



Measuring Financial Performance of Select Small Cap Mutual Funds in India: An Analysis

Abhishek Dutta

Department of Commerce, University of Gour Banga, Malda, West Bengal, 732103 India

*Corresponding Author's E-Mail: dabhishek.research@gmail.com

Abstract

Background: The Indian economy heavily relies on retail investors but rising inflation and limited resources are diminishing their surplus funds. In such challenging times, retail investors increasingly turn to mutual funds, particularly Small Cap Funds (SCFs), for investment opportunities. These funds, known for their higher risk and potential for greater returns, have gained popularity among retail investors in India. **Objective:** The study aims to assess the performance of four SCFs using risk-return parameters and compare their returns with the benchmark Nifty Small Cap 250 TRI over a decade. **Methods:** Four SCFs – Nippon India Small Cap Fund (NISCF), HDFC Small Cap Fund (HDFCSCF), SBI Small Cap Fund (SBISCF), and Quant Small Cap Fund (QSCF) – were selected based on AUM of over Rs. 25,000 crores and at least ten years of operation. Data from January 2015 to December 2024 were analysed using metrics like Compounded Annual Growth Rate (CAGR), Sharpe Ratio, Treynor Ratio, and Alpha Value. **Results:** All funds outperformed the benchmark in return generation. NISCF led in return generation, while QSCF excelled in risk-adjusted returns (Treynor Ratio). Positive alpha values indicated effective stock selection by fund managers, with most funds remaining defensive and minimising unsystematic risks. **Conclusion:** The selected SCFs performed better than the benchmark in terms of both returns and risk-adjusted metrics. Investors should consider these performance indicators when evaluating mutual fund options for optimal returns, especially in volatile markets.

Keywords: AUM; Direct Plan; Mutual Fund; SEBI; Small Cap Fund

Introduction

Retail investors are the backbone of the Indian Financial System (Shafaq, 2023). However, due to rising prices and inflation, the surplus funds available in the hands of retail investors are decreasing day by day. Under these circumstances, retail investors seek new investment avenues for their survival. Mutual funds offer this facility to a great extent. Among retail investors, mutual funds are an extremely common investment mechanism in India (Kaur & Kaushik, 2016). By applying these mechanisms, investors – mainly retail individual investors – engage their savings with a common investment objective.

The corresponding asset management company, popularly known as the fund house, is responsible for managing each mutual fund with a variety of plans, supported by a qualified professional fund manager. Depending on their preferences, investors have the freedom to invest their savings in one or more mutual fund schemes. Currently, various fund schemes are available for different types of investors based on their risk-taking appetite.

At present, SEBI specifies various types of mutual fund schemes, such as equity schemes, debt schemes, hybrid schemes, solution-oriented schemes for retired persons and children, and other

schemes, including index funds, exchange-traded funds, and fund of funds (Association of Mutual Funds in India, 2025). A fund that invests mostly in stocks is known as an equity fund. On the other hand, an equity fund that invests a major portion of its corpus in "Small Cap Companies" (SCCs) is referred to as a Small Cap Fund (SCF) (Rompotis, 2019).

These companies are initially smaller in size but have tremendous growth opportunities (Filip *et al.*, 2021). That is why these funds are initially risky, but they can provide significant returns over time. Because of this, the stocks of these companies are inherently volatile. If the correct stocks are chosen, SCFs can provide substantial returns on investment. They are comparatively riskier than large-cap and mid-cap funds.

Objectives of the Study

After identifying the research gap from a review of past literature, the following objectives have been set to conduct the study:

- To examine the performance of chosen funds by using different risk-return parameters
- To evaluate the performance of chosen funds with reference to the prescribed benchmark index (Nifty Small Cap 250 TRI).

Literature Review

Verma and Hirpara (2016) conducted a study considering Nifty 50 as a market performance index and noticed that there is a contradiction between the results of the "Sharpe Ratio" and the "Treynor Ratio". This occurred when market investments were riskier than portfolio investments. Muthuseshan (2019) examined the perception of investors regarding various schemes of mutual funds available in India from the marketing point of view. This is further supported by the development of several schemes and the overall progress of the sector. Agents, family members, and other individuals can encourage investors to invest in mutual funds.

The research conducted by Tripathy and Patjoshi (2020) involved collecting 120 responses from mutual fund investors. The study aimed to identify the different demographic factors that affect investors' perceptions and awareness of investing in different mutual fund schemes. It concluded that regular customer awareness programmes are necessary for protecting investors and influencing their decisions to invest in mutual funds as they become more informed. Finally, it was identified that investors' opinions and perceptions have been examined on several topics, including the type of mutual fund scheme, the primary reason for investing in it, investor satisfaction levels, and the role of bankers and financial advisors.

Chalshi and Vidya (2022) analysed the performance of various blue-chip funds and concluded that if market performance is good, they will generate good returns and vice versa. Maheswari and Reddy (2022) examined a group of funds and noticed that an investor, before investing, should consider various parameters such as "Treynor's ratio", "Jensen's alpha", "Sharpe's ratio", "standard deviation", "beta", etc. Ningrum and Risman (2022) conducted a study and observed that there is no significant difference between capital-protected funds and equity funds in terms of different risk-return parameters, using a t-test.

A study by Rani and Benita (2022) identified that most retail investors invested in mutual funds for safety and to reduce their tax burden. They also identified the key elements that affect individual investor preferences and satisfaction. They found that the majority of respondents preferred and highly rated private sector mutual fund schemes and wanted to invest in them. They finally concluded that the study would help mutual fund businesses raise awareness and improve investor services and policy programmes.

Virparia (2022) noted that investors might have made their investments at the wrong time and missed the chance to receive sufficient returns due to a lack of knowledge about mutual fund investment factors.

Jesrani (2023) noticed that among aggressive funds, the “ICICI Prudential Equity and Debt Fund” performed better, while the “Kotak Debt Hybrid Fund” had the highest annual return among conservative hybrid funds. Sharma (2023), using various statistical tools and methodologies including “average return”, “alpha”, “beta”, “Sharpe ratio”, “Treynor ratio”, “Sortino ratio”, and “standard deviation”, discovered that there is a significant variation in the performance of the chosen funds.

Using a quantitative approach, Sharma and Joshi (2023) collected data through a structured questionnaire survey from a sample of residents in North Ahmedabad. The study covered a wide range of aspects, such as mutual fund awareness and demographic insights. The findings showed that investors view investment choices as a means of ensuring their families' future security and prosperity, and they have a wide range of preferences with varying importance for each component. Bhargava *et al.* (2024) conducted a study assessing the impact of Nifty 50 on mutual funds during the Covid period, revealing that most fund houses adopted various strategies to minimise substantial losses.

Madhavi and Cheepuri (2024) studied the returns of blue-chip mutual fund schemes using monthly Net Asset Values (NAV) to assess their performance and observed that most funds were able to generate superior returns. Reza *et al.* (2024), using traditional techniques such as the “Sharpe ratio” and “Treynor ratio” on Sharia funds, identified that the majority of the schemes performed better compared to the benchmark. Vidal *et al.* (2025), selecting 19,868 actively managed equity mutual funds across 35 countries, identified that most of the funds are efficiently managed and are more efficiently managed than the stock market.

The literature review showed that previous research has focused on the financial performance of various schemes available in India by considering the ownership pattern and fund type, but not the size. Therefore, more advanced study in this field is still possible. In this study, the performance of a few SCFs in India is compared to a predetermined benchmark.

Research Methodology

The analysis is empirical in nature and is supported by quantitative data, such as various risk-return metrics gathered from the AMFI website. The study covers the period from 1 January 2015 to 31 December 2024, spanning a total of ten years, which allows for a comprehensive examination of fund performance over a significant period. This study considers Small Cap Funds (SCFs) with at least ten years of existence and Assets Under Management (AUM) of Rs. 25,000 crores and above as of 31 January 2025. The selection criteria ensure that the funds analysed are both well-established and financially substantial, thus minimising the influence of smaller or newer funds on the results.

The study focuses solely on the ‘Direct Plan’ of these funds, excluding the ‘Regular Plan’ to avoid any potential biases caused by distributor commissions. The analysis does not take into account the effect of the ‘Entry Load’ and ‘Exit Load,’ as these fees were either not applicable to the selected plans or their impact was considered negligible for the purpose of evaluating long-term performance. The research also uses monthly returns for the funds and the benchmark index (Nifty Small Cap 250 TRI) to calculate risk-adjusted returns, allowing for a detailed assessment of the funds' performance relative to market conditions. Various performance metrics, including the Sharpe Ratio, Treynor Ratio, Alpha, and Beta, are applied to evaluate the risk-return profiles of the funds in question.

Results

Table 1: Criteria for Choosing SCF

	Number of Scheme
Total SCF available as of 30.01.2025	48
Less: Number of Scheme not considered due to the selection criteria	44
Funds Selected (Having AUM more than Rs. 25,000 crores and more than 10 years in operation)	04

Table 1 presents the criteria used for selecting the four Small Cap Funds (SCFs) for the study. It shows that, out of the 48 SCFs available as of January 30, 2025, only 4 funds were chosen based on two main

criteria: they must have Assets Under Management (AUM) of over Rs. 25,000 crores and have been in operation for at least 10 years. This selection ensures that the study focuses on well-established and financially substantial funds.

Table 2: Assets under Management and Asset allocation of Select Small Cap Mutual Funds

Sl. No.	Fund Name	Fund Company	Inception Date	AUM (in Crores as on 30.01.2025)	Distribution of Corpus		
					Stocks (%)	Bonds (%)	Cash (%)
1	NISCF	Nippon India Mutual Fund	2013-01-01	61,974	94.96%	0.03%	5.01%
2	HDFCSCF	HDFC Mutual Fund	2013-01-01	33,893	94.53%	0.00%	5.47%
3	SBISCF	SBI Mutual Fund	2013-01-01	33,496	91.80%	0.16%	8.04%
4	QSCF	Quant Mutual Fund	2013-01-01	26,670	93.40%	1.11%	5.48%

The funds' significant tilt towards equity is shown in Table 2. All of the funds have more than 90% equity exposure with a period of more than 10 years. As a result, these funds have experienced several market "bull" and "bear" phases.

Under the "Growth" option, the month-end Net Asset Values (NAVs) have been taken into account. The benchmark index's month-end closing values (Nifty Small Cap 250 TRI) have also been considered. The interest rate of the "Public Provident Fund" for the quarter October–December 2024 (7.1%) is taken as the "annualised risk-free rate" (R_f).

Monthly returns of the funds (R_p) and their benchmarks (R_b) are calculated as follows:

$$R_p = (\text{NAV}_t - \text{NAV}_{t-1}) / \text{NAV}_{t-1}$$

$$R_b = (\text{Value}_t - \text{Value}_{t-1}) / \text{Value}_{t-1}$$

For the purpose of the study following tools have been considered:

- Compounded Annual Growth Rate (CAGR): To determine the yearly average rate of return.
- Annualised Standard Deviation of funds return: To calculate the fund return's volatility.
- Sharpe Ratio: To figure out the risk-adjusted return in terms of the overall risk of the funds.
- Treynor Ratio: To measure the risk-adjusted return expressed in terms of funds systematic risk.
- Alpha Value: To measure the efficiency of fund's manager's performance in picking quality stocks.
- Beta Value: To measure the systematic risk.
- RSQ Value: To measure the unsystematic risk.

Performance Analysis of the Select Funds

Table 3: Compounded Annual Growth Rate of Select Small Cap Mutual Funds

Sl. No.	Fund	R_p	Rank
1	NISCF	22.9740	1
2	HDFCSCF	19.6769	4
3	SBISCF	21.2703	2
4	QSCF	21.1759	3
	R_b	16.6631	

Table 3 displays the Compounded Annual Growth Rate (CAGR) for the funds and the benchmark. From the above table, it is revealed that in terms of return generation, NISCF is the best-performing fund for the entire study period. On the other hand, all the chosen funds have outperformed the specified benchmark (Nifty Small Cap 250 TRI).

Measurement of the Volatility of Funds Return: Annualised Standard Deviation**Table 4: Annualised Standard Deviation of Select Small Cap Mutual Funds**

Sl. No.	Fund	SD _p	Rank
1	NISCF	21.0763	4
2	HDFCSCF	20.0791	2
3	SBISCF	18.7725	1
4	QSCF	20.3442	3
	SD_b	23.1609	

Table 4 illustrates the “annualised standard deviation” (SD) of the funds and the benchmark, making it clear that SBISCF has the highest degree of return volatility, while NISCF has the lowest degree of volatility in terms of the risk associated with fund returns. However, all of the selected funds are riskier than the Nifty Small Cap 250 TRI benchmark.

Measurement of the Risk Adjusted Return: Sharpe Ratio**Table 5: Sharpe Ratio of Select Small Cap Mutual Funds**

Sl. No.	Fund	SR _p	Rank
1	NISCF	0.7532	2
2	HDFCSCF	0.6264	4
3	SBISCF	0.7548	1
4	QSCF	0.6919	3
	SR_b	0.4129	

The funds’ “risk-adjusted return” is displayed in Table 5 as a “Sharpe Ratio” (SR) expressed in terms of SD. The SBISCF has been the top-performing fund when considering risk-adjusted returns as determined by the “Sharpe Ratio”. Additionally, all the chosen funds have outperformed the risk-adjusted returns generated by the benchmark (Nifty Small Cap 250 TRI).

Measurement of the Risk Adjusted Return: Treynor Ratio**Table 6: Treynor Ratio of Select Small Cap Mutual Funds**

Sl. No.	Fund	TR _p	Rank
1	NISCF	17.8838	3
2	HDFCSCF	14.9842	4
3	SBISCF	18.6699	2
4	QSCF	21.2080	1
	TR_b	9.5631	

The funds’ “risk-adjusted return” is displayed in Table 6 as a “Treynor Ratio” (TR) expressed in terms of “beta”. A glance at the above table shows that when considering risk-adjusted returns as determined by the Treynor Ratio, QSCF has been the best-performing fund. All the chosen funds have outperformed the specified benchmark (Nifty Small Cap 250 TRI) in terms of risk-adjusted returns, which take systematic risk into account (Reza *et al.*, 2024).

Evaluation of the efficiency of the Fund Manager in Picking Quality Financial Instruments: “Alpha” Value of the Funds**Table 7: Alpha Value of Select Small Cap Mutual Funds**

Sl. No.	Fund	ALPHA	Rank
1	NISCF	0.5739	3
2	HDFCSCF	0.4004	4
3	SBISCF	0.6100	2
4	QSCF	0.7710	1

Alpha Value of the funds has been presented in Table 7. It appears from above table that NISCF is the best performing fund for the entire study period. It is also observed that all the selected funds exhibit

positive alpha values throughout the period of study. This indicates that fund managers have been successful in selecting quality stocks.

Measurement of the Systematic Risk: Beta Value of the Funds

Table 8: Beta Value of Select Small Cap Mutual Funds

Sl. No.	Fund	BETA
1	NISCF	0.8876
2	HDFCSCF	0.8393
3	SBISCF	0.7590
4	QSCF	0.6637

In Table 8, the funds' "beta" value is displayed. It is observed from the above table that all the chosen funds have been defensive in nature throughout the entire study period.

Measurement of the Unsystematic Risk: R-Squared (RSQ) Value of the Funds

Table 9: RSQ Value of Select Small Cap Mutual Funds

Sl. No.	Fund	RSQ	Rank
1	NISCF	0.9514	1
2	HDFCSCF	0.9374	2
3	SBISCF	0.8769	3
4	QSCF	0.5709	4

The R-Squared (R^2) values of the funds are presented in Table 9. The average R-Squared (R^2) value of the chosen funds is excellent for the entire study period. NISCF holds a superior position in terms of the degree of diversification.

Discussion

Investors must have a clear idea about the performance of mutual funds. If they are not aware, they will not be able to earn desirable returns (Tresnawati *et al.*, 2025). If selected funds are defensive in nature, it means the funds are quite stable during a recession (Islam, 2021). Investors must consider risk-adjusted returns before making investment decisions, as it provides a better understanding than considering only return generation by the funds (Paramita *et al.*, 2025). The key to success in mutual fund investment lies in the hands of the fund manager. An experienced fund manager has the ability to pick quality stocks in the portfolio to achieve the benefits of portfolio diversification (Choudhry *et al.*, 2025).

The chosen funds represent four fund houses, with all of them having equity exposure above 90%. In terms of return generation, NISCF is the best-performing fund for the entire study period, while all the chosen funds have outperformed the specified benchmark, Nifty Small Cap 250 TRI, in return generation. Additionally, all of the selected funds performed better than the benchmark's risk-adjusted return, as determined by the Sharpe ratio and Treynor ratio (Ningrum & Risman, 2022). Throughout the study period, the funds' alpha values remained positive, indicating that the fund managers selected quality stocks for their portfolios. QSCF stood out as the best-performing fund in terms of stock selection. Furthermore, all the funds maintained a defensive nature across the chosen time frames. Most of the selected funds were also successful in minimising unsystematic risks to a great extent.

This analysis reinforces the importance of risk-return frameworks for retail investors, particularly in the context of volatile markets where small-cap stocks are highly sensitive to macroeconomic fluctuations. While raw returns such as CAGR demonstrate growth potential, ratios like Sharpe and Treynor provide a holistic measure of how effectively risks are compensated. The study highlights that even though SCFs carry higher volatility than large-cap counterparts, the examined funds have consistently justified this risk with superior returns.

Moreover, the defensive beta values (<1) indicate that these funds tend to fluctuate less than the market as a whole, making them attractive for cautious investors who still wish to access the high-growth

potential of small-cap equities. This defensive positioning suggests resilience during economic downturns, a factor that could protect investors' wealth in adverse conditions. The consistently positive alpha values underscore the skill of fund managers in stock-picking and timing decisions, proving that managerial expertise can significantly influence fund outcomes. This is particularly relevant in small-cap markets where information asymmetry and liquidity issues make professional management indispensable.

From a practical perspective, investors should not solely chase high historical returns but should also consider diversification benefits, fund manager track records, and the degree of exposure to unsystematic risks. Policymakers and financial advisors, on the other hand, could use these findings to design investor awareness programs, focusing on risk-adjusted performance indicators to enhance informed decision-making among retail participants.

Limitations of the Study

Although the funds have existed for far longer than the selected time frame, the study period spans ten years, ending on December 31, 2024. To analyse the performance of the selected SCFs, the study has taken into account a few conventional metrics. However, mutual fund performance can also be assessed using a wide range of additional metrics. Throughout the course of the investigation, fund managers have changed. The analysis has not taken into account how the funds' performance may have been affected by these changes in fund managers.

Conclusion

In terms of generating returns, all of the chosen funds in the study performed better than the designated benchmark. Considering the risk measured by standard deviation (S.D.), the selected funds are riskier compared to the specified benchmark (Nifty Small Cap 250 TRI). However, the selected funds have outperformed the benchmark in terms of "risk-adjusted return" as measured by the "Sharpe Ratio" and the "Treyner Ratio." The performance of fund managers is quite satisfactory, as the positive alpha values indicate their ability to pick quality stocks. All the chosen funds have been defensive in nature throughout the entire study period. Most of the selected funds were successful in minimising unsystematic risk to a great extent.

Conflict of Interest

The author affirms that there are no conflicting objectives.

Acknowledgement

The researcher expresses sincere gratitude to the research guide, Dr. Biswajit Paul, of the Postgraduate and Research Department of Commerce, University of Gour Banga, Malda, WB, India for his continuous encouragement, support, and guidance in conducting this study, which helped him to complete the work on time.

References

- Association of Mutual Funds in India. (2025). *Types of mutual fund schemes*. <https://www.amfiindia.com/investor-corner/knowledge-center/types-of-mutual-fund-schemes.html>
- Bhargava, M., Hameed, A., Babu, T., Sharma, R., Chinnaiyan, R., & Sungheeth, A. (2024). Dynamics of mutual funds in response to market changes: A post-COVID analysis (2019–2023). *2024 4th International Conference on Innovative Practices in Technology and Management*. Institute of Electrical and Electronics Engineers. <https://doi.org/10.1109/ICIPTM59628.2024.10563684>
- Chalshi, N., & Vidya, R. (2022). A study on performance evaluation of top 5 leading mutual fund schemes in India. *International Journal of Research Publication and Reviews*, 3(8), 481–488. <https://doi.org/10.55248/gengpi.2022.3.8.16>
- Choudhry, T., Degl'Innocenti, M., Zhou, S., & Zhou, Y. (2025). Repetita iuvant: Mutual fund performance during the COVID pandemic. *International Journal of Finance & Economics*. <https://doi.org/10.1002/ijfe.3144>

- Filip, A., Ghio, A., & Paugam, L. (2021). Accounting Information in Innovative Small Cap Firms: evidence from London's Alternative Investment Market. *Accounting and Business Research*, 51(4), 421-456. <https://doi.org/10.1080/00014788.2020.1842168>
- Islam, M. A. (2021). Investor sentiment in the equity market and investments in corporate-bond funds. *International Review of Financial Analysis*, 78, 101898. <https://doi.org/10.1016/j.irfa.2021.101898>
- Jesrani, A. R. (2023). Performance Analysis of Mutual Fund: A Comparative Study of the Selected Hybrid (Aggressive Hybrid Funds & Conservative Hybrid Funds) Mutual Fund Scheme in India. *International Journal of Management, Public Policy and Research*, 2(4), 125-130. <https://doi.org/10.55829/ijmpr.v2i4.205>
- Kaur, I., & Kaushik, K. P. (2016). Determinants of Investment Behaviour of Investors towards Mutual Funds. *Journal of Indian Business Research*, 8(1), 19-42. <https://doi.org/10.1108/JIBR-04-2015-0051>
- Madhavi, A., & Cheepuri, C. (2024). Analysis of bluechip mutual fund schemes using ANOVA and T-test. *ESP International Journal of Advancements in Science & Technology (ESP-IJAST)*, 2(2), 11–15. <https://doi.org/10.56472/25839233/IJAST-V2I2P103>
- Maheswari, Y., & Reddy, P. R. (2022). A comparative study on performance of equity, debt and hybrid mutual fund schemes in India. *i-manager's Journal on Management*, 17(2), 9–16. <https://doi.org/10.26634/jmgt.17.2.19130>
- Muthuseshan, G. (2019). Mutual fund industry in India: An analytical study of various brands and schemes – Study on financial performance and customer preference. *International Journal of Innovative Science and Research Technology*, 4(2), 668–685. <https://doi.org/10.13140/RG.2.2.13341.13280>
- Ningrum, M. L., & Risman, A. (2022). Performance analysis of protected fund and equity fund using Sharpe, Treynor, Jensen. *Scientific Journal of Management Business*, 6(1). <https://doi.org/10.22441/indikator.v6i1.15228>
- Paramita, N. P. L. P., Dharmawan, K., & Kusuma, I. G. N. L. W. (2025). Mutual fund performance analysis using information ratio, STJ ratio and value at risk. *International Journal of Applied Mathematics and Computing*, 2(1), 15–34. <https://doi.org/10.62951/ijamc.v2i1.66>
- Rani, V., & Benita, S. (2022). A study on investors' preference and satisfaction towards mutual funds in Madurai district. *IOSR Journal of Business and Management*, 24(1), 9–20. <https://doi.org/10.9790/487X-2401040920>
- Reza, F., Tanjung, H., & Hakiem, H. (2024). Analysis of investment performance of Islamic mutual funds in Indonesia using Sharpe, Treynor and Jensen methods. *Islamic Capital Market*, 2(1). <https://doi.org/10.58968/icm.v2i1.506>
- Rompotis, G. (2019). Large-cap vs small-cap portfolio performance: new empirical evidence from ETFs. *Review of Accounting and Finance*, 18(1), 71-94. <https://doi.org/10.1108/RAF-03-2017-0056>
- Shafaq. (2023). Role of capital markets in financial system. *Indian Journal of Law and Legal Research*, 5(1). <https://heionline.org/HOL/LandingPage?handle=hein.journals/injlolw10&div=318&id=&page=>
- Sharma, K. B. (2023). Performance evaluation of SIP (systematic investment plan) in mutual funds: A comparative analysis. *International Journal of Management, Public Policy and Research*, 2(2), 94–106. <https://doi.org/10.55829/ijmpr.v2i2.163>
- Sharma, K. B., & Joshi, P. (2023). A study on awareness level of investment through systematic plans in mutual funds amongst people residing in North Ahmedabad. *Sachetas: An International, Peer Reviewed, Open Access & Multidisciplinary Journal*, 2(3), 31–42. <https://doi.org/10.55955/230003>
- Tresnawati, R., Herawati, S. D., & Arsalan, S. (2025). Performance analysis of stock mutual funds using the Sharpe method: Before and after the COVID-19 pandemic. *New Applied Studies in Management, Economics & Accounting*, 8(1). <https://doi.org/10.22034/nasmea.2025.198990>
- Tripathy, P., & Patjoshi, P. (2020). Study on awareness and perception of investors towards Indian mutual funds. *Gedrag & Organisatie Review*, 33(2), 481–488. <https://doi.org/10.37896/GOR33.02/316>
- Verma, M., & Hirpara, R. (2016). Performance evaluation of portfolio using the Sharpe, Jensen, and Treynor methods. *Scholars Journal of Economics, Business and Management*, 3(7), 382–390. <https://doi.org/10.21276/sjebm.2016.3.7.4>

- Vidal, M., Vidal-García, J., Bekiros, S., & Segovia, J. E. T. (2025). A comparison of international mutual funds efficiency. *Finance Research Letters*, 73, 106608. <https://doi.org/10.1016/j.frl.2024.106608>
- Virparia, V. (2022). Performance analysis of mutual funds in India. *International Journal of Management, Public Policy and Research*, 1(3), 22–34. <https://doi.org/10.55829/ijmpr.v1i3.57>