

A STUDY ON PERFORMANCE ANALYSIS OF EQUITY ORIENTED MUTUAL FUNDS WITH REFERENCE TO PRUDENT CORPORATE ADVISORY SERVICES IN CHENNAI.

Submitted in partial fulfillment of the requirements for the award of

MASTER OF BUSINESS ADMINISTRATION

by

HARINI.E

Register No.41410114



**DEPARTMENT OF BUSINESS ADMINISTRATION
SCHOOL OF MANAGEMENT STUDIES**

SATHYABAMA

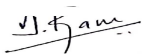
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MAY 2023

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **HARINI.E 41410114** who carried out the project entitled "**A Study on Performance Analysis of Equity oriented Mutual Funds with reference to Prudent Corporate Advisory Services in Chennai**" under my supervision from January 2023 to March 2023.



Dr. J.Rani

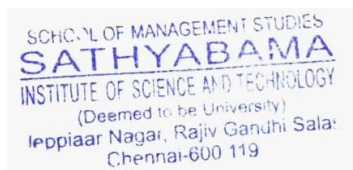
Internal guide



External Guide

Dr. BHUVANESWARI .G

Dean – School of Management Studies



Submitted for Viva voce Examination held on 05/05/2023



Internal Examiner



External Examiner

Ref: PCAS/HR/2223/STC/119

Date 27-March-2023

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Harini E student of Sathyabama Institute of Science And Technology has successfully completed Internship Project with **Prudent Corporate Advisory Services Ltd.** on **"A Study On Performance Analysis Of Equity Oriented Mutual Funds"**. from 02-January-2023 to 27-March-2023.

During her training we found her sincere, hardworking and punctual.

We wish her all the best for her future endeavors.

For, **Prudent Corporate Advisory Services Ltd.**


Authorized Signatory

www.prudentcorporate.com
www.fundzbazar.com

Email: info@prudentcorporate.com
CIN No: U91120GJ2003PLC042458
GST No: 24AADCP1830B2Z3

Registered Office:
Prudent House, Panjarapole Cross Road,
Near Polytechnic, Ambawadi,
Ahmedabad - 380006, Gujarat.
Phone: 079-40209600

Corporate Office:
314, 3rd Floor, Hubtown Solaris, Telli Galli Junction,
N S Phadke Marg, Andheri (East), Mumbai - 400069.
Maharashtra, India.
Phone : 022-42124600

DECLARATION

I **HARINI.E (41410114)** hereby declare that the Project Report entitled “**A Study on Performance Analysis of Equity oriented Mutual Funds with reference to Prudent Corporate Advisory Services in Chennai**” done by me under the guidance of **DR.J.RANI** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

DATE:05/05/2023

PLACE: Chennai

A rectangular box containing a handwritten signature in black ink, which appears to be 'Harini.E'.

HARINI.E

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I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

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ABSTRACT

Mutual fund is the pool of funds raised from the number of investors and further this fund is invested in numerous investment securities. Mutual fund offers the means of creating wealth over the periods of time. This study analyzed the performance analysis of ten equity mutual fund using Standard deviation, Alpha, Beta, Sharpe index, Treynor Index and Jensen's Alpha. In this study, the returns of a sample of equities mutual funds, comprising equity midcap, equity Largecap, equity large and midcap, and equity flexi cap funds, were examined. The returns of equity mutual funds were analyzed for ten years and majority of the equity mutual fund gives the highest returns during the year. The findings suggest that the investors can invest in HDFC Large and Midcap fund, HDFC Flexi cap fund, JM Large cap fund and Quant Midcap fund. The results conclude that the investors can invest in equity mutual fund which gives them a lowest risk and highest returns. Investors will benefit greatly from the outcomes of this research project in making future investing selections. Mutual fund is finest avenue for investment in capital market.

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CHAPTER 1- INTRODUCTION

1.1 Introduction

Mutual Fund is important part of the financial markets. It plays crucial role in the development and growth of the financial market. Mutual fund is the pool of funds raised from the number of investors and further this fund is invested in numerous investment securities such as equity, debt, government securities, money market instruments etc. Mutual fund provides the alternate to the investor to enter into the capital market. Investing through the mutual fund investors can participate in the growth of the economy and create wealth for future needs. Investor gets several advantages while investing in mutual funds like professional management, diversification, tax advantage, objective specific schemes. Therefore investor can invest according to their need, objectives and time horizon. Mutual fund offers the means of creating wealth over the periods of time.

Organizational structure of the mutual fund is three tier structure in which sponsor is at first tier, trust or mutual fund is at second tier and the AMC is at third tier. Mutual fund in India is started with the formation of the Unit Trust of India in 1964. Thereafter mutual fund has passed long journey in which the industry has witnessed several ups and downs. Major change in the mutual fund industry was witnessed after the 1991 economic reforms. And with the advent of the information and communication technology, mutual funds houses penetrated their reach to the investors in terms of size of investment and number of schemes offered.

Investors have different objectives of investing in mutual fund such as diversified portfolio, timing the market, averaging the cost of investing. So mutual funds offered the several schemes that match with the objectives of the investors and with their investment time horizon. Major classification of the mutual funds is in equity segment, debt segment and hybrid segment, sectoral schemes, thematic schemes etc. Equity schemes are the schemes where minimum 65 percent of the total fund is invested in equity or equity oriented securities. In debt schemes major part of the fund is invested in debt or debt oriented schemes whereas in hybrid schemes fund is invested in equity

securities as well as in debt securities in certain proportionate. Sectoral schemes invest fund in some specific sectors like banking, information technology, telecommunication, automobiles etc.

Mutual fund houses issue New Fund Offer (NFO) document to offer the new scheme to the investors. It is similar to the process of offering new shares in the primary market through Initial Public Offers (IPO). Focus of the investor in mutual fund investment is equity related schemes because there is more possibly of higher return in equity schemes in comparison of the other schemes. In all equity related schemes two options are given to the investors' i.e. regular options and direct options. In regular option investors make investment in the equity mutual fund schemes through the distributors whereas in direct options investors make investment directly in the equity schemes. Therefore, there is no involvement of distributors in direct equity schemes investment.

1.2 Industry Profile

The investment fund industry is one of the emerging industries in India. Currently, there are 40 players in the mutual fund company in India. The number of players in public places has decreased from 11 to 5. The public place was gradually demoted to legacy as it caught up with the big wave of the market in proportion to the players in the private land.

The Investment Trusts Association in India is a business entity that promotes the growth of investment trust companies in India. It enforces an experienced and vigorous position in identifying the steps that need to be taken to protect investors and encourage the field of mutual funding.

It is worth noting that the AMFI is not a self-regulatory company and that the hints do not bind the members of the company. By its very nature, AMFI plays the role of advisor or counselor within a mutual price point company. The recommendations emerge as mandatory and most convenient if they are included in the regulatory framework that the Securities and Exchange Board of India (SEBI) has prescribed for mutual budgeting.

Indian mutual fund companies follow a three-tier system as

- Sponsor
- Trust
- Asset Management

Sponsor:

Sponsors are those who are thinking of starting a mutual fund. Sponsors will conduct SEBI routine procedures for market regulators and also mutual fund. Not everyone can start a joint fund. SEBI grants the right to open a joint fund for integrity. This is because the financial quarters and the large spending on the sector and the simple factors they should make are simple factors.

Trust:

Once SEBI is satisfied with the proposed sponsor's credibility and eligibility, the sponsor then agrees to the Indian Trust Act of 1882, and the trust cannot enter into a contract because it has no criminal identity in India. Therefore, the trustee is a legal individual to act on behalf of believing. The contract is in the name of the trustee. Once the trust is created, it is registered with SEBI and is known as general trust fund.

Asset Management:

The trustee appoints AMC, which has been established as a corporation, to manage the cash of the investor. In case of mutual funds, AMC pays for the service instead of this money management. This price must be an investor and is deducted from the money raised by them.

1.2.1. History of Mutual Funds:

The Mutual Fund Industry in India started in 1963 with the formation of Unit Trust of India at the initiative of Government of India and Reserve Bank. The history of mutual funds in India can be broadly divided into four distinct phases:

First phase (1964 - 1987):

Unit Trust of India (UTI) was established on 1963 by an act of parliament. It was setup by the Reserve Bank of India and functioned under the Regulatory and administrative control of the Reserve Bank of India. 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. At the end of 1988 UTI had Rs.6700 crores of Assets under Management.

Second Phase (1987 - 1993)-Entry of Public Sector Funds:

1987 marked the entry of non-UTI public sector mutual funds setup by public sector banks and Life Insurance Corporation of India (LIC) and General Insurance Corporation of India (GIC). SBI Mutual fund was the first non-UTI Mutual Fund established in June 1987 followed by Canbank Mutual Fund (Dec 87), Punjab National Bank Mutual Fund (Aug 89), Indian Bank Mutual Fund (Nov 89), Bank of India (Jun 90), Bank of Baroda Mutual Fund (Oct 92). LIC established its mutual fund in June 1989 while GIC had setup its mutual fund in December 1990. At the end of 1993, the mutual fund industry had assets under management of Rs.47004 crores.

Third phase (1993 - 2003) - Entry of Private sector Funds:

With the entry of private sector funds in 1993, a new era started in the Indian Mutual Fund Industry, giving the Indian investors a wider choice of fund families. Also 1993, was the year in which the first Mutual Fund Regulations came into being, under which all mutual funds, except UTI were to be registered and governed. The erstwhile Kothari Pioneer was the first private sector mutual fund registered in July 1993.

The 1993 SEBI (mutual fund) regulations were substituted by a more comprehensive and revised Mutual Fund Regulations in 1996. The industry now functions under the SEBI (Mutual Fund) Regulations 1996.

Fourth phase (February 2003 – 2014)

UTI was bifurcated into 2 separate entities. The specified undertaking of the Unit Trust of India, representing the assets of US 64 schemes, assured returns and certain others and the UTI mutual fund, sponsored by SBI, PNB, BOB and LIC. The industry also

witnessed several mergers and acquisition of schemes of alliance mutual fund by Birla Sun Life, Sun F&C mutual fund and PNB mutual fund by Principal mutual fund.

Fifth phase since May 2014:

Since May 2014, the industry has witness a steady inflow and increased in AUM as well as number of investor accounts.

The industry AUM has crossed a mile stone of Rs.10 trillion for the every first time as on May 2014 and in a short span of about three years the AUM size had increased more than two folds and crossed Rs.20 trillion for the first time in August 2017. The AUM size crossed Rs.30 trillion for the every first time in November 2020.

The overall size of Indian mutual fund industry has been grown Rs7.31 trillion as on 31 may 2011 to Rs33.06 trillion as on 31 may 2021, more than 4 and ½ fold increase in a span of 10 years.

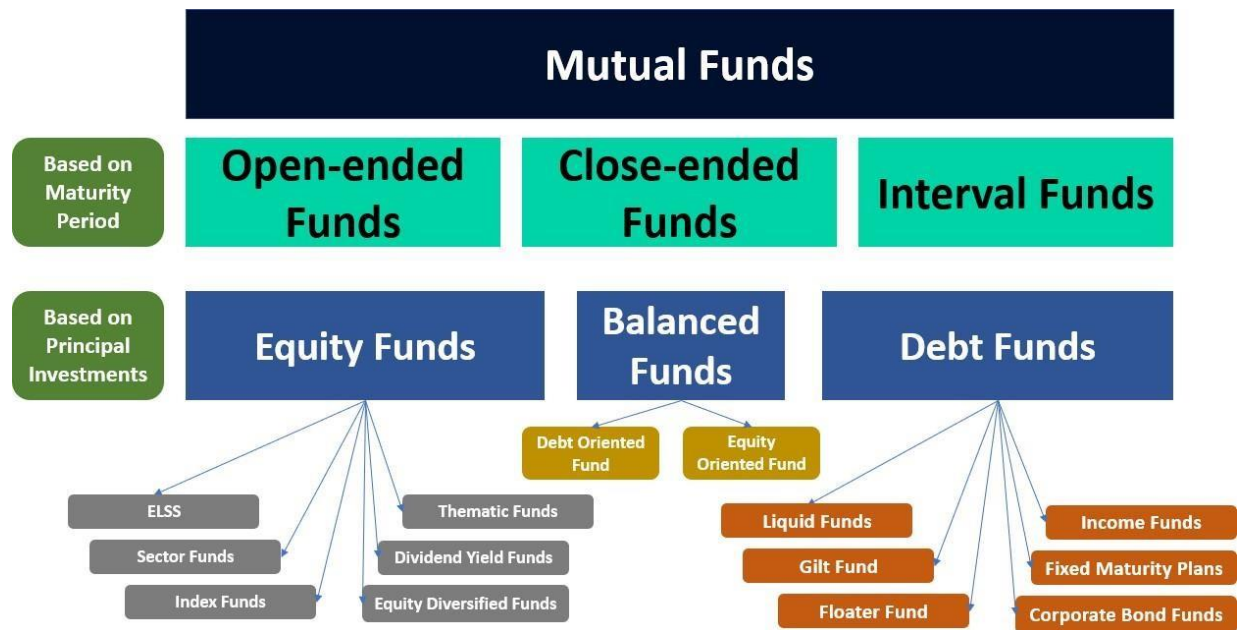
The number of investors' folios has gone up from 4.84crore folios as on 31 may 2016 to 10.04crore as on 31may 2021 more than 2 fold increase in span of 5 years.

On an average 8.66 lakh new folios are added every month in the last 5 years since May 2016.

The growth size of the industry has been possible because of the twin effect of the regulatory measures taken by SEBI in re-energising the mutual fund industry and the support from mutual fund distributors is expanding the retail base.

Mutual fund distributors have also had a major role in popularizing Systematic Investment Plan (SIP) over the years 2016 the number of SIP account has crossed 1 crore mark as on 31 may 2021 the number of SIP amount are 3.88 crore.

1.2.2. Classification of Mutual Fund



1.3 Company Profile

Being a flagship company, Prudent Corporate Advisory Services Ltd remains the primary arm of the company group. It offers specialized services in the area of personal and corporate investment planning through distribution of Mutual Funds, Bonds and Third party products.

In addition to having a large pool of its own clients, prudent also manages geographically diverse business operations through an exclusive platform for Independent Financial Advisors (IFA). Prudent provides the advisors with latest training and consultation, technology, operations, back-office and support for sales and marketing. Prudent distributes its product to 7,37,000+ retail investors through its network of 14000+ IFA's. Retail strength of prudent is exemplified by more than 21000+ AUM and a ranking of 3 in India in number of transactions.

Over the last decade, prudent has consistently grown faster than the industry and ambition now is to attain the leadership position in the retail segment. Prudent strives to

achieve this through continued collaboration and enhancements of robust IFA platform while preserving the cohesive and humble organizational culture that drives the competitive edge.

The Indian Asset Management Industry's AUM has grown at a compounded annual growth rate (CAGR) of 18% over the last 10 years. As of end of March 2018, the industry had a total AUM of approximately \$338 billion. Furthermore, according to AMFI, the industry's AUM is expected to grow at a 23% CAGR for the next 5 years and reach \$936 billion by 2023. Due to growing investor awareness and increasing mutual fund penetration, the Indian Asset Management space will experience significant long-term growth.

1.3.1 Product Profile:

Products:

The products offered by Prudent Corporate Advisory Services are as follows:

- Real Estate
- Insurance
- Mutual Funds
- Equities, Derivatives & Commodities
- Fixed Income products
- Third party products

Services:

The services offered by Prudent Corporate Advisory Services are:

- Fundz Bazar - Quick, Hassle free, Secure and online mutual fund investment platform
- Prudent empower - provides training to their channel partners and creates financial awareness among investors
- Pruit - A team of IT professionals focusing on security of information, integrity of data and accuracy of real-time reports

1.3.2. Vision:

To be the most preferred group in Financial Services catering to masses with the help of technology.

1.3.3. Mission:

To build a strong organization based on our core values of

- ❖ Client First
- ❖ Focused Approach
- ❖ Fairness
- ❖ Dignity and Respect for each Stakeholder
- ❖ Teamwork
- ❖ Integrity & Honesty

1.4 Objectives of the study

1.4.1. Primary objective:

1. To study a performance analysis of Equity oriented Mutual Fund.

1.4.2. Secondary objective:

1. To study and analyze risk-return relationship.
2. To evaluate the performance of selected equity mutual funds by using the portfolio performance evaluation models.
3. To analyze 10 equity mutual funds and ranked on the basis of high risk and return.
4. To know which equity scheme has given highest return during the year.

1.5 Need for the study:

The main purpose of doing this project was to know about mutual fund and its functioning. This helps to know in details about mutual fund industry right from its starting stage, growth and future prospectus. The study contains of 10 selected large cap, small cap, midcap and multi cap equity mutual fund schemes launched by the mutual fund house. It also helps in understanding different schemes of equity mutual funds because my study depends upon important funds and their schemes like equity,

income as well as risk and returns associated with other schemes. The project study was done to ascertain asset allocation, performance models like Sharpe, treynor and Jensen alpha.

CHAPTER 2 - REVIEW OF LITERATURE

2.1 Review of literature:

Patel, M.,Madhavan, V.,Gupta, S.D.,Kumar, S. March 2023 In this study, we evaluate the **performance of Indian fixed-income mutual funds** using a comprehensive sample over a ten-year period from April 2010 to March 2020. We examine performance persistence of 190 fixed income funds across 16 fund categories and analyze investment style of the most persistent and top performing funds. We assess performance persistence using recursive portfolio formation test, and analyze investment style using Sharpe's (1992) asset class factor model supplemented with Lobosco and di Bartolomeo (1997) approach for statistical robustness. We also study the correlation between performance persistence and style consistency and find persistent funds to be less consistent in style. Our findings indicate that a substantial proportion (73%) of the funds considered were under-performers. Our results pertaining to style analysis indicate substantial drift in investment style from regulator-mandated investment objectives. Further, the study nudges regulators to revisit the prevailing practice of fund classification based on Macaulay's duration. In light of the growing prominence of Indian fixed income securities, the findings of this study are all the more pertinent to investors, asset management companies and policy makers.

Minnis, M. University of Chicago Booth School of Business, United States. November 2022 one of the most significant capital market developments over the last two decades has been the growth of private capital markets—markets that raise capital outside of publicly traded venues and can face substantially less mandated public financial reporting. Understanding the causes and consequences of the relative growth of private capital markets is a first order research question. As private capital markets have grown, interest in regulating and researching private markets has increased. Research that is informative about the costs and benefits of regulating private capital markets should be in high demand. Kim and Olbert (2022, KO hereafter) dive into this

arena to ask whether additional private firm disclosure affects public capital markets. KO find that as private firms disclose more financial statement information, the public equity holdings of mutual funds and ETFs decline. KO infers from their findings that increased private company disclosure results in negative pecuniary externalities for public companies. In this paper, I discuss KO's intriguing findings and suggest areas where research can build off and sharpen the inferences of this paper. In particular, future work can validate KO's measure of private company disclosure and consider the causal mechanism for investment in private firms.

Islam, M.A. Department of Finance, University of Dhaka, November 2021, “Investor sentiment in the equity market and investments in corporate-bond funds” This study explores the relation between investor sentiment in equity market and investments in corporate-bond funds. Investors tend to move into and out of corporate-bond funds when contemporaneous sentiment in equity market differs from the historical average. Specifically, a one-standard-deviation decrease in equity-market sentiment generates 0.1% and 0.4% inflows for active and index funds, respectively. It reflects the time-varying flight-to-safety behavior of investors. Besides, funds with low exposure to equity-market sentiment appear to attract inflows and funds with high exposure to equity-market sentiment experience outflows, indicating that investors are likely to avoid sentiment risk. Moreover, the result shows that funds with the highest negative sentiment exposure significantly outperform the funds with the highest positive sentiment exposure by 2.22%– 2.52% per annum. The results are robust to using alternative sentiment metrics and considering different sub periods.

Shivam Tripathi, Dr. Gurudutta P. Japee, March 2020 conducted research on **“Performance Evaluation of Selected Equity Mutual Funds in India”** The objective of the study to know whether mutual funds give reward to changeability and unpredictability and also identify security market return with fund return. The data are secondary data is

Gathered from different sources like factsheets of different AMC's and historical NAV and yearly return. The statistical tools Jensen's alpha, beta, standard deviation and Sharpe ratio. The performance analysis of the selected 15 equity funds and clearly identified that the 10 funds are performed well and 5 are not during the study. The findings of the study the volatility in the market are changes in the performance of the various stocks.

Anuja Magdum, March 2019 Conducted research on “**A Comparative study on Mutual Fund Schemes of Selected AMC's in India**”. The objective of this research is that to provide better returns for the schemes promised by AMC's and compare the mutual fund schemes of selected public and private sector AMC's in India. The data collected for the study is to consider the 5 years and for comparison 4 AMC's with each other. For a risk free return fixed deposit rate are used and the data are collected from the yahoo finance, AMFI website and value research website. The methodology used in this research is beta and CAGR. The study has investigated the performance of equity based MF schemes in India and the private sector can better performed compare to the public sector.

Anil Kumar Goyal, June 2018 Conducted research on “**A comparative study of return of selected mutual fund schemes with nifty50**”. The objective of the study is to compare average long run mutual fund of each selected company and also compare with the nifty50 with mutual fund. Research methodology is based on secondary data of NAVs and nifty50 collected online for the period of one year. The nifty50 price was collected from yahoo finance. Findings for this study is the selected schemes is compared with the monthly average of long return of benchmark nifty50 and find that SBI is better in terms of volatility and returns.

Dr M.Ravichandran May 2017 Conducted research on “**A study on performance evaluation mutual fund schemes in India**”. The objective of the research to identify the performance of open ended equity mutual fund schemes and measure the

performance and analysis the risk and return of their performance and also evaluate the future investment regarding open ended equity scheme. The collection of data is on systematic basis for analysis. The data are collected from various sources from the association of mutual fund India, BSE India etc. the tools and techniques for analysis is used in this study is Sharpe ratio, Treynor ratio, Jensen ratio, beta and standard deviation. The finding of this study is investigating the performance result useful for investors for taking better investment decisions.

R. Kumar Gandhi, March 2016 Conducted research on “**Performance of Selected Bank Mutual Fund Schemes Impact in Investors Decision Making**”. The objective of the research is to analyze the performance of any mutual fund schemes in the selected banks and study the performance with the different parameters. The sampling methods are using the convenience sampling and the sample size taken 4 schemes from public and private bank for 1 year. The tools for measuring by the standard deviation, beta, alpha, Treynor and Sharpe ratio. Return for last one year are comparison for data analysis. The findings are that the Canara Robeco equity tax saver schemes are performed very well.

Dr. Shriprakash Soni, April, 2015 Conducted research on “**Comparative Analysis of Mutual Fund Schemes available Kotak Mutual Fund and HDFC Mutual Fund**”. The objective of the study is to analyze and compare the performance of different mutual fund schemes and also know the factor and those affect the mutual fund and find out the best scheme available for investors by comparing their performance. The research are using with secondary data and using convenience sampling and time period of study is 5 years. The tools and techniques are used in research in standard deviation, Sharpe ratio, beta, alpha and R-square. Findings of the study is the companies are offering similar types of schemes available for sectors and taking amount of risk, so they provide close returns with minimum fluctuation.

Ms. Shilpi Pal, 2014 Conducted research on “**A Critical Analysis of Selected Mutual Funds in India**”. The objective of the study is to study the performance of top 10 equity mutual fund schemes in various categories and also compare the equity mutual fund. The research methodology is collecting the structural process of conducting the research. The tools for measuring by the standard deviation, beta, alpha, Treynor and Sharpe ratio. Return for last one year are comparison for data analysis. The sampling has been done on the basis of CRISIL rating. The study was found out that the midcap opportunity for invest in the mutual fund having the better return.

Badrivishal, 2013 Conducted research on “**A study on Mutual Fund with Due Reference to „SBI Mutual Funds**”. The objective of this project is to study about behavior of the investors for preferring mutual funds and understand the risk and return of the various schemes and also the productive avenue to invest in contrast to laxity of bank investing. Then after their research design and also the nominal and interval scale are using for data analysis. There are 50 respondents in which investors and non-investors are there. This can be collected both primary and secondary sources. The finding of this project is the highest number of investor come from salaried class and their 6% invest of their annual income in mutual fund.

Dr. Sarita Bhal, July 2012 Conducted research on “**A Comparative Analysis of Mutual Fund Schemes in India**”. The objective of the study to examine the performance of selected schemes on the basis of risk and return and compare the performance of selected schemes with benchmark index to see the schemes is outperforming and underperforming the benchmark. The research methodology is to select random basis and monthly NAV of different schemes have been used for this study for the period of five years. In this study the secondary data are used and the calculation done through standard deviation, beta, alpha and also consider the market risk. The data are measured by the Sharpe, Jensen and Treynor ratios. For the research study the all schemes are provide the positive returns.

Deepika Sharma, May, 2011 Conducted research on “**Comparative study of Selected Equity diversified Mutual Fund Schemes**”. The main objective of this study is to compare and analyze the equity diversified mutual fund schemes of selected mutual fund players. The data are collected through the 3 criteria in which a) corpus size > 500 crore, b) Returns of 5 years, c) top 8 schemes on the basis of 5 years compounded annualized returns. The tools and techniques used in study is standard deviation, Sharpe ratio to measures volatility of returns. The samples are selected on the basis of returns of last one month, six months, one year, three year and five year. The performance evaluated through the alpha, beta, SD, r square, expenses ratio. The analysis on the basis of returns over period if the time. Findings of the study is that in short run HDFC manages to be a number one in terms of returns and in long run reliance number one position in terms of returns of last five years.

Rathnamani V and Nandhini R, 2010 conducted research paper “**A Study on the Performance of Equity Mutual Funds (With special reference to equity large cap and mid-cap mutual funds)**” studies the use of statistical tools like standard deviation, Beta, Alpha, Sharpe ratio etc. to analysis the performance of mutual fund schemes. In the study, it showed that there was an increase in the NAV of the selected large & mid-cap mutual funds because of the upward movement in the stock market. Among the selected large cap mutual funds, SBI Blue Chip mutual fund performance well and among the selected mid-cap mutual funds Franklin India Smaller Companies performance well. The performance of both the fund was based on the ratios used.

“Price Earnings Ratio Predict future falls of Stock price?” University of Economics in Prague 31 August Marian Vorek Does high 2009 “This paper examines the approach of value investing and its further possibilities for forecast of stock performance, especially in link with falls in stock prices. The research revealed that the investments into stocks with low price to earnings ratio achieved higher than average returns. Based on the above of mentioned methodology and the outcomes of

empirical studies, this paper focuses on the other side of that relation, whether the high price to earnings ratio predicts the future falls in stock prices and whether the price to earnings ratio could act as an indicator of the coming bear market”.

**Patari, Eero,”Comparative Analysis of Total Risk-Based Performance Measures”,
The Journal of Risk, year: Summer 2008** “Methods of portfolio performance measurement in which the evaluation of risk is based on total risk are compared in this paper from both theoretical and empirical viewpoints. Both full-scale and partial-scale process of dispersion is used as risk surrogates. A new approach for quantifying downside risk allowing for differences in investor’s risk receiving and the correspondence performance ratio are also recommended. The empirical experiments demonstrate that investment risk includes different dimensions that cannot necessarily be captured with a sole risk surrogate, and moreover, that these dimensions have impact also on the estimate of relative performance”.

Denis O. Boudreaux, S. P. Uma Rao, Lafayette Dan Ward, Suzanne War 2007:
This study examines the annual risk-adjusted returns using Sharpe’s Index for ten portfolios of international mutual funds for the period September 2000 through September 2006. The international funds were analyzed by combining the funds into individual portfolios based on sector, geographics and company size. The benchmarks for comparison were the U.S. mutual fund performance reported by Morning Star. The risk-adjusted returns were then determined and compared to each other and to the U.S. market. During this period, nine out of ten of the international mutual fund portfolios outperformed the U.S. market. The portfolio that contained all International Mutual Funds (IMF) significantly outperformed on a risk-adjusted basis the fund that was made up of all of the U.S. stock mutual funds, (All U.S. Stock Funds- USSF). Additionally, the Foreign Small Value (FSV) portfolio, Foreign Small Growth (FSG) portfolio, Emerging Markets (EM) portfolio, Latin America (LA) portfolio, and the Pacific Asia without Japan (PA-J) portfolio all had average annual returns (not adjusted for risk) that exceeded USMF’s returns by more than 10 percent.

Tarja, Joro, Paul Na, “Portfolio performance evaluation in a mean–variance–skewness framework”, 2006

Astronomical amounts of money are being invested in financial markets. Consequently the evaluation of portfolio performance has created a great deal of interest among practitioners as well as academic researchers. The literature suggests that portfolio efficiency based on mean–variance–skewness is more desirable than the one based on mean–variance. However, there are no well-established procedures to measure efficiency in this framework, mainly due to the computational difficulties. The aim of this paper is to develop a portfolio performance measure based on mean–variance–skewness framework by utilizing a non-parametric efficiency analysis tool, namely ‘Data Envelopment Analysis’.

Christopher S. Jones, Jay Shanken, “Mutual fund performance with learning across funds” 2005

The average level and cross-sectional variability of fund alphas are estimated from a large sample of mutual funds. This information is incorporated, along with the usual regression estimate of alpha, in a (roughly) precision-weighted average measure of individual fund performance. Substantial “learning across funds” is documented, with significant effects on investment decisions. In a Bayesian framework, this form of learning is inconsistent with the assumption, made in the past literature, of prior independence across funds. Independence can be viewed as an extreme scenario in which the true cross-sectional distribution of alphas is presumed to be known a priori.

Ooi, Joseph T L; Kim-Hiang Liow, “Risk-Adjusted Performance of Real Estate Stocks: Evidence from Developing Markets”, The Journal of Real Estate Research, 2004

“This paper examines the performance of real estate stocks listed in seven developing markets in East Asia between 1992 and 2002. Using panel regressions, the goal is to classify determinants of the risk-adjusted returns of real estate securities traded in these markets. The empirical facts suggests that size, book-to-market value, capital structure and market diversification have important influence on the performance

of real estate securities. Asset structure and development exposure, however, do not come out to have any significant effect on the returns behaviour, while dividend yield has limited control. As expected, interest rates and market condition have significant impact on the returns of real estate stocks. The Asian Financial Crisis also has an adverse impact on stocks' performance.”

Amitabh Gupta, 2003 examines the performance of select mutual funds by using performance measures — rate of return, Sharpe Ratio, Treynor Ratio, Jenson Differential Return Measure and Fama’s Components of Investment Performance. The study uses weekly NAV data for 73 mutual fund schemes from April 1, 1994 to March 31, 1999. It is observed that the sample schemes were not adequately diversified. The empirical result indicates a mixed performance of sample schemes. The study found that performance of some private sector funds was superior but there was no conclusive evidence to suggest that performance of mutual funds was better than the relevant benchmark and the risk and return characteristics of schemes were not in conformity with their stated objectives.

Guoqiang Wang, “Performance evaluation: An econometric survey” 2002, Mutual fund performance measures are typically based on statistics of past performance. Measures that attempt to take risk into account incorporate a measure of historical return and a measure of historical volatility or loss. Although there is ample evidence that past performance measures are highly imperfect predictors of expected future return, both practitioners, and academics are inclined to adopt the assumption that statistics from historical frequency distributions are reliable predictors of corresponding statistics from a probability distribution of future returns, that is, portfolio returns should follow a stationary distribution. Moreover, performance evaluation is a data-oriented and intensive exercise. In the early days, fund returns were the only input of the performance evaluation models. Now, a full set of fund characteristics is also available, such as its portfolio holding, tenure, management fee, and trading frequency. There has been some work on incorporating all this fund information to determine fund

performance, by using different data mining techniques such as decision tree and meta-analysis.

Dilip Kumar Patro, “Measuring performance of international closed-end funds” 2001, This paper provides an empirical analysis of the performance of 45 international closed-end funds and compares alternate measures of performance using the sample of funds and 35 national market indices. The empirical evidence indicates that the risk-adjusted performance of the shares or the net asset values of the funds match the performance of their respective local market indices, as well as the world market index and do not exhibit superior timing ability. These findings are robust to conditioning on information.

Michael K. Berkowitz, Yehuda Kotowitz, “Investor risk evaluation in the determination of management incentives in the mutual fund industry” 2000, This paper examines the way in which investors evaluate risk in deciding which mutual funds to invest. New fund investment is found to be positively related to a distributed lag of past fund performance with a strong degree of inertia. The relationship is mostly linear with significant nonlinearities at the upper (and possibly the lower) end of the performance spectrum. Investors appear to use publicly available data in a way that is consistent with the theory, giving equal weight in their decisions to the return and market risk components of the performance measure, while ignoring diversifiable risk. Finally, it is shown that improved performance in any year has a significant impact on the earnings of the management company. Because managers are rewarded on the basis of risk adjusted returns, risk neutral managers have no incentive to manipulate risk, except at very high performance levels.

Thomas H Payne, Laurie Prather, William Bertin, “Value Creation and Determinants of Equity Fund Performance” 1999, This study investigates performance-related factors across major equity fund classifications. The results indicate that risk- and fee-adjusted returns are generally enhanced by managerial tenure and fund size. Fund longevity is positively and significantly associated with the adjusted returns of growth funds. However, value is diminished, by higher fees that do not yield commensurate returns. Similarly, sales loads do not generally add value to investors. In addition, funds with higher minimum purchase levels do not seem to generate efficiency or gains for their investors.

Gupta and Sehgal, 1997 evaluated **mutual fund performance** over a four year period, 1992-96. The sample consisted of 80 mutual fund schemes. They concluded that mutual fund industry performed well during the period of study. The performance was evaluated in terms of benchmark comparison, performance from one period to the next and their risk-return characteristics.

John G. Gallo, Peggy E. Swanson, “Comparative measures of performance for U.S.-based international equity mutual funds” 1996, This paper compares an international two-index model to an International Arbitrage Pricing Theory (IAPT) two-factor model to evaluate the performance of 37 U.S.-based international mutual funds over the 1985–1993 period. Results from the index model confirm prior research that international funds perform as well as the market proxy. In contrast, the IAPT model implies superior investment performance by the international funds. Moreover, the two models produce different relative performance rankings. Inter temporal comparisons of the models indicate that the multifactor IAPT model better reflects the international equity return-generating process.

Youguo Liang, Sanjay Ramchander and Jandhyala L. Sharma, “The Performance of Stocks Professional versus Dartboard Picks Behaviour Finance”, 1995. “This

paper evaluates the performance of a portfolio formed on proficient advice (also called pros picks) with another portfolio picked at random (also called random or dart picks). We study public announcements of professionals' recommendations and random picks from the Investment Dartboard column in the Wall Street Journal. Results propose that the pros selection statistically outperforms the random collection only in the one-week period. More than a six-month holding period, the random stocks perform better than the pros recommendations. A publicity effect is discerned from the pros recommendation, which gives support to an ethical risk problem encountered by investment professionals. The results are also constant with the literature on clamour and overreaction".

Shafiqur Rahman, "Relative mean-variance efficiency of a given portfolio: An application to mutual fund performance", 1994, This study uses two performance measures based on mean-variance efficiency to evaluate the performance of managed portfolios. They do not require the specification of the market portfolio and the risk-free rate. As a result, the measurement error attendant in the proxy is resolved. Our empirical results show that for the test period, approximately half of the sampled funds performed better than a naive buy-and-hold strategy based on these measures. When compared to other measures, results indicate that only these measures are independent of their risk proxy and as such are unbiased measures of investment performance.

Larry R. Lang, Robert M. Niendorf, "Performance and risk exposure of international mutual funds" 1992, This study examined whether internationally diversified mutual funds increase a U.S. investor's risk-adjusted return above that on a domestic benchmark mutual fund. Average returns on about one-half of the international funds exceeded the domestic benchmark fund's return. The risk-adjusted returns on the international mutual funds were not significantly different from that on the domestic benchmark fund. These results differ from earlier studies which generally found superior returns on international mutual funds. The benefits for the U.S. investor of holding an internationally diversified mutual fund appear to be limited for the period studied.

Robert T. Kleiman, Anandi P. Sahu, “Life insurance companies as investment managers: New implications for consumers”, 1991, This paper examines the attractiveness of the equity portfolios of life insurance companies as an alternative investment to mutual funds. In particular, this study analyzes the risk-adjusted investment performance of the stock portfolios of life insurance companies, attributable to their stock selection and market timing abilities. Using conventional measures of risk-adjusted portfolio performance, we find that life insurance companies exhibit performance similar to mutual funds. The evidence suggests that the life insurance companies, like their mutual fund counterparts, fail to exhibit differential stock selection or market timing abilities that are statistically significant. While the risk-adjusted investment performance of the two investment vehicles is similar, the variable annuity contracts of life insurance companies may offer an edge over mutual funds due to their ability to defer taxes.

Robert R. Grauer, Nils H. Hakansson, Frederick C. Shen, “Industry rotation in the U.S. stock market: 1934–1986 returns on passive, semi-passive, and active strategies”, 1990, This paper compares the returns to three distinct sets of approaches to industry rotation in the U.S. stock market: passive, semi-passive, and active. Using the 12-industry breakdown of Breeden, Gibbons, and Litzenberger (1989), the passive strategies are based on the up- and down-levered value-weighted industry indices and the semi-passive strategies are similarly constructed from the equal-weighted industry indices. The active strategies are based on multi period investment theory and the empirical probability assessment approach applied to past realized returns. The semi-passive and active strategies performed well in both the full 1934–1986 period and in the 1966–1986 sub period, achieving statistically significant excess returns in several instances.

Grinblatt and Titman, 1989 have evaluated that portfolio performance has attracted a great deal of interest in mutual funds in the academic world. A variety of valuation

techniques have been proposed to implement the ability of a professional portfolio manager to generate anomalous returns. In this survey they found negative performance or no performance for the average mutual fund.

Haslem, 1988 evaluated **fund performance by comparing the fund return** with the return on market portfolio with the comparable risk. The fund's systemic risk, beta coefficient, is used to compare portfolio risk relative to the market risk. 'Beta' is a measure of risk of the fund's portfolio relative to the risk of the market portfolio.

Chang, et al., 1984 tested **stock selectivity abilities and market timing abilities** of 67 mutual funds over a performance period January 1971 to December 1979. They used parametric statistical tool to test the presence of either of the two skills in these mutual funds. They concluded that the fund managers are unable to outperform a passive investment strategy.

Jain 1982, evaluated **performance of Unit Trust of India (UTI)** during 1964-65 to 1979-80, including the profitability aspects of Unit Scheme 1964, Unit Scheme 1971 and Unit Scheme 1976. He concluded that its real rate of return have been low indicating overall poor performance of UTI schemes. There has been no significant increase in the profitability over the years.

John McDonald 1974 studied the **relationship between the mutual fund goal and its risk-reward profile**. The survey concluded that, on average, fund managers appear to keep their portfolios within established risks. The risk of a group of funds with the highest mutual fund risk is higher than the fund with the highest risk of mutual funds.

Eugene Fama, 1972 developed a methodology for **evaluating investment performance of managed portfolios**. In this paper he breaks down performance into two dimensions namely 'selectivity' — ability to pick the best stocks of given level of risk and 'timing' ability to predict general price movement of the market. He uses single period evaluation schemes to work on these new dimensions of performance.

Carlsen, 1970 evaluated the **risk adjusted performance** and emphasized that the conclusions drawn from calculations of return depend on the time period, type of fund and the choice of benchmark. Carlsen essentially recalculated the Jensen and Sharpe results using annual data for 82 common stock funds over the 1948-67 periods. He evaluated the predictive value of past results in forecasting future performance. His results contradicted both Sharpe and Jensen.

Jensen Michael, 1968 developed a **composite portfolio evaluation technique concerning risk-adjusted returns**. He evaluated the ability of 115 fund managers in selecting securities during the period 1945-66. Analysis of net returns indicated that, 39 funds had above average returns, while 76 funds yielded abnormally poor returns. Using gross returns, 48 funds showed above average results and 67 funds below average results. Jensen concluded that, there was very little evidence that funds were able to perform significantly better than expected as fund managers were not able to forecast securities price movements.

Sharpe, William F. 1966 suggested a measure for the **evaluation of portfolio performance**. Sharpe was among the earliest to use the CAPM to assess mutual funds performance. He assumed that expected return $E(R_P)$ of a fund and its risk are linearly related. Sharpe found that funds underperformed the Dow Jones index by 40 basis points. Further better performing funds had lower expense ratios. Sharpe examined the performance of 34 open end funds for the period 1954-1963 in the US. The results of his study concluded that good performance was associated with low expense ratio and not with the size. Sample schemes showed consistency in risk measure.

Jack treynor, 1965 A methodology **for assessing the performance of mutual funds** has been developed, **known as the volatility indicator**. This is defined as the average excess return on portfolio income. Next up is Sharpe, which rewards the volatility indicator, which is the average excess return of the mutual fund portfolio.

CHAPTER 3 - RESEARCH METHODOLOGY

3.1 METHODOLOGY:

This study made an attempt to analyze the performance of the selected equity mutual fund schemes with the market return during the period of the study. In order to achieve the objectives an analysis has been made to compare these selected equity schemes with the market on the basis of risk and return. Different statistical and financial tools are used to evaluate the performance of these selected mutual fund schemes under this study.

3.2 RESEARCH DESIGN:

Descriptive Research Design was adopted by the research or for the purpose of collecting and analysis of data in manner that aimed to combine relevant data along with economic infrastructure and time in mind. It was conceptual structure within which research conducted, collected, measured and analyzed.

3.3 SOURCES OF DATA:

The data used for the research purpose is Secondary data. Secondary data were collected from various websites like fact sheets, Fundz bazar, money control etc.

3.4 PERIOD OF STUDY:

The duration of study is from January 2023 to March 2023 which is three months of study.

3.5 TOOLS FOR ANALYSIS:

- Sharpe performance measure
- Treynor performance measure
- Jensen performance measure
- Return analysis

CHAPTER 4 - DATA ANALYSIS AND INTERPRETATION

4.1 SHARPE PERFORMANCE MEASURE:

Sharpe Performance Measure: The Sharpe ratio, named after its founder, the Nobel Laureate William Sharpe, is a measure of risk adjusted returns. It is calculated using standard deviation and excess return to determine reward per unit of risk.

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

Where R_p = Return on fund
 R_f = Risk free rate of return
 σ_p = Standard deviation of fund
 S = Sharpe performance measure

Table 4.1.1 Equity Midcap Fund

Scheme Name	Standard Deviation	Sharpe Ratio
Motilal Oswal Midcap Fund - Growth	21.93	0.68
Quant Mid Cap Fund - Growth	22.08	1.06
Kotak Emerging Equity Fund - Growth	19.03	0.71
HDFC Mid-Cap Opportunities Fund - Growth	20.33	0.76
SBI Magnum Midcap Fund - Regular Plan - Growth	19.61	0.82
Nippon India Growth Fund - Growth	20.34	0.71
PGIM India Midcap Opportunities Fund - Growth	21.2	1.03
Taurus Discovery (Midcap) Fund - Growth	20.66	0.59
ICICI Prudential MidCap Fund - Growth	21.11	0.63
Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth	19.99	0.65

Source: Secondary data

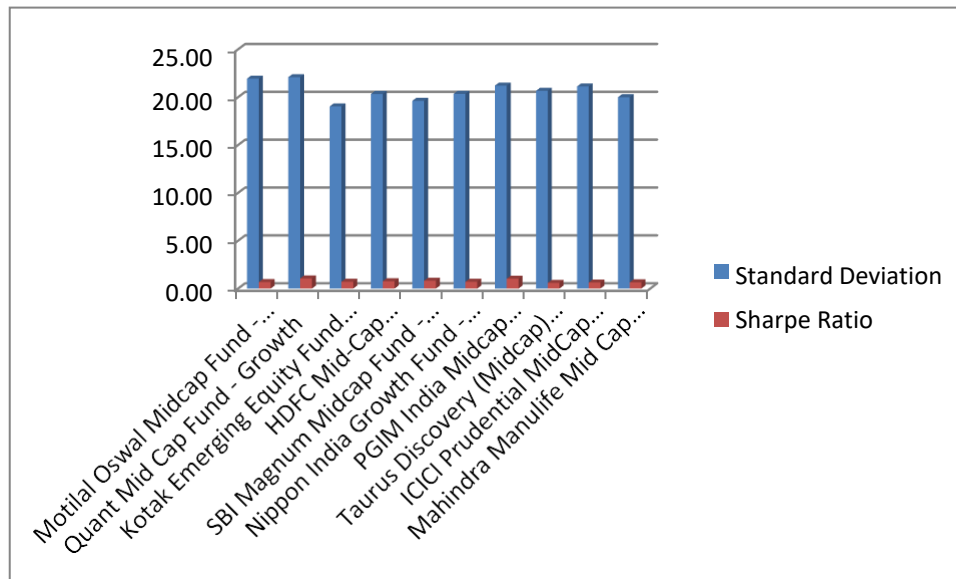


Chart 4.1.1 Equity Midcap fund

Interpretation

From the above table it shows the standard deviation and Sharpe ratio of various equity midcap mutual funds. The standard deviation indicates the volatility or risk associated with the funds returns. Higher standard deviation indicates higher volatility, and indicates higher risk. In this case, the Quant mid-cap fund has the highest standard deviation of 22.08 indicating the higher risk, while Kotak emerging equity fund has the lowest standard deviation of 19.03, indicating lower risk.

The Sharpe ratio measures the risk adjusted returns of the fund i.e., it shows how much return the fund generates for each unit of risk taken. A higher Sharpe ratio indicates a better risk-adjusted return. In this case the Quant midcap fund has the highest Sharpe ratio of 1.06, indicating better risk-adjusted returns, while Taurus Discovery Midcap fund has the lowest Sharpe ratio of 0.59, indicating lower risk-adjusted returns.

Table 4.1.2 ranking on the basis of Sharpe performance measure

Scheme Name	Sharpe Ratio	Ranking
Motilal Oswal Midcap Fund - Growth	0.68	6
Quant Mid Cap Fund - Growth	1.06	1
Kotak Emerging Equity Fund - Growth	0.71	5
HDFC Mid-Cap Opportunities Fund - Growth	0.76	4
SBI Magnum Midcap Fund - Regular Plan - Growth	0.82	3
Nippon India Growth Fund - Growth	0.71	5
PGIM India Midcap Opportunities Fund - Growth	1.03	2
Taurus Discovery (Midcap) Fund - Growth	0.59	9
ICICI Prudential MidCap Fund - Growth	0.63	8
Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth	0.65	7

Source: Secondary data

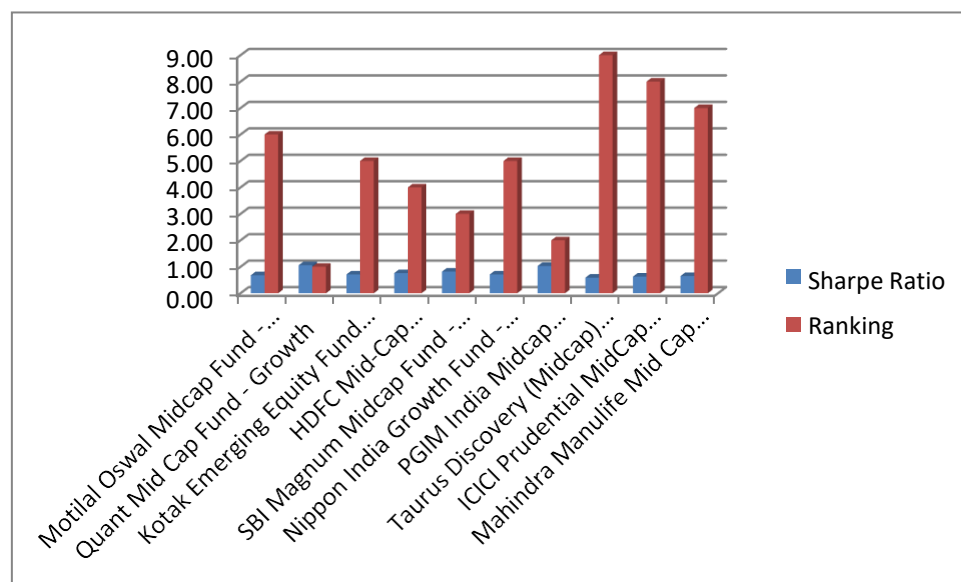


Chart 4.1.2 ranking on the basis of Sharpe performance measure

Interpretation

From the above table it is interpreted that Quant mid-cap fund – Growth has the highest Sharpe ratio of 1.06 and is ranked first indicating that it has generated the best risk-adjusted returns among the equity mid-cap funds. The PGIM India Mid cap Opportunities fund - Growth has the second-highest Sharpe ratio of 1.03 and is ranked second. The SBI Magnum Mid cap fund – Regular plan – Growth has a Sharpe ratio of 0.82 and is ranked third, followed by HDFC Mid cap Opportunities Fund – Growth with a Sharpe ratio of 0.76 and a rank of fourth. The Kotak Emerging Equity fund – Growth and Nippon India Growth Fund – Growth have the same Sharpe ratio of 0.71 and are ranked fifth. The Motilal Oswal Midcap Fund – Growth, Mahindra Manulife Mid cap Unnati Yojana – Regular plan – Growth, and ICICI Prudential Mid cap fund – Growth have Sharpe ratios ranging from 0.68 to 0.63 and are ranked from sixth to eighth respectively. The Taurus Discovery Mid cap fund – Growth has the lowest Sharpe ratio of 0.59 and is ranked ninth, indicating that it has generated the poorest risk-adjusted returns among the Equity Mid cap funds.

Table 4.1.3 Equity Largecap Fund

Scheme Name	Standard Deviation	Sharpe Ratio
ICICI Prudential Blue-chip Fund - Growth	20.86	0.5
HDFC Top 100 Fund - Growth	21.92	0.46
Nippon India Large Cap Fund - Growth	22.22	0.46
JM Large Cap Fund - Growth	14.54	0.55
SBI Blue Chip Fund - Regular Plan - Growth	21.45	0.44
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth	21	0.43
Tata Large Cap Fund - Regular Plan - Growth	21.98	0.39

IDBI India Top 100 Equity Fund - Growth	21.19	0.47
Taurus Largecap Equity Fund - Growth	21.28	0.25
Kotak Blue-chip Fund - Growth	21.11	0.43

Source: Secondary data

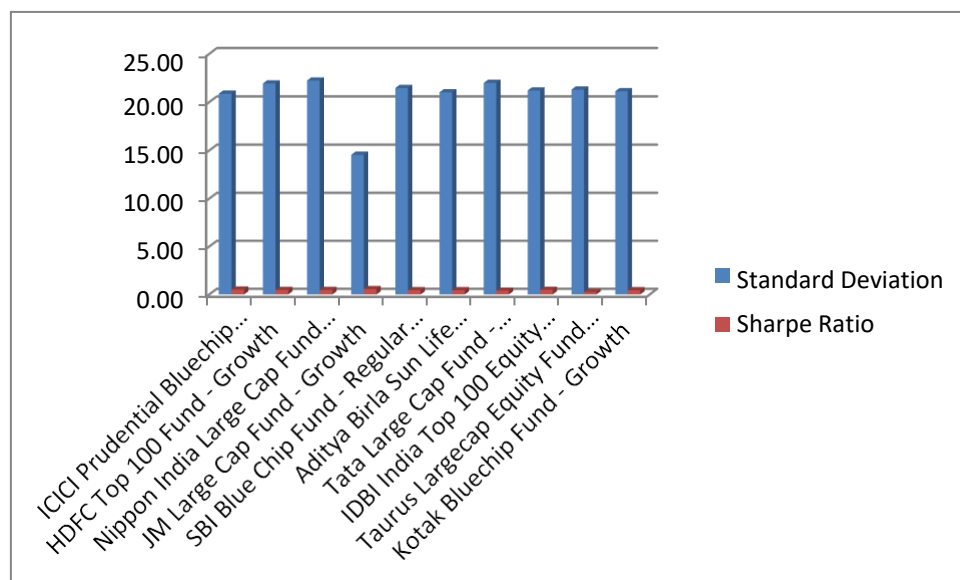


Chart 4.1.3 Equity Large cap Fund

Interpretation

From the above table it is interpreted that JM Large cap fund has the lowest standard deviation of 14.54, indicating lower volatility or risk compared to the other funds. Nippon India Large cap fund has the highest standard deviation of 22.22, indicating higher volatility or risk compared to other funds. The Sharpe ratios for all the funds are in the range of 0.25 to 0.55, with JM Large cap fund having the highest Sharpe ratio of 0.55, and Taurus Large cap Equity fund having the lowest Sharpe ratio of 0.25. The Sharpe ratios for HDFC Top 100 Fund, Nippon India Large cap Fund, SBI Blue-chip Fund and IDBI India Top 100 Equity fund are relatively similar, indicating comparable risk-adjusted returns. Taurus Large cap Equity fund has the lowest Sharpe ratio indicating that it has lower returns relative to the risk taken.

Table 4.1.4 ranking on the basis of Sharpe performance measure

Scheme Name	Sharpe Ratio	Ranking
ICICI Prudential Blue-chip Fund - Growth	0.5	2
HDFC Top 100 Fund - Growth	0.46	4
Nippon India Large Cap Fund - Growth	0.46	4
JM Large Cap Fund - Growth	0.55	1
SBI Blue Chip Fund - Regular Plan - Growth	0.44	5
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth	0.43	6
Tata Large Cap Fund - Regular Plan - Growth	0.39	7
IDBI India Top 100 Equity Fund - Growth	0.47	3
Taurus Largecap Equity Fund - Growth	0.25	8
Kotak Blue-chip Fund - Growth	0.43	6

Source: Secondary data

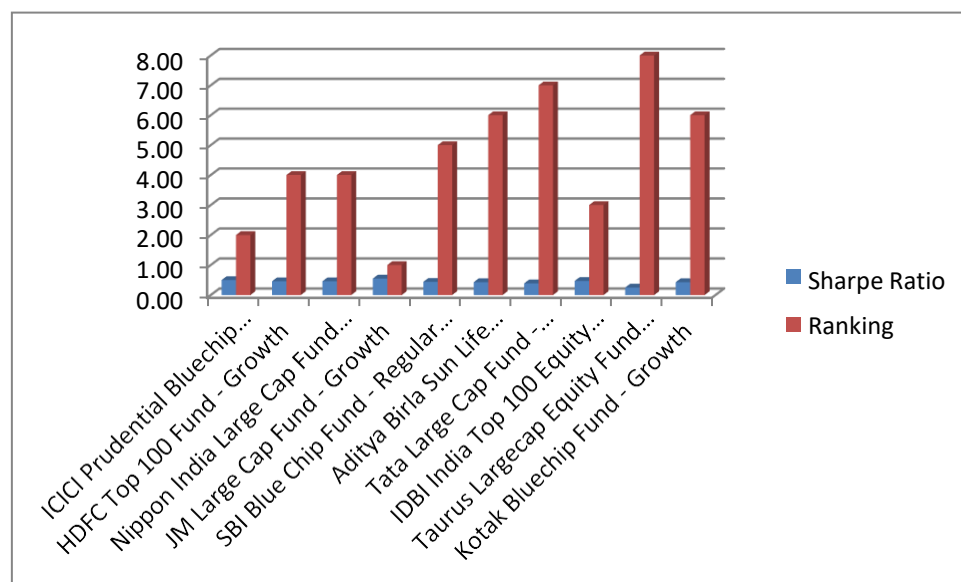


Chart 4.1.4 ranking on the basis of Sharpe performance measure

Interpretation

From the above table it is interpreted that the Sharpe ratio and ranking of various large cap equity mutual funds. The Sharpe ratio is a measure of risk-adjusted returns, which takes into account the level of risk involved in generating returns. The JM Large cap fund – Growth has the highest Sharpe ratio of 0.55, making it the top ranked fund in terms of risk-adjusted returns. The ICICI Prudential Blue-chip Fund – Growth and IDBI India Top 100 Equity fund – Growth have the second and third highest Sharpe ratios, respectively. The Taurus Large cap Equity Fund – Growth has the lowest Sharpe ratio of 0.25, indicating that it has generated lower returns compared to the level of risk taken. Investors should note that past performance does not guarantee future returns and it is important to evaluate the overall track record and investment strategy of a mutual fund before making any investment decisions.

Table 4.1.5 Equity Large and Midcap Fund

Scheme Name	Standard Deviation	Sharpe Ratio
ICICI Prudential Large & Mid Cap Fund- Growth	20.88	0.67
SBI Large & Midcap Fund - Regular Plan - Growth	19.25	0.61
Mahindra Manulife Top 250 Nivesh Yojana - Regular Plan - Growth	20.3	0.62
HDFC Large and Mid-Cap Fund - Regular - Growth	21.99	0.62
Tata Large & Mid Cap Fund - Regular Plan - Growth	19.61	0.53
Union Large and Mid-Cap Fund - Regular Plan - Growth	20.35	0.51
Quant Large and Mid-Cap Fund - Growth	21.98	0.76
Kotak Equity Opportunities Fund - Growth	19.46	0.5
IDFC Core Equity Fund - Regular Plan - Growth	20.94	0.5
Nippon India Vision Fund - Growth	21.43	0.44

Source: Secondary data

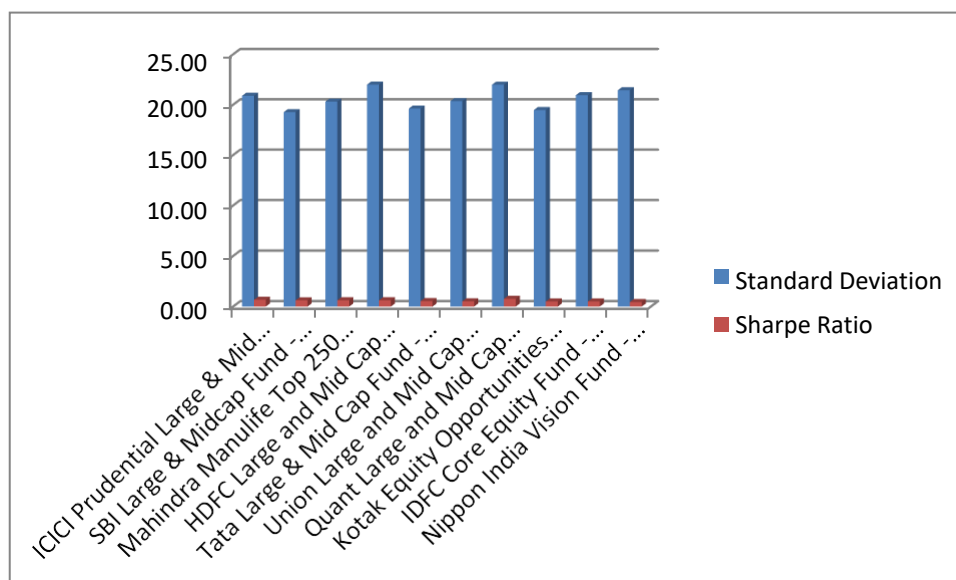


Chart 4.1.5 Equity Large and Midcap Fund

Interpretation

From the above table it is interpreted that the Quant Large and Midcap Fund has the highest Sharpe ratio of 0.76, indicating that better risk-adjusted performance compared to other schemes. It also has a high standard deviation of 21.98, indicating higher volatility. HDFC Large and Midcap fund, ICICI Large and Midcap fund, Mahindra Manulife Top 250 Nivesh Yojana, and IDFC core equity fund have similar Sharpe ratios of around 0.62, indicating similar risk-adjusted performance. Among these, HDFC Large and Midcap Fund has the highest standard deviation, indicating higher volatility. SBI Large and Midcap fund, Union Large and Midcap fund, and Tata large and Midcap fund have Sharpe ratios ranging from 0.51 to 0.61 indicating lower risk-adjusted performance compared to the above mentioned schemes. Among these, SBI Large and Midcap Fund has the lowest standard deviation, indicating lower volatility. Kotak Equities Opportunities Fund and Nippon India Vision Fund have the lowest Sharpe ratios of 0.5 and 0.44, respectively indicating poorer risk-adjusted performance compared to other schemes. Nippon India Vision Fund has the highest standard deviation among all the schemes, indicating higher volatility.

Table 4.1.6 ranking on the basis of Sharpe performance measure

Scheme Name	Sharpe Ratio	Ranking
ICICI Prudential Large & Mid Cap Fund- Growth	0.67	2
SBI Large & Midcap Fund - Regular Plan - Growth	0.61	4
Mahindra Manulife Top 250 Nivesh Yojana - Regular Plan - Growth	0.62	3
HDFC Large and Mid-Cap Fund - Regular - Growth	0.62	3
Tata Large & Mid Cap Fund - Regular Plan - Growth	0.53	5
Union Large and Mid-Cap Fund - Regular Plan - Growth	0.51	6
Quant Large and Mid-Cap Fund - Growth	0.76	1
Kotak Equity Opportunities Fund - Growth	0.5	7
IDFC Core Equity Fund - Regular Plan - Growth	0.5	7
Nippon India Vision Fund - Growth	0.44	8

Source: Secondary data

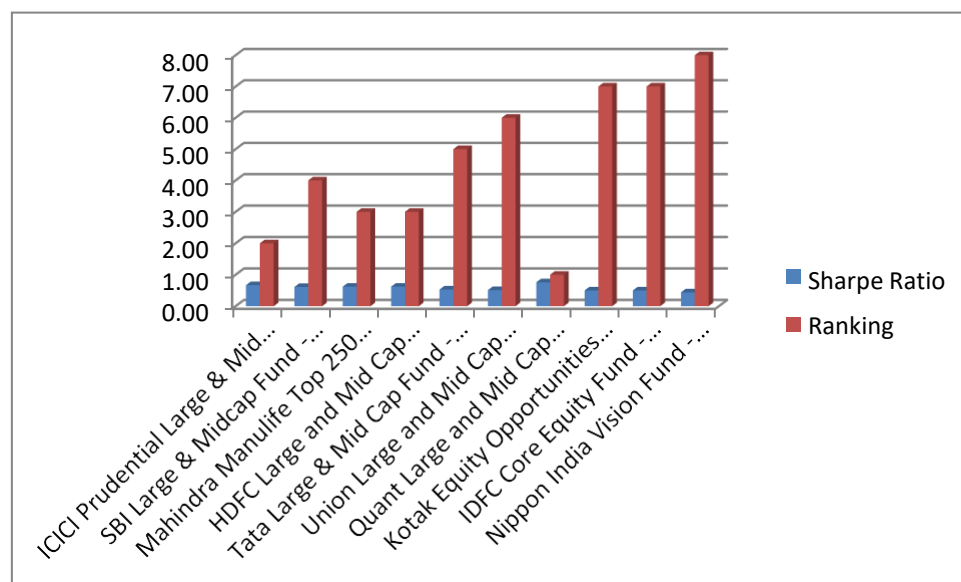


Chart 4.1.6 ranking on the basis of Sharpe performance measure

Interpretation

From the above table it is interpreted that the Quant Large and Midcap fund has the highest Sharpe ratio of 0.76, making it the best-performing fund in terms of risk-adjusted return. The ICICI Prudential Large and Midcap fund comes in second with a Sharpe ratio of 0.67. The remaining funds are ranked from third to eighth, with Sharpe ratios ranging from 0.62 to 0.44. It is important to note that while a higher Sharpe ratio is generally better, investors should consider other factors such as the fund's investment objective, performance history and fees before making any investment decisions.

Table 4.1.7 Equity Flexi cap Fund

Scheme Name	Standard Deviation	Sharpe Ratio
HDFC Flexi Cap Fund - Growth	22.37	0.63
JM Flexi Cap Fund - Growth	21.79	0.48
Franklin India Flexi Cap Fund - Growth	21.48	0.58
IDBI Flexi Cap Fund - Regular Plan - Growth	19.51	0.46
Union Flexi Cap Fund - Growth	20.3	0.52
Edelweiss Flexi Cap Fund - Regular Plan - Growth	20.66	0.44
Taurus Flexi Cap Fund - Growth	21.1	0.25
Kotak Flexi Cap Fund - Growth	21.23	0.35
IDFC Flexi Cap Fund - Regular Plan - Growth	19.86	0.27
SBI Flexi Cap Fund - Regular Plan - Growth	19.81	0.39

Source: Secondary data

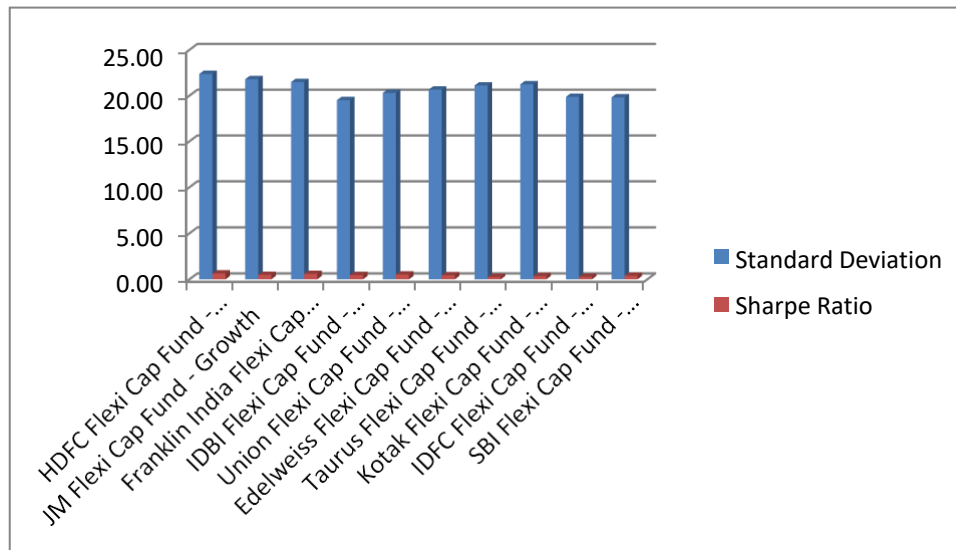


Chart 4.1.7 Equity Flexi cap Fund

Interpretation

From the above table it is interpreted that HDFC Flexi Cap Fund has the highest Sharpe ratio of 0.63, indicating that it has delivered higher returns for the risk taken. However, it also has the highest standard deviation of 22.37, suggesting that it has been the most volatile among the funds considered. JM Flexi Cap Fund, Franklin India Flexi Cap Fund, Union Flexi Cap Fund, and Kotak Flexi Cap Fund also have Sharpe ratios above 0.5, indicating good risk-adjusted performance. However, all of these funds also have standard deviations above 20, indicating significant volatility. Taurus Flexi Cap Fund has the lowest Sharpe ratio of 0.25, suggesting lower returns for the risk taken. It also has a standard deviation of 21.1, which is relatively high. Investors should consider their risk tolerance and investment goals before selecting a fund from this list, and may want to consult with a financial advisor for personalized advice.

Table 4.1.8 ranking on the basis of Sharpe performance measure

Scheme Name	Sharpe Ratio	Ranking
HDFC Flexi Cap Fund - Growth	0.63	1
JM Flexi Cap Fund - Growth	0.48	4
Franklin India Flexi Cap Fund - Growth	0.58	2
IDBI Flexi Cap Fund - Regular Plan - Growth	0.46	5
Union Flexi Cap Fund - Growth	0.52	3
Edelweiss Flexi Cap Fund - Regular Plan - Growth	0.44	6
Taurus Flexi Cap Fund - Growth	0.25	10
Kotak Flexi Cap Fund - Growth	0.35	8
IDFC Flexi Cap Fund - Regular Plan - Growth	0.27	9
SBI Flexi Cap Fund - Regular Plan - Growth	0.39	7

Source: Secondary data

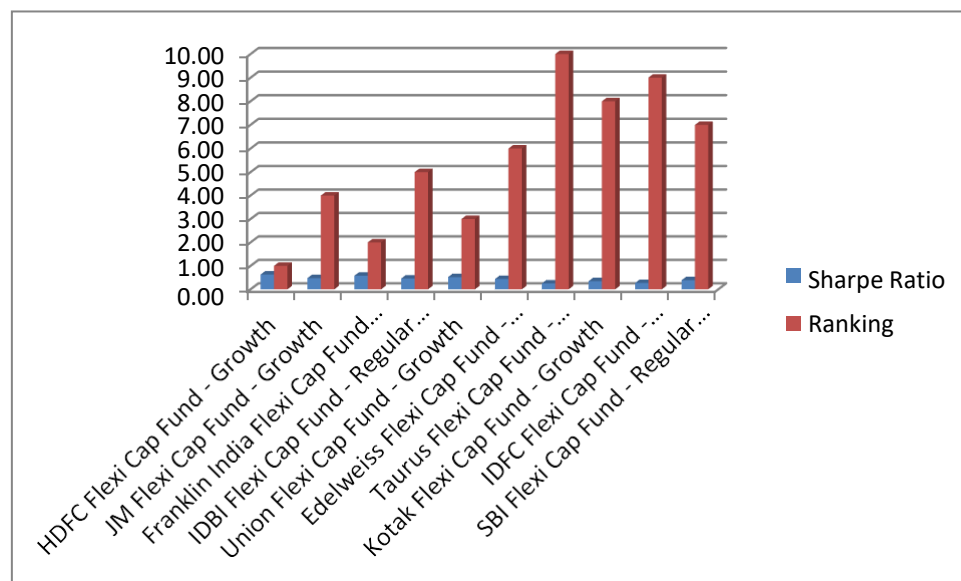


Chart 4.1.8 ranking on the basis of Sharpe performance measure

Interpretation

From the above table it is interpreted that HDFC Flexi Cap Fund - Growth has the highest Sharpe Ratio of 0.63, followed by the Franklin India Flexi Cap Fund - Growth with a Sharpe Ratio of 0.58. The Union Flexi Cap Fund - Growth is ranked third with a Sharpe Ratio of 0.52, and the SBI Flexi Cap Fund - Regular Plan - Growth is ranked seventh with a Sharpe Ratio of 0.39. On the other hand, the Taurus Flexi Cap Fund - Growth has the lowest Sharpe Ratio of 0.25, followed by the IDFC Flexi Cap Fund - Regular Plan - Growth with a Sharpe Ratio of 0.27 and the Edelweiss Flexi Cap Fund - Regular Plan - Growth with a Sharpe Ratio of 0.44. It's important to note that Sharpe Ratio is just one measure of risk-adjusted performance, and it's always recommended to look at other factors such as fund objective, investment style, expenses, and historical performance before making any investment decision.

4.2 TREYNOR PERFORMANCE MEASURE

Treynor Performance Measure: Treynor ratio is a measurement of efficiency utilizing the relationship between annualized risk-adjusted return and risk. Unlike Sharpe ratio, Treynor ratio utilizes “market” risk (beta) instead of total risk (standard deviation)

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

Where

R_p = Return on fund

R_f = Risk free rate of return

β_p = Beta of fund

T = Treynor performance measure

Table 4.2.1 Equity Midcap Fund

Scheme Name	Beta	Treynor Ratio
Motilal Oswal Midcap Fund - Growth	0.93	0.16
Quant Mid Cap Fund - Growth	0.91	0.26
Kotak Emerging Equity Fund - Growth	0.85	0.16
HDFC Mid-Cap Opportunities Fund - Growth	0.85	0.18
SBI Magnum Midcap Fund - Regular Plan - Growth	0.86	0.19
Nippon India Growth Fund - Growth	0.82	0.18
PGIM India Midcap Opportunities Fund - Growth	0.94	0.23
Taurus Discovery (Midcap) Fund - Growth	0.86	0.14
ICICI Prudential MidCap Fund - Growth	0.88	0.15
Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth	0.9	0.15

Source: Secondary data

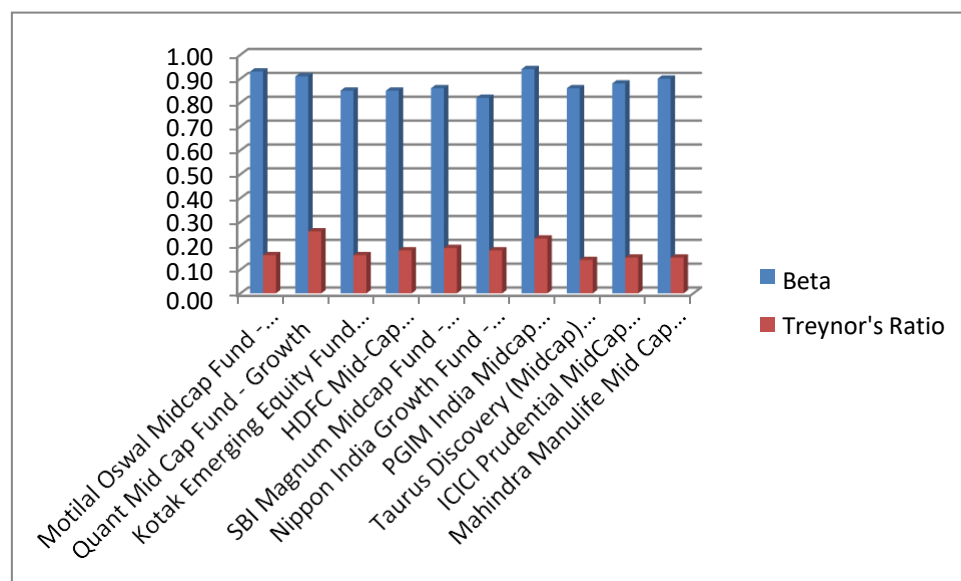


Chart 4.2.1 Equity Midcap Fund

Interpretation

From the above table it is interpreted that 10 mutual fund schemes, along with their beta and Treynor Ratio. Beta is a measure of the sensitivity of the mutual fund's returns to the market returns. A beta of 1 indicates that the mutual fund's returns move in line with the market, while a beta of less than 1 indicates lower volatility than the market and a beta of more than 1 indicates higher volatility than the market. Looking at the data, the mutual fund with the highest Treynor Ratio is Quant Mid Cap Fund - Growth, with a ratio of 0.26, indicating that it has generated a higher return per unit of risk taken compared to the other mutual funds on the list. However, it also has a relatively high beta of 0.91, indicating higher volatility compared to some other mutual funds on the list. PGIM India Midcap Opportunities Fund - Growth also has a relatively high Treynor Ratio of 0.23 and a high beta of 0.94, indicating higher volatility. On the other hand, Taurus Discovery Midcap Fund - Growth has the lowest Treynor Ratio of 0.14, indicating that it has generated a lower return per unit of risk taken compared to the other mutual funds on the list. It also has a beta of 0.86, which is neither too high nor too low.

Table 4.2.2 ranking on the basis of Treynor performance measure

Scheme Name	Treynor Ratio	Ranking
Motilal Oswal Midcap Fund - Growth	0.16	5
Quant Mid Cap Fund - Growth	0.26	1
Kotak Emerging Equity Fund - Growth	0.16	5
HDFC Mid-Cap Opportunities Fund - Growth	0.18	4
SBI Magnum Midcap Fund - Regular Plan - Growth	0.19	3
Nippon India Growth Fund - Growth	0.18	4
PGIM India Midcap Opportunities Fund - Growth	0.23	2
Taurus Discovery (Midcap) Fund - Growth	0.14	7

ICICI Prudential MidCap Fund - Growth	0.15	6
Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth	0.15	6

Source: Secondary data

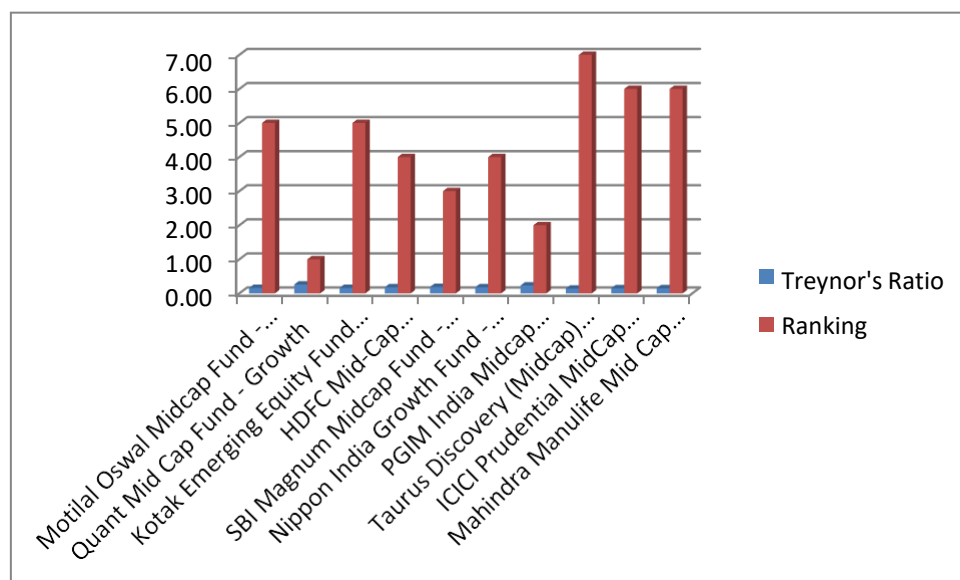


Chart 4.2.2 ranking on the basis of Treynor performance measure

Interpretation

From the above table it is interpreted that Quant Mid Cap Fund - Growth has the highest Treynor Ratio of 0.26, indicating that it has generated the highest excess return per unit of systematic risk among the mid-cap funds considered in the table. It has also been ranked first based on this performance metric. The PGIM India Midcap Opportunities Fund - Growth has the second-highest Treynor Ratio of 0.23 and is ranked second based on this metric. The SBI Magnum Midcap Fund - Regular Plan - Growth, HDFC Mid-Cap Opportunities Fund - Growth, and Nippon India Growth Fund - Growth have a similar Treynor Ratio of around 0.18 and have been ranked third, fourth, and fourth, respectively. The Motilal Oswal Midcap Fund - Growth, Kotak Emerging Equity Fund - Growth, ICICI Prudential MidCap Fund - Growth, and Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth have lower Treynor Ratios, ranging from 0.14 to 0.16, and have been ranked fifth, fifth, sixth, and sixth, respectively. The Taurus

Discovery Midcap Fund - Growth has the lowest Treynor Ratio of 0.14 and has been ranked seventh based on this metric.

Table 4.2.3 Equity Largecap Fund

Scheme Name	Beta	Treynor Ratio
ICICI Prudential Blue-chip Fund - Growth	0.93	0.11
HDFC Top 100 Fund - Growth	0.96	0.1
Nippon India Large Cap Fund - Growth	0.97	0.11
JM Large Cap Fund - Growth	0.57	0.14
SBI Blue Chip Fund - Regular Plan - Growth	0.95	0.1
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth	0.92	0.1
Tata Large Cap Fund - Regular Plan - Growth	0.94	0.09
IDBI India Top 100 Equity Fund - Growth	0.95	0.1
Taurus Largecap Equity Fund - Growth	0.94	0.06
Kotak Blue-chip Fund - Growth	0.95	0.1

Source: Secondary data

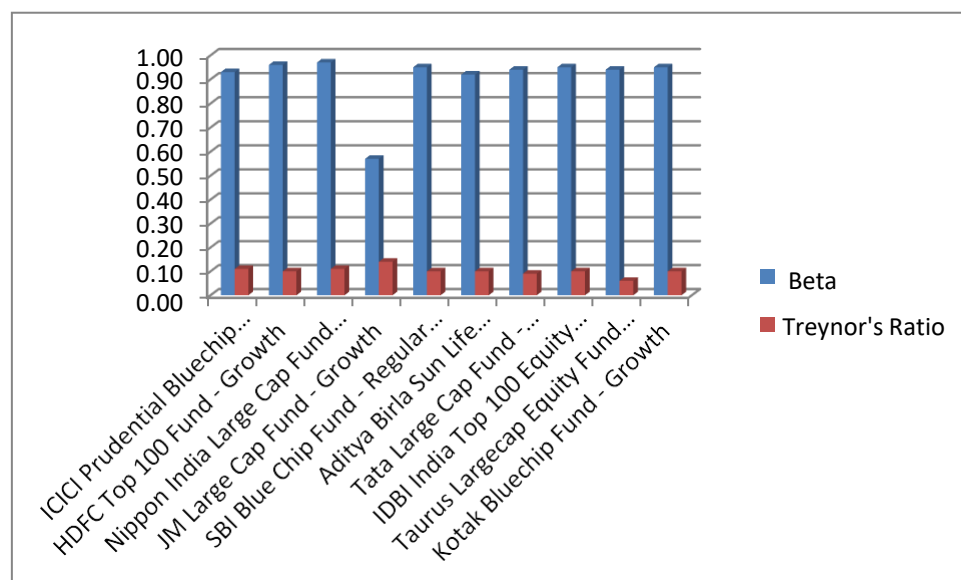


Chart 4.2.3 Equity Largecap Fund

Interpretation

From the above table it is interpreted that the funds have beta values ranging from 0.57 to 0.97. This indicates that all the funds are less volatile than the market, which has a beta of 1. A beta of less than 1 means that the fund is less volatile than the market, while a beta greater than 1 indicates that the fund is more volatile than the market. In terms of Treynor ratio, all the funds have ratios ranging from 0.06 to 0.14. A higher Treynor ratio indicates better risk-adjusted returns, and thus, the JM Large Cap Fund seems to be performing well in this regard. Overall, when selecting a mutual fund, investors should consider both the beta and Treynor ratio, along with other factors such as the fund's investment objective, expense ratio, and historical performance.

Table 4.2.4 ranking on the basis of Treynor performance measure

Scheme Name	Treynor Ratio	Ranking
ICICI Prudential Blue-chip Fund - Growth	0.11	2
HDFC Top 100 Fund - Growth	0.1	3
Nippon India Large Cap Fund - Growth	0.11	2
JM Large Cap Fund - Growth	0.14	1
SBI Blue Chip Fund - Regular Plan - Growth	0.1	3
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth	0.1	3
Tata Large Cap Fund - Regular Plan - Growth	0.09	4
IDBI India Top 100 Equity Fund - Growth	0.1	3
Taurus Largecap Equity Fund - Growth	0.06	5
Kotak Blue-chip Fund - Growth	0.1	3

Source: Secondary data

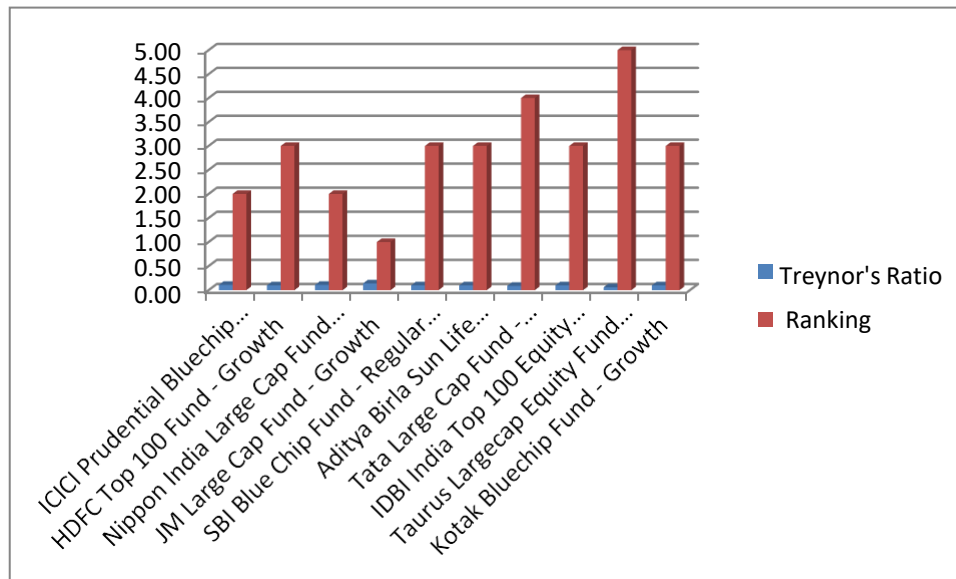


Chart 4.2.4 ranking on the basis of Treynor performance measure

Interpretation

From the above table it is interpreted that the JM Large Cap Fund - Growth has the highest Treynor ratio of 0.14, indicating the best risk-adjusted performance among the listed funds. The ICICI Prudential Blue-chip Fund - Growth and Nippon India Large Cap Fund - Growth also have a relatively high Treynor ratio of 0.11 and are tied for the second rank. On the other hand, Taurus Largecap Equity Fund - Growth has the lowest Treynor ratio of 0.06, indicating the worst risk-adjusted performance among the listed funds. The Tata Large Cap Fund - Regular Plan - Growth is ranked fourth with a Treynor ratio of 0.09. Overall, the ranking based on Treynor ratio suggests that the JM Large Cap Fund - Growth is the best-performing fund in terms of risk-adjusted returns, followed by ICICI Prudential Blue-chip Fund - Growth and Nippon India Large Cap Fund - Growth. However, investors should not solely rely on one performance metric and should consider other factors, such as fund objectives, investment style, expenses, and past performance, before making any investment decisions.

Table 4.2.5 Equity Large and Midcap Fund

Scheme Name	Beta	Treynor Ratio
ICICI Prudential Large & Mid Cap Fund- Growth	0.95	0.15
SBI Large & Midcap Fund - Regular Plan - Growth	0.88	0.13
Mahindra Manulife Top 250 Nivesh Yojana - Regular Plan - Growth	0.93	0.13
HDFC Large and Mid-Cap Fund - Regular - Growth	0.92	0.15
Tata Large & Mid Cap Fund - Regular Plan - Growth	0.87	0.12
Union Large and Mid-Cap Fund - Regular Plan - Growth	0.91	0.12
Quant Large and Mid-Cap Fund - Growth	0.92	0.18
Kotak Equity Opportunities Fund - Growth	0.9	0.11
IDFC Core Equity Fund - Regular Plan - Growth	0.92	0.11
Nippon India Vision Fund - Growth	0.92	0.1

Source: Secondary data

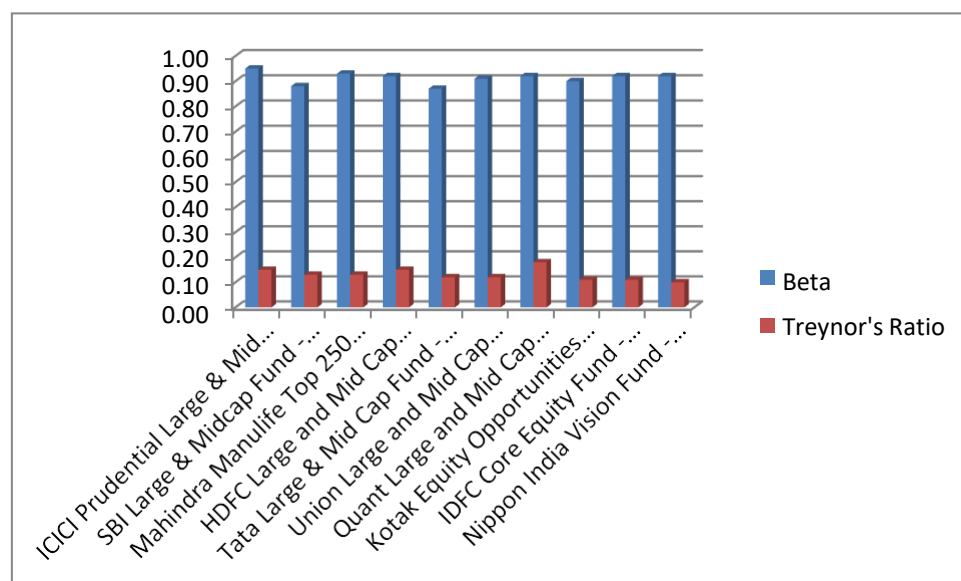


Chart 4.2.5 Equity Large and Midcap Fund

Interpretation

From the above table it is interpreted that the beta for the schemes ranges from 0.87 to 0.95, indicating that they are all less volatile than the overall market. The Treynor ratio for the schemes ranges from 0.1 to 0.18, with the Quant Large and Mid-Cap Fund having the highest ratio of 0.18, indicating it has the best risk-adjusted performance among the listed schemes. HDFC Large and Mid-Cap Fund and ICICI Prudential Large & Mid Cap Fund also have good Treynor ratios of 0.15. Investors looking for lower-risk mutual fund schemes may prefer those with lower beta values, while those seeking better risk-adjusted returns may prefer schemes with higher Treynor ratios. However, it is important to conduct further research and analysis before making any investment decisions.

Table 4.2.6 ranking on the basis of Treynor performance measure

Scheme Name	Treynor Ratio	Ranking
ICICI Prudential Large & Mid Cap Fund- Growth	0.15	2
SBI Large & Midcap Fund - Regular Plan - Growth	0.13	3
Mahindra Manulife Top 250 Nivesh Yojana - Regular Plan - Growth	0.13	3
HDFC Large and Mid-Cap Fund - Regular - Growth	0.15	2
Tata Large & Mid Cap Fund - Regular Plan - Growth	0.12	4
Union Large and Mid-Cap Fund - Regular Plan - Growth	0.12	4
Quant Large and Mid-Cap Fund - Growth	0.18	1
Kotak Equity Opportunities Fund - Growth	0.11	5
IDFC Core Equity Fund - Regular Plan - Growth	0.11	5
Nippon India Vision Fund - Growth	0.1	6

Source: Secondary data

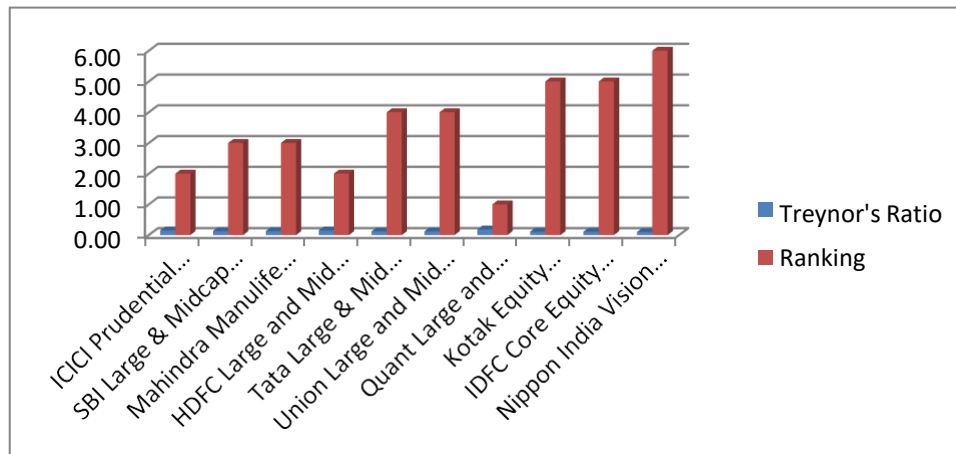


Chart 4.2.6 ranking on the basis of Treynor performance measure

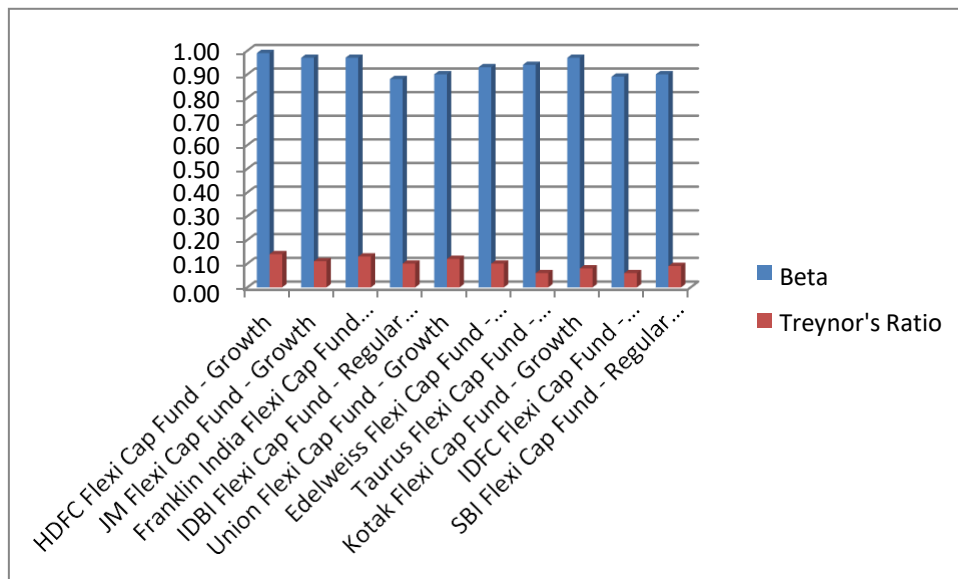
Interpretation

From the above table it is interpreted that Quant Large and Mid-Cap Fund has the highest Treynor Ratio of 0.18, indicating that it has the highest risk-adjusted return among the funds listed. It is ranked at number one in the ranking. The ICICI Prudential Large and Mid-Cap Fund and HDFC Large and Mid-Cap Fund both have a Treynor Ratio of 0.15, tying for the second rank. SBI Large & Midcap Fund, Mahindra Manulife Top 250 Nivesh Yojana, Tata Large and Mid-Cap Fund, and Union Large and Mid-Cap Fund all have a Treynor Ratio of 0.12 to 0.13, tying for the third and fourth ranks. Kotak Equity Opportunities Fund and IDFC Core Equity Fund have the lowest Treynor Ratio of 0.11 among the listed funds, tying for the fifth rank. Nippon India Vision Fund has the lowest Treynor Ratio of 0.10 among the listed funds, ranked at number six. Investors should not solely rely on rankings and ratios to make investment decisions, as past performance may not be indicative of future results, and other factors like fees, expenses, and risks should also be considered before making any investment decisions.

Table 4.2.7 Equity Flexi cap Fund

Scheme Name	Beta	Treynor Ratio
HDFC Flexi Cap Fund - Growth	0.99	0.14
JM Flexi Cap Fund - Growth	0.97	0.11
Franklin India Flexi Cap Fund - Growth	0.97	0.13
IDBI Flexi Cap Fund - Regular Plan - Growth	0.88	0.1
Union Flexi Cap Fund - Growth	0.9	0.12
Edelweiss Flexi Cap Fund - Regular Plan - Growth	0.93	0.1
Taurus Flexi Cap Fund - Growth	0.94	0.06
Kotak Flexi Cap Fund - Growth	0.97	0.08
IDFC Flexi Cap Fund - Regular Plan - Growth	0.89	0.06
SBI Flexi Cap Fund - Regular Plan - Growth	0.9	0.09

Source: Secondary data

**Chart 4.2.7 Equity Flexi cap Fund**

Interpretation

From the above table it is interpreted that HDFC Flexi Cap Fund has the highest beta of 0.99, indicating that it is the riskiest fund in the group. The Taurus Flexi Cap Fund has

the lowest beta of 0.94, indicating that it is the least risky fund in the group. When it comes to the Treynor ratio, the HDFC Flexi Cap Fund still comes out on top with a ratio of 0.14, indicating that it has the best risk-adjusted returns. The IDBI Flexi Cap Fund has the lowest Treynor ratio of 0.1, indicating that it has the worst risk-adjusted returns. Investors should keep in mind that beta and Treynor ratio are just two measures of a mutual fund's risk and return. Other factors, such as expense ratio, management style, and fund objectives, should also be considered before making any investment decisions.

Table 4.2.8 ranking on the basis of Treynor performance measure

Scheme Name	Treynor Ratio	Ranking
HDFC Flexi Cap Fund - Growth	0.14	1
JM Flexi Cap Fund - Growth	0.11	4
Franklin India Flexi Cap Fund - Growth	0.13	2
IDBI Flexi Cap Fund - Regular Plan - Growth	0.1	5
Union Flexi Cap Fund - Growth	0.12	3
Edelweiss Flexi Cap Fund - Regular Plan - Growth	0.1	5
Taurus Flexi Cap Fund - Growth	0.06	8
Kotak Flexi Cap Fund - Growth	0.08	7
IDFC Flexi Cap Fund - Regular Plan - Growth	0.06	8
SBI Flexi Cap Fund - Regular Plan - Growth	0.09	6

Source: Secondary data

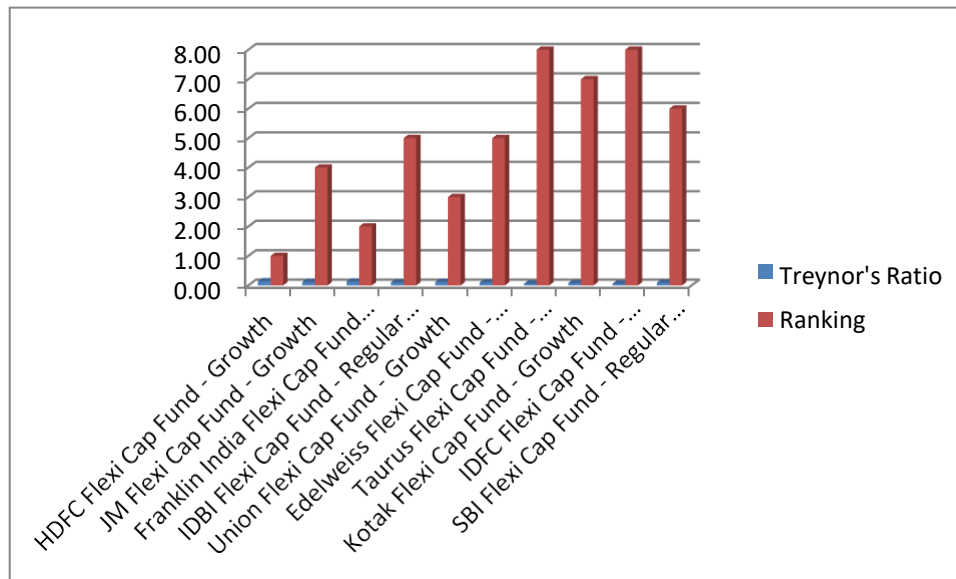


Chart 4.2.8 ranking on the basis of Treynor performance measure

Interpretation

From the above table it is interpreted that HDFC Flexi Cap Fund - Growth has the highest Treynor ratio of 0.14 and is ranked at the top. Franklin India Flexi Cap Fund - Growth is ranked second with a Treynor ratio of 0.13, followed by Union Flexi Cap Fund - Growth at the third rank with a ratio of 0.12. The remaining mutual funds have lower Treynor ratios and are ranked lower, with Taurus Flexi Cap Fund - Growth and IDFC Flexi Cap Fund - Regular Plan - Growth having the lowest ratio of 0.06 and sharing the last rank.

4.3 JENSEN PERFORMANCE MEASURE:

Jensen Performance Measure: A measure of the difference between a fund's actual returns and its expected performance, given its level of risk as measured by beta. Jensen's Alpha is equivalent to the alpha derived from regressing the same or portfolio's returns in excess of the risk free rate against the market return in excess of the risk free rate.

$$\text{Jensen's Index} = \frac{\beta_p}{\beta_M}$$

Where

$$\beta_p = R_p - R_s$$

R_p = Actual return on portfolio

R_s = Expected return on portfolio

$$R_s = I_{RF} + (\beta_M - I_{RF})$$

Table 4.3.1 Equity Midcap Fund

Scheme Name	Beta	Jenson's Alpha
Motilal Oswal Midcap Fund - Growth	0.93	0.72
Quant Mid Cap Fund - Growth	0.91	9.51
Kotak Emerging Equity Fund - Growth	0.85	0.51
HDFC Mid-Cap Opportunities Fund - Growth	0.85	3.61
SBI Magnum Midcap Fund - Regular Plan - Growth	0.86	2.98
Nippon India Growth Fund - Growth	0.82	7.05
PGIM India Midcap Opportunities Fund - Growth	0.94	7.38
Taurus Discovery (Midcap) Fund - Growth	0.86	0.35
ICICI Prudential MidCap Fund - Growth	0.88	1.05
Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth	0.9	-0.66

Source: Secondary data

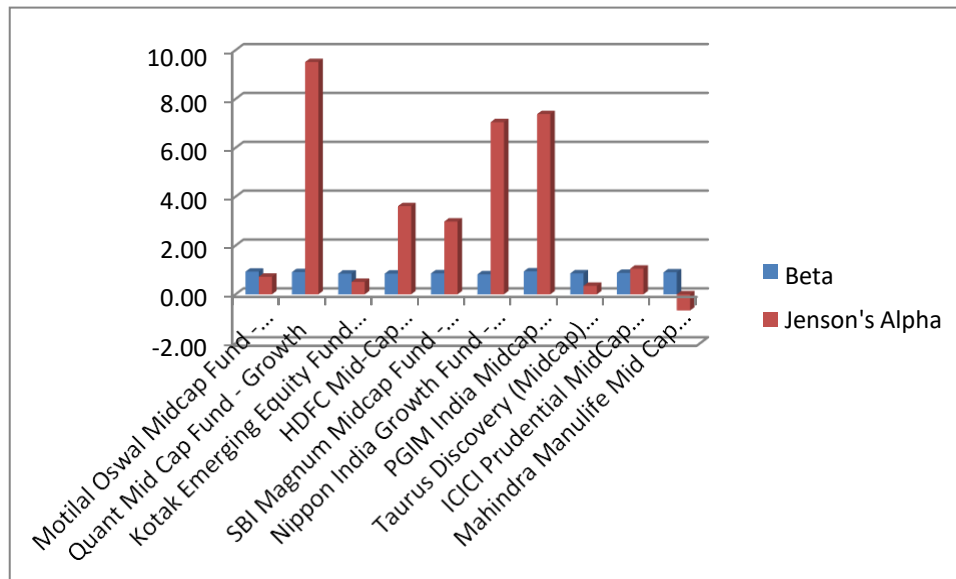


Chart 4.3.1 Equity Midcap Fund

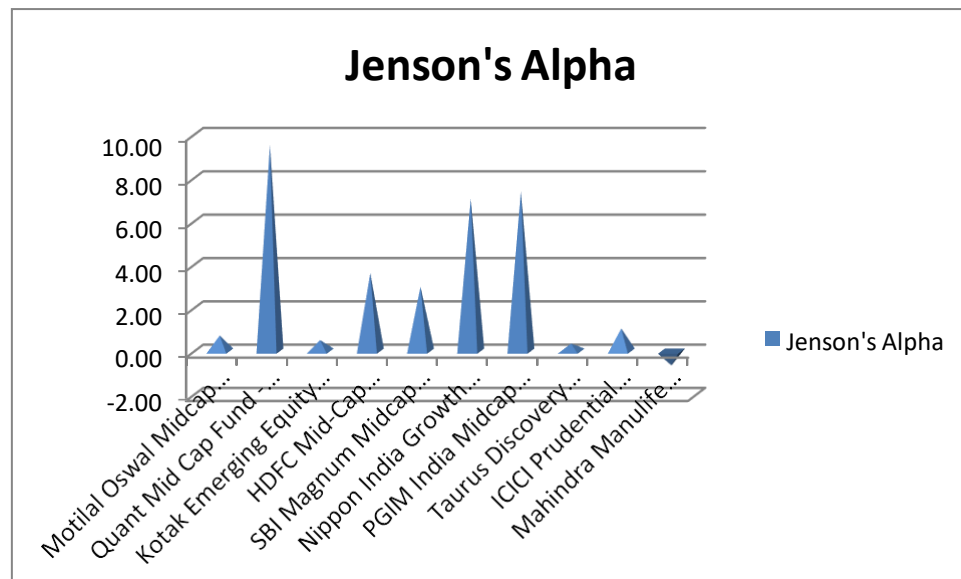
Interpretation

From the above table it is interpreted that performance metrics of various mid-cap mutual funds. Beta measures the volatility of a mutual fund relative to the market. A beta of 1 implies the mutual fund moves in line with the market, while a beta greater than 1 indicates higher volatility than the market and vice versa. Jensen's alpha measures the risk-adjusted return of a mutual fund relative to its benchmark index. A positive alpha indicates the mutual fund has outperformed its benchmark, while a negative alpha indicates underperformance. Based on the given data, the PGIM India Midcap Opportunities Fund has the highest beta of 0.94, indicating higher volatility compared to the market. On the other hand, Nippon India Growth Fund has the lowest beta of 0.82, indicating lower volatility compared to the market. In terms of Jensen's alpha, Quant Mid Cap Fund has the highest alpha indicating the highest risk-adjusted return relative to its benchmark index. Mahindra Manulife Mid Cap Unnati Yojana has the lowest alpha indicating underperformance relative to its benchmark index. Investors should consider both beta and alpha while selecting a mutual fund. A higher beta indicates higher volatility and higher risk, while a higher alpha indicates better risk-adjusted returns. However, both these metrics should be considered in the context of an investor's investment goals, risk tolerance, and investment horizon.

Table 4.3.2 Jensen Performance Measure

Scheme Name	Jenson's Alpha
Motilal Oswal Midcap Fund - Growth	0.72
Quant Mid Cap Fund - Growth	9.51
Kotak Emerging Equity Fund - Growth	0.51
HDFC Mid-Cap Opportunities Fund - Growth	3.61
SBI Magnum Midcap Fund - Regular Plan - Growth	2.98
Nippon India Growth Fund - Growth	7.05
PGIM India Midcap Opportunities Fund - Growth	7.38
Taurus Discovery (Midcap) Fund - Growth	0.35
ICICI Prudential MidCap Fund - Growth	1.05
Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth	-0.66

Source: Secondary data

**Chart 4.3.2 Jensen Performance Measure**

Interpretation

From the above table it is interpreted that Quant Mid Cap Fund has the highest Jensen's Alpha value of 9.51, indicating that the fund has generated significant excess

returns over its expected returns. The PGIM India Midcap Opportunities Fund and Nippon India Growth Fund also have high Jensen's Alpha values of 7.38 and 7.05, respectively. On the other hand, the Mahindra Manulife Mid Cap Unnati Yojana has a negative Jensen's Alpha value of -0.66, indicating that the fund has underperformed relative to its expected returns given its level of risk. Overall, investors can use Jensen's Alpha as a tool to evaluate the performance of mutual funds and assess whether the fund manager has generated returns that are commensurate with the level of risk taken by the fund.

Table 4.3.3 Equity Largecap Fund

Scheme Name	Beta	Jensen's Alpha
ICICI Prudential Blue-chip Fund - Growth	0.93	1.51
HDFC Top 100 Fund - Growth	0.96	0.8
Nippon India Large Cap Fund - Growth	0.97	0.16
JM Large Cap Fund - Growth	0.57	3.01
SBI Blue Chip Fund - Regular Plan - Growth	0.95	0.76
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth	0.92	0.66
Tata Large Cap Fund - Regular Plan - Growth	0.94	0.24
IDBI India Top 100 Equity Fund - Growth	0.95	1.9
Taurus Largecap Equity Fund - Growth	0.94	-3.36
Kotak Blue-chip Fund - Growth	0.95	0.03

Source: Secondary data

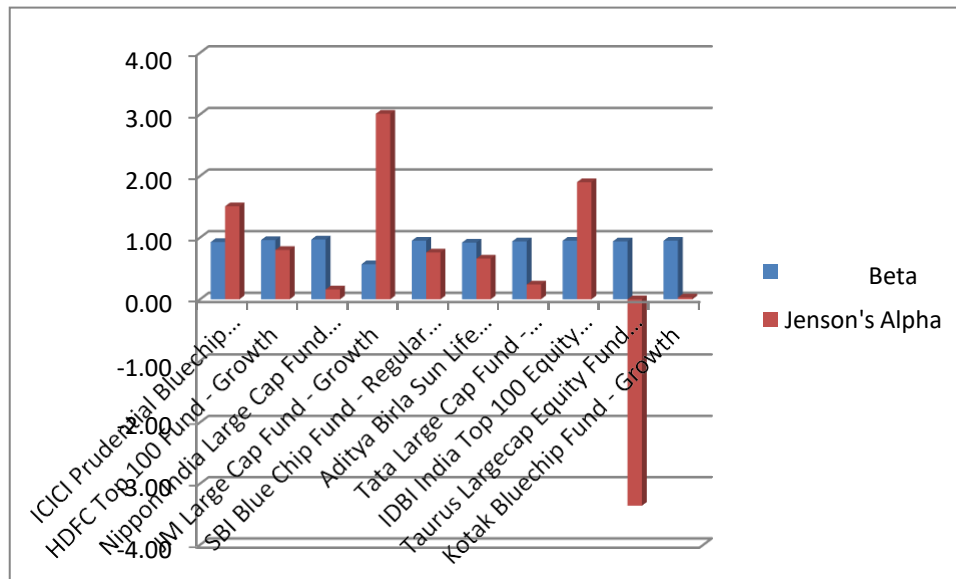


Chart 4.3.3 Equity Largecap Fund

Interpretation

From the above table it is interpreted that funds with the highest Jensen's Alpha are JM Large Cap Fund with an alpha of 3.01, ICICI Prudential Blue-chip Fund with an alpha of 1.51, and IDBI India Top 100 Equity Fund with an alpha of 1.9. The funds with the lowest Jensen's Alpha are Taurus Largecap Equity Fund with a negative alpha of -3.36, Tata Large Cap Fund with an alpha of 0.24, and Aditya Birla Sun Life Frontline Equity Fund with an alpha of 0.66. In terms of beta, all the funds have a beta close to 1, indicating that their volatility is similar to the market. However, the JM Large Cap Fund has the lowest beta of 0.57, indicating lower volatility than the market, while Nippon India Large Cap Fund has the highest beta of 0.97, indicating higher volatility than the market. It is important to note that past performance is not a guarantee of future returns, and investors should consider other factors such as fund expenses, investment objectives, and risk tolerance before investing in mutual funds.

Table 4.3.4 Jensen Performance Measure

Scheme Name	Jensen's Alpha
ICICI Prudential Blue-chip Fund - Growth	1.51
HDFC Top 100 Fund - Growth	0.8

Nippon India Large Cap Fund - Growth	0.16
JM Large Cap Fund - Growth	3.01
SBI Blue Chip Fund - Regular Plan - Growth	0.76
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth	0.66
Tata Large Cap Fund - Regular Plan - Growth	0.24
IDBI India Top 100 Equity Fund - Growth	1.9
Taurus Largecap Equity Fund - Growth	-3.36
Kotak Blue-chip Fund - Growth	0.03

Source: Secondary data

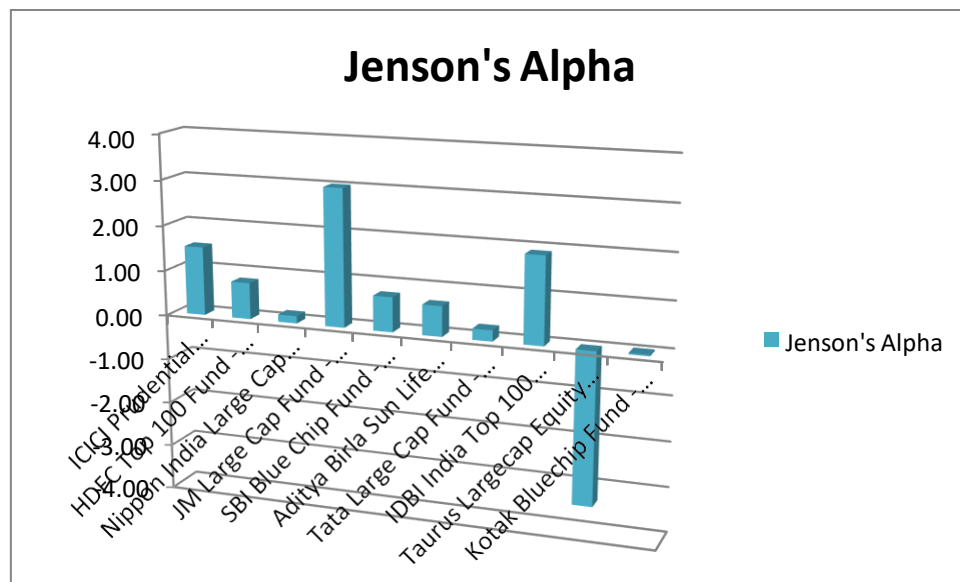


Chart 4.3.4 Jensen Performance Measure

Interpretation

From the above table it is interpreted that the funds range from -3.36 to 3.01. A positive Jenson's Alpha indicates that the fund has performed better than its benchmark, while a negative value indicates underperformance. The highest Jenson's Alpha value of 3.01 is recorded for JM Large Cap Fund, which suggests that the fund has provided superior risk-adjusted returns compared to its benchmark index. Similarly, IDBI India Top 100 Equity Fund has a Jenson's Alpha of 1.9, indicating good performance. On the other

hand, Taurus Largecap Equity Fund has the lowest Jensen's Alpha of -3.36, which suggests that the fund has underperformed its benchmark index and has provided inferior risk-adjusted returns. It's important to note that Jensen's Alpha is just one of many performance measures, and investors should consider multiple factors, such as expense ratio, fund manager's experience, and the fund's investment strategy before making investment decisions.

Table 4.3.5 Equity Large and Midcap Fund

Scheme Name	Beta	Jensen's Alpha
ICICI Prudential Large & Mid Cap Fund- Growth	0.95	2.21
SBI Large & Midcap Fund - Regular Plan - Growth	0.88	0.75
Mahindra Manulife Top 250 Nivesh Yojana - Regular Plan - Growth	0.93	0.99
HDFC Large and Mid-Cap Fund - Regular - Growth	0.92	5.38
Tata Large & Mid Cap Fund - Regular Plan - Growth	0.87	2.23
Union Large and Mid-Cap Fund - Regular Plan - Growth	0.91	0.68
Quant Large and Mid-Cap Fund - Growth	0.92	5.34
Kotak Equity Opportunities Fund - Growth	0.9	-1.49
IDFC Core Equity Fund - Regular Plan - Growth	0.92	1.78
Nippon India Vision Fund - Growth	0.92	1.23

Source: Secondary data

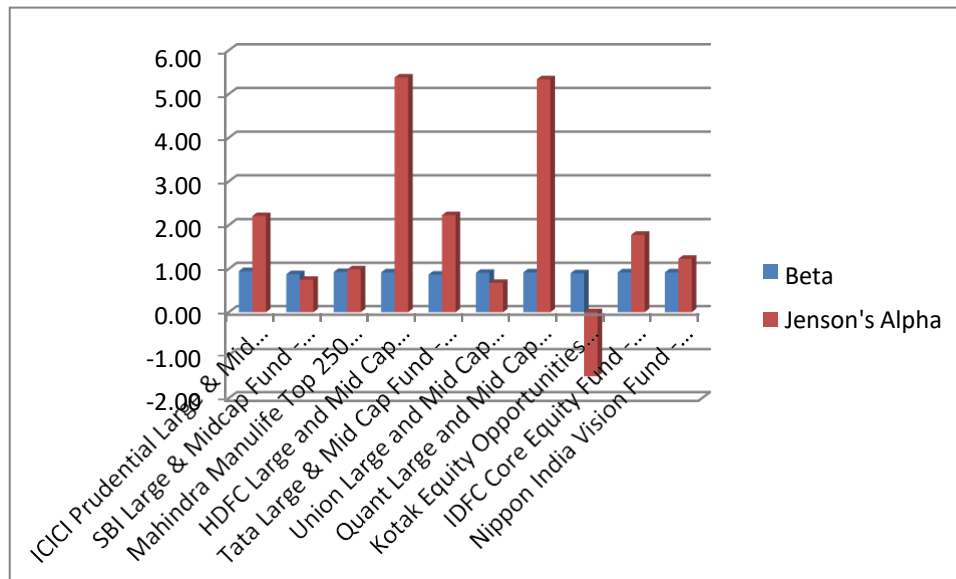


Chart 4.3.5 Equity Large and Midcap Fund

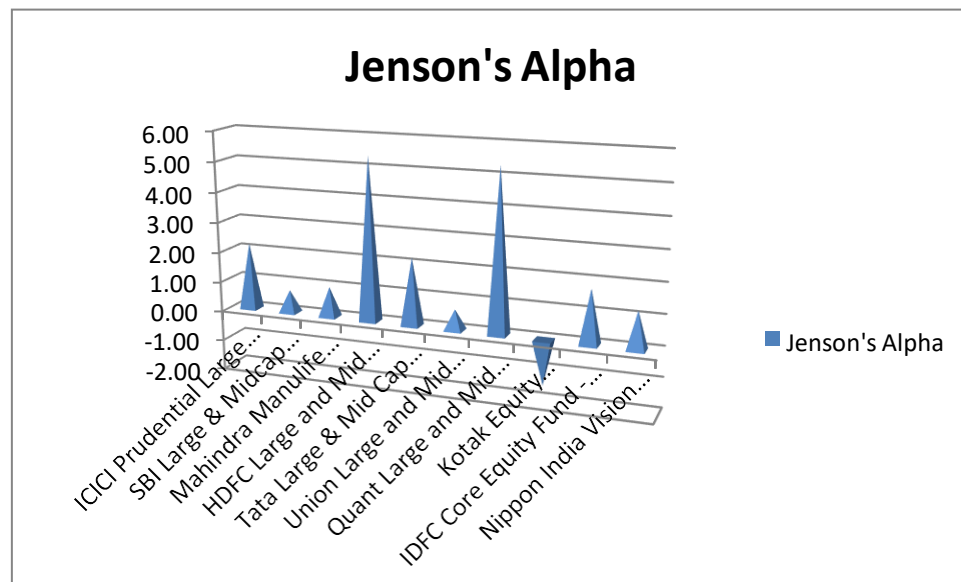
Interpretation

From the above table it is interpreted that HDFC Large and Mid-Cap Fund has the highest Jensen's Alpha of 5.38, indicating that it has outperformed its benchmark index. The fund also has a relatively high beta of 0.92, suggesting that it is moderately volatile. Other funds that have positive Jensen's Alpha values are ICICI Prudential Large & Mid Cap Fund, Tata Large & Mid Cap Fund, Mahindra Manulife Top 250 Nivesh Yojana, and IDFC Core Equity Fund. These funds have also exhibited moderate volatility with betas ranging between 0.87 to 0.95. On the other hand, Kotak Equity Opportunities Fund has a negative Jensen's Alpha of -1.49, indicating underperformance compared to its benchmark index. However, the fund's beta of 0.9 suggests that it is less volatile than the market. Overall, investors should consider metrics, beta and Jensen's Alpha, when evaluating mutual funds as they provide different types of information about the risk and performance of the fund.

Table 4.3.6 Jensen Performance Measure

Scheme Name	Jenson's Alpha
ICICI Prudential Large & Mid Cap Fund- Growth	2.21
SBI Large & Midcap Fund - Regular Plan - Growth	0.75
Mahindra Manulife Top 250 Nivesh Yojana - Regular Plan - Growth	0.99
HDFC Large and Mid-Cap Fund - Regular - Growth	5.38
Tata Large & Mid Cap Fund - Regular Plan - Growth	2.23
Union Large and Mid-Cap Fund - Regular Plan - Growth	0.68
Quant Large and Mid-Cap Fund - Growth	5.34
Kotak Equity Opportunities Fund - Growth	-1.49
IDFC Core Equity Fund - Regular Plan - Growth	1.78
Nippon India Vision Fund - Growth	1.23

Source: Secondary data

**Chart 4.3.6 Jensen Performance Measure**

Interpretation

From the above table it is interpreted that HDFC Large and Mid-Cap Fund has the highest Jensen's Alpha value of 5.38, which implies that the fund has outperformed its

expected returns, given the level of risk taken. Similarly, the Quant Large and Mid-Cap Fund has a high Jensen's Alpha value of 5.34, indicating strong risk-adjusted performance. On the other hand, Kotak Equity Opportunities Fund has a negative Jensen's Alpha value of -1.49, which suggests that the fund has underperformed its expected returns, given the level of risk taken. However, it is important to note that Jensen's Alpha is just one of the many performance measures used to evaluate mutual funds and should be considered in conjunction with other measures such as Sharpe Ratio, etc. before making investment decisions.

Table 4.3.7 Equity Flexi cap Fund

Scheme Name	Beta	Jenson's Alpha
HDFC Flexi Cap Fund - Growth	0.99	3.53
JM Flexi Cap Fund - Growth	0.97	0.89
Franklin India Flexi Cap Fund - Growth	0.97	3.05
IDBI Flexi Cap Fund - Regular Plan - Growth	0.88	0.47
Union Flexi Cap Fund - Growth	0.9	2.4
Edelweiss Flexi Cap Fund - Regular Plan - Growth	0.93	0.39
Taurus Flexi Cap Fund - Growth	0.94	-3.64
Kotak Flexi Cap Fund - Growth	0.97	-3.04
IDFC Flexi Cap Fund - Regular Plan - Growth	0.89	-3.35
SBI Flexi Cap Fund - Regular Plan - Growth	0.9	-2.23

Source: Secondary data

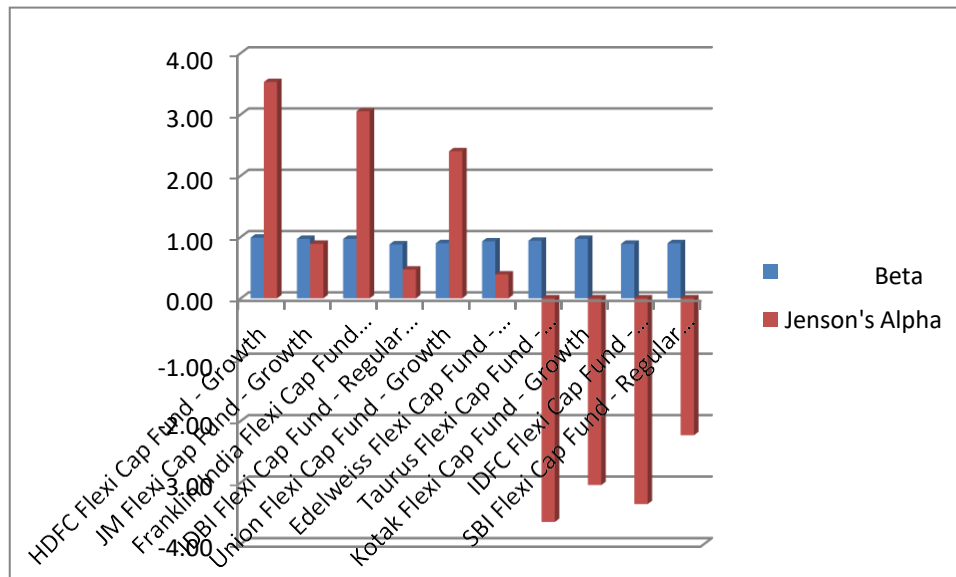


Chart 4.3.7 Equity Flexi cap Fund

Interpretation

From the above table it is interpreted that HDFC Flexi Cap Fund has the highest beta of 0.99, followed by JM Flexi Cap Fund and Franklin India Flexi Cap Fund with beta values of 0.97. The remaining funds have beta values ranging from 0.88 to 0.94. This indicates that HDFC Flexi Cap Fund is the most volatile fund among the listed funds and is expected to have higher returns in an up-market but may underperform in a down-market. In terms of Jensen's Alpha, HDFC Flexi Cap Fund and Franklin India Flexi Cap Fund have the highest values of 3.53 and 3.05, respectively, indicating that their fund managers have been able to generate significant excess returns above their expected returns based on their beta values. Union Flexi Cap Fund also has a positive alpha of 2.4, indicating that its fund manager has been able to generate excess returns as well. On the other hand, Taurus Flexi Cap Fund, Kotak Flexi Cap Fund, and IDFC Flexi Cap Fund have negative alphas, indicating underperformance compared to their expected returns based on their beta values. Overall, the data indicates that while HDFC Flexi Cap Fund has the highest risk due to its high beta value, its fund manager has been able to generate significant excess returns, making it a potentially attractive investment option for those willing to take on higher risk. Franklin India Flexi Cap Fund and Union Flexi Cap Fund also have positive alphas, indicating that their fund managers have

generated excess returns. However, investors may want to exercise caution when considering Taurus Flexi Cap Fund, Kotak Flexi Cap Fund, and IDFC Flexi Cap Fund, as their fund managers have underperformed compared to their expected returns.

Table 4.3.8 Jensen Performance Measure

Scheme Name	Jenson's Alpha
HDFC Flexi Cap Fund - Growth	3.53
JM Flexi Cap Fund - Growth	0.89
Franklin India Flexi Cap Fund - Growth	3.05
IDBI Flexi Cap Fund - Regular Plan - Growth	0.47
Union Flexi Cap Fund - Growth	2.4
Edelweiss Flexi Cap Fund - Regular Plan - Growth	0.39
Taurus Flexi Cap Fund - Growth	-3.64
Kotak Flexi Cap Fund - Growth	-3.04
IDFC Flexi Cap Fund - Regular Plan - Growth	-3.35
SBI Flexi Cap Fund - Regular Plan - Growth	-2.23

Source: Secondary data

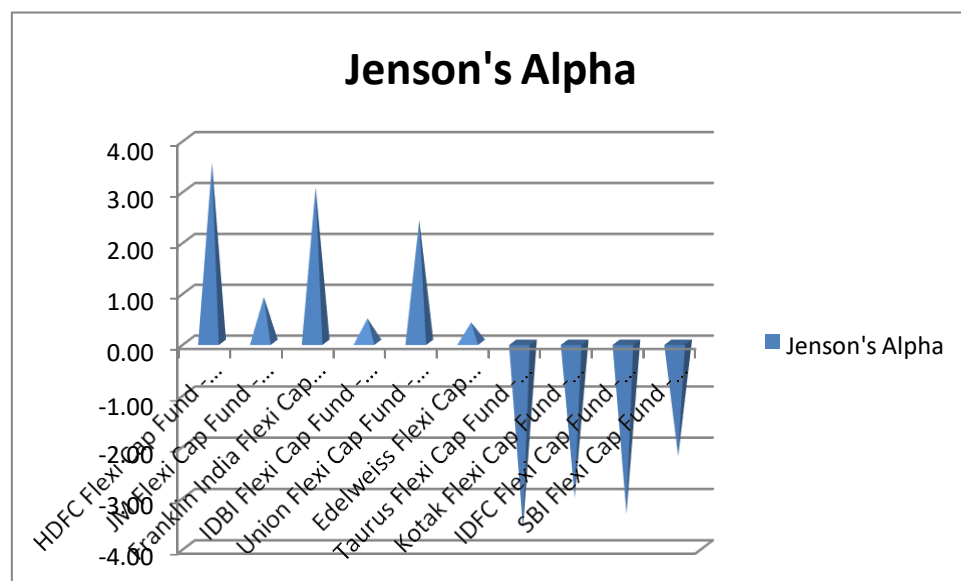


Chart 4.3.8 Jensen Performance Measure

Interpretation

From the above table it is interpreted that HDFC Flexi Cap Fund, Franklin India Flexi Cap Fund, and Union Flexi Cap Fund have positive Jensen's Alpha values, which indicates that these funds have performed better than the overall market, considering their volatility. On the other hand, Taurus Flexi Cap Fund, Kotak Flexi Cap Fund, IDFC Flexi Cap Fund, and SBI Flexi Cap Fund have negative Jensen's Alpha values, which suggest that these funds have underperformed the market, considering their risk. It's worth noting that Jensen's Alpha is just one of many measures that can be used to evaluate the performance of mutual funds. Therefore, investors should consider other factors such as the fund's investment objective, management style, and expense ratio before making any investment decisions.

4.4 Overall performance measure:

Table 4.4.1 Overall performance of Equity Midcap Fund

Scheme Name	Sharpe Ratio	Treynor Ratio	Jensen's Alpha
Motilal Oswal Midcap Fund - Growth	0.68	0.16	0.72
Quant Mid Cap Fund - Growth	1.06	0.26	9.51
Kotak Emerging Equity Fund - Growth	0.71	0.16	0.51
HDFC Mid-Cap Opportunities Fund - Growth	0.76	0.18	3.61
SBI Magnum Midcap Fund - Regular Plan - Growth	0.82	0.19	2.98
Nippon India Growth Fund - Growth	0.71	0.18	7.05
PGIM India Midcap Opportunities Fund - Growth	1.03	0.23	7.38
Taurus Discovery (Midcap) Fund - Growth	0.59	0.14	0.35
ICICI Prudential MidCap Fund - Growth	0.63	0.15	1.05

Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth	0.65	0.15	-0.66
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Source: Secondary data

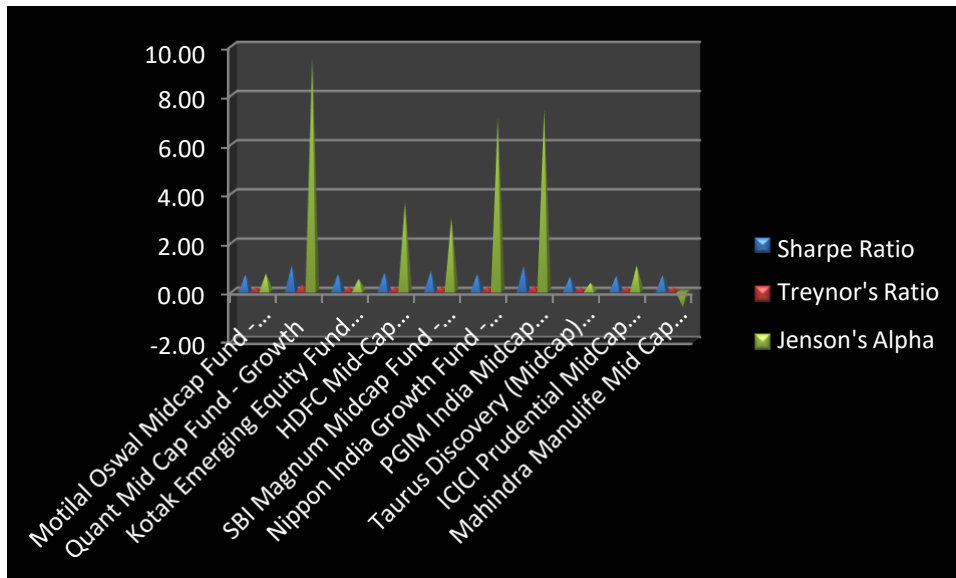


Chart 4.4.1 Overall performance of Equity Midcap Fund

Interpretation

From the above table it is interpreted that Quant Mid Cap Fund - Growth has the highest Sharpe Ratio, Treynor Ratio, and Jensen's Alpha among the listed funds, indicating superior risk-adjusted performance and higher-than-expected returns. The PGIM India Midcap Opportunities Fund - Growth and the HDFC Mid-Cap Opportunities Fund - Growth also have relatively high Sharpe Ratios, Treynor Ratios, and Jensen's Alphas, indicating good performance. On the other hand, the Taurus Discovery (Midcap) Fund - Growth has the lowest Sharpe Ratio, Treynor Ratio, and Jensen's Alpha among the listed funds, indicating poorer risk-adjusted performance and lower-than-expected returns. The Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth also has a negative Jensen's Alpha, indicating underperformance compared to its expected return based on its level of risk. Investors should carefully consider these performance

metrics along with other factors, such as fund expenses, investment strategy, and past performance, before making investment decisions.

Table 4.4.2 Overall performance of Equity Largecap Fund

Scheme Name	Sharpe Ratio	Treynor Ratio	Jenson's Alpha
ICICI Prudential Blue-chip Fund - Growth	0.5	0.11	1.51
HDFC Top 100 Fund - Growth	0.46	0.1	0.8
Nippon India Large Cap Fund - Growth	0.46	0.11	0.16
JM Large Cap Fund - Growth	0.55	0.14	3.01
SBI Blue Chip Fund - Regular Plan - Growth	0.44	0.1	0.76
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth	0.43	0.1	0.66
Tata Large Cap Fund - Regular Plan - Growth	0.39	0.09	0.24
IDBI India Top 100 Equity Fund - Growth	0.47	0.1	1.9
Taurus Largecap Equity Fund - Growth	0.25	0.06	-3.36
Kotak Blue-chip Fund - Growth	0.43	0.1	0.03

Source: Secondary data

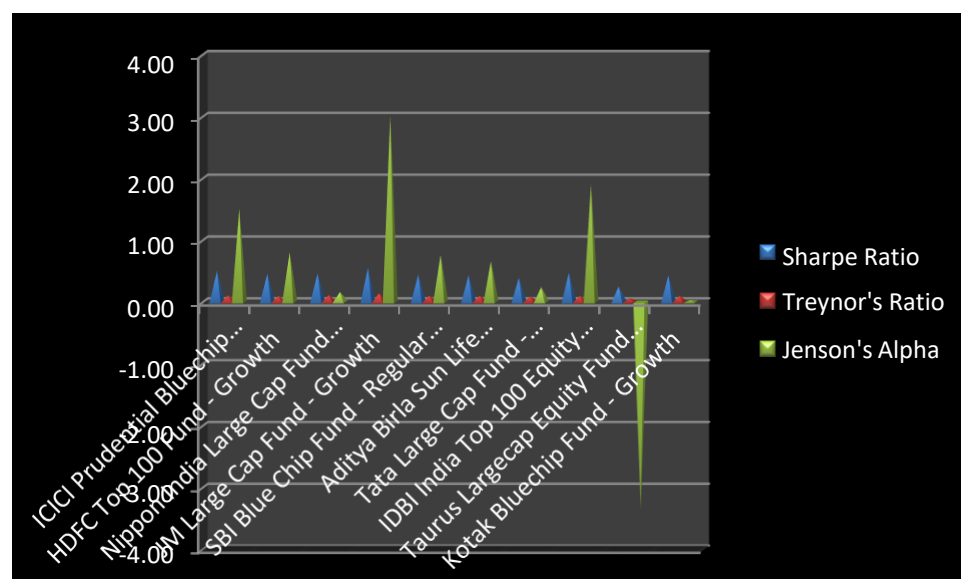


Chart 4.4.2 Overall performance of Equity Largecap Fund

Interpretation

From the above table it is interpreted that the mutual fund with the highest Sharpe Ratio is JM Large Cap Fund - Growth with a value of 0.55, indicating it has better risk-adjusted performance compared to the other funds. The mutual fund with the highest Treynor Ratio is also JM Large Cap Fund - Growth with a value of 0.14, indicating it has outperformed the market relative to its systematic risk. The mutual fund with the highest Jensen's Alpha is JM Large Cap Fund - Growth with a value of 3.01, indicating it has outperformed the market given its level of systematic risk. Overall, JM Large Cap Fund - Growth appears to be the best performing mutual fund based on the provided performance metrics. However, it's important to note that past performance does not guarantee future results and other factors, such as fees and expenses, should also be considered when making investment decisions.

Table 4.4.3 Overall performance of Equity Large and Midcap Fund

Scheme Name	Sharpe Ratio	Treynor Ratio	Jenson's Alpha
ICICI Prudential Large & Mid Cap Fund- Growth	0.67	0.15	2.21
SBI Large & Midcap Fund - Regular Plan - Growth	0.61	0.13	0.75
Mahindra Manulife Top 250 Nivesh Yojana - Regular Plan - Growth	0.62	0.13	0.99
HDFC Large and Mid-Cap Fund - Regular - Growth	0.62	0.15	5.38
Tata Large & Mid Cap Fund - Regular Plan - Growth	0.53	0.12	2.23
Union Large and Mid-Cap Fund - Regular Plan - Growth	0.51	0.12	0.68
Quant Large and Mid-Cap Fund - Growth	0.76	0.18	5.34

Kotak Equity Opportunities Fund - Growth	0.5	0.11	-1.49
IDFC Core Equity Fund - Regular Plan - Growth	0.5	0.11	1.78
Nippon India Vision Fund - Growth	0.44	0.1	1.23

Source: Secondary data

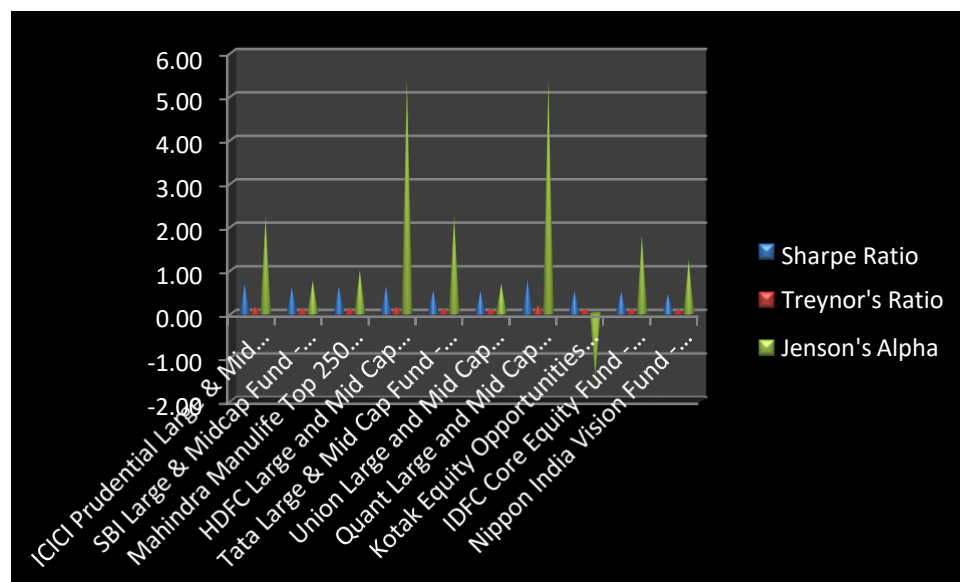


Chart 4.4.3 Overall performance of Equity Large and Midcap Fund

Interpretation

From the above table it is interpreted that mutual fund with the highest Sharpe Ratio is the Quant Large and Mid-Cap Fund, which has a Sharpe Ratio of 0.76, indicating that it has generated the highest return per unit of risk compared to the other funds in the sample. On the other hand, the Nippon India Vision Fund has the lowest Sharpe Ratio of 0.44, indicating that it has generated the lowest return per unit of risk compared to the other funds in the sample. The Quant Large and Mid-Cap Fund also has the highest Treynor Ratio of 0.18, indicating that it has generated the highest excess return per unit of market risk taken compared to the other funds in the sample. The Kotak Equity Opportunities Fund has the lowest Treynor Ratio of 0.11, indicating that it has generated the lowest excess return per unit of market risk taken compared to the other funds. The HDFC Large and Mid-Cap Fund has the highest Jensen's Alpha of 5.38,

indicating that it has generated the highest excess return compared to the Capital Asset Pricing Model (CAPM) prediction. On the other hand, the Kotak Equity Opportunities Fund has a negative Jensen's Alpha of -1.49, indicating that it has underperformed compared to the CAPM prediction.

Table 4.4.4 Overall performance of Equity Flexi cap Fund

Scheme Name	Sharpe Ratio	Treynor Ratio	Jenson's Alpha
HDFC Flexi Cap Fund - Growth	0.63	0.14	3.53
JM Flexi Cap Fund - Growth	0.48	0.11	0.89
Franklin India Flexi Cap Fund - Growth	0.58	0.13	3.05
IDBI Flexi Cap Fund - Regular Plan - Growth	0.46	0.1	0.47
Union Flexi Cap Fund - Growth	0.52	0.12	2.4
Edelweiss Flexi Cap Fund - Regular Plan - Growth	0.44	0.1	0.39
Taurus Flexi Cap Fund - Growth	0.25	0.06	-3.64
Kotak Flexi Cap Fund - Growth	0.35	0.08	-3.04
IDFC Flexi Cap Fund - Regular Plan - Growth	0.27	0.06	-3.35
SBI Flexi Cap Fund - Regular Plan - Growth	0.39	0.09	-2.23

Source: Secondary data

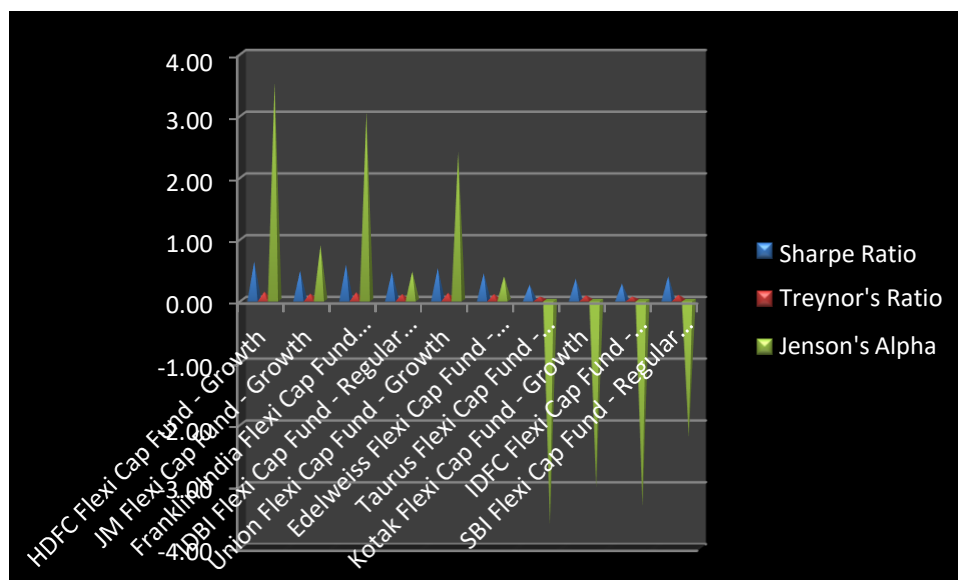


Chart 4.4.4 Overall performance of Equity Flexi cap Fund

Interpretation

HDFC Flexi Cap Fund, Franklin India Flexi Cap Fund, and Union Flexi Cap Fund have a higher Sharpe ratio, which means they have provided better returns for the same level of risk taken. HDFC Flexi Cap Fund and Franklin India Flexi Cap Fund have a higher Treynor ratio, indicating better performance in terms of excess returns earned for each unit of systematic risk taken. HDFC Flexi Cap Fund and Franklin India Flexi Cap Fund also have a higher Jensen's alpha, indicating that they have outperformed their expected returns based on the market risk taken. Taurus Flexi Cap Fund, Kotak Flexi Cap Fund, IDFC Flexi Cap Fund, and SBI Flexi Cap Fund have a negative Jensen's alpha, indicating that they have underperformed their expected returns based on the market risk taken. Therefore, based on the given data, HDFC Flexi Cap Fund and Franklin India Flexi Cap Fund seem to be better-performing funds compared to the others in the list. However, other factors such as investment objectives, expense ratios, and fund manager's experience should also be considered before making any investment decision.

4.5 Return Analysis

Table 4.5.1 Return for Equity Midcap Fund

Scheme Name	YTD	1Year	2Year	3Year	5Year	10Year
Quant Mid Cap Fund – Growth Mid Cap Fund	-5%	15%	25%	33%	18%	16%
Motilal Oswal Midcap Fund – Growth Mid Cap Fund	0%	19%	23%	22%	15%	0%
SBI Magnum Midcap Fund - Regular Plan –Growth Mid Cap Fund	1%	11%	16%	26%	12%	19%
Nippon India Growth Fund – Growth Mid CapFund	-1%	10%	15%	22%	13%	17%
HDFC Mid-Cap Opportunities Fund – GrowthMid Cap Fund	-1%	17%	16%	23%	12%	19%
Kotak Emerging Equity Fund – Growth Mid Cap Fund	0%	12%	14%	23%	14%	20%
PGIM India Midcap Opportunities Fund – Growth Mid Cap Fund	-2%	6%	16%	30%	17%	0%
Baroda BNP Paribas Mid Cap Fund - Regular Plan – Growth Mid Cap Fund	-2%	7%	11%	20%	11%	18%
Mahindra Manulife Mid Cap Fund - Regular Plan – Growth Mid Cap Fund	0%	8%	13%	20%	13%	0%
Edelweiss Mid Cap Fund - Regular Plan –Growth Mid Cap Fund	-1%	10%	13%	23%	12%	20%

Source: Secondary data

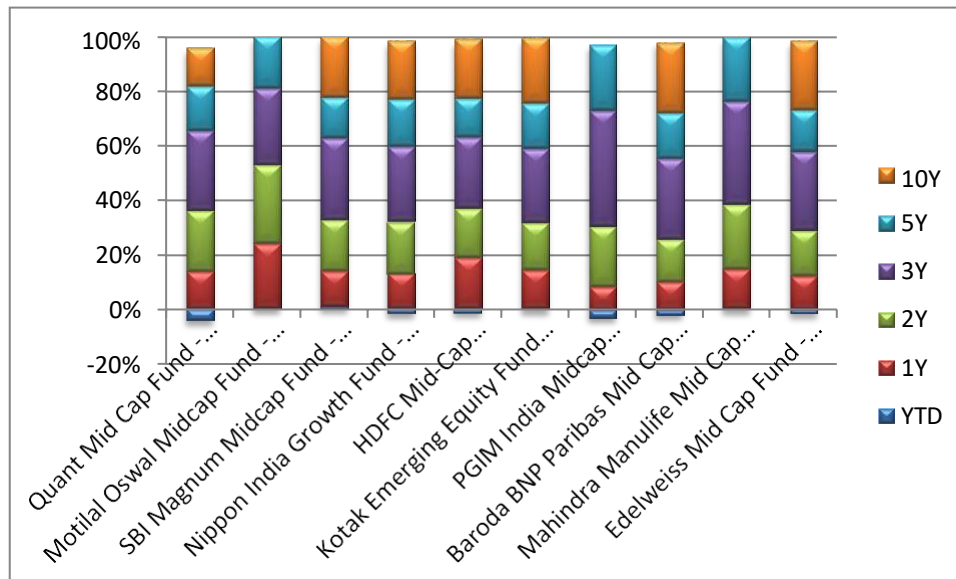


Chart 4.5.1 Return for Equity Midcap Fund

Interpretation

From the above table it is interpreted that all funds except one have generated positive returns over the last 1 year. The best performing fund in this period is Motilal Oswal Midcap Fund, which has returned 19%, followed by HDFC Mid-Cap Opportunities Fund and Quant Mid Cap Fund, which have returned 17% and 15% respectively. Over the longer term, the performance of the funds varies widely. For example, over the last 10 years, some funds have generated annualized returns of around 20%, while others have returned only around 0%. SBI Magnum Midcap Fund has shown consistency in its performance over different periods, generating positive returns of around 12-26% over the last 2-3 years. PGIM India Midcap Opportunities Fund has generated negative returns over the YTD period and the last 2 years, but has delivered strong returns of 16-30% over the last 3-5 years. It's important to note that past performance is not a guarantee of future returns and investors should consider other factors such as risk, expense ratios, and investment goals before making any investment decisions.

Table 4.5.2 Return for Equity Largecap Fund

Scheme Name	YTD	1Year	2Year	3Year	5Year	10Year
HDFC Top 100 Fund – Growth Large Cap Fund	-1%	13%	11%	18%	11%	13%
Nippon India Large Cap Fund – Growth Large Cap Fund	-1%	15%	13%	18%	11%	15%
ICICI Prudential Blue-chip Fund – Growth Large Cap Fund	-2%	9%	10%	18%	11%	14%
IDBI India Top 100 Equity Fund – Growth Large Cap Fund	-3%	6%	9%	17%	11%	13%
Tata Large Cap Fund - Regular Plan – Growth Large Cap Fund	-3%	7%	8%	15%	10%	12%
JM Large Cap Fund – Growth Large Cap Fund	-2%	9%	9%	15%	9%	12%
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan – Growth Large Cap Fund	-3%	7%	8%	16%	10%	14%
SBI Blue Chip Fund - Regular Plan – Growth Large Cap Fund	-2%	10%	7%	17%	11%	14%
Taurus Largecap Equity Fund – Growth Large Cap Fund	-7%	4%	5%	11%	7%	9%
UTI Master share Unit Scheme – Growth Large Cap Fund	-3%	3%	7%	15%	10%	13%

Source: Secondary data

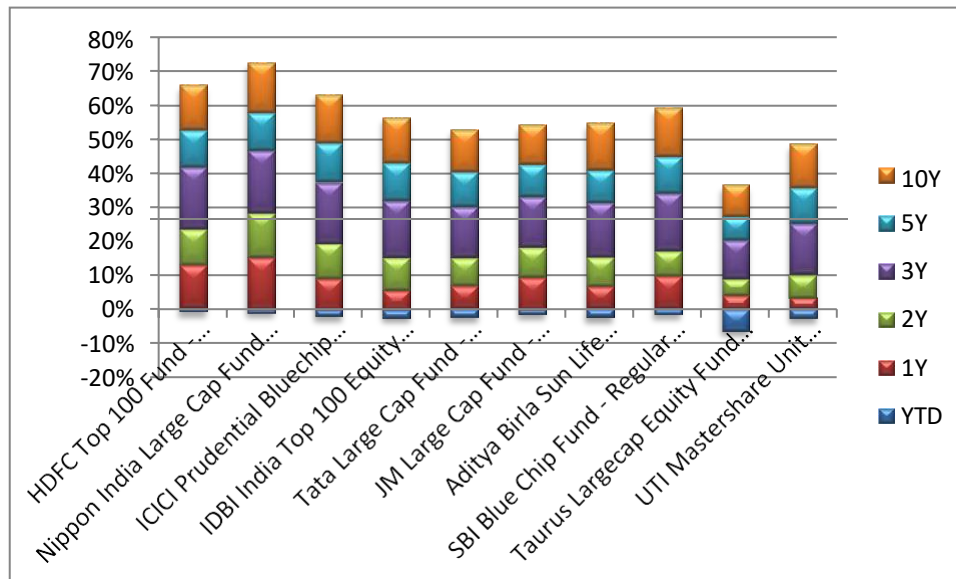


Chart 4.5.2 Return for Equity Largecap Fund

Interpretation

From the above table it is interpreted that HDFC Top 100 Fund - Growth with Nippon India Large Cap Fund - Growth shows that both schemes have similar returns across all time frames, with Nippon India outperforming in the 1-year and 2-year periods. Similarly, comparing Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth with ICICI Prudential Blue-chip Fund - Growth reveals that the former has higher returns over the 3-year and 5-year periods. Another way to interpret the data is by examining the trend of returns over time. For instance, looking at UTI Master Share Unit Scheme - Growth, we can see that the scheme has consistently provided positive returns over the last 10 years, despite a dip in the YTD returns. On the other hand, Taurus Largecap Equity Fund - Growth has negative returns over the YTD and 1-year periods, indicating poor performance.

Table 4.5.3 Return for Equity Large and Midcap Fund

Scheme Name	YTD	1Year	2Year	3Year	5Year	10Year
SBI Large & Midcap Fund - Regular Plan —Growth Large & Mid Cap Fund	-2%	12%	14%	19%	13%	17%
ICICI Prudential Large & Mid Cap Fund- Growth Large & Mid Cap Fund	-2%	15%	16%	22%	12%	14%
Quant Large and Mid-Cap Fund — GrowthLarge & Mid Cap Fund	-5%	13%	18%	24%	13%	18%
Tata Large & Mid Cap Fund - Regular Plan —Growth Large & Mid Cap Fund	-3%	15%	10%	18%	12%	15%
HDFC Large and Mid-Cap Fund - Regular —Growth Large & Mid Cap Fund	-2%	12%	13%	22%	12%	12%
Mahindra Manulife Large & Mid Cap Fund - Regular Plan – Growth Large & Mid Cap Fund	-4%	3%	11%	19%	0%	0%
Union Large and Mid-Cap Fund - Regular Plan – Growth Large & Mid Cap Fund	-3%	5%	10%	17%	0%	0%
Bank of India Large & Mid Cap Equity Fund - Regular Plan – Growth Large & Mid Cap Fund	-3%	7%	12%	16%	8%	12%
Kotak Equity Opportunities Fund — GrowthLarge & Mid Cap Fund	-1%	12%	11%	18%	12%	16%
Edelweiss Large and Mid-Cap Fund - Regular Plan – Growth Large & Mid Cap Fund	-2%	7%	9%	17%	12%	15%

Source: Secondary data

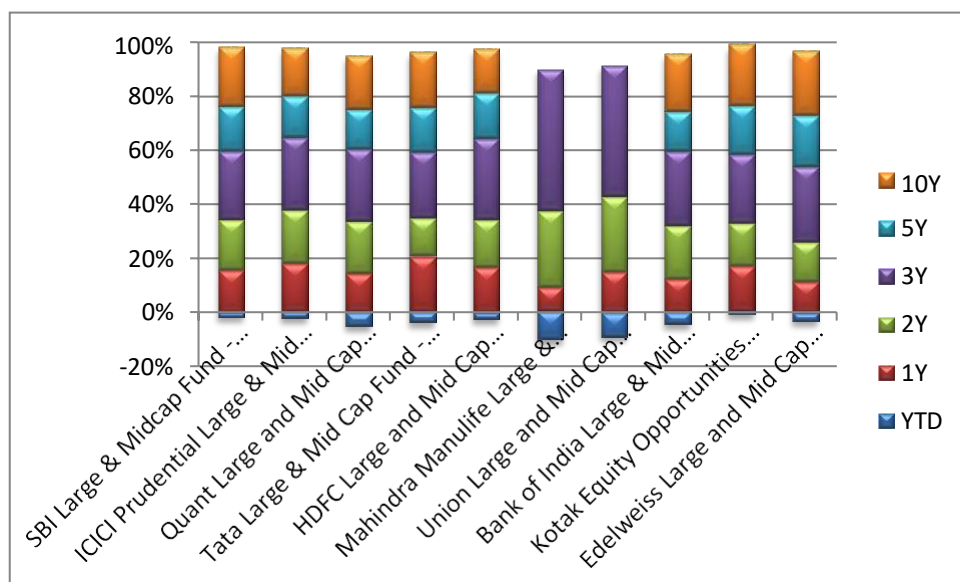


Chart 4.5.3 Return for Equity Large and Midcap Fund

Interpretation

From the above table it is interpreted that all of the funds have negative returns in the YTD (Yield to Dividend) period, ranging from -1% to -5%. Over the past 1 year, most of the funds have positive returns, ranging from 3% to 15%. Over longer periods, the returns are generally higher, with most funds having double-digit returns over the past 3, 5, and 10 years. ICICI Prudential Large and Mid-Cap Fund have the highest returns over most of the periods, especially over the past 3 and 5 years. Mahindra Manulife Large and Mid-Cap Fund, Union Large and Mid-Cap Fund, and Kotak Equity Opportunities Fund have zero returns over the past 5 or 10 years, indicating that they have not performed well over longer periods. Edelweiss Large and Mid-Cap Fund has relatively lower returns compared to other funds over most of the periods, except for the YTD (Yield to Dividend) and 2-year periods. It's important to note that past performance may not be indicative of future results, and investors should consider various factors such as their investment goals, risk tolerance, and portfolio diversification before making any investment decisions.

Table 4.5.4 Return for Equity Flexi cap Fund

Scheme Name	YTD	1Year	2Year	3Year	5Year	10Year
JM Flexi Cap Fund – Growth Flexi Cap Fund	-2%	13%	12%	17%	13%	16%
HDFC Flexi Cap Fund – Growth Flexi Cap Fund	-2%	18%	16%	23%	13%	15%
Franklin India Flexi Cap Fund – Growth Flexi Cap Fund	-4%	8%	10%	20%	11%	15%
Edelweiss Flexi Cap Fund - Regular Plan –Growth Flexi Cap Fund	-1%	7%	9%	16%	10%	0%
Union Flexi Cap Fund – Growth Flexi Cap Fund	-3%	5%	9%	18%	12%	12%
IDBI Flexi Cap Fund - Regular Plan – GrowthFlexi Cap Fund	-3%	3%	10%	16%	10%	0%
Taurus Flexi Cap Fund – Growth Flexi Cap Fund	-5%	3%	6%	11%	5%	10%
Kotak Flexi Cap Fund – Growth Flexi Cap Fund	-3%	9%	7%	14%	10%	16%
HSBC Flexi Cap Fund – Growth Flexi Cap Fund	0%	4%	8%	15%	8%	14%
Shriram Flexi Cap Fund - Regular Plan –Growth Flexi Cap Fund	-3%	6%	6%	12%	0%	0%

Source: Secondary data

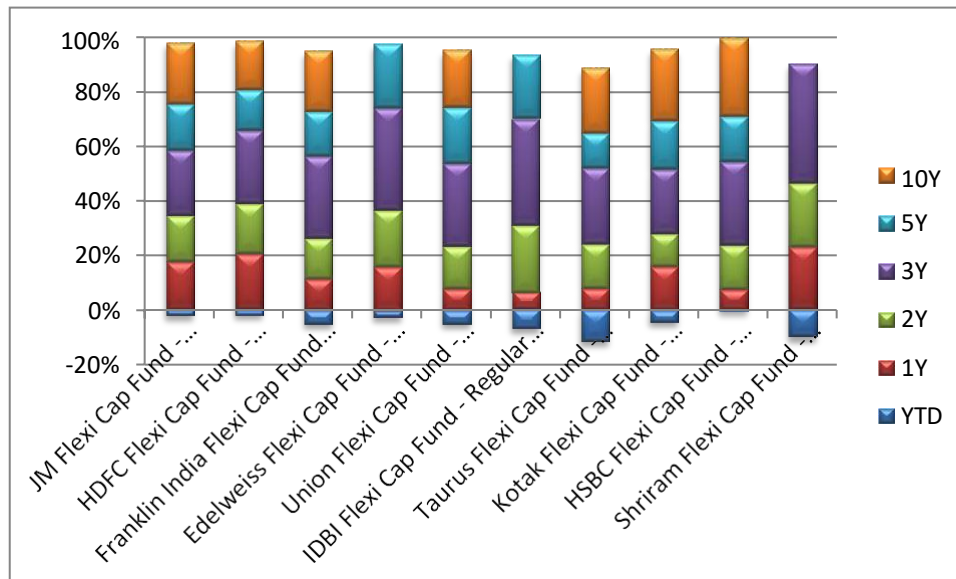


Chart 4.5.4 Return for Equity Flexi cap Fund

Interpretation

From the above table it is interpreted that most of the funds have delivered positive returns over the long term, i.e., 3 years, 5 years, and 10 years. However, their YTD performance has been negative or only slightly positive, which could be attributed to the ongoing pandemic and its impact on the markets. Out of the listed funds, HDFC Flexi Cap Fund, Kotak Flexi Cap Fund, and JM Flexi Cap Fund have delivered relatively better returns over most time periods, while Taurus Flexi Cap Fund and Franklin India Flexi Cap Fund have delivered relatively weaker returns. It's important to note that past performance is not a guarantee of future returns, and investors should always consult with a financial advisor before making any investment decisions.

CHAPTER 5 - FINDINGS, SUGGESTIONS AND CONCLUSIONS

5.1 Findings:

- ❖ The Quant Midcap Fund – Growth and the PGIM India Midcap Opportunities Fund – Growth have performed well and generated the best risk-adjusted returns among the Midcap funds, making them potential investment options for investors looking to invest in Midcap mutual funds.
- ❖ JM Large cap Fund – Growth and ICICI Prudential Blue-chip Fund – Growth have performed well and generated the best risk-adjusted returns among the large cap funds, making them potential investment options for investors looking to invest in large cap mutual funds.
- ❖ Quant Large and Midcap fund and ICICI Prudential Large and Midcap fund have performed well and generated the best risk-adjusted returns among the equity large and Midcap funds, making them potential investment options for investors looking to invest in large and Midcap mutual funds.
- ❖ HDFC Flexi cap fund – Growth have performed well and generated the best risk-adjusted returns among the flexi cap funds, making them potential investment options for investors looking to invest in flexi cap mutual funds.
- ❖ Quant Mid Cap Fund - Growth has the highest Treynor Ratio indicating that it has generated the highest excess return. So it is best for the investors to invest in Quant Mid Cap Fund – Growth.
- ❖ JM Large Cap Fund - Growth is the best-performing fund in terms of risk-adjusted returns and it is suggested that investors can invest in JM Large Cap Fund.
- ❖ Quant Large and Mid-Cap Fund has the highest Treynor Ratio indicating that it has the highest risk-adjusted return. So it is best for the investors to invest in Quant Large and Midcap fund.
- ❖ HDFC Flexi Cap Fund – Growth has the highest Treynor Ratio indicating that it has the highest risk-adjusted return. So it is best for the investors to invest in HDFC Flexi Cap Fund.

- ❖ Quant Mid Cap Fund has generated significant excess returns over its expected returns.
- ❖ JM Large Cap Fund suggests that the fund has provided superior risk-adjusted returns compared to its benchmark index.
- ❖ HDFC Large and Mid-Cap Fund has the highest Jensen's Alpha value which implies that the fund has outperformed its expected returns.
- ❖ HDFC Flexi Cap Fund indicates that the funds have performed better than the overall market, considering their volatility. Taurus Flexi Cap Fund has negative Jensen's Alpha values, which suggest that these funds have underperformed the market, considering their risk.
- ❖ Quant Mid Cap Fund - Growth has the highest Sharpe Ratio, Treynor Ratio, and Jensen's Alpha among the listed funds, indicating superior risk-adjusted performance and higher-than-expected returns. Taurus Discovery (Midcap) Fund and Mahindra Manulife Mid Cap Unnati Yojana has a negative Jensen's Alpha, indicating underperformance compared to its expected return.
- ❖ JM Large Cap Fund appears to be the best performing mutual fund based on the provided performance metrics.
- ❖ The HDFC Large and Mid-Cap Fund generated the highest excess return compared to the Capital Asset Pricing Model. The Kotak Equity Opportunities Fund has underperformed compared to the CAPM prediction.
- ❖ HDFC Flexi Cap Fund and Franklin India Flexi Cap Fund seem to be better-performing funds compared to the other funds.
- ❖ SBI Magnum Midcap Fund has shown consistency in its performance over different periods, generating positive returns.
- ❖ HDFC Top 100 Fund - Growth with Nippon India Large Cap Fund - Growth shows that both schemes have similar returns outperforming in the 1-year and 2-year periods.
- ❖ ICICI Prudential Large and Mid-Cap Fund have the highest returns over most of the periods.
- ❖ HDFC Flexi Cap Fund and JM Flexi Cap Fund have delivered relatively better returns over most time periods.

5.2 Suggestions:

- ★ It is suggested that the investors can invest in Quant Midcap fund as it gives the lower risk and highest returns than the expected returns. The minimum investment in equity and equity related instruments of midcap companies shall be 65 percent of total assets.
- ★ The investors can invest in JM Large cap equity fund as it gives lesser risk and better returns and performs well in Large cap equity fund. The minimum investment in equity and equity related instruments of large cap companies shall be 80 percent of total assets.
- ★ In case of Large and Midcap fund, the investors can prefer and invest in HDFC Large and Midcap fund as it gives lesser risk and highest returns compared to the other equity funds in the market. The minimum investment in equity and equity related instruments of large cap companies shall be 35 percent of total assets. The minimum investment in equity and equity related instruments of midcap stocks shall be 35 percent of total assets.
- ★ The investors can invest in HDFC flexi cap fund and Franklin India Flexi cap fund as it gives highest returns among the flexi cap fund. A Flexi cap fund provides the fund manager with greater investment choices and diversification possibilities.
- ★ If the investor needs highest returns in Equity Midcap fund then they are suggested to invest in SBI Magnum Midcap fund as it generates a highest return.
- ★ In case of Equity Large cap Fund the investors can prefer HDFC Top 100 fund and Nippon India Large cap fund as it gives higher returns.
- ★ In Equity Large and Midcap fund, the investors can prefer ICICI Prudential Large and Midcap fund as it generates a higher returns among the Equity Large and Midcap fund.
- ★ If the investor needs highest returns in Equity flexi cap fund then they can invest in HDFC flexi cap fund and JM flexi cap fund as it gives a highest returns.
- ★ If the investors are new for making an investment or unsure about the investment strategy then the investor can consult the financial advisor who can help the investors to create customized investment plan that matches with the investors goals and risk tolerance.

5.3 Limitations:

- The study is based on only about Equity oriented Mutual Funds in India
- The study is based upon the investors towards their investment in various equity mutual funds.
- The data collected for the research is fully on secondary data. Therefore, the data analyzed for risk and return may vary due to market fluctuations.
- Due to shortage of time and other constraints, the study has been limited to only ten equity mutual funds for analysis.

5.4 Conclusion:

Mutual fund industry has become one of the best platforms for the investors to invest their money. In older days most of the investors prefer to invest their money in banks in the form of savings. Rather than investing in banks, most of the investors prefer mutual fund as it gives better returns. For investors who are unfamiliar with mutual funds, this sector offers a wider financial education. If the investors want to go for less risk fund then they should go for higher rank in the Treynor measure. The investors who want to diversify their funds and get higher rate of return should go for higher rank in Sharpe measure. The investors have to analyze the fund performance and portfolio manager performance through Jensen measure. After analyzing the different mutual fund schemes, it is concluded that the investors can invest in HDFC Large and Midcap fund, HDFC Flexi cap fund, JM Large cap fund and Quant Midcap fund. The investors have the proper information about the asset management companies in order to get the good return and also contact the advisory securities of knowing which fund gives good return for their investment.

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ANNEXURE I RESEARCH ARTICLE

A STUDY ON PERFORMANCE ANALYSIS OF EQUITY ORIENTED MUTUAL FUNDS IN MUTUAL FUND INDUSTRIES

Dr. Rani, Harini.E

Associate professor-School of Management Studies, Student – 2nd Year MBA

Department of Management Studies

Sathyabama Institute of Science and Technology Chennai, India.

Abstract

A mutual fund is a collection of money that many individuals have contributed, and this money is then invested in a variety of financial instruments. Mutual funds provide a way to build wealth over the long term. This study used Jensen's Alpha, Treynor Index, Sharpe Index, Beta, and Standard Deviation to analyze the performance analysis of ten equities mutual funds. The returns of a sample of equity midcap, equity largecap, equity large and midcap, and equity flexi cap mutual funds were evaluated in this study. Ten years' worth of stock mutual fund returns were examined, and most equity mutual funds provide their highest returns during the year. According to the research, investors can invest in the JM Large Cap Fund, the Quant Midcap Fund, the HDFC Large and Midcap Fund, and the HDFC Flexi Cap Fund. The findings support the notion that equities mutual funds offer investors the lowest risk and best returns. The findings of this research endeavor will be extremely helpful to investors in making future investment decisions. The ideal location to invest in the stock market is through mutual funds.

Key words – Alpha, beta, sharpe, treynor, Jensen.

INTRODUCTION

Mutual Fund is essential part of the financial markets. It plays crucial role in the development and growth of the financial market. Mutual fund is the pool of funds raised from the number of investors and further this fund is invested in numerous investment securities such as equity, debt, government securities, money market instruments etc. Mutual fund provides the alternate to the investor to enter into the capital market. Investing through the mutual fund investors can participate in the growth of the economy and create wealth for future needs. Investor gets several advantages while investing in mutual funds like professional management, diversification, tax advantage, objective specific schemes. Therefore investor can invest according to their need, objectives and time horizon. Mutual fund offers the means of creating wealth over the periods of time.

OBJECTIVES OF THE STUDY

Primary objective:

1. To study a performance analysis of Equity oriented Mutual Fund.

Secondary objective:

1. To study and analyze risk-return relationship.
2. To evaluate the performance of selected equity mutual funds by using the portfolio performance evaluation models.
3. To analyze 10 equity mutual funds and ranked on the basis of high risk and return.
4. To know which equity scheme has given highest return during the year.

NEED FOR THE STUDY

This project's primary goal was to learn more about mutual funds and how they operate. This helps to know in details about mutual fund industry right from its starting stage, growth and future prospectus. The study contains of 10 selected large cap, small cap, midcap and multi cap equity mutual fund schemes launched by the mutual fund house. It also helps in understanding different schemes of equity mutual funds because my study depends upon important funds and their schemes like equity, income as well as risk and returns associated with other schemes. The project study was done to ascertain asset allocation, performance models like Sharpe, treynor and Jensen alpha.

REVIEW OF LITERATURE

Patel, M., Madhavan, V., Gupta, S.D., Kumar, S. March 2023 Using a wide sample, we assess the performance of Indian fixed-income mutual funds over a ten-year period from April 2010 to March 2020 in this study. We analyze the investment philosophies of the 190 fixed income funds that have the highest performance persistence across 16 different fund types. We analyze investment style using Sharpe's (1992) asset class factor model supplemented with Lobosco and di Bartolomeo's (1997) technique for statistical robustness and evaluate performance persistence using the recursive portfolio construction test. We also look at the relationship between style consistency and performance persistence and discover that persistent funds have less consistent style. According to our data, a substantial portion (73%) of the funds under consideration underperformed. Our findings from the style study point to a significant departure between investing goals set by regulators and investment style. The paper exhorts regulators to reevaluate the widespread practice of classifying funds according to Macaulay's term. The results of this study are even more relevant to investors, asset management firms, and policy makers given the rising popularity of Indian fixed income products.

Minnis, M. University of Chicago Booth School of Business, United States. November 2022 one of the most significant capital market developments over the last two decades has been the growth of private capital markets—markets that raise capital outside of publicly and may be subject to far less required public financial reporting on traded venues. A first-order research question is how to comprehend the factors that have contributed to the relative rise of private capital markets. Interest in regulating and studying private markets has developed as private capital markets have expanded. Demand should be strong for research that explains the advantages and disadvantages of regulating private capital markets. Kim and Olbert (hence referred to as KO) delve into this area to investigate if increased private firm disclosure has an impact on public capital markets. The public equity holdings of mutual funds and ETFs decrease when private corporations release more financial statement information, according to KO. From their research, KO concludes that more private firm disclosure has detrimental financial externalities for public corporations. I examine KO's exciting findings in this work and make suggestions for future study that will help strengthen and clarify its conclusions. Future research can validate KO's private company disclosure metric in particular and take into account the causal mechanism for private firm investment.

Islam, M.A. Corporate-bond fund investments and investor confidence in the equities market, Department of Finance, University of Dhaka, November 2021. The relationship between investor sentiment in stock is explored in this study market and investments in corporate-bond funds. When current equity market sentiment deviates from the historical norm, investors frequently invest in and withdraw from corporate-bond funds. For example, an improvement in equities market sentiment of one standard deviation results in inflows of 0.1% and 0.4% for active and index funds, respectively. It reflects the time-varying flight-to-safety behavior of investors. Additionally, funds with minimal equity-market sentiment exposure seem to draw in new investors, whereas funds with high equity-market sentiment exposure lose new investors, suggesting that investors are likely to steer clear of sentiment risk. The results also show a 2.22%–2.52% yearly difference between funds with the most exposure to positive sentiment and those with the largest exposure to negative sentiment. The results are robust to using alternative sentiment metrics and considering different sub periods.

Shivam Tripathi, Dr. Gurudutta P. Japee, March 2020 conducted research on “Performance Evaluation of Selected Equity Mutual Funds in India” The objective of the study to know whether mutual funds give reward to changeability and unpredictable nature, as well as separating fund return from securities market return. The

secondary data was gathered from a variety of sources, including factsheets from several AMCs, historical NAV, and yearly returns. Jensen's alpha, beta, standard deviation, and Sharpe ratio are statistical tools. The performance analysis of the selected 15 equity funds and clearly identified that the 10 funds are performed well and 5 are not during the study. The study's conclusions show that fluctuations in the performance of different equities are caused by market volatility.

March 2019 Anuja Magdum research was done on "A Comparative Study on Mutual Fund Schemes of Selected AMC's in India". This study's goal is to examine certain public and private sector mutual fund schemes in order to produce higher returns for the AMCs' schemes. AMC's in India. The data collected for the study is to consider the 5 years and for comparison 4 AMC's with each other. Fixed deposit rates are utilized for a risk-free return, and data is gathered from the value research, AMFI, and yahoo finance websites. Beta and CAGR were the study methodology used. The study has investigated the performance of equity based MF schemes in India and the private sector can better performed compare to the public sector.

RESEARCH DESIGN:

The research used a descriptive research design, which intended to combine pertinent facts with economic infrastructure and time in mind when gathering and analyzing data. Conceptual framework provided the framework for conducting, gathering, measuring, and analyzing research.

SOURCES OF DATA:

The data used for the research purpose is Secondary data. Secondary data were collected from various websites like fact sheets, Fundz bazar, money control etc.

TOOLS FOR ANALYSIS:

- Sharpe performance measure
- Treynor performance measure
- Jensen performance measure
- Return analysis

Sharpe Performance Measure: The Sharpe ratio, named after its founder, the Nobel Laureate William Sharpe, is a measure of risk adjusted returns. To compute the profit per unit of risk, excess return and standard deviation are used.

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

Where
 R_p = Return on fund
 R_f = Risk free rate of return
 σ_p = Standard deviation of fund
 S = Sharpe performance measure

Treynor Performance Measure: The link between annualized risk-adjusted return and risk is used to calculate the Treynor ratio, which is a measure of efficiency. Treynor ratio, in contrast to Sharpe ratio, uses "market" risk (beta) rather than overall risk (standard deviation).

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

Where
 R_p = Return on fund

R_f = Risk free rate of return
 β_p = Beta of fund
 T = Treynor performance measure

Jensen Performance Measure: When a fund's beta-measured level of risk is taken into account, the Jensen Performance Measure measures the discrepancy between the fund's actual returns and predicted performance. Jensen's Alpha is equivalent to the alpha derived from regressing the same or portfolio's returns in excess of the risk free rate against the market return in excess of the risk free rate.

$$\text{Jensen's Index} = \frac{\square_p - R_s}{R_M - R_{RF}}$$

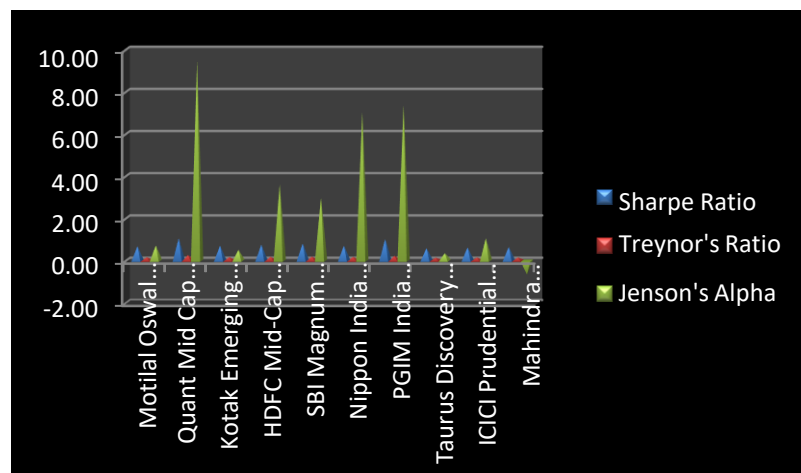
Where

$\square_p = R_p - R_s$
 R_p = Actual return on portfolio
 R_s = Expected return on portfolio
 $R_s = R_{RF} + \beta_p (R_M - R_{RF})$

Risk Analysis:

Overall performance of Equity Midcap Fund

Scheme Name	Sharpe Ratio	Treynor Ratio	Jenson's Alpha
Motilal Oswal Midcap Fund - Growth	0.68	0.16	0.72
Quant Mid Cap Fund - Growth	1.06	0.26	9.51
Kotak Emerging Equity Fund - Growth	0.71	0.16	0.51
HDFC Mid-Cap Opportunities Fund - Growth	0.76	0.18	3.61
SBI Magnum Midcap Fund - Regular Plan - Growth	0.82	0.19	2.98
Nippon India Growth Fund - Growth	0.71	0.18	7.05
PGIM India Midcap Opportunities Fund - Growth	1.03	0.23	7.38
Taurus Discovery (Midcap) Fund - Growth	0.59	0.14	0.35
ICICI Prudential MidCap Fund - Growth	0.63	0.15	1.05
Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth	0.65	0.15	-0.66

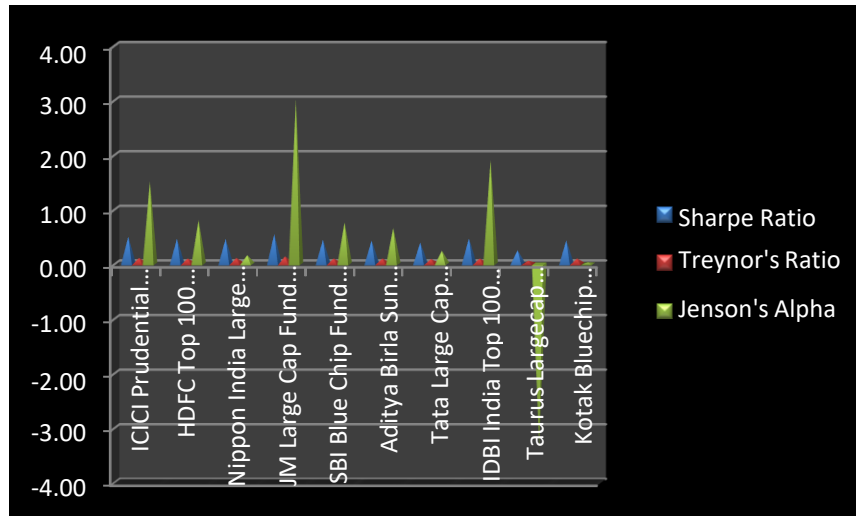


Interpretation

From the above table it is interpreted that Quant Mid Cap Fund - Growth has the highest Sharpe Ratio, Treynor Ratio, and Jenson's Alpha among the listed funds, indicating superior risk-adjusted performance and higher-than-expected returns. The PGIM India Midcap Opportunities Fund - Growth and the HDFC Mid-Cap Opportunities Fund - Growth also have relatively high Sharpe Ratios, Treynor Ratios, and Jenson's Alphas, indicating good performance. On the other hand, the Taurus Discovery (Midcap) Fund - Growth has the lowest Sharpe Ratio, Treynor Ratio, and Jenson's Alpha among the listed funds, indicating poorer risk-adjusted performance and lower-than-expected returns. The Mahindra Manulife Mid Cap Unnati Yojana - Regular Plan - Growth also has a negative Jenson's Alpha, indicating underperformance compared to its expected return based on its level of risk. Investors should carefully consider these performance metrics along with other factors, such as fund expenses, investment strategy, and past performance, before making investment decisions.

Overall performance of Equity Largecap Fund

Scheme Name	Sharpe Ratio	Treynor Ratio	Jenson's Alpha
ICICI Prudential Blue-chip Fund - Growth	0.5	0.11	1.51
HDFC Top 100 Fund - Growth	0.46	0.1	0.8
Nippon India Large Cap Fund - Growth	0.46	0.11	0.16
JM Large Cap Fund - Growth	0.55	0.14	3.01
SBI Blue Chip Fund - Regular Plan - Growth	0.44	0.1	0.76
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth	0.43	0.1	0.66
Tata Large Cap Fund - Regular Plan - Growth	0.39	0.09	0.24
IDBI India Top 100 Equity Fund - Growth	0.47	0.1	1.9
Taurus Largecap Equity Fund - Growth	0.25	0.06	-3.36
Kotak Blue-chip Fund - Growth	0.43	0.1	0.03

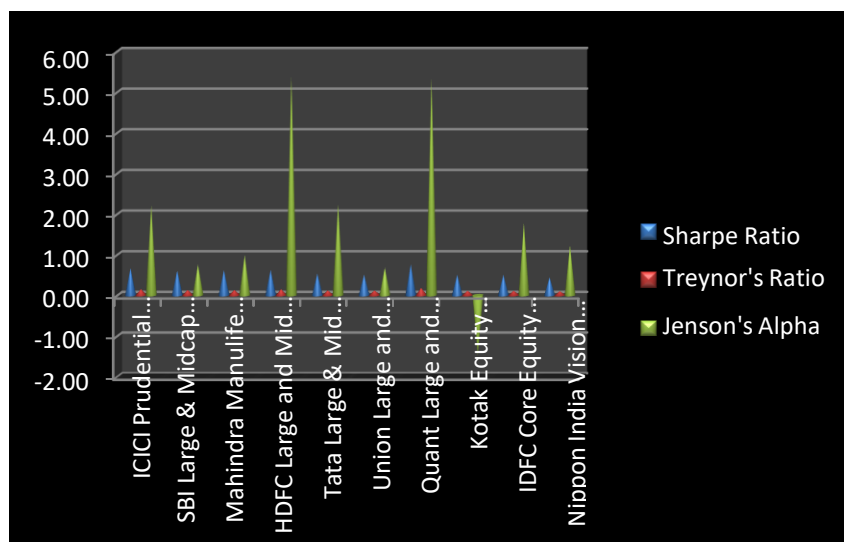


Interpretation

From the above table it is interpreted that the mutual fund with the highest Sharpe Ratio is JM Large Cap Fund - Growth with a value of 0.55, indicating it has better risk-adjusted performance compared to the other funds. The mutual fund with the highest Treynor Ratio is also JM Large Cap Fund - Growth with a value of 0.14, indicating it has outperformed the market relative to its systematic risk. The mutual fund with the highest Jensen's Alpha is JM Large Cap Fund - Growth with a value of 3.01, indicating it has outperformed the market given its level of systematic risk. Overall, JM Large Cap Fund - Growth appears to be the best performing mutual fund based on the provided performance metrics. However, it's important to note that past performance does not guarantee future results and other factors, such as fees and expenses, should also be considered when making investment decisions.

Overall performance of Equity Large and Midcap Fund

Scheme Name	Sharpe Ratio	Treynor Ratio	Jenson's Alpha
ICICI Prudential Large & Mid Cap Fund- Growth	0.67	0.15	2.21
SBI Large & Midcap Fund - Regular Plan - Growth	0.61	0.13	0.75
Mahindra Manulife Top 250 Nivesh Yojana - Regular Plan - Growth	0.62	0.13	0.99
HDFC Large and Mid-Cap Fund - Regular - Growth	0.62	0.15	5.38
Tata Large & Mid Cap Fund - Regular Plan - Growth	0.53	0.12	2.23
Union Large and Mid-Cap Fund - Regular Plan - Growth	0.51	0.12	0.68
Quant Large and Mid-Cap Fund - Growth	0.76	0.18	5.34
Kotak Equity Opportunities Fund - Growth	0.5	0.11	-1.49
IDFC Core Equity Fund - Regular Plan - Growth	0.5	0.11	1.78
Nippon India Vision Fund - Growth	0.44	0.1	1.23

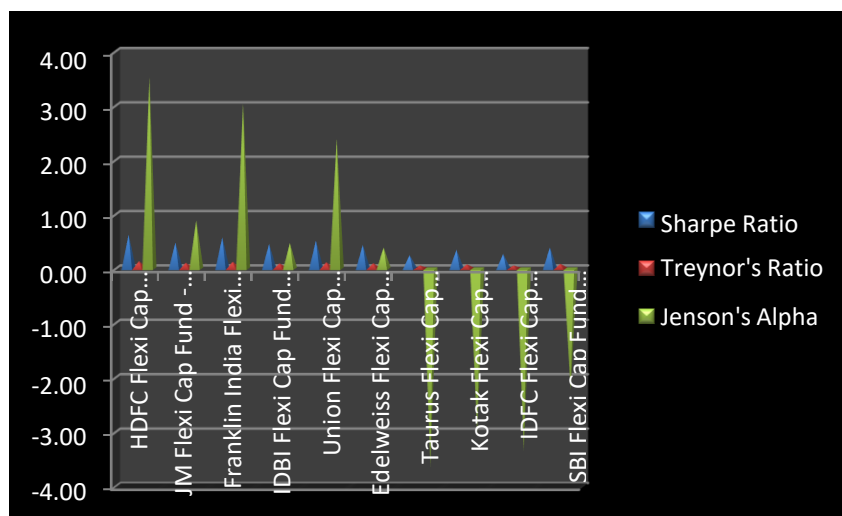


Interpretation

From the above table it is interpreted that mutual fund with the highest Sharpe Ratio is the Quant Large and Mid-Cap Fund, which has a Sharpe Ratio of 0.76, indicating that it has generated the highest return per unit of risk compared to the other funds in the sample. On the other hand, the Nippon India Vision Fund has the lowest Sharpe Ratio of 0.44, indicating that it has generated the lowest return per unit of risk compared to the other funds in the sample. The Quant Large and Mid-Cap Fund also has the highest Treynor Ratio of 0.18, indicating that it has generated the highest excess return per unit of market risk taken compared to the other funds in the sample. The Kotak Equity Opportunities Fund has the lowest Treynor Ratio of 0.11, indicating that it has generated the lowest excess return per unit of market risk taken compared to the other funds. The HDFC Large and Mid-Cap Fund has the highest Jensen's Alpha of 5.38, indicating that it has generated the highest excess return compared to the Capital Asset Pricing Model (CAPM) prediction. On the other hand, the Kotak Equity Opportunities Fund has a negative Jensen's Alpha of -1.49, indicating that it has underperformed compared to the CAPM prediction.

Overall performance of Equity Flexi cap Fund

Scheme Name	Sharpe Ratio	Treynor Ratio	Jenson's Alpha
HDFC Flexi Cap Fund - Growth	0.63	0.14	3.53
JM Flexi Cap Fund - Growth	0.48	0.11	0.89
Franklin India Flexi Cap Fund - Growth	0.58	0.13	3.05
IDBI Flexi Cap Fund - Regular Plan - Growth	0.46	0.1	0.47
Union Flexi Cap Fund - Growth	0.52	0.12	2.4
Edelweiss Flexi Cap Fund - Regular Plan - Growth	0.44	0.1	0.39
Taurus Flexi Cap Fund - Growth	0.25	0.06	-3.64
Kotak Flexi Cap Fund - Growth	0.35	0.08	-3.04
IDFC Flexi Cap Fund - Regular Plan - Growth	0.27	0.06	-3.35
SBI Flexi Cap Fund - Regular Plan - Growth	0.39	0.09	-2.23



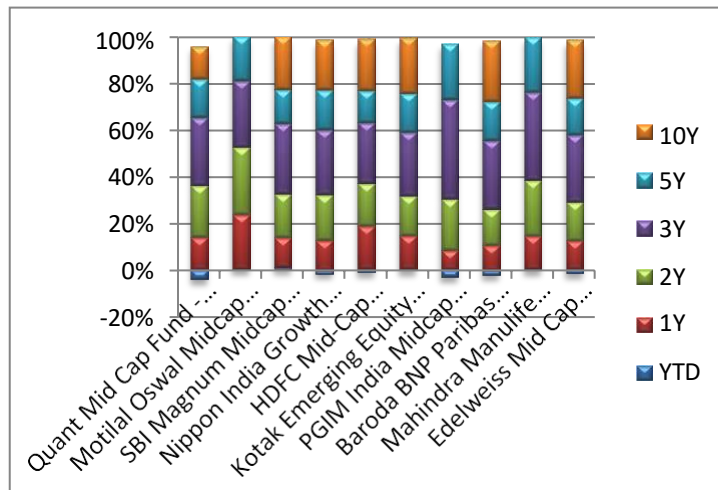
Interpretation

HDFC Flexi Cap Fund, Franklin India Flexi Cap Fund, and Union Flexi Cap Fund have a higher Sharpe ratio, which means they have provided better returns for the same level of risk taken. HDFC Flexi Cap Fund and Franklin India Flexi Cap Fund have a higher Treynor ratio, indicating better performance in terms of excess returns earned for each unit of systematic risk taken. HDFC Flexi Cap Fund and Franklin India Flexi Cap Fund also have a higher Jensen's alpha, indicating that they have outperformed their expected returns based on the market risk taken. Taurus Flexi Cap Fund, Kotak Flexi Cap Fund, IDFC Flexi Cap Fund, and SBI Flexi Cap Fund have a negative Jensen's alpha, indicating that they have underperformed their expected returns based on the market risk taken. Therefore, based on the given data, HDFC Flexi Cap Fund and Franklin India Flexi Cap Fund seem to be better-performing funds compared to the others in the list. However, other factors such as investment objectives, expense ratios, and fund manager's experience should also be considered before making any investment decision.

Return Analysis:

Return for Equity Midcap Fund

Scheme Name	YTD	1Year	2Year	3Year	5Year	10Year
Quant Mid Cap Fund – Growth Mid Cap Fund	-5%	15%	25%	33%	18%	16%
Motilal Oswal Midcap Fund – Growth Mid Cap Fund	0%	19%	23%	22%	15%	0%
SBI Magnum Midcap Fund - Regular Plan – Growth Mid Cap Fund	1%	11%	16%	26%	12%	19%
Nippon India Growth Fund – Growth Mid Cap Fund	-1%	10%	15%	22%	13%	17%
HDFC Mid-Cap Opportunities Fund – Growth Mid Cap Fund	-1%	17%	16%	23%	12%	19%
Kotak Emerging Equity Fund – Growth Mid Cap Fund	0%	12%	14%	23%	14%	20%
PGIM India Midcap Opportunities Fund – Growth Mid Cap Fund	-2%	6%	16%	30%	17%	0%
Baroda BNP Paribas Mid Cap Fund - Regular Plan – Growth Mid Cap Fund	-2%	7%	11%	20%	11%	18%
Mahindra Manulife Mid Cap Fund - Regular Plan – Growth Mid Cap Fund	0%	8%	13%	20%	13%	0%
Edelweiss Mid Cap Fund - Regular Plan – Growth Mid Cap Fund	-1%	10%	13%	23%	12%	20%

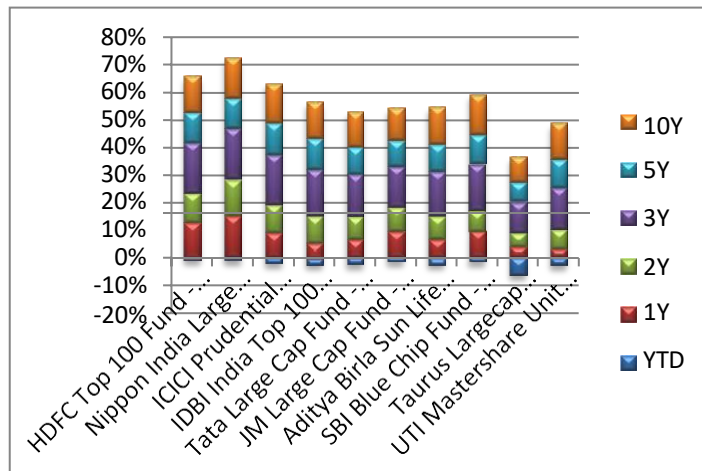


Interpretation

From the above table it is interpreted that all funds except one have generated positive returns over the last 1 year. The best performing fund in this period is Motilal Oswal Midcap Fund, which has returned 19%, followed by HDFC Mid-Cap Opportunities Fund and Quant Mid Cap Fund, which have returned 17% and 15% respectively. Over the longer term, the performance of the funds varies widely. For example, over the last 10 years, some funds have generated annualized returns of around 20%, while others have returned only around 0%. SBI Magnum Midcap Fund has shown consistency in its performance over different periods, generating positive returns of around 12-26% over the last 2-3 years. PGIM India Midcap Opportunities Fund has generated negative returns over the YTD period and the last 2 years, but has delivered strong returns of 16-30% over the last 3-5 years. It's important to note that past performance is not a guarantee of future returns and investors should consider other factors such as risk, expense ratios, and investment goals before making any investment decisions.

Return for Equity Largecap Fund

Scheme Name	YTD	1Year	2Year	3Year	5Year	10Year
HDFC Top 100 Fund – Growth Large Cap Fund	-1%	13%	11%	18%	11%	13%
Nippon India Large Cap Fund – Growth Large Cap Fund	-1%	15%	13%	18%	11%	15%
ICICI Prudential Blue-chip Fund – Growth Large Cap Fund	-2%	9%	10%	18%	11%	14%
IDBI India Top 100 Equity Fund – Growth Large Cap Fund	-3%	6%	9%	17%	11%	13%
Tata Large Cap Fund - Regular Plan – Growth Large Cap Fund	-3%	7%	8%	15%	10%	12%
JM Large Cap Fund – Growth Large Cap Fund	-2%	9%	9%	15%	9%	12%
Aditya Birla Sun Life Frontline Equity Fund - Regular Plan – Growth Large Cap Fund	-3%	7%	8%	16%	10%	14%
SBI Blue Chip Fund - Regular Plan – Growth Large Cap Fund	-2%	10%	7%	17%	11%	14%
Taurus Largecap Equity Fund – Growth Large Cap Fund	-7%	4%	5%	11%	7%	9%
UTI Master share Unit Scheme – Growth Large Cap Fund	-3%	3%	7%	15%	10%	13%

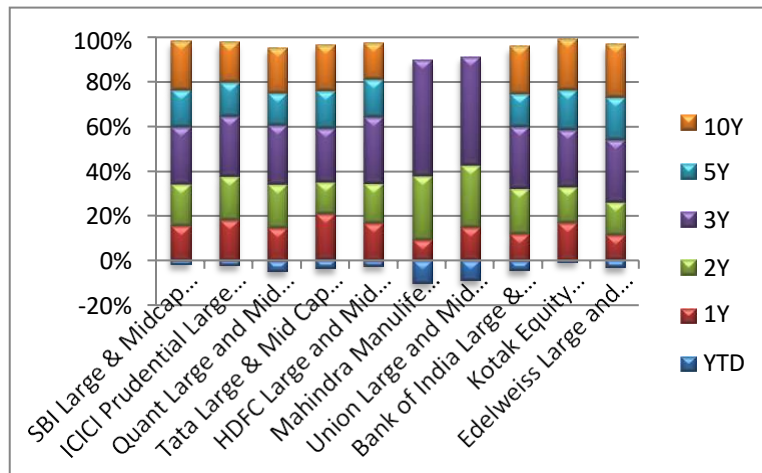


Interpretation

From the above table it is interpreted that HDFC Top 100 Fund - Growth with Nippon India Large Cap Fund - Growth shows that both schemes have similar returns across all time frames, with Nippon India outperforming in the 1-year and 2-year periods. Similarly, comparing Aditya Birla Sun Life Frontline Equity Fund - Regular Plan - Growth with ICICI Prudential Blue-chip Fund - Growth reveals that the former has higher returns over the 3-year and 5-year periods. Another way to interpret the data is by examining the trend of returns over time. For instance, looking at UTI Master Share Unit Scheme - Growth, we can see that the scheme has consistently provided positive returns over the last 10 years, despite a dip in the YTD returns. On the other hand, Taurus Largecap Equity Fund - Growth has negative returns over the YTD and 1-year periods, indicating poor performance.

Return for Equity Large and Midcap Fund

Scheme Name	YTD	1Year	2Year	3Year	5Year	10Year
SBI Large & Midcap Fund - Regular Plan – Growth Large & Mid Cap Fund	-2%	12%	14%	19%	13%	17%
ICICI Prudential Large & Mid Cap Fund- Growth Large & Mid Cap Fund	-2%	15%	16%	22%	12%	14%
Quant Large and Mid-Cap Fund – Growth Large & Mid Cap Fund	-5%	13%	18%	24%	13%	18%
Tata Large & Mid Cap Fund - Regular Plan – Growth Large & Mid Cap Fund	-3%	15%	10%	18%	12%	15%
HDFC Large and Mid-Cap Fund - Regular – Growth Large & Mid Cap Fund	-2%	12%	13%	22%	12%	12%
Mahindra Manulife Large & Mid Cap Fund - Regular Plan – Growth Large & Mid Cap Fund	-4%	3%	11%	19%	0%	0%
Union Large and Mid-Cap Fund - Regular Plan – Growth Large & Mid Cap Fund	-3%	5%	10%	17%	0%	0%
Bank of India Large & Mid Cap Equity Fund - Regular Plan – Growth Large & Mid Cap Fund	-3%	7%	12%	16%	8%	12%
Kotak Equity Opportunities Fund – Growth Large & Mid Cap Fund	-1%	12%	11%	18%	12%	16%
Edelweiss Large and Mid-Cap Fund - Regular Plan – Growth Large & Mid Cap Fund	-2%	7%	9%	17%	12%	15%

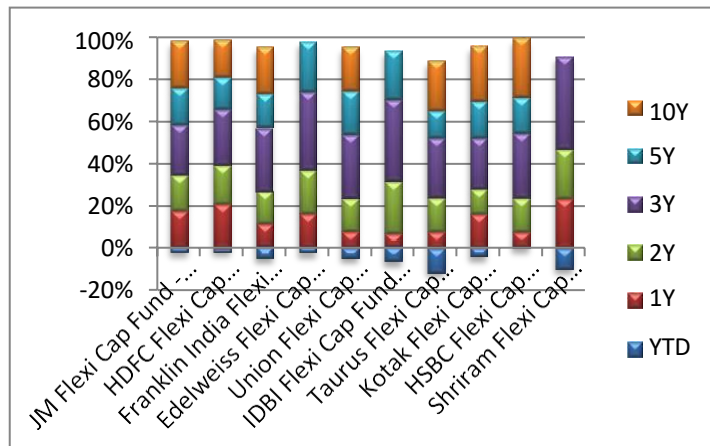


Interpretation

From the above table it is interpreted that all of the funds have negative returns in the YTD (Yield to Dividend) period, ranging from -1% to -5%. Over the past 1 year, most of the funds have positive returns, ranging from 3% to 15%. Over longer periods, the returns are generally higher, with most funds having double-digit returns over the past 3, 5, and 10 years. ICICI Prudential Large and Mid-Cap Fund have the highest returns over most of the periods, especially over the past 3 and 5 years. Mahindra Manulife Large and MidCap Fund, Union Large and Mid-Cap Fund, and Kotak Equity Opportunities Fund have zero returns over the past 5 or 10 years, indicating that they have not performed well over longer periods. Edelweiss Large and Mid-Cap Fund has relatively lower returns compared to other funds over most of the periods, except for the YTD (Yield to Dividend) and 2-year periods. It's important to note that past performance may not be indicative of future results, and investors should consider various factors such as their investment goals, risk tolerance, and portfolio diversification before making any investment decisions.

Return for Equity Flexi cap Fund

Scheme Name	YTD	1Year	2Year	3Year	5Year	10Year
JM Flexi Cap Fund – Growth Flexi Cap Fund	-2%	13%	12%	17%	13%	16%
HDFC Flexi Cap Fund – Growth Flexi Cap Fund	-2%	18%	16%	23%	13%	15%
Franklin India Flexi Cap Fund – Growth Flexi Cap Fund	-4%	8%	10%	20%	11%	15%
Edelweiss Flexi Cap Fund - Regular Plan – Growth Flexi Cap Fund	-1%	7%	9%	16%	10%	0%
Union Flexi Cap Fund – Growth Flexi Cap Fund	-3%	5%	9%	18%	12%	12%
IDBI Flexi Cap Fund - Regular Plan – Growth Flexi Cap Fund	-3%	3%	10%	16%	10%	0%
Taurus Flexi Cap Fund – Growth Flexi Cap Fund	-5%	3%	6%	11%	5%	10%
Kotak Flexi Cap Fund – Growth Flexi Cap Fund	-3%	9%	7%	14%	10%	16%
HSBC Flexi Cap Fund – Growth Flexi Cap Fund	0%	4%	8%	15%	8%	14%
Shriram Flexi Cap Fund - Regular Plan – Growth Flexi Cap Fund	-3%	6%	6%	12%	0%	0%



Interpretation

From the above table it is interpreted that most of the funds have delivered positive returns over the long term, i.e., 3 years, 5 years, and 10 years. However, their YTD performance has been negative or only slightly positive, which could be attributed to the ongoing pandemic and its impact on the markets. Out of the listed funds, HDFC Flexi Cap Fund, Kotak Flexi Cap Fund, and JM Flexi Cap Fund have delivered relatively better returns over most time periods, while Taurus Flexi Cap Fund and Franklin India Flexi Cap Fund have delivered relatively weaker returns. It's important to note that past performance is not a guarantee of future returns, and investors should always consult with a financial advisor before making any investment decisions.

FINDINGS, SUGGESTIONS AND CONCLUSIONS

Findings:

- ❖ Quant Mid Cap Fund - Growth has the highest Sharpe Ratio, Treynor Ratio, and Jensen's Alpha among the listed funds, indicating superior risk-adjusted performance and higher-than-expected returns. Taurus Discovery (Midcap) Fund and Mahindra Manulife Mid Cap Unnati Yojana has a negative Jensen's Alpha, indicating underperformance compared to its expected return.
- ❖ JM Large Cap Fund appears to be the best performing mutual fund based on the provided performance metrics.
- ❖ The HDFC Large and Mid-Cap Fund generated the highest excess return compared to the Capital Asset Pricing Model. The Kotak Equity Opportunities Fund has underperformed compared to the CAPM prediction.
- ❖ HDFC Flexi Cap Fund and Franklin India Flexi Cap Fund seem to be better-performing funds compared to the other funds.
- ❖ SBI Magnum Midcap Fund has shown consistency in its performance over different periods, generating positive returns.
- ❖ HDFC Top 100 Fund - Growth with Nippon India Large Cap Fund - Growth shows that both schemes have similar returns outperforming in the 1-year and 2-year periods.
- ❖ ICICI Prudential Large and Mid-Cap Fund have the highest returns over most of the periods.
- ❖ HDFC Flexi Cap Fund and JM Flexi Cap Fund have delivered relatively better returns over most time periods.

Suggestions:

- ★ If the investor needs highest returns in Equity Midcap fund then they are suggested to invest in SBI Magnum Midcap fund as it generates a highest return.
- ★ In case of Equity Large cap Fund the investors can prefer HDFC Top 100 fund and Nippon India Large cap fund as it gives higher returns.

- ★ In Equity Large and Midcap fund, the investors can prefer ICICI Prudential Large and Midcap fund as it generates a higher returns among the Equity Large and Midcap fund.
- ★ If the investor needs highest returns in Equity flexi cap fund then they can invest in HDFC flexi cap fund and JM flexi cap fund as it gives a highest returns.
- ★ If the investors are new for making an investment or unsure about the investment strategy then the investor can consult the financial advisor who can help the investors to create customized investment plan that matches with the investors goals and risk tolerance.

Conclusion:

Mutual fund industry has become one of the best platforms for the investors to invest their money. In older days most of the investors prefer to invest their money in banks in the form of savings. Rather than investing in banks, most of the investors prefer mutual fund as it gives better returns. For investors who are unfamiliar with mutual funds, this sector offers a wider financial education. Investors should choose funds with a better rank in the Treynor measure if they seek a lower risk investment. The investors who want to diversify their funds and get higher rate of return should go for higher rank in Sharpe measure. The investors have to analyze the fund performance and portfolio manager performance through Jensen measure. After analyzing the different mutual fund schemes, it is concluded that the investors can invest in HDFC Large and Midcap fund, HDFC Flexi cap fund, JM Large cap fund and Quant Midcap fund. The investors have the proper information about the asset management companies in order to get the good return and also contact the advisory securities of knowing which fund gives good return for their investment.

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