Banking Fund-Dividend Plan-Dividend Option (1.38) is an aggressive fund as the beta value is greater than one which indicates that the fund is more volatile than the market. SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.0022) is opposite to the market in the direction as it has negative beta value.

In the year 2013-14, ICICI Prudential Balanced Advantage Fund-Growth Plan (0.65) and HDFC Capital Builder Fund - Growth Option (0.96) are having a beta value less than one which indicates to be the defensive funds while Reliance Banking Fund-Dividend Plan-Dividend Option (2.18) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (1.03) are showing beta value greater than one which is an aggressive fund.

For the year 2014-15, out of five schemes three schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.41), HDFC Capital Builder Fund - Growth Option (0.93), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan

(0.90) are defensive fund as they are having a beta value less than one. Reliance Banking Fund-Dividend Plan-Dividend Option (1.65) is aggressive fund as it has a beta value greater than one. SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.0046) is opposite to market as it has negative beta value.

ICICI Prudential Balanced Advantage Fund-Growth Plan (0.72) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.02) are defensive fund for the year 2015-16 and HDFC Capital Builder Fund-Growth Option(1.24), Reliance Banking Fund-Dividend Plan-Dividend Option (1.46) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (1.0023) are aggressive funds as it contains the beta value greater than one.

Out of five schemes two schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.53) and Reliance Banking Fund-Dividend Plan-Dividend Option (0.85) are showing a beta value less than one and HDFC Capital Builder Fund - Growth Option (1.07) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (1.05) are showing beta value greater than one in the year 2016-17. SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.02) is opposite to market as it has negative beta value.

For the whole period of five years i.e. 2012-13-2016-17 HDFC Capital Builder Fund - Growth Option (1.04), Reliance Banking Fund-Dividend Plan-Dividend Option (1.58), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (1.02) is found to be aggressive fund as their beta value exceed one. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.60), SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.0033) are defensive fund as it has a beta value less than one.

3.4.4 Sharpe Performance Index:

Sharpe (1966) developed a composite index which is very similar to the Treynor measure. However, the only difference is that, while Sharpe used standard deviation, Treynor applied beta to measure the portfolio risk. In other words, it uses the total risk of the portfolio rather than just the systematic risk (Mandal, 2013)

$$Sharpe = \frac{R_p - R_f}{\sigma_p}$$

Where,

Sharpe = Sharpe performance index

σ_p *= Portfolio standard deviation*

R_f *= risk free rate of return*

R_p *=Return of the portfolio*

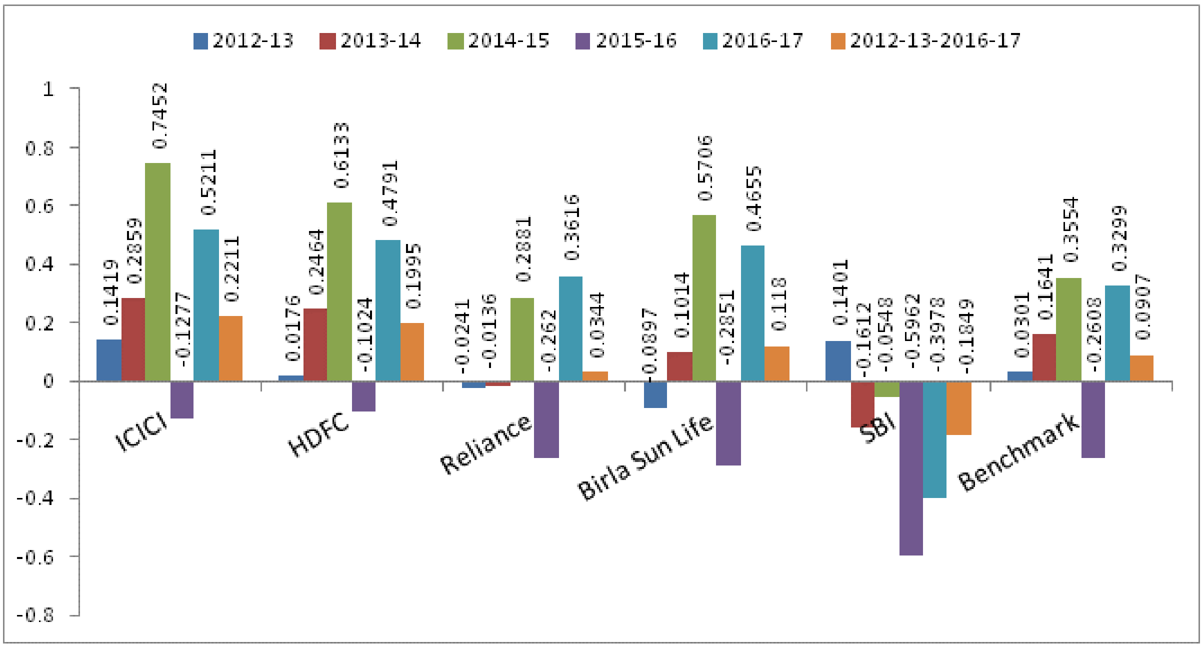
The model used by Sharpe is known as Sharpe's Single Index Model which is a simplified model proposed for establishing a relationship between each pair of securities which could be measured indirectly by comparing each security to a common factor known as 'Market Performance Index' which is shared among all the securities. This model can lessen the burden of large input requirements and difficult calculation of Markowitz's mean-variance setting (Sharpe, 1963).

This model requires (3n+2) data inputs i.e., the estimates of Alpha (α) and Beta (β) for each security, estimates of unsystematic risk (σ_i^2) for each security, estimates for expected return on market index and estimates of varince of return on the market index (σ_m^2). Due to this simplicity, Sharpe's Single Index Model has become more popular compared to Markowitz's Model which is viewed as a classic attempt. Mention may be made that, Markowitz Model has developed a comprehensive technique to incorporate the concept of diversification of investments in a portfolio as a risk-reduction mechanism and it rests on many limitations. One of the most significant limitations of Markowitz's model is the increased complexity of computation that the model faces as the number of securities in the portfolio grows. To determine the variance of the portfolio, the covariance between each possible pair of securities must be computed, which is represented in a covariance matrix. Thus, increase in the number of securities results in a large covariance matrix, which in turn, results in a more complex computation (Mandal, 2013). Markowitz' model requires an average or expected return in variance terms $\frac{n(n-1)}{2}$ and covariance terms i.e. total $\frac{n(n+3)}{2}$. Sharpe ratio of the selected growth schemes is shown in the following Table- 3.11 and supplemented with Graph 3.4.

Table-3.11: Year-wise monthly Sharpe ratio of selected growth schemes and benchmark

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Advantage Fund-Growth Plan	0.1419	0.2859	0.7452	-0.1277	0.5211	0.2211
HDFC Capital Builder Fund - Growth Option	0.0176	0.2464	0.6133	-0.1024	0.4791	0.1995
Reliance Banking Fund-Dividend Plan-Dividend Option	-0.0241	-0.0136	0.2881	-0.2620	0.3616	0.0344
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	-0.0897	0.1014	0.5706	-0.2851	0.4655	0.1180
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	0.1401	-0.1612	-0.0548	-0.5962	-0.3978	-0.1849
Benchmark (Nifty100)	0.0301	0.1641	0.3554	-0.2608	0.3299	0.0907

Source: Calculated from Secondary data



Graph 3.4: Year-wise monthly Sharpe ratio of selected growth schemes and benchmark

Higher Sharpe ratio indicates the better fund performance. If the Sharpe ratio is negative it indicates that the fund is generating a low return and it has a poor performance as compared to the market.

From the Table- 3.11, it could be ascertained that out of the five schemes two schemes i.e. Reliance Banking Fund-Dividend Plan-Dividend Option (-0.02) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (-0.09) were having negative value during 2012-13. While comparing with the market Sharpe ratio it can be seen that ICICI Prudential Balanced Advantage Fund-Growth Plan (0.14) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.14) are having a higher value which shows that ICICI Prudential Balanced Advantage Fund-Growth Plan and SBI Arbitrage Opportunities Fund-Regular Plan – Growth are having better performance than the market.

Consequently, a conclusion could be drawn from Table- 3.11 that Sharpe ratio of three schemes i.e. Reliance Banking Fund-Dividend Plan-Dividend Option – (-0.01) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.16) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.10) are having lower than the market Sharpe ratio in the year 2013-14 which indicates that these three schemes are underperforming than the market. Further, the ratio is maximum in case of ICICI Prudential Balanced Advantage Fund-Growth Plan (0.28) and lower for SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.16).

In the year 2014-15, SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.05) is the only scheme which has a negative value. The higher Sharpe ratio is held by ICICI Prudential Balanced Advantage Fund-Growth Plan (0.75) followed by HDFC Capital Builder Fund - Growth Option (0.61), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.57), Reliance Banking Fund-Dividend Plan-Dividend Option (0.29) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.05). While comparing with the benchmark Sharpe ratio it shows that ICICI Prudential Balanced Advantage Fund-Growth Plan (0.75), HDFC Capital Builder Fund - Growth Option (0.61) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.57) have shown a better performance than the benchmark.

3.4.4.1 Ranking of the growth schemes on the basis of Sharpe ratio:

The ranking of the growth schemes under study on the basis of their Sharpe ratio during the study period is shown in Table-3.12.

Table-3.12: Ranking of the growth schemes on the basis of Sharpe ratio

Scheme Name	Sharpe ratio	Rank
ICICI Prudential Balanced Advantage Fund-Growth Plan	0.2211	1
HDFC Capital Builder Fund - Growth Option	0.1995	2
Reliance Banking Fund-Dividend Plan-Dividend Option	0.0344	4
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.1180	3
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	-0.1849	5

Source: Calculated from Secondary data

On analysis of Table-3.12 it can be found that ICICI Prudential Balanced Advantage Fund-Growth Plan is leading with highest Sharpe ratio of 0.22 during the study period followed by HDFC Capital Builder Fund - Growth Option with 0.20, Birla Sun Life Dividend Yield Plus - Growth - Regular Plan with 0.11, Reliance Banking Fund-Dividend Plan-Dividend Option with 0.03 and SBI Arbitrage Opportunities Fund-Regular Plan – Growth with -0.18.

3.4.5 Treynor Performance Index:

Jack Treynor, the economist conceived and developed the index to measure the risk-adjusted performance of an investment portfolio and the same is best known as Treynor Performance Index. The primary motto of the index was to measure a portfolio's excess return per unit of risk using beta as the risk measure. According to him, the higher the number the greater is the excess return (www.investopedia.com).

In 1965, Treynor developed a composite measure of the portfolio. The measurement of portfolio risk with the beta and calculation of portfolio's market risk premium relative to its beta visualises the following:

$$T_i = \frac{R_p - R_f}{\beta_p}$$

Where,

T_i =*Treynor Index*

R_f = *risk free rate of return*

R_p =*Return of the portfolio*

β_p =*Beta of the portfolio*

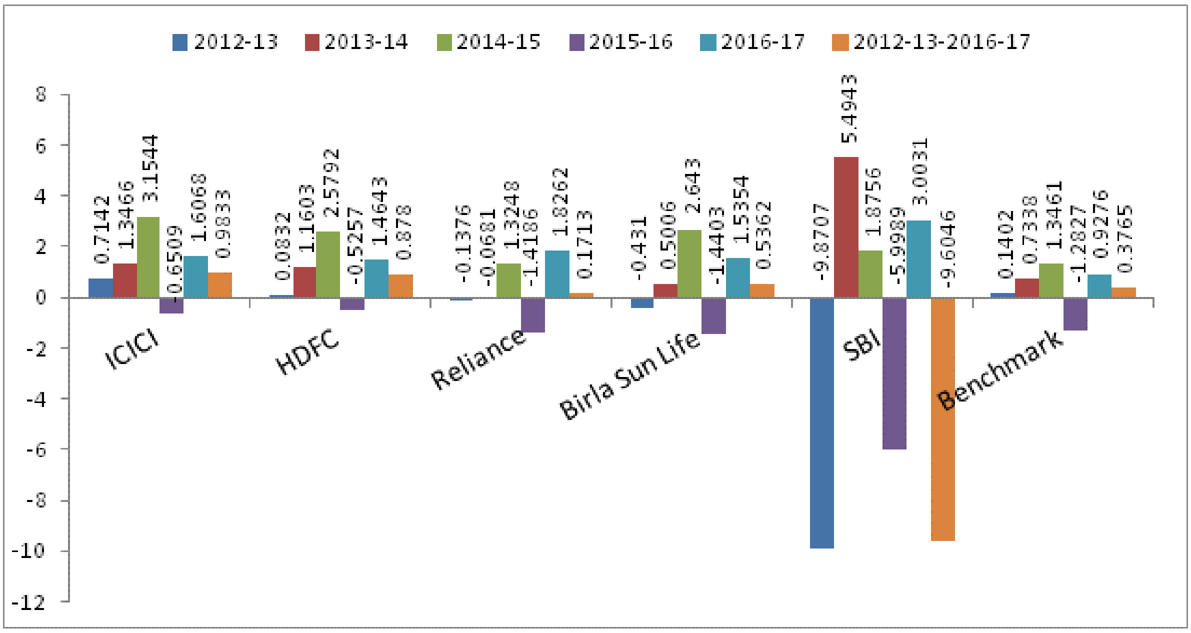
Whenever R_p>R_f and β_p > 0 a larger T value leads a better portfolio for all investors regardless of their individual risk preferences. In two cases we may have a negative T value: when R_p < R_f or when β_p < 0. If T is negative because R_p <R_f, we judge the portfolio performance as very poor. However, if the negativity of T comes from a negative beta, the fund is performing very well. Finally when R_p, R_f, and β_p are all are negative, T will be positive, but in order to qualify the fund's performance as good or bad we should see whether R_p is above or below the security market line pertaining to the analysis period.

Table- 3.13 shows the Treynor ratio of the selected growth schemes and supplemented with Graph 3.5.

Table-3.13: Year-wise monthly Treynor Index of selected growth schemes and benchmark

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Advantage Fund-Growth Plan	0.7142	1.3466	3.1544	-0.6509	1.6068	0.9833
HDFC Capital Builder Fund - Growth Option	0.0832	1.1603	2.5792	-0.5257	1.4643	0.8780
Reliance Banking Fund-Dividend Plan-Dividend Option	-0.1376	-0.0681	1.3248	-1.4186	1.8262	0.1713
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	-0.4310	0.5006	2.6430	-1.4403	1.5354	0.5362
SBI Arbitrage Opportunities Fund-Regular Plan - Growth	-9.8707	5.4943	1.8756	-5.9989	3.0031	-9.6046
Benchmark (Nifty 100)	0.1402	0.7338	1.3461	-1.2827	0.9276	0.3765

Source: Calculated from Secondary data



Graph 3.5: Year-wise monthly Treynor Index of selected growth schemes and benchmark

A high and positive Treynor ratio indicates a better risk-adjusted performance of the fund and a negative value which occurs due to the generation of low return than the risk free rate shows that the fund has poor performance and if the negativity of fund is due to the negative beta value than the fund performance is superior to the market.

So Table- 3.13 visualised that during 2012-13, three schemes i.e. Reliance Banking Fund-Dividend Plan-Dividend Option (-0.14), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (-0.43) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-9.87) out of five schemes have negative Treynor ratio where in the case of Reliance Banking Fund-Dividend Plan-Dividend Option and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan, the negative ratio has occurred due to $R_p < R_f$ which indicates that they have poor performance. But for SBI Arbitrage Opportunities Fund-Regular Plan – Growth scheme the negativity is due to the negative beta value which means it is performing better than the market. Only two schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.71), HDFC Capital Builder Fund - Growth Option (0.08) have a positive return value. While comparing with the market Treynor ratio one scheme i.e. ICICI

Prudential Balanced Advantage Fund-Growth Plan (0.71) is having better performance as it has higher Treynor ratio than the market.

During the year 2013-14, Reliance Banking Fund-Dividend Plan-Dividend Option (-0.07) is the only scheme which has a negative Treynor ratio as this scheme has produced low return than the risk free rate and all other schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (1.35), HDFC Capital Builder Fund - Growth Option (1.16), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.50) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth fund (5.49) have positive value in terms of Treynor ratio. While comparing with market Treynor value it shows that three schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (1.35), HDFC Capital Builder Fund - Growth Option (1.16) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (5.49) have a better performance than the market.

Further, all the five schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (3.15), HDFC Capital Builder Fund - Growth Option (2.58), Reliance Banking Fund-Dividend Plan-Dividend Option (1.32), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (2.64) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (1.88) are having positive Treynor index in the year 2014-15.When compared with the market Treynor value it could be ascertained that one scheme i.e. Reliance Banking Fund-Dividend Plan-Dividend Option (1.32) has a lower value and other four schemes have shown a superior performance.

In the year 2015-16, all the schemes including the market have a negative Treynor index because all the schemes are generating lower return than the risk-free rate. While comparing with the benchmark, two schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (-0.65) and HDFC Capital Builder Fund - Growth Option (-0.53) have a higher value than the market which concludes that these two schemes have better performance.

Table- 3.13 depicted that all the five schemes under study are offering positive Treynor ratio during 2016-17. The ratio is higher for SBI Arbitrage Opportunities Fund-Regular Plan – Growth (3.00) followed by Reliance Banking Fund-Dividend Plan-Dividend Option (1.83), ICICI Prudential Balanced Advantage Fund-Growth Plan (1.61), Birla Sun Life Dividend Yield Plus - Growth - Regular

Plan (1.54) and HDFC Capital Builder Fund - Growth Option (1.46). When compared with the benchmark all the five schemes have higher Treynor value than the market.

For the period 2012-13-2016-17 SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-9.60) is the only scheme which is reflecting negative value as the return of the scheme is less than the risk free rate while the other four schemes have a positive ratio. The ratio is high in the case of ICICI Prudential Balanced Advantage Fund-Growth Plan (0.98) followed by HDFC Capital Builder Fund - Growth Option (0.88), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.53), Reliance Banking Fund-Dividend Plan-Dividend Option (0.17) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-9.60). By comparing with the market ratio three schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.98), HDFC Capital Builder Fund - Growth Option (0.87) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.54) have reflected better performance than the market.

3.4.5.1 Ranking of the growth schemes on the basis of Treynor ratio:

The ranking of the growth schemes under study on the basis of their Treynor ratio during the study period has been shown in Table- 3.14.

Table-3.14: Ranking of the growth schemes on the basis of Treynor ratio

Scheme Name	Treynor ratio	Rank
ICICI Prudential Balanced Advantage Fund-Growth Plan	0.9833	1
HDFC Capital Builder Fund - Growth Option	0.8780	2
Reliance Banking Fund-Dividend Plan-Dividend Option	0.1713	4
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.5362	3
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	-9.6046	5

Source: Calculated from Secondary data

On analysis of Table-3.14 it can be seen that ICICI Prudential Balanced Advantage Fund-Growth Plan is leading with highest Treynor ratio of 0.98 during the study period followed by HDFC Capital Builder Fund - Growth Option with 0.88, Birla Sun Life Dividend Yield Plus - Growth - Regular Plan with 0.54, Reliance Banking Fund-Dividend Plan-Dividend Option with 0.17 and SBI Arbitrage Opportunities Fund-Regular Plan – Growth with -9.60.

3.4.6 Jensen Performance Index:

Jensen's Alpha also known as Jensen Index was developed by Michael C. Jensen, based on Capital Assets Pricing Model in order to find out the firm's specific return as measured by firm's beta proportionate to market beta (β). Alpha (α) is a coefficient that is proportional to the excess return of a portfolio over its required return, or its expected return, for its expected risk as measured by its beta. Hence, alpha is determined by the fundamental values of the companies in the portfolio in contrast to beta, which measures the portfolio's return due to its volatility. Jensen Performance Index is given as follows

$$Jensen = R_p - [R_f + \beta_p(R_M\text{-}R_f)]$$

Here, R_p = *Average Return of portfolio*

R_f = *Risk Free Rate of Return*

β_p = *Measure of Systematic Risk*

R_M = *Average Market Return.*

The return of the portfolio varies in the same proportion of β to the difference between the market return and the risk less rate of return. β is assumed to reflect the systematic risk. The fund's portfolio β will be equal to one if it takes a portfolio of all market securities. β would be >1, if the fund's portfolio consists of securities that are riskier than a portfolio of all market securities.

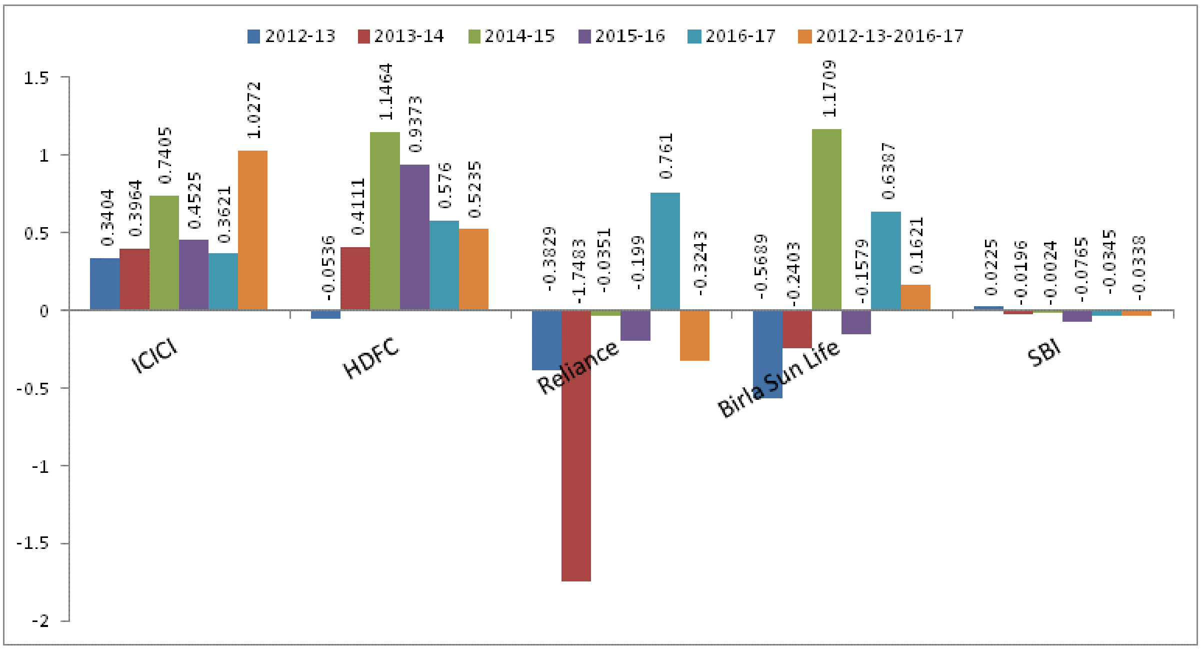
The following Table- 3.15 represents the Jensen alpha value of the growth schemes supplemented with Graph 3.6.

Table-3.15: Year-wise monthly Jensen alpha of selected growth schemes

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Advantage Fund-Growth Plan	0.3404	0.3964	0.7405	0.4525	0.3621	1.0272
HDFC Capital Builder Fund - Growth Option	-0.0536	0.4111	1.1464	0.9373	0.5760	0.5235
Reliance Banking Fund-Dividend Plan-Dividend Option	-0.3829	-1.7483	-0.0351	-0.1990	0.7610	-0.3243
Birla Sun Life Dividend Yield Plus - Growth -	-0.5689	-0.2403	1.1709	-0.1579	0.6387	0.1621

Regular Plan						
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	0.0225	-0.0196	-0.0024	-0.0765	-0.0345	-0.0338

Source: Calculated from Secondary data



Graph 3.6: Year-wise monthly Jensen alpha of selected growth schemes

A negative value for the Jensen alpha proves to be a bad performer. Positive alpha value revels that the fund has earned a better return as compared to the market. For the year 2012-13, ICICI Prudential Balanced Advantage Fund-Growth Plan (0.34) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.02) have earned a positive alpha value. Other schemes i.e. HDFC Capital Builder Fund - Growth Option (-0.05), Reliance Banking Fund-Dividend Plan-Dividend Option (0.38) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (-0.56) have negative alpha value. The value is high for ICICI Prudential Balanced Advantage Fund-Growth Plan (0.34) and low for Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (-0.56).

In the year 2013-14, ICICI Prudential Balanced Advantage Fund-Growth Plan (0.39) and HDFC Capital Builder Fund - Growth Option (0.41) is showing good performance as the Jensen value is positive for the schemes. Reliance Banking

Fund-Dividend Plan-Dividend Option (-1.75), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (-0.24) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.02) are having a negative value which indicates the poor performance. Further the value is high for HDFC Capital Builder Fund - Growth Option (0.41) followed by ICICI Prudential Balanced Advantage Fund-Growth Plan (0.4), SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.02), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (-0.24) and Reliance Banking Fund-Dividend Plan-Dividend Option (-1.75).

ICICI Prudential Balanced Advantage Fund-Growth Plan (0.74), HDFC Capital Builder Fund - Growth Option (1.15) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (1.17) are the three schemes that are revealing positive alpha value while the other two schemes i.e. Reliance Banking Fund-Dividend Plan-Dividend Option (-0.04) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.07) containing a negative alpha value which indicate as the bad performer in the year 2014-15.

During 2015-16, while ICICI Prudential Balanced Advantage Fund-Growth Plan (0.45) and HDFC Capital Builder Fund - Growth Option (0.93) proves to be a good performer as they are prevailing positive alpha value. Reliance Banking Fund-Dividend Plan-Dividend Option (-0.19), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (-0.15) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.07) is found to be a bad performer as they are having negative alpha value.

While in 2016-17, four schemes are having positive alpha value and showing good performance. Those schemes are ICICI Prudential Balanced Advantage Fund-Growth Plan (0.36), HDFC Capital Builder Fund - Growth Option (0.58), Reliance Banking Fund-Dividend Plan-Dividend Option (0.76) and Birla Sun Life Dividend Yield Plus – Growth - Regular Plan (0.64).Only SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.03) is a negative value which is showing poor performance.

Out of all the schemes under study three schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (1.03), HDFC Capital Builder Fund - Growth Option (0.52) and Birla Sun Life Dividend Yield Plus-Growth-Regular

Plan (0.16) are having good performance as they are prevailing positive alpha value whereas Reliance Banking Fund-Dividend Plan-Dividend Option (-0.32) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.03) are said to be bad performer as they are achieving negative value during 2012-13-2016-17 as can be seen in Table-3.15.

3.4.6.1 Ranking of the growth schemes on the basis of Jensen alpha:

The ranking of the growth schemes under study on the basis of their Jensen alpha during the study period has been shown in Table- 3.16.

Table-3.16: Ranking of the growth schemes on the basis of Jensen alpha

Scheme Name	Jensen alpha	Rank
ICICI Prudential Balanced Advantage Fund-Growth Plan	1.0272	1
HDFC Capital Builder Fund - Growth Option	0.5235	2
Reliance Banking Fund-Dividend Plan-Dividend Option	-0.3243	5
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.1621	3
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	-0.0338	4

Source: Calculated from Secondary data

On analysis of Table-3.16 it can be seen that ICICI Prudential Balanced Advantage Fund-Growth Plan is leading with highest Jensen alpha of with 1.03 followed by HDFC Capital Builder Fund - Growth Option (0.52), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.16), SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.03) and Reliance Banking Fund-Dividend Plan-Dividend Option (-0.32).

3.5 CONCLUSION:

The performance of the selected schemes has been analyzed in terms of average return, standard deviation and beta. Along with this, analysis has been done on the basis of risk-return relationship for which widely used performance measures i.e. Sharpe ratio, Treynor ratio and Jensen ratio has been considered. For calculating the average return Monthly NAV of the selected schemes has been taken for the period of April-2012-13 to March 2016-17. The fund return has been compared with the benchmark index (Nifty 100) and 91-days treasury bills as the risk-free rate. The result shows that 60% of the total schemes have outperformed the market and 40% has underperformed the market. In terms of standard deviation, 40% of the schemes are less risky while 60% are having high risk. 60% of the total schemes are performing better than the market index in terms of Sharpe ratio, Treynor ratio and Jensen ratio while 40% have shown poor performance.

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CHAPTER-4
PERFORMANCE EVALUATION OF BALANCED SCHEMES

4.1 INTRODUCTION:

This chapter represents the profile of the selected balanced schemes of the mutual fund. All the balanced schemes are being analysed on the basis of several parameters i.e. average return, risk (standard deviation) and beta. Along with that three performance measures i.e. Sharpe ratio, Treynor ratio and Jensen alpha value have been calculated in order to measure the performance of the balanced schemes.

4.2 PROFILE OF SELECTED MUTUAL FUND BALANCED SCHEMES:

4.2.1 ICICI Prudential Balanced Fund-Growth:

It is an open-ended balanced scheme looking for to engender long-term capital appreciation from a portfolio significantly constituted of equity and equity-related securities. This scheme was launched on 07 October 1999. The major holdings companies under the schemes are as follows in Table-4.1.

Table- 4.1: Top Holdings of ICICI Prudential Balanced Fund-Growth (as on 31.03.2017)

Sl no	Companies	Sector	Asset Size (in Cr.)
1	ICICI Bank	Banking/Finance	791.58
2	Infosys	Technology	716.57
3	NTPC	Utilities	636.78
4	ONGC	Oil & Gas	555.38
5	SBI	Banking/Finance	485.16
6	Larsen	Engineering	453.24
7	Bharti Airtel	Telecom	432.50
8	HCL Tech	Technology	389.41
9	ITC	Tobacco	387.81
10	Tata Chemicals	Chemicals	381.43

Source: www.moneycontrol.com

Table-4.1 describes the top holding companies of ICICI Prudential Balanced Fund-Growth. The companies are from the different sector such as banking, technology, utilities, oil & gas, tobacco, chemicals etc. ICICI Bank has the highest asset size having 791.58 Cr. among all companies followed by Infosys, NTPC, ONGC, SBI, Larsen, Bharti Airtel, HCL Tech, ITC and Tata Chemicals.

4.2.2 HDFC Prudence Fund - Growth Option:

It is an open-ended balanced scheme with an aim to provide periodic returns and capital appreciation for a longer period of time. This scheme which is combination of equity and debt investment aims to prevent any type of capital attrition has been launched on 16 December 1993. The following Table-4.2 illustrates the holding companies of the scheme.

Table- 4.2: Top Holdings of HDFC Prudence Fund - Growth Option (as on 31.03.2017)

Sl No	Companies	Sector	Asset Size (in Cr.)
1	ICICI Bank	Banking/Finance	1,965.79
2	SBI	Banking/Finance	1,921.43
3	Larsen	Engineering	1,713.48
4	Infosys	Technology	1,691.30
5	NTPC	Utilities	959.33
6	Power Grid Corp	Utilities	862.29
7	Tata Steel	Metals & Mining	704.25
8	GAIL	Oil & Gas	507.39
9	Aurobindo Pharm	Pharmaceuticals	504.62
10	PNB	Banking/Finance	413.12

Source: www.moneycontrol.com

Table-4.2 describes the top holding companies of HDFC Prudence Fund - Growth Option. The companies are from the different sector such as banking, technology, engineering, utilities, oil & gas, metals & mining, pharmaceuticals etc. ICICI Bank has the highest asset size having 1965.79 cr. among all companies followed by SBI, Larsen, Infosys, NTPC, Power Grid Corp, Tata Steel, GAIL, Aurobindo Pharma and PNB.

4.2.3 Reliance Regular Savings Fund - Balanced Option - Growth Plan:

The chief motive of investment of this option is to generate continuous return and appreciation of capital by investing in the securities encompassing of equity, equity related instruments and fixed income instruments. This is an open-ended balanced scheme launched on 10 May 2005. The holding companies of the scheme are shown in the following Table-4.3.

Table- 4.3: Top Holdings of Reliance Regular Savings Fund - Balanced Option - Growth Plan (as on 31.03.2017)

Sl no	Companies	Sector	Asset Size (in Cr.)
1	HDFC Bank	Banking/Finance	656.35
2	Grasim	Conglomerates	408.27
3	ICICI Bank	Banking/Finance	331.28
4	Infosys	Technology	325.06
5	Larsen	Engineering	249.63
6	HDFC	Banking/Finance	200.64
7	Reliance	Oil & Gas	196.75
8	IndusInd Bank	Banking/Finance	185.08
9	Maruti Suzuki	Automotive	178.08
10	Motherson Sumi	Automotive	146.20

Source: www.moneycontrol.com

Table-4.3 describes the top holding companies of Reliance Regular Savings Fund - Balanced Option - Growth Plan. The companies are from the different sector such as banking, technology, engineering, oil & gas, automobiles etc. HDFC Bank has the highest asset size having 656.35 cr. among all companies followed by Grasim, ICICI Bank, Infosys, Larsen, HDFC, Reliance, IndusInd Bank, Maruti Suzuki and Motherson Sumi.

4.2.4 Birla Sun Life Balanced '95 Fund - Regular Plan-Growth:

In order to generate long-term growth of capital and current income through a portfolio with target portion of 60% equity and 40% debt and money market securities, an open-ended balanced scheme has launched on 10 February 1995. The main holdings companies of the scheme are shown in the following Table-4.4.

Table- 4.4: Top Holdings of Birla Sun Life Balanced '95 Fund - Regular Plan-Growth (as on 31.03.2017)

Sl no	Companies	Sector	Asset Size (in Cr.)
1	HDFC Bank	Banking/Finance	475.97
2	ICICI Bank	Banking/Finance	297.11
3	Infosys	Technology	221.86
4	Eicher Motors	Automotive	181.79

5	Yes Bank	Banking/Finance	178.85
6	IndusInd Bank	Banking/Finance	175.92
7	Hindalco	Metals & Mining	168.10
8	ITC	Tobacco	167.13
9	L&T Finance	Banking/Finance	151.49
10	Maruti Suzuki	Automotive	139.76

Source: www.moneycontrol.com

Table-4.4 describes the top holding companies of Birla Sun Life Balanced '95 Fund - Regular Plan-Growth. The companies are from the different sector such as banking, technology, engineering, tobacco, automobiles etc. HDFC Bank has the highest asset size having 475.97 cr. among all companies followed by ICICI Bank, Infosys, Eicher Motors, Yes Bank, IndusInd Bank, Hindalco, ITC, L&T Finance and Maruti Suzuki.

4.2.5 SBI Magnum Balanced Fund - REGULAR PLAN – Dividend:

In order to provide long-term capital appreciation by investing in a security comprising of debt and equity, an open-ended balanced dividend scheme has been introduced on 09 October 1995. This scheme also invests in a diversified portfolio of equities of high performing companies. The major holdings companies in the scheme have been depicted below in Table-4.5.

Table-4.5: Top Holdings of SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (as on 31.03.2017)

Sl no	Companies	Sector	Asset Size (in Cr.)
1	HDFC Bank	Banking/Finance	903.46
2	SBI	Banking/Finance	535.43
3	Bharti Airtel	Telecom	512.85
4	Kotak Mahindra	Banking/Finance	466.34
5	ICICI Bank	Banking/Finance	461.03
6	Divis Labs	Pharmaceuticals	330.83
7	GRUH Finance	Banking/Finance	302.92
8	Sundaram-Clayton	Automotive	296.28
9	Sundaram Fin	Banking/Finance	221.88
10	Interglobe Avi	Services	221.88

Sorce: www.moneycontrol.com

Table-4.5 describes the top holding companies of SBI Magnum Balanced Fund - REGULAR PLAN – Dividend. The companies are from the different sector such as banking, telecom, services, automobiles etc. HDFC Bank has the highest asset size having 903.46 cr. among all companies followed by SBI, Bharti Airtel, Kotak Mahindra, ICICI Bank, Divis Labs, GRUH Finance, Sundaram-Clayton, Sundaram Fin, and Interglobe Avi.

4.3 PERFORMANCE ANALYSIS OF SELECTED BALANCED SCHEMES:

The performance of the selected mutual fund balanced schemes has been analyzed on the basis of the risk-return relationship using the important risk-adjusted performance evaluation measures such as Sharpe ratio, Treynor ratio, Jensen alpha. Along with that different parameter such as Average return, Standard deviation, and Beta has also been computed.

4.3.1 Average Return:

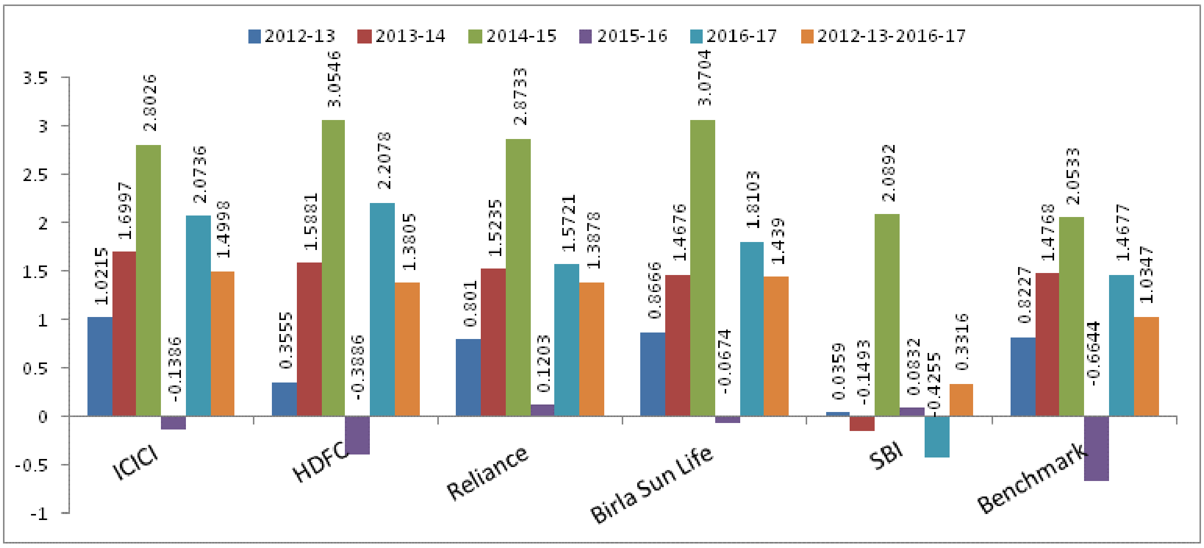
The average return of the selected balanced schemes and the benchmark has been calculated by using the monthly NAV and shown in Table-4.6 and supplemented with Graph 4.1.

Table-4.6: Year-wise monthly average return of selected balanced schemes and benchmark

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Fund - Growth	1.0215	1.6997	2.8026	-0.1386	2.0736	1.4998
HDFC Prudence Fund - Growth Option	0.3555	1.5881	3.0546	-0.3886	2.2078	1.3805
Reliance Regular Savings Fund - Balanced Option - Growth Plan	0.8010	1.5235	2.8733	0.1203	1.5721	1.3878
Birla Sun Life Balanced Advantage Fund-Regular Plan -	0.8666	1.4676	3.0704	-0.0674	1.8103	1.4390

Growth Option						
SBI Magnum Balanced Fund - REGULAR PLAN - Dividend	0.0359	-0.1493	2.0892	0.0832	-0.4255	0.3316
Benchmark (Nifty 100)	0.8227	1.4768	2.0533	-0.6644	1.4677	1.0347

Source: Calculated from secondary data



Graph 4.1: Year-wise monthly average return of selected balanced schemes and benchmark

Table- 4.6 shows the year-wise monthly average return of the selected balanced schemes as well as for the benchmark index. While analysing the table it could be deduced that, for the year 2012-13, all the schemes are giving the positive return and when compared with the benchmark index two schemes i.e. ICICI Prudential Balanced Fund-Growth (1.02) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.87) are performing superior to the market while other three i.e. HDFC Prudence Fund - Growth Option (0.36), Reliance Regular Savings Fund (0.80) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (0.04) are performing inferior to the market. The highest average return is given by ICICI Prudential Balanced Fund-Growth (1.02) and lowest is SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (0.03).

In 2013-14 all the schemes under study except one scheme i.e. SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.15) all other schemes i.e. ICICI Prudential Balanced Fund-Growth (1.70), HDFC Prudence Fund - Growth Option (1.59), Reliance Regular Savings Fund - Balanced Option - Growth Plan (1.52) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (1.47) are having positive value in terms of average return. When compared with the market return, out of five schemes three schemes i.e. ICICI Prudential Balanced Fund-Growth (1.70), HDFC Prudence Fund - Growth Option (1.59) and Reliance Regular Savings Fund - Balanced Option - Growth Plan (1.52) have a greater return than the market and two schemes i.e. Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (1.47) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.15) have a lower return.

For the year 2014-15, all the schemes have a positive return. When compared with the benchmark index, all the schemes have outperformed the market i.e. ICICI Prudential Balanced Fund-Growth (2.8), HDFC Prudence Fund - Growth Option (3.05), Reliance Regular Savings Fund - Balanced Option - Growth Plan (2.87), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (3.07) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (2.09).The highest average return is shown by Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (3.07) whereas this is lowest for SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (2.09).

Out of five schemes, three schemes are reflecting negative value i.e. ICICI Prudential Balanced Fund-Growth (-0.14), HDFC Prudence Fund - Growth Option (-0.39) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (-0.07) and two schemes i.e. Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.12) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (0.08) are having positive value for the year 2015-16. When compared with the market return, all the five schemes have shown a better performance than the market.

In 2016-17, all the schemes except one scheme i.e. SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.43) are having a positive average return.

Four schemes i.e. ICICI Prudential Balanced Fund-Growth (2.07), HDFC Prudence Fund - Growth Option (2.21), Reliance Regular Savings Fund - Balanced Option - Growth Plan (1.57) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (1.81) are having the higher return than the market while SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.43) is having lower return.

On the analysis of the Table-4.6 for the period 2012-13-2016-17 it is found that ICICI Prudential Balanced Fund-Growth scheme has a highest average return with a value of 1.5 followed by Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (1.44), Reliance Regular Savings Fund - Balanced Option - Growth Plan (1.39), HDFC Prudence Fund - Growth Option (1.38) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend scheme has the lowest return with a value of 0.33.

4.3.1.1Ranking of the balanced schemes on the basis of monthly average return:

The ranking of the schemes under study on the basis of their monthly average return during the study period has been shown in Table- 4.7.

Table-4.7: Ranking of the balanced schemes on the basis of monthly average return

Scheme Name	Avg. Return	Rank
ICICI Prudential Balanced Advantage Fund-Growth Plan	1.4998	1
HDFC Capital Builder Fund - Growth Option	1.3805	4
Reliance Banking Fund-Dividend Plan-Dividend Option	1.3878	3
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	1.4390	2
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	0.3316	5

Source: Calculated from Secondary data

On analysis of Table-4.7 it can be said that ICICI Prudential Balanced Advantage Fund-Growth Plan is leading with highest average return of 1.5 during the study period followed by Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (1.44), Reliance Regular Savings Fund - Balanced Option - Growth Plan (1.39), HDFC Prudence Fund - Growth Option (1.38) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend with 0.33.

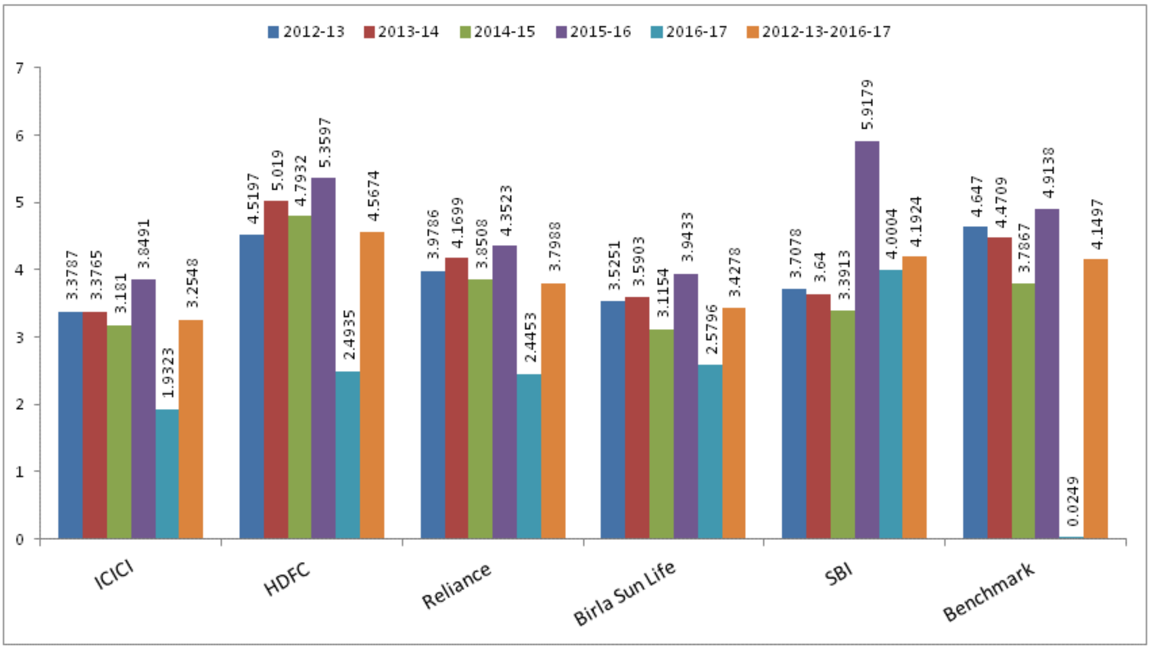
4.3.2 Risk:

The risk in terms of standard deviation of the selected balanced schemes and benchmark index has depicted in Table-4.8 and supplemented with Graph 4.2.

Table-4.8: Year-wise standard deviation of the monthly return of selected balanced schemes and benchmark

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Fund - Growth	3.3787	3.3765	3.1810	3.8491	1.9323	3.2548
HDFC Prudence Fund - Growth Option	4.5197	5.0190	4.7932	5.3597	2.4935	4.5674
Reliance Regular Savings Fund - Balanced Option - Growth Plan	3.9786	4.1699	3.8508	4.3523	2.4453	3.7988
Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option	3.5251	3.5903	3.1154	3.9433	2.5796	3.4278
SBI Magnum Balanced Fund - REGULAR PLAN – Dividend	3.7078	3.6400	3.3913	5.9179	4.0004	4.1924
Benchmark (Nifty 100)	4.6470	4.4709	3.7867	4.9138	0.0249	4.1497

Source: Calculated from secondary data



Graph 4.2: Year-wise standard deviation of the monthly return of selected balanced schemes and benchmark

Table-4.8 represents the risk in terms of standard deviation of the balanced schemes as well as for the market. On analysis of the Table-4.8 it was found that, for the year 2012-13, all the schemes under study i.e. ICICI Prudential Balanced Fund-Growth (3.38), HDFC Prudence Fund - Growth Option (4.52), Reliance Regular Savings Fund - Balanced Option - Growth Plan (3.98), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (3.53) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (3.71) are having a less standard deviation as compared to the benchmark index. It can be concluded that all the schemes are less risky than the market in the year 2012-13.The high risky scheme among all is HDFC Prudence Fund - Growth Option (4.51) as it has the highest standard deviation and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (3.70) is less risky.

In 2013-14, HDFC Prudence Fund - Growth Option (5.02) is the only fund that is more riskier than the market while other four schemes i.e. ICICI Prudential Balanced Fund-Growth (3.38), Reliance Regular Savings Fund - Balanced Option - Growth Plan (4.17), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (3.60) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend

(3.64) are less riskier than the market as it has low standard deviation than the market.

For the year 2014-15, HDFC Prudence Fund - Growth Option (4.79) and Reliance Regular Savings Fund - Balanced Option - Growth Plan (3.85) are showing a higher value than the market which indicates that both the schemes are having higher risk and ICICI Prudential Balanced Fund-Growth (3.18), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (3.12) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (3.4) is having a lower risk as indicated by the lesser standard deviation value.

Out of five schemes, three schemes i.e. ICICI Prudential Balanced Fund-Growth (3.85), Reliance Regular Savings Fund - Balanced Option - Growth Plan (4.35) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (3.94) are having lower risk than the market; HDFC Prudence Fund - Growth Option (5.36) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (5.92) are having a higher risk than the market in the year 2015-16.

For the year 2016-17, all the five schemes under study i.e. ICICI Prudential Balanced Fund-Growth (1.93), HDFC Prudence Fund - Growth Option (2.49), Reliance Regular Savings Fund - Balanced Option - Growth Plan (2.44) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (2.57) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (4.0004) involves high risk as compared to the market in terms of standard deviation.

Considering the standard deviation of the schemes for the consolidated period 2012-13-2016-17, HDFC Prudence Fund - Growth Option is showing the peak standard deviation with a value of 4.56 while SBI Magnum Balanced Fund - REGULAR PLAN – Dividend is in the second on the list with a value of 4.19 followed by Reliance Regular Savings Fund - Balanced Option - Growth Plan (3.79) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (3.42) and finally ICICI Prudential Balanced Fund-Growth is showing the least deviation from mean with a value 3.25.

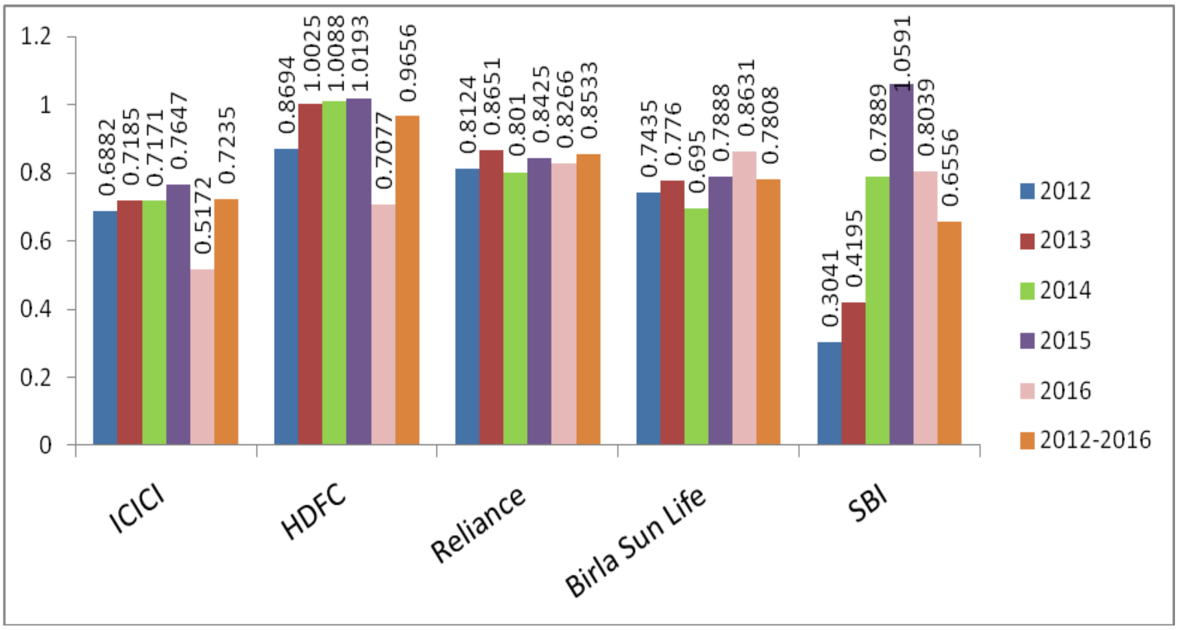
4.3.3 Beta:

The volatility of the balanced schemes as compared to the market has been calculated in terms of beta and presented in Table-4.9 and Graph 4.3.

Table-4.9: Year-wise monthly beta of selected balanced schemes

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Advantage Fund-Growth Plan	0.6882	0.7185	0.7171	0.7647	0.5172	0.7235
HDFC Capital Builder Fund - Growth Option	0.8694	1.0025	1.0088	1.0193	0.7077	0.9656
Reliance Banking Fund-Dividend Plan-Dividend Option	0.8124	0.8651	0.8010	0.8425	0.8266	0.8533
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.7435	0.7760	0.6950	0.7888	0.8631	0.7808
SBI Arbitrage Opportunities Fund - Regular Plan – Growth	0.3041	0.4195	0.7889	1.0591	0.8039	0.6556

Source: Calculated from secondary data



Graph 4.3: Year-wise monthly beta of selected balanced schemes

Table-4.9 depicts the year-wise monthly beta value for the entire balanced scheme under study. Analysis of the table revealed that, in the year 2012-13, all the five schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.69), HDFC Capital Builder Fund - Growth Option (0.87), Reliance Banking Fund-Dividend Plan-Dividend Option (0.81), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.74) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.30) are having a beta value less than one. So it can be said as defensive funds which are less volatile than the market.

In the year 2013-14, HDFC Capital Builder Fund - Growth Option (1) is showing beta value of 1 which show that it is moving along with the market while other schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.72), Reliance Banking Fund-Dividend Plan-Dividend Option (0.87), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.78) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.42) are having a beta value less than one which indicates to be the defensive fund.

For the year 2014-15, out of five schemes four schemes were defensive fund as they are having a beta value less than one i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.72),Reliance Banking Fund-Dividend Plan-

Dividend Option (0.80), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.7) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (0.79) while HDFC Capital Builder Fund - Growth Option (1.01) is moving along with the market.

ICICI Prudential Balanced Advantage Fund-Growth Plan (0.76), Reliance Banking Fund-Dividend Plan-Dividend Option (0.84) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.79) are defensive funds for the year 2015-16 and HDFC Capital Builder Fund - Growth Option(1.02) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (1.06) are aggressive funds as it contains the beta value greater than one.

All the five schemes under study are showing a beta value less than one and said as defensive funds for the year 2016-17. Those are ICICI Prudential Balanced Advantage Fund-Growth Plan (0.52), HDFC Capital Builder Fund - Growth Option (0.71), Reliance Banking Fund-Dividend Plan-Dividend Option (0.83), Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.86) and SBI Arbitrage Opportunities Fund-Regular Plan Growth (0.80).

For the consolidated period, 2012-13-2016-17 SBI Magnum Balanced Fund - REGULAR PLAN – Dividend has a least beta value of 0.66 which shows that it's more efficient as compared to other schemes when it comes to handling market risk while HDFC Prudence Fund - Growth Option has a high beta value of 0.97 which pointed that this will be highly affected by the market risk. HDFC Capital Builder Fund - Growth Option is highly volatile as compared to the market.

4.3.4 Sharpe Performance Index:

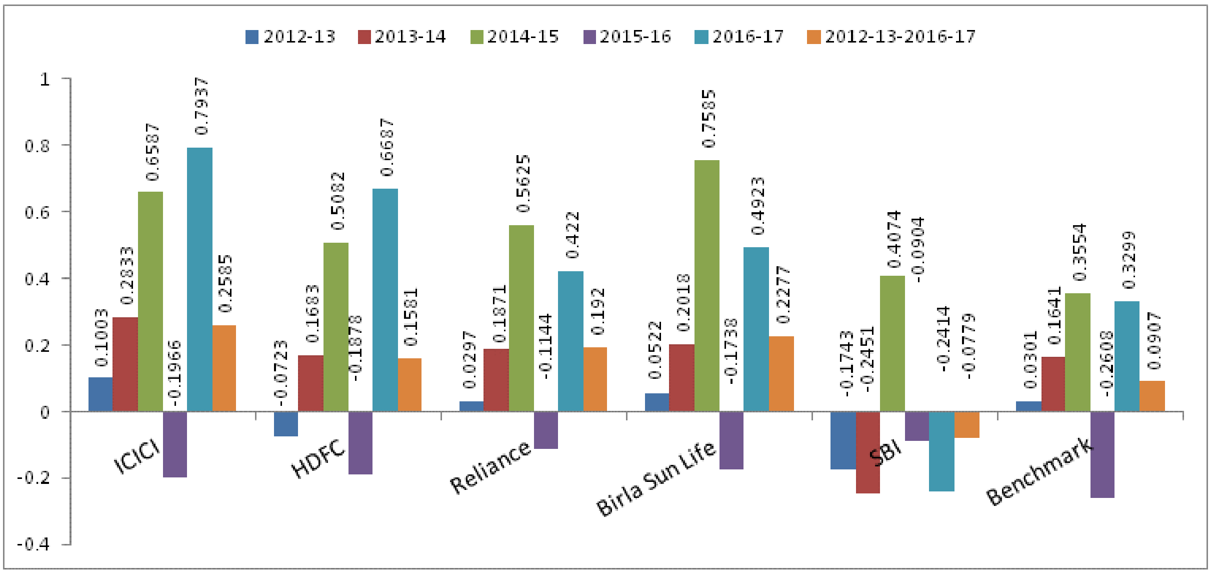
Table- 4.10 represents the result of the Sharpe ratio of the selected balanced schemes as well as the market under study and supplemented with Graph 4.4.

Table-4.10: Year-wise monthly Sharpe ratio of selected balanced schemes and benchmark

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Fund – Growth	0.1003	0.2833	0.6587	-0.1966	0.7937	0.2585
HDFC Prudence Fund - Growth Option	-0.0723	0.1683	0.5082	-0.1878	0.6687	0.1581

Reliance Regular Savings Fund -Balanced Option – Growth Plan	0.0297	0.1871	0.5625	-0.1144	0.4220	0.1920
Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option	0.0522	0.2018	0.7585	-0.1738	0.4923	0.2277
SBI Magnum Balanced Fund - REGULAR PLAN – Dividend	-0.1743	-0.2451	0.4074	-0.0904	-0.2414	-0.0779
Benchmark (Nifty 100)	0.0301	0.1641	0.3554	-0.2608	0.3299	0.0907

Source: Calculated from secondary data



Graph-4.4: Year-wise monthly Sharpe ratio of selected balanced schemes and benchmark

Higher Sharpe ratio indicates the better fund performance. If the Sharpe ratio is negative it indicates that the fund is generating a low return and it has a poor performance as compared to the market.

From the Table- 4.10, it is clear that for the year 2012-13 out of all the schemes two schemes i.e. HDFC Prudence Fund - Growth Option (-0.07) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.17) under study are giving a negative value and ICICI Prudential Balanced Fund-Growth (0.10), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.03) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.05) are holding positive Sharpe ratio. The highest ratio is shown by ICICI Prudential Balanced Fund-

Growth (0.10) and lowest is SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.17). By comparing with the market Sharpe ratio two schemes are having superior performance which is ICICI Prudential Balanced Fund-Growth (0.10) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.05).

Out of all the schemes, one scheme is reflecting negative value during 2013-14 i.e. SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.25). The value is high for ICICI Prudential Balanced Fund-Growth (0.28) and low for SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.24). While comparing with the market, ICICI Prudential Balanced Fund-Growth (0.28), HDFC Prudence Fund - Growth Option (0.17), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.19) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.20) have better performance.

In the year 2014-15, all the scheme are having positive value i.e. ICICI Prudential Balanced Fund-Growth (0.66), HDFC Prudence Fund - Growth Option (0.51), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.56), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.76) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (0.41). The ratio is highest in the case of Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.76) and followed by ICICI Prudential Balanced Fund-Growth (0.66), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.56), HDFC Prudence Fund - Growth Option (0.51) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.41). All the schemes are showing better performance than the market index on the basis of Sharpe ratio.

A conclusion could be drawn from Table-4.10 that all the five schemes under study i.e. ICICI Prudential Balanced Fund-Growth (-0.20), HDFC Prudence Fund - Growth Option (-0.19), Reliance Regular Savings Fund - Balanced Option - Growth Plan (-0.11), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (-0.17) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend

(-0.09) are reflecting negative value in terms of Sharpe ratio including the benchmark in the year 2015-16. All the schemes have superior performance than the market on the basis of Sharpe ratio.

During the year 2016-17, SBI Magnum Balanced Fund - REGULAR PLAN – Dividend is the only scheme which is presenting negative value i.e. -0.24 and other schemes which are presenting positive value are ICICI Prudential Balanced Fund-Growth (0.79), HDFC Prudence Fund -Growth Option (0.67), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.42) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.49). While doing the comparison with the benchmark except SBI Magnum Balanced Fund - REGULAR PLAN – Dividend all other schemes are showing better performance than the market.

By analyzing the Sharpe's Index Table-4.10 an inference could be drawn that for the whole period 2012-13-2016-17, ICICI Prudential Balanced Fund-Growth (0.26) is giving the highest value followed by Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option, Reliance Regular Savings Fund - Balanced Option - Growth Plan, HDFC Prudence Fund - Growth Option, and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend with a Sharpe value of 0.23, 0.19, 0.16 and -0.08 correspondingly. According to Sharpe index, ICICI Prudential Balanced Fund-Growth is the top performer.

4.3.4.1 Ranking of the balanced schemes on the basis of Sharpe ratio:

The ranking of the balanced schemes under study on the basis of their Sharpe ratio during the study period has been shown in Table- 4.11.

Table-4.11: Ranking of the balanced schemes on the basis of Sharpe ratio

Scheme Name	Sharpe ratio	Rank
ICICI Prudential Balanced Advantage Fund-Growth Plan	0.2585	1
HDFC Capital Builder Fund - Growth Option	0.1581	4
Reliance Banking Fund-Dividend Plan-Dividend Option	0.1920	3
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.2277	2
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	-0.0779	5

Source: Calculated from Secondary data

On analysis of Table-4.11, it can be said that ICICI Prudential Balanced Advantage Fund-Growth Plan is leading with highest Sharpe ratio of 0.26 during the study period followed by Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.23), Reliance Banking Fund-Dividend Plan-Dividend Option (0.19), HDFC Capital Builder Fund - Growth Option (0.16) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.08).

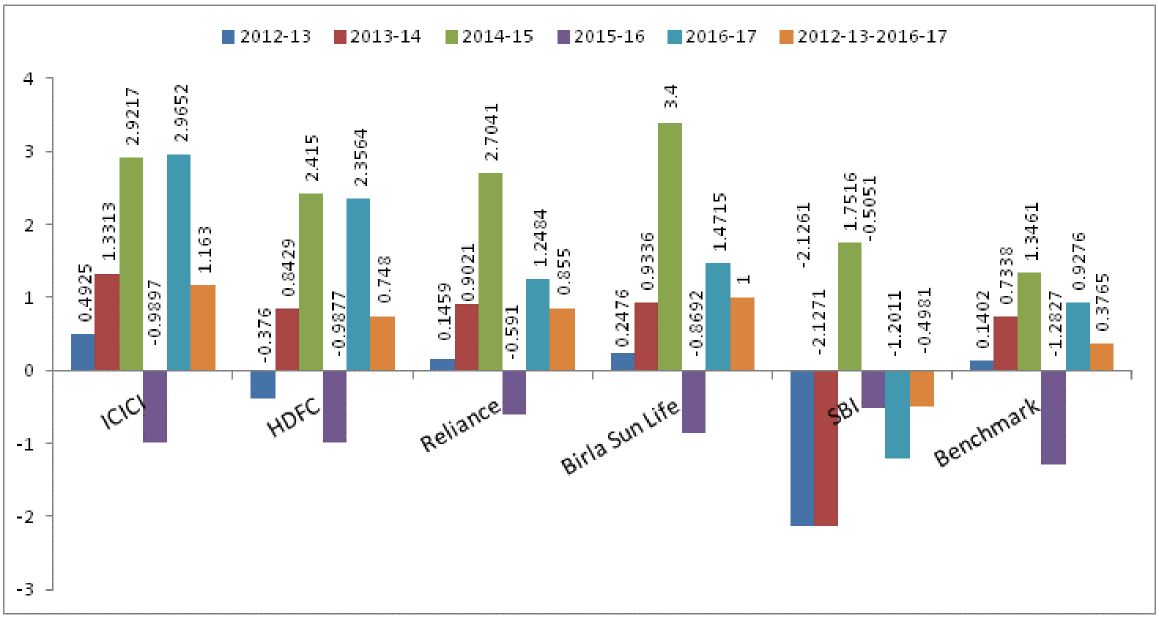
4.3.5 Treynor Performance Index:

Treynor index of the selected balanced schemes and benchmark under study has been represented in Table- 4.12 and supplemented with Graph 4.5.

Table-4.12: Year-wise monthly Treynor ratio of selected balanced schemes and benchmark

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Fund – Growth	0.4925	1.3313	2.9217	-0.9897	2.9652	1.1630
HDFC Prudence Fund - Growth Option	-0.3760	0.8429	2.4150	-0.9877	2.3564	0.7480
Reliance Regular Savings Fund - Balanced Option - Growth Plan	0.1459	0.9021	2.7041	-0.5910	1.2484	0.8550
Birla Sun Life Balanced Advantage Fund - Regular Plan - Growth Option	0.2476	0.9336	3.4000	-0.8692	1.4715	1.0000
SBI Magnum Balanced Fund - REGULAR PLAN – Dividend	-2.1261	-2.1271	1.7516	-0.5051	-1.2011	-0.4981
Benchmark (Nifty 100)	0.1402	0.7338	1.3461	-1.2827	0.9276	0.3765

Source: Calculated from secondary data



Graph 4.5: Year-wise monthly Treynor ratio of selected balanced schemes benchmark

A high and positive Treynor ratio indicates a better risk-adjusted performance of the fund and a negative value shows that the fund has poor performance.

So from the Table- 4.12, it is clear that during 2012-13, out of all the five schemes two schemes are having negative value i.e. HDFC Prudence Fund - Growth Option (-0.38) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-2.13) which is because of generating lower return than the risk free rate and three schemes i.e. ICICI Prudential Balanced Fund-Growth (0.49), Reliance Regular Savings Fund - Balanced Option -Growth Plan (0.15), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.25) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-2.13).While comparing with the market four schemes i.e. ICICI Prudential Balanced Fund-Growth (0.49), Reliance Regular Savings Fund - Balanced Option -Growth Plan(0.15) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.25) is having superior performance.

During the year 2013-14 all the funds except one scheme i.e. SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-2.13) all are giving positive Treynor ratio. The negative ratio of SBI Magnum Balanced Fund - REGULAR PLAN – Dividend scheme is resulted because its return is lesser as compare to the risk free rate. The ratio is highest in ICICI Prudential Balanced Fund-Growth (1.33) followed by Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.93), Reliance Regular Savings Fund - Balanced Option - Growth Plan(0.90), HDFC Prudence Fund - Growth Option (0.84) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-2.13). ICICI Prudential Balanced Fund-Growth (1.33), HDFC Prudence Fund - Growth Option (0.84), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.90) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.93) have outperformed the market in terms of Treynor ratio.

All the five schemes are having positive ratio i.e. ICICI Prudential Balanced Fund-Growth (2.92), HDFC Prudence Fund - Growth Option (2.42), Reliance Regular Savings Fund - Balanced Option-Growth Plan (2.70), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (3.40) and SBI Magnum Balanced Fund - REGULAR PLAN–Dividend (1.75) in 2014-15. All the five schemes under study have more Treynor value than the benchmark.

In the year 2015-16, all the schemes during the period are showing a negative value i.e. ICICI Prudential Balanced Fund-Growth (-0.99), HDFC Prudence Fund - Growth Option (-0.99), Reliance Regular Savings Fund - Balanced Option - Growth Plan (-0.59), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (-0.87) and SBI Magnum Balanced Fund -REGULAR PLAN–Dividend(-0.51). A conclusion could be made that all the schemes under study have creating less return than the risk free rate during 2015-16. However, all the five schemes have greater performances than the market index.

For the year 2016-17, all the schemes are representing positive value except one scheme i.e. SBI Magnum Balanced Fund - REGULAR PLAN – Dividend(-1.20). Here the negative ratio is occurring due to the lower return of the scheme. It is high for ICICI Prudential Balanced Fund-Growth (2.96) followed by HDFC Prudence Fund - Growth Option (2.35), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (1.47),Reliance Regular Savings Fund - Balanced Option - Growth Plan (1.24) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-1.20)

Four schemes under study surpassed the market as indicated by the high Treynor ratio than the market in Table- 4.12.

The scheme having higher and positive Treynor ratio is a good performance indicator. Treynor ratio of four schemes under study during 2012-13-2016-17 are positive which specifies that these schemes have an adequate returns as against the risk involved in the investments i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (1.16), HDFC Capital Builder Fund - Growth Option (0.75), Reliance Banking Fund-Dividend Plan-Dividend Option (0.86) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (1.00). ICICI Prudential Balanced Advantage Fund-Growth Plan is giving the maximum Treynor ratio i.e. 1.16 which indicates that it involves the least risk-adjusted returns. By comparing with the market it can be said that ICICI Prudential Balanced Advantage Fund-Growth Plan (1.16), HDFC Capital Builder Fund - Growth Option (0.75), Reliance Banking Fund-Dividend Plan-Dividend Option (0.86) and Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (1.00) have high ratio than the benchmark. The negative ratio is produced by SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.5) due to the generation of low return of the scheme.

4.3.5.1 Ranking of the balanced schemes on the basis of Treynor ratio:

The ranking of the balanced schemes under study on the basis of their Treynor ratio during the study period has been shown in Table- 4.13.

Table-4.13: Ranking of the balanced schemes on the basis of Treynor ratio

Scheme Name	Treynor ratio	Rank
ICICI Prudential Balanced Advantage Fund-Growth Plan	1.1630	1
HDFC Capital Builder Fund - Growth Option	0.7480	4
Reliance Banking Fund-Dividend Plan-Dividend Option	0.8550	3
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	1.000	2
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	-0.4981	5

Source: Calculated from Secondary data

On analysis of Table-4.13, it can be said that ICICI Prudential Balanced Advantage Fund-Growth Plan is leading with highest Treynor ratio of 1.16 during the study period followed by Birla Sun Life Dividend Yield Plus - Growth - Regular

Plan(1.00), Reliance Banking Fund-Dividend Plan-Dividend Option (0.86), HDFC Capital Builder Fund-Growth Option (0.75) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.50).

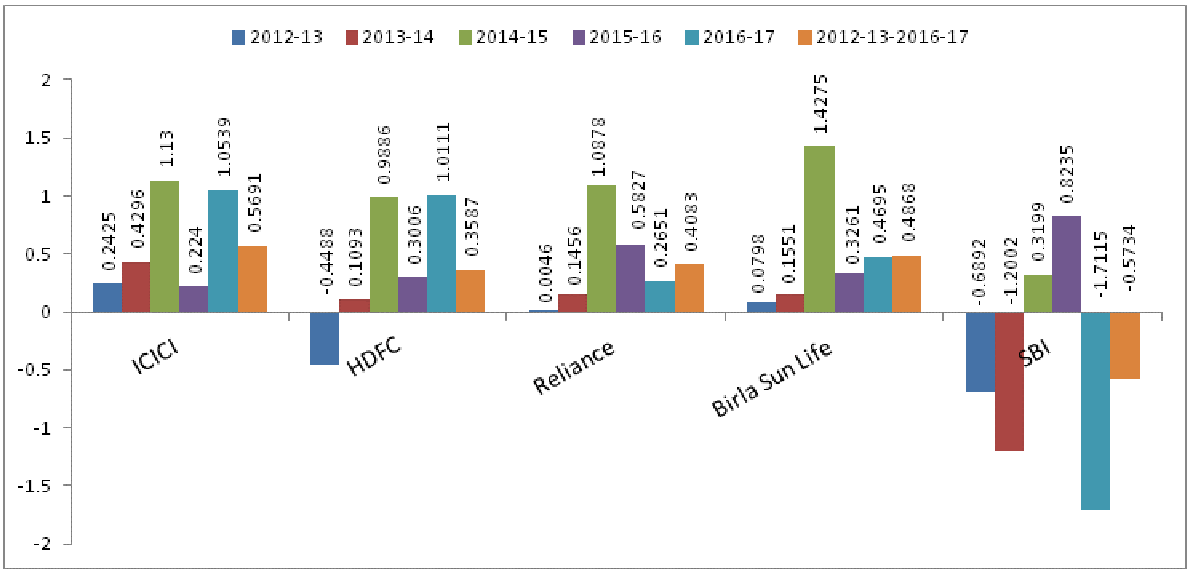
4.3.6 Jensen Performance Index:

Table- 4.14 depicts the value of Jensen alpha of the selected balanced funds and supplemented with Graph 4.6.

Table-4.14: Year-wise monthly Jensen index of selected balanced schemes

Scheme Name	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13-2016-17
ICICI Prudential Balanced Fund – Growth	0.2425	0.4296	1.1300	0.2240	1.0539	0.5691
HDFC Prudence Fund - Growth Option	-0.4488	0.1093	0.9886	0.3006	1.0111	0.3587
Reliance Regular Savings Fund - Balanced Option - Growth Plan	0.0046	0.1456	1.0878	0.5827	0.2651	0.4083
Birla Sun Life Balanced Advantage Fund - Regular Plan - Growth Option	0.0798	0.1551	1.4275	0.3261	0.4695	0.4868
SBI Magnum Balanced Fund - REGULAR PLAN – Dividend	-0.6892	-1.2002	0.3199	0.8235	-1.7115	-0.5734

Source: Calculated from secondary data



Graph 4.6: Year-wise monthly Jensen index of selected balanced schemes

A negative value for the Jensen alpha proves to be a bad performer. Positive alpha value reveals that the fund has earned a better return as compared to the market. Analysis of the Table 4.14 found that, for the year 2012-13, HDFC Prudence Fund - Growth Option (-0.45) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.69) are said to be a poor performer as all the schemes are containing a negative value whereas ICICI Prudential Balanced Fund-Growth (0.24), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.0046) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.08) is containing positive value. Among all these funds, ICICI Prudential Balanced Fund-Growth (0.24) has highest value followed by Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.08), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.0046), SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-0.69) and HDFC Prudence Fund - Growth Option (-0.45).

In the year 2013-14, Jensen value is positive for ICICI Prudential Balanced Fund-Growth (0.43), HDFC Prudence Fund - Growth Option (0.11), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.15) and Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.16) which are showing better performance. Negative for SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-1.20)is an indicator of bad performer of the fund. The value is high for

ICICI Prudential Balanced Fund-Growth (0.42) and low for SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-1.20).

ICICI Prudential Balanced Fund-Growth (1.13), HDFC Prudence Fund - Growth Option (0.99), Reliance Regular Savings Fund - Balanced Option - Growth Plan (1.09), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (1.43) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (0.32) all the schemes are revealing positive alpha value in 2014-15. During this year Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (1.43) is found to be a good performer as it has highest Jensen alpha value.

During 2015-16, all the schemes are having positive alpha value. SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (0.82) proves to be a good performer as this is prevailing highest alpha value followed by Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.58), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.33), HDFC Prudence Fund - Growth Option (0.30) and ICICI Prudential Balanced Fund-Growth (0.22).

While in 2016-17, except SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-1.71) all the schemes under study i.e. ICICI Prudential Balanced Fund-Growth (1.05), HDFC Prudence Fund - Growth Option (1.01), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.27), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.47) are containing positive alpha value and showing good performance. ICICI Prudential Balanced Fund-Growth is holding the highest alpha value of 1.05 followed by HDFC Prudence Fund - Growth Option (1.01), Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option (0.46), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.26) and SBI Magnum Balanced Fund - REGULAR PLAN – Dividend (-1.71).

The analysis of the above Table-4.14 reveals that in 2012-13-2016-17 Jensen’s alpha of one of the schemes during the study period is negative i.e. SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.57). While the others schemes i.e. ICICI Prudential Balanced Advantage Fund-Growth Plan (0.57),HDFC Prudence Fund - Growth Option (0.36), Reliance Regular Savings Fund - Balanced Option - Growth Plan (0.41) and Birla Sun Life Dividend Yield Plus - Growth -

Regular Plan (0.49) are showing a positive alpha value indicating a higher performance. A positive value for Jensen alpha shows that the scheme has earned a healthier return due to better management skill.

4.3.6.1 Ranking of the balanced schemes on the basis of Jensen alpha:

The ranking of the balanced schemes under study on the basis of their Jensen alpha during the study period has been shown in Table- 4.15.

Table-4.15: Ranking of the balanced schemes on the basis of Jensen alpha

Scheme Name	Jensen alpha	Rank
ICICI Prudential Balanced Advantage Fund-Growth Plan	0.5691	1
HDFC Capital Builder Fund - Growth Option	0.3587	4
Reliance Banking Fund-Dividend Plan-Dividend Option	0.4083	3
Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.4868	2
SBI Arbitrage Opportunities Fund-Regular Plan – Growth	-0.5734	5

Source: Calculated from Secondary data

On analysis of Table-4.15, it can be ascertained that ICICI Prudential Balanced Advantage Fund-Growth Plan is leading with highest Jensen alpha of 0.57 during the study period followed by Birla Sun Life Dividend Yield Plus - Growth - Regular Plan (0.49), Reliance Banking Fund-Dividend Plan-Dividend Option (0.41), HDFC Capital Builder Fund - Growth Option (0.36) and SBI Arbitrage Opportunities Fund-Regular Plan – Growth (-0.57).

4.4 COMPARISON OF GROWTH SCHEMES AND BALANCED SCHEMES:

Comparison between all the growth schemes and balanced schemes has been done on the parameters such as average return, standard deviation, beta, Sharpe ratio, Treynor Ratio, and Jensen alpha in order to find out the effective and efficient performing scheme. The analysis has been done as follows.

4.4.1 Average Return:

Table-4.16: Average return of balanced schemes and growth schemes (2012-13-2016-17)

Balanced Scheme Name	Avg. return (B)	Growth Scheme Name	Avg. return (G)	Remark
ICICI Prudential Balanced Fund – Growth	1.4998	ICICI Prudential Balanced Advantage Fund-Growth Plan	1.2563	Balanced
HDFC Prudence Fund - Growth Option	1.3805	HDFC Capital Builder Fund - Growth Option	1.5749	Growth
Reliance Regular Savings Fund - Balanced Option - Growth Plan	1.3878	Reliance Banking Fund-Dividend Plan-Dividend Option	0.9290	Balanced
Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option	1.4390	Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	1.2026	Balanced
SBI Magnum Balanced Fund - REGULAR PLAN - Dividend	0.3316	SBI Arbitrage Opportunities Fund-Regular Plan – Growth	0.6256	Growth

Source: Calculated from Secondary data

Table 4.16 reflects the average return of balanced schemes and growth schemes (2012-13-2016-17) covered under study. While analysing the table it could be ascertained that out of the five schemes, three balanced schemes are containing higher value than the growth schemes in terms of average return. So it can be concluded that balanced schemes involve high return as compare to the growth schemes.

4.4.2 Standard Deviation (S.D):

Table-4.17: Standard deviation of balanced schemes and growth schemes (2012-13-2016-17)

Balanced Scheme Name	S.D (B)	Growth Scheme Name	S.D (G)	Remark
ICICI Prudential Balanced Fund – Growth	3.2548	ICICI Prudential Balanced Advantage Fund-Growth Plan	2.7041	Balanced

HDFC Prudence Fund - Growth Option	4.5674	HDFC Capital Builder Fund - Growth Option	4.5932	Growth
Reliance Regular Savings Fund - Balanced Option - Growth Plan	3.7988	Reliance Banking Fund-Dividend Plan-Dividend Option	7.8625	Growth
Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option	3.4278	Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	4.6102	Growth
SBI Magnum Balanced Fund - REGULAR PLAN – Dividend	4.1924	SBI Arbitrage Opportunities Fund-Regular Plan – Growth	0.1763	Balanced

Source: Calculated from Secondary data

Table 4.17 reflects the standard deviation of balanced schemes and growth schemes (2012-13-2016-17) covered under study. While analysing the table it could be ascertained that out of the five schemes, three growth schemes are containing higher value than the balanced schemes in terms of standard deviation. So it concludes that growth schemes involve higher risk in the rate of return as compared to the balanced schemes.

4.4.3 Beta:

Table-4.18: Beta of balanced schemes and growth schemes (2012-13-2016-17)

Balanced Scheme Name	Beta (B)	Growth Scheme Name	Beta (G)	Remark
ICICI Prudential Balanced Fund - Growth	0.7235	ICICI Prudential Balanced Advantage Fund-Growth Plan	0.6082	Balanced
HDFC Prudence Fund - Growth Option	0.9656	HDFC Capital Builder Fund - Growth Option	1.0441	Growth
Reliance Regular Savings Fund - Balanced Option - Growth Plan	0.8533	Reliance Banking Fund-Dividend Plan-Dividend Option	1.5806	Growth
Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option	0.7808	Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	1.0153	Growth
SBI Magnum Balanced Fund - REGULAR PLAN – Dividend	0.6556	SBI Arbitrage Opportunities Fund-Regular Plan – Growth	0.0033	Balanced

Source: Calculated from secondary data

Table 4.18 represents a vivid description of beta of balanced schemes and growth schemes (2012-13-2016-17). It could be found from the table that, in terms of beta, growth schemes are more volatile than the balanced schemes, as most of the growth schemes are having a beta value greater than one.

4.4.4 Sharpe Performance Index:

Table-4.19: Sharpe ratio of balanced schemes and growth schemes (2012-13-2016-17)

Balanced Scheme Name	Sharpe (B)	Growth Scheme Name	Sharpe (G)	Remark
ICICI Prudential Balanced Fund – Growth	0.2585	ICICI Prudential Balanced Advantage Fund-Growth Plan	0.2211	Balanced
HDFC Prudence Fund - Growth Option	0.1581	HDFC Capital Builder Fund - Growth Option	0.1995	Growth
Reliance Regular Savings Fund - Balanced Option - Growth Plan	0.1920	Reliance Banking Fund-Dividend Plan-Dividend Option	0.0344	Balanced
Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option	0.2277	Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.1180	Balanced
SBI Magnum Balanced Fund - REGULAR PLAN – Dividend	-0.0779	SBI Arbitrage Opportunities Fund-Regular Plan – Growth	-0.1849	Balanced

Source: Calculated from Secondary data

Table-4.19 relates to the Sharpe ratio of balanced schemes and growth schemes (2012-13-2016-17). It could be deduced from the table that, in terms of Sharpe ratio, balanced schemes are showing better performance than the growth schemes as four balanced schemes out of five are having higher ratio as compared with growth schemes. It means that while calculating the Sharpe measure by taking the risk, balanced schemes are a good performer.

s4.4.5 Treynor Performance Index:

Table-4.20: Treynor index of balanced schemes and growth schemes (2012-13-2016-17)

Balanced Scheme Name	Treynor (B)	Growth Scheme Name	Treynor (G)	Remark
ICICI Prudential Balanced Fund – Growth	1.1630	ICICI Prudential Balanced Advantage Fund-Growth Plan	0.9833	Balanced
HDFC Prudence Fund - Growth Option	0.7480	HDFC Capital Builder Fund - Growth Option	0.8780	Growth
Reliance Regular Savings Fund - Balanced Option - Growth Plan	0.8550	Reliance Banking Fund-Dividend Plan-Dividend Option	0.1713	Balanced
Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option	1.000	Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.5362	Balanced
SBI Magnum Balanced Fund - REGULAR PLAN – Dividend	0.5743	SBI Arbitrage Opportunities Fund-Regular Plan - Growth	-9.6046	Balanced

Source: Calculated from Secondary data

Table-4.20 shows the Treynor index of balanced schemes and growth schemes (2012-13-2016-17). It could be found from the table that in terms of Treynor ratio four balanced schemes out of five schemes have higher ratio as compared to the growth schemes. Hence balanced schemes are showing better performance as compared to the growth schemes for the study period.

4.4.6 Jensen Performance Index:

Table-4.21: Jensen index of balanced schemes and growth schemes (2012-13-2016-17)

Balanced Scheme Name	Jensen (B)	Growth Scheme Name	Jensen (G)	Remark
ICICI Prudential Balanced Fund – Growth	0.5691	ICICI Prudential Balanced Advantage Fund-Growth Plan	1.0272	Growth
HDFC Prudence Fund - Growth Option	0.3587	HDFC Capital Builder Fund - Growth Option	0.5235	Growth
Reliance Regular Savings Fund - Balanced Option - Growth Plan	0.4083	Reliance Banking Fund-Dividend Plan-Dividend Option	-0.3243	Balanced

Birla Sun Life Balanced Advantage Fund-Regular Plan - Growth Option	0.4868	Birla Sun Life Dividend Yield Plus - Growth - Regular Plan	0.1621	Balanced
SBI Magnum Balanced Fund - REGULAR PLAN - Dividend	-0.5734	SBI Arbitrage Opportunities Fund- Regular Plan – Growth	-0.0338	Growth

Source: Calculated from Secondary data

Table-4.21 shows the Jensen index of balanced schemes and growth schemes (2012-13-2016-17). While analysing the table it was found that the growth schemes are better performing than the balanced schemes as three growth schemes out of five are having higher value in terms of Jensen alpha value.

4.5 HYPOTHESES TESTING:

In order to find out whether there are any significant differences in performances of the growth schemes and balanced schemes or not, the following hypotheses have been tested.

a) **H_{01}:** There is no significant difference in the performances of the balanced schemes and growth schemes of ICICI Mutual fund.

H_{A1}: There is a significant difference in the performances of the balanced schemes and growth schemes of ICICI Mutual fund.

Table- 4.22: T-test summary table showing the return of ICICI Balanced and ICICI Growth scheme

Fund	N	Mean	Standard deviation	t-value	Remark
ICICI Balanced	59	1.500	3.254	-0.442	p>0.05
ICICI Growth	59	1.256	2.704		

Source: Calculated with SPSS

The t-test summary result for comparing the difference between the balanced schemes and growth schemes of ICICI Mutual Fund is given in the Table- 4.22. From the table, it is observed that t-value is -0.442 with a p-value of 0.659 which is not significant at 0.05 level with df=116. It shows that there is no significant difference in the return of ICICI balanced schemes with a mean of 1.500 and ICICI growth schemes with a mean of 1.256. Hence we failed to reject the null hypothesis.

b) **H_{02}:** There is no significant difference in the performances of the balanced schemes and growth schemes of HDFC Mutual fund.

H_{A2}: There is a significant difference in the performances of the balanced schemes and growth schemes of HDFC Mutual fund.

Table- 4.23: T-test summary table showing the return of HDFC Balanced and HDFC Growth scheme					
Fund	**N**	**Mean**	**Standard deviation**	**t-value**	**Remark**
HDFC Balanced	59	1.380	4.567	0.231	p>0.05
HDFC Growth	59	1.574	4.593		

Source: Calculated with SPSS

The t-test summary result for comparing the difference between the balanced schemes and growth schemes of HDFC Mutual Fund is placed in the Table- 4.23. From the table, it is observed that t-value is 0.231 with a p-value of 0.818 which is not significant at 0.05 level with df=116. It shows that there is no significant difference in the return of HDFC balanced schemes with a mean of 1.380 and HDFC growth schemes with a mean of 1.574. Hence we failed to reject the null hypothesis.

c) **H_{03}:** There is no significant difference in the performances of the balanced schemes and growth schemes of Reliance Mutual fund.

H_{A3}: There is a significant difference in the performances of the balanced schemes and growth schemes of Reliance Mutual fund.

Table- 4.24: T-test summary table showing the return of Reliance Balanced and Reliance Growth scheme					
Fund	**N**	**Mean**	**Standard. Deviation**	**t-value**	**Remark**
RELIANCE Balanced	59	1.387	3.798	-0.404	p>0.05
RELIANCE Growth	59	0.929	7.862		

Source: Calculated with SPSS

The t-test summary result for comparing the difference between the balanced schemes and growth schemes of Reliance Mutual Fund is given in the Table- 4.24. From the table, it is observed that t-value is -0.404 with a p-value of 0.687 which is not significant at 0.01 level with df=116. It shows that there is no significant difference in the return of Reliance balanced schemes with a mean of 1.387 and

Reliance growth schemes with a mean of 0.929. Hence the null hypothesis is failed to be rejected.

d) **H_{04}:** There is no significant difference in the performances of the balanced schemes and growth schemes of Birla Sun Life Mutual fund.

H_{A4}: There is a significant difference in the performances of the balanced schemes and growth schemes of Birla Sun Life Mutual fund.

Table- 4.25: T-test summary table showing the return of Birla Sun Life Balanced and Birla Sun Life Growth scheme

Fund	N	Mean	Standard deviation	t-value	Remark
Birla Sun Life Balanced	59	1.439	3.427	-0.316	p>0.05
Birla Sun Life Growth	59	1.202	4.610		

Source: Calculated with SPSS

The t-test summary result for comparing the difference between the balanced schemes and growth schemes of Birla Sun Life Mutual Fund is given in the Table- 4.25. From the table, it is observed that t-value is -0.316 with a p-value of 0.753 which is not significant at 0.05 level with df=116. It shows that there is no significant difference in the return of Birla Sun Life balanced schemes with a mean of 1.439 and Birla Sun Life growth schemes with a mean of 1.202. Hence the null hypothesis is failed to be rejected.

e) **H_{05}:** There is no significant difference in the performances of the balanced schemes and growth schemes of SBI Mutual fund.

H_{A5}: There is a significant difference in the performances of the balanced schemes and growth schemes of SBI Mutual fund.

Table- 4.26: T-test summary table showing the return of SBI Balanced and SBI Growth scheme

Fund	N	Mean	Standard deviation	t-value	Remark
SBI Balanced	59	0.331	4.192	0.538	p>0.05
SBI Growth	59	0.625	0.176		

Source: Calculated with SPSS

The t-test summary result for comparing the difference between the balanced schemes and growth schemes of SBI Mutual Fund is given in the Table- 4.26. From the table, it is observed that t-value is 0.538 with a p-value of 0.591 which is not significant at 0.01 level with df =116. It shows that there is no significant difference in the return of SBI balanced schemes with a mean of 0.331 and SBI growth schemes with a mean of 0.625. Hence the null hypothesis is failed to be rejected.s

4.6 CONCLUSION:

The selected balanced schemes have been analysed on the basis of different parameters such as average return, standard deviation, Sharpe ratio, Treynor ratio and Jensen ratio. In terms of average return, 80% of the total schemes have a higher return than the market and 20% have lesser return. Forty percent (40%) of the total schemes involves high risk while 60% are less risky than the market. On the basis of three performance measure, 80% of the schemes have outperformed and 20% have underperformed. The comparison has also been made between balanced and growth schemes on different parameters viz. average return, standard deviation, beta, Sharpe ratio, Treynor ratio and Jensen ratio. Hypotheses have also been tested for all the mutual funds under study where it concludes that there is no significant difference between the performances of balanced and growth schemes for each of the mutual fund.

CHAPTER-5
CONCLUSION AND SUGGESTIONS

5.1 INTRODUCTION:

This chapter deals with the summary of the findings, conclusions and suggestions of the study of the performance of the mutual funds in India.

A momentous growth has been recorded by the Indian mutual fund industry since its commencement with Unit Trust of India in 1963. The remarkable growth is revealed in respect of its increasing asset under management (AUM), resource mobilization, a large number of schemes etc. In today's world mutual fund is one of the most desired investment platforms for the investor in long-term as well as in short term. It plays an essential role in developing the economic condition of the country.

5.2 FINDINGS OF THE STUDY:

i. In 1963, Unit Trust of India was the only mutual fund in India and now it has reached to 39 which shows that there is a remarkable growth in the number of mutual funds since 1963.

ii. A huge development has also been recorded in terms of Asset Under Management with Rs. 1,36,81,009 Cr. which was only Rs. 25 Cr in 1964.

iii. The number of public sectors mutual funds has increased to six whereas the number of private sectors mutual funds is 33 which shows that there is more number of private players rather than public in the mutual fund industry.

iv. The number of schemes of UTI has increased from 2 to 1220.

v. ICICI Prudential Mutual fund offers 1529 number of schemes which is highest among all mutual funds.

5.2.1 Findings of Objective-1:

i. In terms of average return, there is no significant difference in the performance of balanced schemes and growth schemes of ICICI Mutual fund, HDFC Mutual fund, Birla Sun Life Mutual fund, Reliance Mutual fund and SBI Mutual fund.

ii. By considering the Standard deviation, growth schemes are having a higher value than balanced schemes which concludes that growth schemes are more riskier than balanced schemes.

iii. Growth schemes are more aggressive fund than the balanced schemes as indicated by beta value which is greater than one.

iv. In terms of Sharpe ratio, balanced schemes are showing better performance than the growth schemes.

v. In terms of Treynor ratio, balanced schemes have shown a better performance as compared to the growth schemes for the study period.

vi. Growth schemes are better performing than the balanced schemes in terms of Jensen alpha value.

5.2.2 Findings of Objective-2:

1. Growth schemes:

i. By considering the average return of the schemes 60% of the total schemes have outperformed the market while 40% have underperformed the market.

ii. By taking into account the standard deviation of the schemes under study, 60% of the schemes are more riskier than the market and 40% are less riskier.

iii. Sixty percent (60%) of the total schemes under study are more volatile whereas 40% are less volatile as indicated by beta value.

iv. Sixty percent (60%) of all the schemes are showing better performance than the market for the Sharpe index and 40% are underperforming.

v. For the Treynor index also 60% have a higher value than the market while 40% have underperformed the market.

vi. Jensen index for 60% of the schemes is positive which indicate that 60% the schemes are good performer and 40% are bad performer.

2. Balanced schemes:

vii. For the average return of the schemes under study, 80% of total schemes have outperformed the market whereas 20% have underperformed the market.

viii. In terms of standard deviation of the schemes, 40% of the total schemes have higher value i.e. riskier than the market whereas 60% are less risky.

ix. By considering the value of beta all the schemes are less volatile than the market as all the schemes have beta value less than 1.

x. For the Sharpe index, 80% of the total schemes are performing good as they are showing high value than market and 20% have lesser value.

xi. For the Treynor index also 80% of the schemes under study are performing well and 20% are underperforming than the market.

xii. While considering Jensen alpha 80% of the total schemes have a positive alpha value which indicates that they are performing well whereas 20% is a poor performer as they have negative alpha value.

5.3 SUGGESTIONS:

i. The knowledge and awareness about the mutual fund should increase among the investors by arranging more number of programmes by SEBI and other mutual fund companies. Workshops, Seminars Leaflets are also a different medium of increasing the publicity of the mutual fund.

ii. Mutual funds should build the confidence among the investors for the higher return with low risk by taking appropriate measures.

iii. Mutual funds can expand their branches by penetrating into the rural as well as urban areas. It can also help them in covering potential investors within a huge section of society.

iv. The research unit of SEBI, Mutual fund and AMFI should always be active in order to conduct more research on the market.

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

vi. A regulatory framework must be formulated by the Government which should applicable to both public as well as private sector mutual funds.

vii. A common accounting practice should adopt by the mutual funds for calculating the NAV. For comparison among all the mutual funds, a rational and legal method should be accepted.

viii. The investors need to analyze carefully before investing in any mutual funds as it involves market risk and different funds are performing in different way.

ix. The investors need to be aware of return of funds, risk measurement ratios and evaluate it meticulously.

x. Proper consultancy should be provided to the investors by the mutual fund companies in understanding terms and conditions of different schemes.

5.4 LIMITATIONS OF THE STUDY:

The present has some limitations which are described below.

i. As the present study is completely based on secondary data, the findings of the study are based on the authenticity and accuracy of the data.

ii. The risk-free rate of return always varies from time to time. So a particular rate during the study period has been taken.

iii. The present study is limited to only five growth schemes and five balanced schemes.

iv. NSE Nifty 100 has been used as the benchmark index for the present work which can be replaced by taking BSE- Sensex as the benchmark index.

5.5 SCOPE FOR FUTURE RESEARCH:

The area of mutual fund industry is quite vast. The present study is confined to only the performance of mutual funds in India with certain objectives. In due time it is observed that there are numerous other factors on which research can be undertaken. Some of the areas are discussed below.

a. Evaluation can be done on the performance of other schemes such as income schemes, close-ended scheme, Tax saving schemes etc.

b. A larger period of mutual fund industry can be covered in order to get an efficient result.

c. A comparative study can be done by covering both public and private sector mutual funds.

d. Another area can be taken in order to know the perception of investors towards the mutual fund.

e. The marketing strategy of the mutual fund companies can be an area.

5.6 CONCLUSION:

Mutual funds in the present knowledge society have become the expanding horizon in financial markets which, however, is subject to market risk. Despite of that, it has a low risk as compared to stock market. In the present financial environment, the investors are inclined towards the agencies and showing trust towards mutual funds than any other financial products. As discussed, mutual funds are always subject to market risk and it is truly accessed in performance evaluation of mutual funds schemes under the purview of the study for a given period of time. The performance evaluation measurement ratios such as Sharpe, Treynor and Jensen are generally used by the fund managers to take the decision of investment and to diversify a portfolio.

Further, there is a direct influence of performance evaluation among the investors who make use of information derived in monitoring their investments. On the basis of such evaluation, the investors know the trend of growth of a particular schemes leading thereby, resetting their options for investment. Thus a conceptual framework is required to understand what a fund manager is doing.

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