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An analysis on sectorial equity mutual funds

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ABSTRACT

The economic reforms initiated by the Indian government over the last two decades have resulted in growth in the Indian financial service sector. Investors are offered various investment avenues. But there are investment avenues with growing risk. Mutual funds one of the investment avenues offers investors wide opportunities in diversifying their risk. There is tremendous growth and development in the mutual fund industry. Mutual funds have emerged as the best in terms of variety, flexibility, diversification, liquidity as well as tax benefits. Besides, through mutual funds, investors can gain access to investment opportunities that would otherwise be unavailable to them due to limited knowledge and resources. Moreover, due to its development, the mutual fund serves as a channel for pooling the savings of a large number of people across the country and investing in funds. Diversification of funds helps in reducing risk. Investors are faced with a common problem in selecting funds according to their investment objective. This study concentrates on the performance evaluation of the sectorial equity mutual funds during the period from 2014 to 2018. For this purpose, 20 schemes have been selected in 5 different sectors (each sector 4 funds). The investment performance has been analyzed with tools like standard deviation, beta, Sharpe, and Treynor ratios. The main aim of this study is to analyze the risk in the performance of the sectorial equity mutual funds. Past performance of mutual funds explains how the fund has performed in the past and accordingly one can expect positive or negative performance in the future as well. The results indicate that overall, all the selected sectorial equity mutual fund schemes have succeeded in providing a fair rate of return to the investors. Using performance parameters like Sharpe and Treynor ratio. Banking sector funds have recorded higher performance associated with high risk and high returns when compared to other sectors. However, there is some substantiation that the two schemes aren't performing below the market.

Keywords: *Mutual Fund, Sectorial, Sharpe's Ratio, Treynor's Ratio, Standard Deviation, Beta Etc.*

1. INTRODUCTION

Different investment avenues are available to investors. Mutual funds also offer good investment opportunities to the investors. Like all investment, they also carry certain risk. The investors should compare the risk and expected yields after adjustment of tax on various instruments while taking investment decisions.

Mutual fund is a mechanism for pooling the resources by issuing units to the investors and investing finds in securities in accordance with objective as disclosed in offer document. Investment in securities is spread across a wide cross section of industries and sectors and thus the risk is reduced. Diversifications reduce the risk because all stocks may not move in same direction in the same

proportion at the same time. Mutual fund issues units to the investors in accordance with quantum of money invested by them. Investors of mutual funds are known as unit holders.

The profit or losses are shared by the investors in proportion to their investment. The mutual funds normally come out with a number of schemes with different objectives which are launched from time to time. A mutual fund is required to be registered with Securities and Exchange Board of India (SEBI) which regulates securities market before it can collects funds from the public.

Statement of the problem

A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities.

Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. But mostly the people are yet to know about the mutual funds. Many researchers have been conducted researches to evaluate performance and perceive investors behavior.

The problem in my study is market is highly volatile. Stock selection is one of the most important characteristics of a fund manager. Hence some investors perceive that portfolio holdings in a particular sector could boost their fund performance and reduce the risk. So there came a need to study about the performance of investment in particular sectors. My study concentrates on analysing and comparing the selected sectors performance over the past 5 years (Jan'2014 – Dec'2018) with certain parameters associated with risk and returns.

Objectives of the Study

- To identify the risk associated with selected equity mutual funds.
- To analyse the performance of selected sectorial equity mutual funds in India.
- To compare the performance of selected sectorial equity mutual funds according to the performance parameters.
- To suggest the best performing equity mutual fund to invest in from the selected sector.

Research Methodology

The present study is descriptive study. The analysis is based on Secondary data collected from various organizational databases, websites, newspapers and other necessary official records, books & magazines. Monthly closing prices have been taken for technical analysis purpose from year 2013 to 2018. Statistical measures like standard deviation, simple moving averages,RSI have been used to find out the conclusion. Besides Tables & Charts are used to present and analyze data. The aim of this research is to know the financial performance of the companies and the industry as a whole. Stock market has been the focus of study for many of the researches and this research based on the secondary data would try and find out the trends prevailing in the automobile industries.

Research Design

The present research is the study of examining the performance of sectoral equity mutual fund schemes offered by various mutual fund houses and analysing those schemes by statistical tools. The schemes taken for this study are sectoral equity mutual fund schemes.

1) Research Methodology

Analytical research is employed in this study. Analytical research is the process which involves the study of analysing a phenomenon based on the secondary data obtained. It is a systematic way to analyze and solve the problem.

2) Method of Data Collection

Data collection is defined as the process of gathering information from the sources in a standardized manner that enables to answer or test hypothesis and evaluate outcomes of the data collected. ***Secondary data*** is used in this study.

Secondary data is the data collected by someone other than the researcher. The data were also collected from various websites of www.bseindia.com, moneycontrol.com, researchvalueonline.com, advisorkhoj.com etc.

Primary Data: The study has been carried out entirely on the basis secondary sources and hence there was no need of primary data to be collected

3) Statistical Tools

- Standard Deviation
- Beat
- Sharpe Ratio
- Treynor Ratio

Scope of The Study

This research "**an analysis of sectoral equity mutual funds**" provides an insight to understand the performance to sectorial mutual funds. This study doesn't concentrate much on the other investment avenues and the research is analysed with the performance of selected mutual funds for the past 5 years. There is also a scope for researching on mutual fund schemes offered by various companies, performance of mutual funds with risk and return, performance evaluation of mutual funds.

Limitations of the study

- The study is restricted one investment avenue (Mutual Funds).
- The study is limited to the selected sectors alone.
- Schemes are selected which have maturity period of more than 5 years.
- There are many mutual fund schemes offered by various companies, which is not possible to compare due to time constrains.

2. LITERATURE REVIEW

(Kavita, 2015) in her study has made the performance evaluation of banking sector funds with risk and return relationships. The study was carried out by selecting 22 schemes those of which that were launched before 2014 and in addition the comparisons were made with the market indices to know whether the funds have outperformed or underperformed. The study were conducted by using returns, beta, standard deviation and risks adjusted returns using Sharpe's and treynor method. The researcher found that all the majority of the schemes yielded positive returns expect few months. The average returns were above the market index. The Sharpe and treynor model revealed that all the schemes underperformed in the year 2014.

(Shukla & Malusare, 2016) evaluated the performance of Indian mutual funds that are invested in overseas securities. The study was analyzed by selecting the top 20 best schemes and was evaluated with the returns. Further the funds were compared with similar funds in US and China. The analysis of the study indicated that the funds invested in emerging market companies fetched good return. The comparison also proved that the Indian mutual funds invested in overseas securities are far better than similar funds in USA and China. However Indian equity mutual funds average is higher than overseas securities. So more awareness regarding investing in overseas securities are needs to help investors in investment decisions.

(Ms. Shilpi Pala & Prof. Arti Chandanib*, 2014) tried to identify the various equity mutual fund schemes under various category and best mutual house in relation to their performance parameters. The study was carried out by selecting top 10 mutual funds schemes according to CRISIL rating. To evaluate the performance parameters the researcher used statistical tool like Standard Deviation, Sharpe Ratio, Beta, and R-Square. The study finds that after comparing all equity mutual funds incurred various expense ratios so that the best was opted out of the selected mutual fund with less expense ratio.

(**Bodla**, **2012**) attempts to determine the investment performance in terms of return and risk through Sharpe, Treynor, Jensen and FAMA model with Benchmark. To have better analysis the study was encompassed to 27 equity mutual funds belonging to 9 mutual funds including both public and private sectors. In order to determine the risk associated with the funds Karl Pearson moment formula has been used. Beta allowed to calculate the systematic risk and to analyze the risk adjusted performance tools like Sharpe ratio, Treynor ratio and Jensen alpha and FAMA have been applied. The study finds that there is no significant difference between funds on average weekly return. The schemes hold portfolio with less risks. And the schemes outperformed according to Sharpe ratio and Treynor ratio.

(**Maheshwari**, **2015**) examined the performance of mutual funds contributing to the Gross Domestic Product in different countries. To show the mutual funds contribution to GDP, the researcher compared the funds with other safer investments like life insurance and registered pensions. The study found that mutual funds are the best source of investment emerging in terms of variety, flexibility, diversification, liquidity as well as tax benefits. It was also found that mutual fund companies have performed well. There lacks proper selection of mutual funds. With proper selection the investors can gain from it.

(Bilal Ahmad Pandow & Khurshid Ahmad Butt, 2017) analyses the growth and development of mutual funds and challenges in it. Mutual fund is at growth since its inception. Due to the risk associated with the funds the investors asks for continuous evaluation so the fund manager's performance is also associated with it. 40 schemes were taken into account for evaluation. To know the performance of the funds excess return, risk adjusted return, Sharpe ratio, Treynor ratio, Beta and standard deviations were calculated. The study found that performance of the funds is based on the fund managers and they are solely responsible for the growth of the industry. Majority of the schemes are regular income and looking at AMU composition if the fund managers utilize their potential fully their might be higher growth in GDP.

(Ayaluru, 2016) studies about the performance of selected reliance mutual funds based on risk and return model and measures. The study covered the 10 open ended equity mutual fund schemes of reliance mutual funds. The result led us that all the schemes were consistent enough and outperformed and these schemes were also showed positive alpha with their benchmark. Sharpe and treynor ratio evaluated the risk adjusted performance identified the high value fund which contain high systematic risk.

(Kandpal & Kavidayal, 2014) took an initiative to identify the performance of selected equity diversified schemes with a view to analyze the impact during investors decision making. To compare and analyze sharpe, treynor and Jensen ratio and industries average performance, 18 mutual fund schemes was selected and researcher identifies that the country like India with large potential and opportunities in size and scope tend to deliver their performance low. In spite of the size of the fund there is no relation to its performance, because small sized funds are better than large size funds and some large size funds out performed. Private sectors funds perform well than the public sector funds and investment with longer period would benefit the investor with higher return than risk free return.

(Goel & Sweta, 2013) made attempts to evaluate the performance of mutual funds in India and investment perception of Indian individual investors towards the mutual funds and savings. To give the evaluation the study choose open ended funds that were launched before March 2006 nearly 119 schemes were selected. Investors perceive that insurance are tax savable than mutual funds and there found significant difference in parameters for investment options. Load fee and expense ratio have been found as the major cause of inefficiency in mutual fund schemes and funds with large size didn't perform efficiently. Still there is need for education investors on investing in mutual funds. Mutual fund companies should perform well in order to get a positive judgment from investors.

(Mamta, Ojha, & Chandra, 2017) focused on the performance of the selected equity mutual funds I India. Mutual fund industry have grow and brought returns to the investors. Mutual fund is a potential place for investment. But small investors face a common threat that they are not able to diversify so that they can hedge their investment. Mutual funds offer a safe place to diversify the saving and the funds are professionally managed by the pool managers. The study analyses the top 5 equity diversified mutual fund schemes over a period of 50 months and uses Sharpe and Treynor model for analyzing the performance. The performance showed that the diversified fund schemes have superior returns and some funds are less risky than the market portfolio.

3. ANALYSIS AND INTERPRETATION FINDINGS

Risk

Banking Sector Funds

- Investors who wish to take a higher risk for higher returns can choose Aditya Birla Sun Life Banking & Financial Services Fund.
- If the Investors is with a moderate risk profile and interested in normal returns can choose ICICI Prudential Banking & Financial Services Fund / UTI Banking & Financial Services Fund.
- Similarly if the Investor is with a low risk profile and ready to accept normal returns can opt for Reliance Banking Fund.
- As the beta value of Reliance banking fund is considered as 1, this Portfolio returns have same responsiveness or risk as market whereas the beta value of all other funds are greater than 1 indicating that the portfolio returns are more risky than market returns.

Infra Sector Funds

- Investors who wish to take a higher risk for higher returns can choose HDFC Infrastructure Fund.
- If the Investors is with a moderate risk profile and interested in normal returns can choose DSP
- T.I.G.E.R Fund / L & T Infrastructure Fund.
- Similarly if the Investor is with a low risk profile and ready to accept normal returns can opt for Franklin Build India Fund.
- As the beta value of HDFC Infrastructure Fund is greater than 1, this Portfolio return is more risky than market returns. All the other three funds beta value is considered as 1 indicating that they have same responsiveness or risk as market.

Pharma Sector Funds

- Investors who wish to take a higher risk for higher returns can choose TATA India Pharma & Healthcare Fund.
- If the Investors is with a moderate risk profile and interested in normal returns can choose SBI Healthcare Opportunities Fund / UTI Healthcare Fund.
- Similarly if the Investor is with a low risk profile and ready to accept normal returns can opt for Reliance Pharma Fund.
- As the beta value of all the 4 pharma funds are considered as 1, so their portfolio returns have same responsiveness or risk as market

IT Sector Funds

- Investors who wish to take a higher risk for higher returns can choose Aditya Birla Sun Life Digital India Fund.
- If the Investors is with a moderate risk profile and interested in normal returns can choose SBI Technology Opportunities Fund / ICICI Prudential Technology Fund.
- Similarly if the Investor is with a low risk profile and ready to accept normal returns can opt for Franklin India Technology Fund.

- As the beta value of all the 4 information technology funds are considered as 1, so their portfolio returns have same responsiveness or risk as market

Consumer Durables Sector Funds

- Investors who wish to take a higher risk for higher returns can choose SBI Consumption Opportunities Fund.
- If the Investors is with a moderate risk profile and interested in normal returns can choose Reliance Consumption Fund / Aditya Birla Sun Life India GenNext Fund.
- Similarly if the Investor is with a low risk profile and ready to accept normal returns can opt for MIRAE Asset Great Consumer Fund.
- As the beta value of all the 4 consumer durables funds are considered as 1, so their portfolio returns have same responsiveness or risk as market

4. PERFORMANCE

Banking Sector Funds

If we compare the Sharpe ratios with the benchmark, we can clearly observe that all the 4 selected sectorial equity mutual funds in banking sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming.

If we compare the Treynor ratios with the benchmark, we can clearly observe that all the 4 selected sectorial equity mutual funds in banking sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming.

Infra Sector Funds

If we compare the Sharpe ratios with the benchmark, we can clearly observe that all the 4 selected sectorial equity mutual funds in infra sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming.

If we compare the Treynor ratios with the benchmark, we can clearly observe that all the 4 selected sectorial equity mutual funds in infra sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming.

Pharma Sector Funds

If we compare the Sharpe ratios with the benchmark, we can clearly observe that 2 selected sectorial equity mutual funds in pharma sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming. And 2 selected sectorial equity mutual funds in pharma sector have underperformed the market indicating lower returns than the market.

If we compare the Treynor ratios with the benchmark, we can clearly observe that 3 selected sectorial equity mutual funds in pharma sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming. And 1 selected sectorial equity mutual funds in pharma sector have underperformed the market indicating lower returns than the market.

IT Sector Funds

If we compare the Sharpe ratios with the benchmark, we can clearly observe that all the 4 selected sectorial equity mutual funds in IT sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming.

If we compare the Treynor ratios with the benchmark, we can clearly observe that all the 4 selected sectorial equity mutual funds in IT sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming.

Consumer Durables Sector Funds

If we compare the Sharpe ratios with the benchmark, we can clearly observe that all the 4 selected sectorial equity mutual funds in consumer durables sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming.

If we compare the Treynor ratios with the benchmark, we can clearly observe that all the 4 selected sectorial equity mutual funds in consumer durables sector have outperformed the market and have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming.

Comparison

- The average value of the standard deviation of selected sectorial equity mutual funds interpret that the banking sector funds have the high risk.
- The average value of the standard deviation of selected sectorial equity mutual funds interpret that the pharma / consumer durables sector funds have the moderate risk.
- The average value of the standard deviation of selected sectorial equity mutual funds interpret that the IT sector funds have the low risk.
- The average value of the beta of selected sectorial equity mutual funds interpret that the banking sector funds are the most risky funds since beta value > 1 in terms of systematic returns.
- The average value of the beta of selected sectorial equity mutual funds interpret that the remaining 4 sector funds have the same risk as market since the beta = 1 in systematic returns.
- The average values of Sharpe ratio of selected sectorial equity mutual funds interpret that the banking sector funds has higher sharpe value proving its better performance over other sectorial equity mutual funds.
- The average values of Treynor ratio of selected sectorial equity mutual funds interpret that the banking sector funds has higher sharpe value proving its better performance over any other sectorial equity mutual funds in terms of systematic risk.

5. SUGGESTION

The present study has made an analysis on selected sectorial equity mutual fund schemes using the risk adjusted performance measures and by analyzing the risk return relationship.

❖ Investors who wish to take high risk can choose banking sector funds because of its high standard deviation and beta value.

❖ Investors who wish to take moderate risk can choose pharma sector funds because of its high standard deviation and beta value.

❖ Investors who wish to take low risk can choose technology sector funds because of its high standard deviation and beta value.

❖ The majority 90% of the funds in the sectors have outperformed when compared to the benchmark, so the portfolios have better risk adjusted excess returns highlighting the fact that banking sector funds are likely to reward the investors more for the extra risk they are assuming.

❖ During 2014 to 2018, pharma sectors funds incurred low returns by taking moderate risk. So it is advisable to restructure the portfolios and policy makers and governing bodies might abolish the schemes giving poor performance since a long period

❖ Technology sector funds and pharma sector funds performances should be improved by taking corrective measures to improve their performance.

❖ Investors can invest their funds in infra sector funds the performance (Sharpe and Treynor ratios) have outperformed well and are constantly maintain their returns.

6. CONCLUSION

In India, today a common investor is generally confused regarding his (or her) choice of investing in mutual funds due to innumerable schemes available in the market. There has been a tremendous growth in the mutual fund industry in India, attracting large investments not only from the domestic investments but also from the foreign investors. Increasing number of Asset based Management Companies providing opportunity to the investors in the form of safety, hedging and arbitrage. With the growing middle-class household families with limited risk bearing capacity, it provides better returns than any other long-term securities. India's high rate of savings and a rapid- liberalizing economy is expected to elevate the mutual fund sector to new hikes.

Since the study was conducted over 60 month period, the findings of the study have to be taken with little caution. However, in order to generalize the results of this study a comprehensive study encompassing a large and wide spectrum of mutual fund plans may be initiated to resolve many of the issues that had been dodging the Indian Mutual fund industry in the last five years.

The study has compared the performance of selected sectorial equity mutual fund schemes. This study provides some insights on mutual fund performance so as to assist the common investors in taking the rational investment decisions for allocating their resources in correct mutual fund scheme. The data employed in the study consisted of monthly NAVs for the open-ended schemes for the period of 5 years (2014 to 2018). The study utilized benchmark portfolios according to the scheme objective such as BSE Sensex, for all growth/equity schemes. The performance of sample mutual fund schemes has been evaluated in terms of return and risk analysis, and risk adjusted performance measures such as Sharpe ratio and Treynor ratio. Most of the funds have shown higher and superior returns and few have shown inferior returns. In terms of standard deviation, the selected schemes are risky than the market.

The study clearly brings out the fact in terms of performance that the most of the sectorial funds (18 out of 20, approximately 90%) are better in yielding superior returns when compared to market risk free return and in terms of risk 19 out of 20 (approximately 95%) have positive returns.

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