

# Risk-Return Dynamics in Indian Equity Mutual Funds: Decoding 10-Year Performance Across Large-, Mid-, and Small-Cap Segments

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## Abstract

This study is based on the analysis of the risk and returns of the selected large-cap, mid-cap, and smallcap funds equity mutual fund schemes for the period of 10 years from 2015-2024. The main objective of the study was to analyze the risk and return of the selected equity mutual fund schemes and to find the relationship between return and volatility for past 10 years. To acquire an overview of the current performance patterns of the Indian mutual fund, secondary data have been used and collected from several websites AMC's, AMFI's, moneycontrol.com, newspapers, journals, books, and magazines. The proper statistical and mathematical techniques, such as beta, standard deviation, covariance, Sharpe ratio, and Treynorratio, were used to analyze the current study.

The study found that the small-cap funds were having highest returns as compare to the large-cap and mid-cap equity funds schemes. The study concluded that the schemes had low risk and provided consistent returns to the investors over a period of time. The study suggested that the investors need to analyze carefully before investing in any mutual funds as it involves market risk and different funds are performing in different way.

**Keywords:** Indian equity mutual funds, Risk-return analysis, Treynor ratio, Beta, Standard deviation

## 1. Introduction

Mutual funds are one of the most favored investment avenues due to many reasons. Mutual Funds are issued by organizations set up as trusts that sell units to the general public or a specific segment of the public as part of one or more investment plans for assets, including money market instruments (Desai, 2010). The mutual fund industry in India is growing swiftly as a result of the country's speedy infrastructural development, rising personal financial assets, and more foreign investment. Due to India's growing risk appetite, increasing

income, and increased awareness, mutual funds are becoming a more popular option for investors. Indian Mutual fund industry has developed overwhelmingly in the last few decades. Investments in mutual funds are primarily made with the intention of minimizing risk for the desired return. This is accomplished via the use of professional experience, asset classification, and diversification strategies in the selected portfolio.

Equity mutual fund schemes are investment funds that primarily invest in stocks or equities of different companies. Equity mutual funds provide investors with an opportunity to participate in the potential growth of the stock market while diversifying their investments across a range of companies and sectors. By analyzing the risk and return characteristics of different equity mutual fund schemes, investors can make informed investment decisions. They can assess the potential returns they can expect from a particular fund and evaluate the level of risk associated with it. This analysis helps investors align their investment objectives and risk tolerance with suitable mutual fund schemes. Risk and return of equity mutual funds allow investors to compare different schemes within the same category. It helps them identify funds that have consistently delivered better returns relative to their risk levels and those that have managed risk more effectively.

The study evaluates the performance of the equity mutual fund schemes so that the investors are able to understand the relationship of risk and return when taking the decisions of investing in equity mutual fund schemes. Further the investors can get a better insight about investing in equity mutual fund schemes through the results of the study. Furthermore, the asset management companies can also be benefited through the results of the study. The results can also help the policy formulators forming policies for mutual fund schemes. Understanding and assessing the risks associated with mutual funds is crucial for making informed investment decisions. It's important to note that mutual funds offer varying degrees of risk based on their investment objectives, asset allocation, and investment strategies. Investors should carefully assess their risk tolerance, investment goals, and time horizon when selecting mutual funds. Diversification across different types of mutual funds can help manage risk by spreading investments across various asset classes and market segments. The study has three specific objectives. First, assess the risk and return of the selected equity mutual fund schemes. Second, evaluate the performance of selected equity mutual fund schemes. Third, find out the relationship between return and volatility of selected equity mutual fund schemes.

## **2. Literature review**

The reviewed literature on Indian mutual funds collectively shows an intense focus on risk–return trade-offs, diversification efficiency, fund manager skills, and the comparative performance of different fund categories across market phases. Across more than two decades of work, researchers consistently apply standard performance measures such as Sharpe, Treynor, Jensen's alpha, Fama's selectivity, beta, and standard deviation to evaluate whether mutual funds deliver returns commensurate with or in excess of the risk borne by investors.

### **Early evidence on performance and risk**

Rao (2003) provided one of the early systematic evaluations of Indian mutual funds, assessing 269 open-ended schemes between 1998 and 2002 using a comprehensive toolkit

that included risk–return analysis, Treynor’s ratio, Sharpe’s ratio, Jensen’s measure, and Fama’s measure, based on monthly closing NAVs sourced from AMFI. After excluding schemes with returns below the risk-free rate, 58 funds were examined in detail, and most were found to generate excess returns over those warranted by both systematic and total risk, suggesting that investors’ expectations were broadly met in a bearish market environment. In contrast, Tripathy (2004), studying 31 tax-planning ELSS schemes from 1994–95 to 2001–02, concluded that fund managers could not consistently harvest returns above the market or ensure efficient portfolio diversification, highlighting limitations in stock selection and risk management in this segment.

### **Fund manager skills and diversification**

The question of whether fund managers adequately compensate investors for higher risk and whether they display security selection ability recurs throughout the literature. Anand and Murugaiah (2006), using 113 equity-oriented schemes between 1999 and 2003, found that mutual funds generally failed to offset the higher risk assumed by investors, particularly in downturns. Their results indicated that market factors exerted a stronger negative influence during poor performance phases, while fund managers’ selectivity skills contributed positively in good times, and that selectivity, expected market risk, and market return were significantly related to fund returns.

Later studies such as Prabakaran and Jayabal (2010) and Divya (2012) reinforced the importance of active management quality by showing that a substantial subset of schemes in their samples delivered superior Sharpe, Treynor, or Jensen performance relative to benchmarks, while underperforming managers needed to review asset allocation and strategy in line with market cycles. These works stressed that dynamic review of investment strategy, improved diversification, and consistent benchmarks are necessary to enhance the attractiveness and effectiveness of mutual funds for investors and asset management companies.

### **Style, size, and category effects**

Several authors investigated whether performance varies systematically across fund categories such as large-cap, mid-cap, small-cap, sector, and hybrid schemes. Bhuva and Bantwa (2012) compared large-cap and mid-cap equity diversified funds between 2007 and 2011 using Sharpe, Treynor, Jensen, Fama’s selectivity, and beta, and found that around 60 percent of the schemes outperformed the market, largely due to strong stock selection, with no significant difference between long-run returns of large-cap and mid-cap funds. Rai et al. (2014), however, reported that mid- and small-cap schemes outperformed large-cap funds over 1-, 3-, and 5-year horizons, though at higher risk levels, leading to the conclusion that mid- and small-cap investments are more rewarding but riskier than large-cap schemes.

Sectoral and hybrid funds have also been examined in depth. Sunil and Pratap (2015), analysing 390 schemes (equity, debt, and hybrid) from 2009–10 to 2013–14, observed that sector funds outperformed other equity categories, while infrastructure funds and certain gilt funds performed the worst among equity and debt segments respectively. They also found that equity-oriented hybrid funds generated better risk-adjusted performance than other hybrid types, and that, overall, mutual fund investors earned higher returns from equity, debt, and hybrid funds than from benchmark indices during the study period. Malviya and Khanna (2020) further refined the category view by showing that large-cap schemes tend to deliver

relatively higher returns in the early period, mid-cap funds in the medium term, and small-cap funds in the medium to long term, although small caps carry higher risk; misalignment of investor time horizon with these category characteristics can lead to suboptimal outcomes.

### **Risk–return metrics and empirical patterns**

Across studies, classical risk-adjusted performance measures dominate. Kalpesh (2012) and Prajapati and Patel (2012) applied relative performance indices along with Sharpe, Treynor, Jensen, and Fama measures using NAV data from AMFI for 2007–2011, and reported that all selected mutual fund companies delivered positive returns, with HDFC and Reliance funds outperforming Sensex returns and exhibiting higher Sharpe and Treynor ratios. ICICI Prudential and UTI funds were found to carry lower risk, as evidenced by beta values below one for all sampled companies, implying lower volatility than the market, while HDFC's Sharpe index was the highest, signalling superior risk-adjusted performance. Choudhary and Chawla (2014), evaluating eight diversified equity funds between 2005 and 2013, concluded that about three-fourths of the schemes delivered superior average returns and that 62 percent were less risky than the market based on standard deviation, with most funds outperforming on both Sharpe and Treynor measures.

Subsequent work by Bhagyasree and Kishori (2016) on 30 open-ended growth-oriented equity schemes during 2011–2015 found that nearly half the schemes outperformed their benchmarks and all exhibited positive Sharpe ratios, indicating returns above the risk-free rate. Studies focused on specific funds, such as Kalyan and Gautami (2018) on contra funds and Mahesh and Sujatha (2020) on mid-cap funds, underline that fund-level risk–return profiles can differ markedly within a category, with some schemes (for example, TATA Contra or Sundaram Midcap) combining high risk with relatively attractive returns, thereby being recommended to investors capable of bearing higher volatility.

### **Industry growth, shocks, and recent evidence**

Beyond individual schemes, some authors study the evolution of the industry and its response to macroeconomic and regulatory developments. Jgadeeshwaran and Kumar (2017) used descriptive statistics, CAGR, t-tests, ANOVA, and regression to examine resources mobilised by bank-sponsored and FI-sponsored mutual funds, concluding that the expansion of the industry is evident from positive assets under management and growing resources. Pandow and Butt (2017) documented wide dispersion in returns, from negative to strongly positive, across 40 schemes between 2007 and 2011, and highlighted structural issues and challenges facing the sector. Rani and Hooda (2017), analysing top-ranked CRISIL schemes around the demonetisation episode, noted that while all selected funds outperformed the market on risk-adjusted measures overall, they recorded negative returns in November 2016, reflecting the sensitivity of mutual fund performance to policy shocks.

More recent studies, including Murthy et al. (2022), Singh et al. (2023), and Verma et al. (2024), extend this line of inquiry into the post-2019 period, again using daily NAVs from AMFI and measures such as Sharpe and Treynor ratios to assess performance of diversified equity schemes and specific funds like SBI Bluechip. These works consistently report that although market volatility and events such as the 2020 downturn materially affect short-term performance, most schemes generated positive returns over their full sample periods, reinforcing the view that mutual funds remain a prudent vehicle for accessing equity markets,

provided investors pay close attention to risk, return, safety, and liquidity when making investment decisions.

### 3. Material And Methods

Data collection is a fundamental process in which information is gathered and recorded for further analysis and decision-making. It involves systematically collecting and documenting data from various sources, such as surveys, interviews, observations, or existing databases. Data collection is an essential step in many fields, including scientific research, market analysis, social studies, and business operations.

Data collection related to risk and return typically involves gathering financial information and market data to assess the relationship between investment risks and potential returns. This data collection is essential for making informed investment decisions, portfolio management, and evaluating the performance of financial assets.

#### Data collection

Data collection is the methodical process of gathering and analyzing information from a range of sources to provide a thorough and accurate picture of a certain subject. Secondary sources of data serve as the foundation for the study's data structure. Due to the enormous number of schemes (Table 3.1) offered by different asset management firms (AMCs), the analysis was limited to only one type of mutual fund, namely equity mutual funds. A sample of 15 open ended equity diversified mutual funds (5 each) from large-cap, mid-cap, small-cap were selected out of 32 large-cap, 26 mid-cap and 19 small-cap equity mutual fund schemes on the basis of high returns in past 10 years as on 31<sup>st</sup> March 2024. More than 10% of the large-cap, mid-cap, small-cap schemes were selected for the study.

#### Secondary data

Secondary data refers to information that has been collected and compiled by someone else or for a different purpose than the one for which it is currently being used. The data is not gathered directly but is instead obtained from various existing sources. To acquire an overview of the current performance patterns of the Indian mutual fund, secondary data have been used and collected from websites, newspapers, journals, books, and magazines. The data was acquired from AMFIs, AMCs, moneycontrol.com etc. Over a ten-year period, the returns of the chosen mutual fund schemes were gathered.

**Table 3.1: Equity Mutual Fund Schemes**

Large-Cap Equity Mutual Fund Schemes	Mid-Cap Equity Mutual Fund Schemes	Small-Cap Equity Mutual Fund Schemes
Aditya Birla Sun Life Frontline Equity Fund	Aditya Birla Sun Life Mid Cap Fund	Canara Robeco Small Cap Fund
Axis Bluechip Fund	Axis Midcap Fund	DSP Small Cap Fund
Bandhan Large Cap Fund	Baroda BNP Paribas Midcap Fund	Edelweiss Small Cap Fund
Baroda BNP Paribas Large Cap Fund	DSP Midcap Fund	Franklin India Smaller Companies Fund
Canara Robeco Bluechip Equity Fund	Edelweiss Mid Cap Fund	HDFC Small Cap Fund
DSP Top 100 Equity Fund	Franklin India Prima Fund	HSBC Small Cap Equity

		Fund
Edelweiss Large Cap Fund	HDFC Mid-Cap Opportunities Fund	HSBC Small Cap Fund
Franklin India Bluechip Fund	HSBC Midcap Fund	ICICI Prudential Small Cap Fund
HDFC Top 100 Fund	ICICI Prudential Midcap Fund	IDBI Small Cap Fund
HSBC Large Cap Fund	IDBI Midcap Fund	Invesco India Smallcap Fund
ICICI Prudential Bluechip Fund	Invesco India Mid Cap Fund	ITI Small Cap Fund
IDBI India Top 100 Equity Fund	ITI Mid Cap Fund	Kotak Small Cap Fund
Indiabulls Bluechip Fund	Kotak Emerging Equity Fund	Nippon India Small Cap Fund
Invesco India Largecap Fund	Mahindra Manulife Mid Cap Fund	Quant Small Cap Fund
ITI Large Cap Fund	Mirae Asset Midcap Fund	SBI Small Cap Fund
JM Large Cap Fund	Motilal Oswal Midcap Fund	Sundaram Small Cap Fund
Kotak Bluechip Fund	Nippon India Growth Fund	Tata Small Cap Fund
LIC MF Large Cap Fund	PGIM India Midcap Opportunities Fund	Union Small Cap Fund
L&T India Large Cap Fund	Quant Mid Cap Fund	UTI Small Cap Fund
Mahindra Manulife Large Cap Fund	SBI Magnum Midcap Fund	
Mirae Asset Large Cap Fund	Sundaram Mid Cap Fund	
Navi Large Cap Equity Fund	Tata Midcap Growth Fund	
Nippon India Large Cap Fund	Taurus Discovery (Midcap) Fund	
PGIM India Large Cap Fund	Union Midcap Fund	
SBI Bluechip Fund	UTI Mid Cap Fund	
Sundaram Large Cap Fund		
Tata Large Cap Fund		
Taurus Largecap Equity Fund		
Union Largecap Fund		
UTI Mastershare Fund		

### Data Analysis

Data analysis involves computing metrics and identifying patterns in collected data using statistical tools like beta, standard deviation, covariance, Sharpe ratio, and Treynor ratio.

### Risk Analysis

Risk measures the variability of investment returns. Higher risk implies greater potential for both gains and losses.

### Return Analysis

Return analysis evaluates a mutual fund's historical gains or losses over specific periods.

### Risk-Return Trade-off

The risk-return trade-off assesses potential returns against associated risk, primarily via Sharpe ratio (total risk) and Treynor ratio (systematic risk).

## Key Metrics

### 1. Standard Deviation ( $\sigma$ )

Measures return volatility: Higher  $\sigma$  indicates greater total risk and potential returns; lower  $\sigma$  suggests stability.

### 2. Covariance

Assesses directional relationship between two assets' returns: Positive covariance means assets move together; negative implies inverse movement. Used in portfolio diversification.

### 3. Beta ( $\beta$ )

Measures systematic risk relative to market:  $\beta = 1$  matches market volatility;  $\beta > 1$  amplifies it;  $\beta < 1$  reduces it.

### 4. Sharpe Ratio

Evaluates excess return per unit of total risk: Higher values indicate better risk-adjusted performance.

### 5. Treynor Ratio

Measures excess return per unit of systematic risk: Higher positive values signal superior performance relative to market risk.

## 4. Results and Discussion

This section analyses the risk–return characteristics of 15 equity mutual fund schemes (large-cap, mid-cap, and small-cap) over the past 10 years using secondary data. The focus is on volatility (standard deviation, beta) and risk-adjusted performance (Sharpe and Treynor ratios) across categories.

### Data and scheme selection

Fifteen equity schemes were selected, five each from large-cap, mid-cap, and small-cap categories, based on highest returns over the last 10 years. Secondary data on standard deviation, beta, and returns (1-, 3-, 5- and 10-year) were used to compute Sharpe and Treynor ratios.

### Risk metrics: beta and volatility

Table 4.1 reports standard deviation and beta for all 15 schemes. Axis Bluechip Fund shows the lowest volatility (standard deviation 0.44) and a negative beta (-2.40), implying its returns move opposite to the market. Mirae Asset Large Cap Fund (standard deviation 1.87, beta 0.82) and SBI Bluechip Fund (1.74, 0.60) exhibit moderate volatility and positive market sensitivity. Nippon India Small Cap Fund is among the most volatile schemes (standard deviation 10.49) with a moderate beta (0.78), while DSP Small Cap and Kotak Small Cap also show high standard deviations above 8, reflecting elevated small-cap risk.

**Table 4.1: Beta and Standard Deviation of Large-Cap, Mid-Cap and Small-Cap Equity Mutual Fund Schemes**

Sr. No.	Name of Fund Scheme	Standard Deviation	Beta
1	Mirae Asset Large Cap Fund	1.87	0.82
2	SBI Bluechip Fund	1.74	0.60
3	Axis Bluechip Fund	0.44	-2.40
4	Nippon India Large Cap Fund	5.88	0.34
5	Aditya Birla Sun Life Frontline Equity Fund	3.50	0.57
6	Edelweiss Mid Cap Fund	3.88	0.78
7	Axis Midcap Fund	1.92	1.56

8	Kotak Emerging Equity Fund	3.95	0.74
9	SBI Magnum Midcap Fund	5.63	0.53
10	UTI Mid Cap Fund	3.95	0.71
11	SBI Small Cap Fund	3.36	1.87
12	Nippon India Small Cap Fund	10.49	0.78
13	DSP Small Cap Fund	10.62	0.70
14	Kotak Small Cap Fund	8.50	0.90
15	Franklin India Smaller Companies Fund	8.39	0.90

### Category-wise risk profile

Within large-caps, Nippon India Large Cap Fund has the highest volatility (standard deviation 5.88) while Mirae Asset and SBI Bluechip have more moderate risk levels. Among mid-caps, Axis Midcap has relatively low volatility (1.92) but the highest beta (1.56), indicating strong sensitivity to market moves, whereas SBI Magnum Midcap shows higher volatility (5.63) but lower beta (0.53). In small-caps, SBI Small Cap Fund has lower volatility (3.36) but the highest beta (1.87), whereas Nippon India Small Cap and DSP Small Cap combine very high volatility with betas below 1, indicating high idiosyncratic risk.

### Asset management companies

The schemes are managed by leading AMC's such as Mirae Asset, SBI Funds Management, Axis AMC, Nippon Life India AMC, Aditya Birla Sun Life AMC, Edelweiss AMC, Kotak Mahindra AMC, UTI AMC, DSP Investment Managers, and Franklin Templeton. Risk profiles differ more by scheme and strategy than by AMC name, although Axis schemes (Axis Bluechip, Axis Midcap) consistently show lower volatility in their respective categories.

### Return performance across horizons

Table 4.2 summarizes multi-period returns. Among large-caps, Mirae Asset Large Cap Fund delivers strong and consistent returns (18.18% over 1 year and 16.93% over 10 years), while Axis Bluechip Fund maintains stable performance across 3- and 5-year periods. Nippon India Large Cap Fund exhibits very high 1-year returns (25.07%) but comparatively lower medium-term consistency. In mid-caps, Edelweiss Mid Cap and Axis Midcap stand out with robust 3-, 5-, and 10-year returns above 16%, and SBI Magnum Midcap Fund shows particularly strong 1-year performance (26.51%). Small-cap funds exhibit the highest growth: SBI Small Cap and Nippon India Small Cap record exceptional 1-year (28.26% and 44.12%) and 10-year returns (25.09% and 25.02%), with DSP, Kotak Small Cap, and Franklin India Smaller Companies also delivering strong long-term numbers.

**Table 4.2: Returns of the Selected Equity Mutual Funds Schemes**

Sr. No.	Name of Fund Schemes	Regular Return			
		1 year	3 years	5 years	10 years
1.	Mirae Asset Large Cap Fund	18.18	14.79	14.17	16.93
2.	SBI Blue chip Fund	16.13	15.32	12.36	15.87
3.	Axis Blue chip Fund	15.68	16.53	16.44	15.76
4.	Nippon India Large Cap Fund	25.07	12.64	12.86	15.07

5.	Aditya Birla Sun Life Frontline Equity Fund	20.11	14.15	11.80	15.03
6.	Edelweiss Mid Cap Fund	25.66	22.88	16.48	20.65
7.	Axis Mid cap	23.38	22.75	19.35	20.31
8.	SBI Magnum Mid cap Fund	26.51	22.10	12.99	20.12
9.	Kotak Emerging Equity Fund	24.43	22.37	15.23	20.12
10.	UTI Mid Cap Fund	22.63	21.36	13.69	19.52
11.	SBI Small Cap Fund	28.26	25.32	20.14	25.09
12.	Nippon India Small Cap	44.12	28.34	19.75	25.02
13.	DSP Small Cap Fund	39.21	25.04	13.70	22.07
14.	Kotak Small Cap Fund	36.44	31.25	18.58	20.76
15.	Franklin India Smaller Companies Fund	31.37	17.19	11.40	20.54

#### Sharpe ratio: risk-adjusted returns

Sharpe ratios (Table 4.3) indicate that, on a total risk-adjusted basis, small-cap schemes dominate. Nippon India Small Cap (28.64), Kotak Small Cap (25.94), DSP Small Cap (24.35), SBI Small Cap (22.62), and Franklin India Smaller Companies Fund (19.29) all show very high Sharpe values, implying strong excess returns per unit of total risk. In the mid-cap segment, Edelweiss Mid Cap (19.61) and SBI Magnum Midcap (19.19) lead, followed closely by Kotak Emerging Equity and Axis Midcap. Among large-caps, Nippon India Large Cap (15.22), Aditya Birla Sun Life Frontline Equity (13.27), and Mirae Asset Large Cap (12.27) offer solid risk-adjusted performance, whereas Axis Bluechip Fund's Sharpe ratio (0.31) is notably low despite its very low volatility, indicating weak reward for risk.

**Table 4.3: Sharpe Ratio of Selected Mutual Fund Schemes**

Sr. No.	Name of Fund Scheme	Sharpe Ratio
1.	Mirae Asset Large Cap Fund	12.27
2.	SBI Blue chip Fund	10.89
3.	Axis Blue chip Fund	0.31
4.	Nippon India Large Cap Fund	15.22
5.	Aditya Birla Sun Life Frontline Equity Fund	13.27
6.	Edelweiss Mid Cap Fund	19.61
7.	Axis Mid cap	17.81
8.	Kotak Emerging Equity Fund	18.76

9.	SBI Magnum Mid cap Fund	19.19
10.	UTI Mid Cap Fund	17.53
11.	SBI Small Cap Fund	22.62
12.	Nippon IndiaSmallCap	28.64
13.	DSP Small CapFund	24.35
14.	KotakSmall CapFund	25.94
15.	Franklin India Smaller Companies Fund	19.29

### Treynor ratio: compensation for systematic risk

Treynor ratios (Table 4.4) highlight how well schemes compensate investors for systematic (beta) risk. SBI Small Cap (20.956) and Nippon India Small Cap (20.335) emerge as top performers on this metric, confirming their superior reward per unit of market risk. Kotak Small Cap (18.961) and Axis Midcap (16.970) also show strong Treynor ratios, indicating attractive risk-adjusted performance in small- and mid-cap segments. In the large-cap category, Axis Bluechip Fund posts a high Treynor ratio (19.022) despite its low Sharpe and negative beta, reflecting the mechanical effect of very low (and negative) beta in the calculation, whereas Nippon India Large Cap Fund has a negative Treynor ratio (-3.987), indicating poor compensation for systematic risk over the period.

**Table4.4: Treynor RatioofSelected EquityMutualFundSchemes**

Sr. No.	Nameof Fund Scheme	TreynorRatio
1.	Mirae Asset Large Cap Fund	7.512
2.	SBI Blue-chip Fund	3.277
3.	Axis Blue-chip Fund	19.022
4.	Nippon India Large Cap Fund	-3.987
5.	Aditya Birla Sun Life Frontline Equity Fund	2.914
6.	Edelweiss Mid Cap Fund	12.398
7.	Axis Mid cap	16.970
8.	Kotak Emerging Equity Fund	11.108
9.	SBI Magnum Midcap Fund	7.169
10.	UTI Mid Cap Fund	9.375
11.	SBI Small Cap Fund	20.956
12.	Nippon IndiaSmallCap	20.335
13.	DSP Small CapFund	14.948
14.	Kotak Small Cap Fund	18.961

<b>15.</b>	Franklin India Smaller Companies Fund	12.379
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### Overall comparative insights

Overall, small-cap schemes deliver the highest returns and the strongest Sharpe and Treynor ratios, but with substantially higher volatility, confirming a high-risk, high-return profile. Mid-cap funds like Edelweiss Mid Cap and Axis Midcap strike a balance between return and risk, offering strong risk-adjusted performance. Among large-caps, Mirae Asset Large Cap, Aditya Birla Sun Life Frontline Equity, and Nippon India Large Cap (on Sharpe) appear relatively attractive, while Axis Bluechip's very low volatility but weak Sharpe highlights that low risk alone does not guarantee superior risk-adjusted returns. Investors should therefore evaluate schemes jointly on volatility (standard deviation, beta) and risk-adjusted metrics (Sharpe, Treynor), aligned with their risk tolerance and investment horizon.

### 5. Conclusion and suggestion

The present study is on "Risk and Return Analysis of selected equity mutual fund schemes". The main objective of the study was to compare the performance of large-cap and mid-cap and small-cap mutual funds schemes. The study is based on the performance of selected equity mutual fund schemes in the past 10 years. Statistical and financial tools i.e. Sharpe ratio, Treynor ratio, Beta, Standard Deviation and Co-variance have been used for the analysis of the data.

This analysis of 15 Indian equity mutual fund schemes (5 each from large-cap, mid-cap, and small-cap categories, managed by 10 AMCs) over 10 years reveals distinct risk-return profiles. Large-cap funds (e.g., Mirae Asset Large Cap, SBI Bluechip) show lowest volatility (SD 1.44-5.88) and moderate betas (0.34-0.82, except Axis Bluechip's -2.40), with stable returns and Sharpe ratios of 0.31-15.22; Treynor ratios range widely (-3.987 to 19.022).

Mid-cap funds (e.g., Edelweiss Mid Cap, Axis Midcap) exhibit moderate volatility (SD 1.92-5.63) and betas (0.53-1.56), delivering higher returns than large-caps, with strong Sharpe ratios (17.53-19.61) and Treynor ratios (7.169-16.970). Small-cap funds (e.g., SBI Small Cap, Nippon India Small Cap) display highest volatility (SD 3.36-10.62) and returns, alongside top risk-adjusted metrics: Sharpe ratios (19.29-28.64) and Treynor ratios (12.379-20.956). Small-caps offer superior growth and risk-adjusted performance but elevated risk, suiting aggressive investors; large-caps favor stability for conservative ones; mid-caps balance both.

The risk-averse investors should choose large-cap mutual fund schemes for a balanced growth as the findings of the study showed that the large-cap schemes were having the least risk involved. Investors with higher risk tolerance should invest in small-cap mutual fund schemes for higher risk with higher volatility. One should consider funds with higher Sharpe ratios and positive Treynor ratios for efficient risk-adjusted returns. Investors investing in asset management companies should consider the past performance in addition to performance metrics. The investors with a higher risk appetite should choose mid-cap funds for potential growth and high-risk, high-return.

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