A STUDY ON RISK AND RETURN ANALYSIS OF SELECTED EQUITY MUTUAL FUNDS IN INDIA

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INTRODUCTION

The mutual fund is one of the financial services offer professional fund management services for small investors in consideration some fees and commission. Mutual Fund refers to a small isolated collection of poured diversified portfolio of stocks, bonds and other securities. Mutual Funds provide individuals with a convenient and accessible way to invest in a wide range of assets without having to directly manage a portfolio to them. The mutual funds schemes comprises of equity, debt, hybrid and specific. The SEBI is regulatory of mutual fund companies in India. Before, the investment in mutual includes investor should consider return expectation, risk tolerance, and investment horizon. There are different parameters to consider for fund selection including expense ratio, past performance, fund manager experience, and assets under management. The mutual fund industry is very significant in terms of risk management, diversification, professional management, liquidity, and convenience and effective regulative framework. In India the journey of mutual fund was started since 1963 with first mutual fund scheme UTI-63 launched by Unit trust of India by GOI. Thereafter, slow growth was observed due to limited players, low awareness, lack of variety products till 1990. Therefore, as part of economic reforms, mutual industry liberalized and open for private players. Since ever, industry started tremendous growth and now 45 AMC are in operation. The total AUM under the industry reached to Rs 61,33,227 Cr.

REVIEW OF LITERATURE:

Ishwar Sharma at all (2023)1 examined how Mutual funds are considered as the best investment option because company offer a higher return with little risk. The study's main aim is to evaluate the performance of selected large and small cap equity mutual fund schemes. The performance has been analysed in terms of return and risk using risk-adjusted performance measures. The present study is descriptive and secondary data has been collected from the website of BSE, NSE and Mutual funds. The analysis shows that “HDFC Top 100 Fund - Growth Option - Direct Plan” is top large cap mutual funds scheme and “Tata Small Cap Fund-Direct Plan-Growth” is top small cap mutual funds scheme among the selected funds as per Sharpe, Treynor and Jenson ratio.

Saurabh Kumar (2023)2 researched on Mutual Funds - Future Of Mutual Funds In Indian Market, This research paper provides an overview of the mutual fund industry in India, including its various aspects such as history, growth, types, advantages, and challenges. The mutual fund industry has experienced significant growth in recent years. Over a period of time it has been equipped with a diverse range of products and professional management. However, the industry faces many challenges such as lack of awareness, regulatory changes, market volatility, and lack of transparency. The paper concludes that the mutual fund professional or companies need to address these challenges and work towards increasing investor awareness and confidence to sustain the growth of the industry in the long term particularly in India.

Amitabha Maheshwari (2022)03 at all investigated on Literature Review Analysis And Study On Current Status Of Mutual Fund Market In India, Mutual funds is playing a vital role in the development of Indian economy as it is acting as the gap between the supply and demand for funds in the market the AUM reached Rs.37.33 trillion as on October 31,2021. In the present study have analysed literature review about Mutual funds in India. This paper is an attempt to understand the investors Priority to invest in mutual funds in India and analysed it from the impact of investors' attitude and perception perspective. Hence, the research analysis consists of tools and techniques used by various researchers to understand the investor's attitude and perception analysis to understand the impact on mutual fund investment decisions. The study of literature review of the survey found that the awareness of the Mutual funds has increase over a period of time.

Govindappa Mani and Gajraj Singh Ahirwar (2021)04 study revealed on the Indian mutual fund's industry, which started its excursion with the foundation of the Unit Trust of India in 1964, has seen unobtrusive development lately. There has been developing both regarding AUM just as the assortment of items advertised. As on December 2015, the investors in India have a choice to look over in excess of 1,000 of mutual funds plans spread across 44 fund houses with a complete AUM estimation of '13.46 lakh crores. The passage of unfamiliar players has prompted the presentation of an assortment of inventive items to suit the developing necessities of Indian investors. The Indian mutual fund's industry was discovered to be overwhelmed by institutional investors.

D.Devarajan and R.Poornima(2018)5s prescribed that Mutual fund offers an opportunity to invest in a diversified fields, professionally manages large number of securities at relatively low cost. Small investors can use it as tool for investing in a well diversified portfolio of equities, bonds and other securities. Investments in each security will split into different section of industries and sectors. So the risk is diversified and reduced. The object of this research work is to know about the Mutual funds, its types and the schemes available to the public

RESEARCH METHODOLOGY:

Need of the Study:

The mutual fund industry is very crucial sector in collection of small savings from the public and investing in diversified manner to generate maximum returns by minimizing the risk. It is fast growing sector in financial services. In the context, the evaluation of mutual funds' performance to find whether it met its promising in delivering returns to the unit holders is essential. In this regard, present study emphasized on the measuring the performance of the selected mutual funds in India by using most appropriate and widely using techniques. This measures risk and return of the selected mutual funds schemes.

OBJECTIVES OF MUTUAL FUNDS:

a To measure the portfolio risk associated with selected mutual fund schemes in India

a To evaluate the portfolio return generated by the selected mutual funds schemes in India

a To assign the ranks to the selected schemes based on their Risk and Return performance

a To provide the suggestions based on the findings

SECONDARY DATA

The presents study used secondary data published in the fact sheet regarding the selected mutual funds schemes. The data is collected from the company websites. The secondary data means data already published in different sources. The primary data is not used in the study. The study period covers 12 months i.e. from April 2022 to March 2023.

SCOPE OF THE STUDY:

a The present study covers the portfolio risk and return aspects of the mutual funds

a The present study examined the performance of large cap, midmarket cap and small market cap mutual funds schemes.

a The study used widely used techniques in assessing the performance of the mutual funds schemes.

a The study covers the one year data

2.6 SELECTED SCHEMES (SAMPLE SIZE)

Table I: Selected Open Ended Large And Small Cap Mutual Funds Schemes

Open ended Large Cap equity Funds		
Mutual Fund	**Mutual Fund Schemes**	**Benchmark Index**
HDFC Mutual Fund	HDFC Top 100 Fund - Growth Option - Regular Plan	NIFTY 100
ICICI Prudential Mutual Fund	ICICI Prudential Bluechip Fund - Direct Plan - Growth	NIFTY 100
Kotak Mahindra Mutual Fund	Kotak Bluechip Fund - Growth - Direct	NIFTY 100
Canara Robeco Mutual Fund	Canara Robeco Blue Chip Equity Fund - Direct Plan - Growth Option	S&P BSE 100
Tata Mutual Fund	Tata Large Cap Fund -Direct Plan	NIFTY 100

Open Ended Mid Cap Equit Fund		
Mutual Fund Name	Mutual Fund Schemes	Benchmark
HDFC Mutual Fund	HDFC Mid-Cap Opportunities Fund	NIFTY 50
ICICI Prudential Fund	ICICI Prudential Mid cap Fund	Nifty Midcap 150 TRI
Kotak Mutual Fund	Kotak Emerging Equity Fund	NIFTY Midcap 150 TRI
Canara Robeco Mutual Fund	Canara Robeco Mid Cap Fund (CRMCF)	S&P BSE 150 Mid Cap Index TRI
Tata Mutual Fund	Tata Mid Cap Growth Fund	Nifty Midcap 150 TRI

Open ended Small Cap equity Funds		
Mutual Fund	Mutual Fund Schemes	Benchmark Index
HDFC Mutual Fund	HDFC Small Cap Fund - Growth Option - Regular Plan	NIFTY 50
ICICI Prudential Mutual Fund	ICICI Prudential Smallcap Fund - Direct Plan - Growth	NIFTY Smallcap 250
Kotak Mahindra Mutual Fund	Kotak-Small Cap Fund - Growth - Direct	NIFTY Smallcap 250
Canara Robeco Mutual Fund	Canara Robeco Small Cap Fund - Direct Plan - Growth Option	NIFTY Smallcap 250
Tata Mutual Fund	Tata Small Cap Fund-Direct Plan Growth	NIFTY Smallcap 250

Source: website of Mutual Funds (www.amfiindia.com)

RESEARCH TOOLS AND TECHNIQUES

The present study used the statistical techniques such as

a ANOVA,
a Standard Deviation,
a Central Tendency
a (Mean, Mode, Median)
a Sharp Index
a Treynor and
a Jensen Index

Description on statistical techniques and performance techniques

1. Sharpe ratio:

Sharpe Ratio (SR) is another significant measure that assesses the return that a fund was created for the risk taken. The risk here is estimated by SD. It is utilized for funds that have a low relationship with the benchmark index. This ratio encourages an investor to know whether it is a sure thing to park money into these funds by taking the quantum of risk. The higher the Sharpe ratio (SR), the better a fund's return to the measure of risk taken. As it were, a mutual fund with a higher SR is better since it suggests that it has created higher returns for each unit of risk that was taken. Unexpectedly, a negative Sharpe ratio demonstrates that a risk-free asset would perform superior to anything the reserve being investigated.

2. Standard deviation:

The total risk (showcase, security-specific and portfolio) of a mutual fund is estimated by Standard Deviation' (SD). In mutual funds, the standard deviation discloses to us how much the return on a fund is going astray from the normal profits based on its historical execution. At the end of the day can be said it assesses the volatility of the fund. The standard deviation of a fund estimates this risk by estimating how much the funds fluctuate in connection to its normal return of a fund over a while. As such, it is a proportion of the consistency of a mutual fund's return. A higher SD number shows that the net asset value(NAV) of the mutual fund is progressively unstable and, it is less secure than a fund with a lower SD.

3. Treynor's Index: (Reward to Variability)

According to this approach, a managed portfolio needs to earn more than risk-free returns. The risk in mutual funds can be measured in terms of "Beta," which indicates systematic risk. This method makes the assumption that a managed portfolio doesn't have nonsystematic risk. Treynor ratio examines the relationship between a fund's excess return over risk-free return and market risk, which is determined by beta. The performance of a portfolio improves with increasing Treynor ratio values.

Treynor Ratio = Rp – Rf/βp, Rp = Return of mutual funds scheme, Rf = Risk free rate of Return, βp= Beta of the mutual funds scheme

4. Jenson's Index (Reward to Risk Ratio):

It is based on the fundamental of CAPM. Jenson's index is calculated by using this formula: "Erp = Rf + βp (Erm – Rf)" Where, Erp = Expected Returns from mutual funds, Rf = Risk Free Rate of Return, Bp = Beta of mutual fund schemes under evaluation, Erm= Return on Market Portfolio (benchmark index of selected mutual fund schemes)

2.7 LIMITATIONS OF THE STUDY:

a The time constraint is one of the major limitations for extensive study.

a The study used traditional techniques but ignored advanced techniques.

a The study is based on secondary data purely and ignored primary data

a The study ignored other financial instruments performance

DATA ANALYSIS & INTERPRETATION

The performance of the portfolio is examined through Sharpe, Treynor and Jenson's ratios has been used to evaluate the performance of selected mutual fund schemes.

A Sharpe's index is founded on the fundamental idea that a mutual fund's performance can be expressed in terms of excess return. The Sharpe Ratio assesses the excess return in relation to risk of the fund (i.e. total risk). This ratio illustrates the relationship between the total portfolio risk, expressed as the standard deviation of the returns, and the excess return over the risk-free return. A Mutual Fund that has a high Sharpe Ratio and a positive value has great risk-adjusted performance, while one that has a low Sharpe Ratio and a negative value has poor performance.

DATA INTERPRETATION:

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Table I demonstrate the Sharp Ratio by Measuring the return portfolio onwards calculation of Risk free and standard deviation, "HDFC Top 100 Fund - Growth Option - Regular Plan" increased returns 6.84% compared to "Tata Large Cap Fund -Direct Plan Growth Option" is giving very returns 17.12% and it is the top leading fund management of the large cap funds. In Mid Cap Fund schemes HDFC is the top most sharp ratio measurement gives 16.40%, and it compared to other fund companies below average returns occurred on ICICI fund scheme. In case of Small cap fund schemes "Tata Small Cap Fund-Direct Plan Growth" is the top 1st rank sharp ratio, 17.12% giving returns in the portfolio, HDFC TOP 100 Fund is giving returns and compared to TATA 10.85 %.

Table II demonstrate the treynor's ratio Tata Large Cap have very high treynor ratio and the other one is HDFC have the second position of the Treynor ratio only these two companies are in positive way other three companies are under down to negative treynor ratio, configuring the treynor ratio companies are has to be observed not well. Based on the above diagram that represents the differences between the small cap funds, here HDFC is the top leading position based treynor 3.40% positively performing other balanced four companies are performing negatively the top negative company is Canara Robeco fund which is -8.01, total five companies are facing risk factors and only one company performing well in the calculation of treynor ratio. Above two tables large cap and small cap funds demonstrated in the chart to understand the relation of the schemes and odd to be noticed calculation of the risk factors, sharp ratio indicates the position to measure the treynor ratio.

As per the above Table III demonstrate the Jenson's calculation in open ended large cap equity funds HDFC and Tata large cap funds are out performed comparing to other mutual funds schemes ICICI, Kotak and Canara Robecco are under performing in their nature. Here Tata expected return portfolio measured in 7.51 and second out performed HDFC 4.12 percentage overall jenson's calculation return portfolio and expected return portfolio are equivalent to the other equity funds. In open ended mid cap equity funds by considering the jenson's calculation HDFC return portfolio is greater than to expected return portfolio in 8.26 which out performed and second out performed equity fund is ICICI equity fund return portfolio is greater than to expected return portfolio is 2.88 percentage and other three category equity funds are under performed by the calculation of jenso's measure.In small cap equity funds jenson's measure calculation HDFC, ICICI and Kotak equity funds are out performed in return portfolio and expected return portfolio giving best returns and have low rate risk and maturity period is safer to the other equity funds like Canara Robecco and Tata mutual equity funds are kept to under performed. From the above diagrams tables are demonstrated in systematic way those tables are shown with return portfolio and expected return portfolio, those two categories are important for the investor and jenson's measures the overall performance to the key investors. It is used to select the best equity fund for the expected returns.

F I N D I N G S - S U G G E S T I O N S - CONCLUSION)

FINDINGS:

As per the study in large cap funds and small cap funds the companies are measured by the calculation of the statistical methods such are sharp ratio, treynor ratio, alpha and jeneson ratio are the used to show the relation of the factors which are to be evaluated in the schemes discrimination. Here the study found that the allocation period of the calculation is showing exact position and trust to invest the public easily. While considering the changes of the overall calculation outperformed companies (in Large and Small Cap) have to focus the risk free and return polio of the sharp ratio.

a The study found that risk free and return portfolios of selected equity schemes of Tata, ICICI, Kotak, Canara Robeco and HDFC by applying the statistical tools of sharp ratio, jenson ratio and treynor's ratios to find the risk free investment on selected mutual funds.

a By comparing the mutual funds schemes in sharp ratio and treynor ratio in open ended large cap Tata direct growth plan is giving best returns and it occupied the first rank by the observation of those statistical tools.

a In mid cap open ended schemes HDFC giving a first rank by comparing to the sharp ratio and jeneson ratio in terms of risk free and expected return portfolio.

a In small cap open ended schemes the study found that HDFC and Tata growth plans are giving high returns and those both were best key risk diversified schemes.

a Overall open ended large cap, mid cap and small cap Tata and HDFC plans are top risk free funds and other kotak, canara and icici plans are medium to high risk free plans and giving very low expected returns to investors.

a The study found that in jeneson ratio large cap, mid cap and small cap, HDFC is out perming the better return portfolio coming to ICICI in mid cap and small cap in large cap it is under performing and the other balanced schemes are out performing only in singular cap's only.

SUGGESTIONS:

a The study found that to suggest the go with HDFC large Cap and Small cap to gain better returns by investing the money the risk is here very easy to attain.

a The study suggest that in large cap, mid cap and small cap Tata company plays vital role in all open ended large cap, mid cap and small cap gives better return and risk is avoided easily by comparing to other company schemes the Tata company out performing mostly.

a The study suggest that investors has to accept the risk nature and maturity period selection is better to select minimum one year plan.

a The study suggest that in mid cap the investors better to invest their money in HDFC and Tata company because of high rank and our performance.

a The study suggests that the low level investors can also invest their money in canara company to avoid the risk.

Conclusion

Generally, mutual funds are considered good investment avenue as it provides higher return with minimum risk. The current study, however, discovers that not all the mutual funds performed well after using statistical tools. All of the chosen mutual fund schemes are producing positive returns, with the exception of “Kotak-Small Cap Fund - Growth – Direct”. As a result of having beta values below one, all of the selected mutual fund schemes are less risky. According to Jenson's measure, two large cap equities fund schemes—"HDFC Top 100 Fund - Growth Option - Direct Plan" and "ICICI Prudential Bluechip Fund - Direct Plan - Growth"— are outperforming mutual fund schemes. These two schemes also have positive Sharpe and Treynor ratios. In addition, the "Kotak Small Cap Fund - Growth - Direct," "Canara Robeco Blue Chip Equity Fund - Direct Plan - Growth Option," and "Tata Large Cap Fund -Direct Plan Growth Option" are underperforming with negative Treynor and Sharpe ratios.

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