

---

## Variables Impacting Mutual Fund Expense Ratio: The Indian Midcap Mutual Fund Experience

---

VIJAYA KITTU MANDA<sup>1\*</sup>, DR. P SAI RANI<sup>2</sup>, DR. ARUNA POLISETTY<sup>3</sup>

<sup>1</sup>Doctoral Research Scholar, GITAM Institute of Management, GITAM Deemed to be University, Visakhapatnam, Andhra Pradesh, India 530 045

<sup>2</sup>Head – Department of Finance, ICBM-School of Business Excellence, Hyderabad, Telangana, India 500 048;

<sup>3</sup>Assistant Professor, GITAM Institute of Management, GITAM Deemed to be University, Visakhapatnam, Andhra Pradesh, India 530 045

\*Corresponding Author

Email: vijaykittu@hotmail.com<sup>1</sup>, sairani@icbm.ac.in<sup>2</sup>, arunakovvuru@gmail.com<sup>3</sup>

---

**Abstract:** With an increase in the number of fund houses entering the asset management business, the Indian Mutual Fund Industry has turned into a competitive marketplace. An increase in the number of schemes translates to increased choice (and confusion) for investors, while for fund managers, it means more pressure to beat the benchmark indices. Correlation research method is used on scheme variables such as Assets Under Management (AUM), Expense Ratio, and the Monthly Returns of select Indian Midcap Schemes for the period January 2016 to 2021 to determine the statistical relationships between the variables. Three schemes from amongst the midcap schemes, after putting them into clusters, are picked for this study. Findings from this research can help fund managers, and Asset Management Companies (AMCs) better manage their schemes by tweaking expenses and further maximizing investor returns.

**Keywords:** Scheme expenses, total expense ratio, mutual fund variables, expense ratio  
JEL classification: G21, G23

---

### INTRODUCTION

The competitive Indian Mutual Fund Industry is only becoming more competitive over the years. (Vijaya Kittu & Aruna, 2020) Increasing new players entering into the asset management business are one primary reason for this. The industry rose from 31 Asset Management Companies (AMCs) running 43 schemes and having Asset Under Management (AUM) of Rs. 68,984 crores in 1997-98 to 43 players managing 1729 schemes and an AUM of Rs. 32,29,580 crores as of February 28, 2021. The AUM growth rate is astonishing 18.2 percent in CAGR terms making the Indian Asset Management Market one of the fastest-growing globally. Increased peer competition, reduced opportunities (because of increased difficulty to exploit), and increased pressure on fund managers to generate alpha directly result from an increase in the number of fund houses. (Stein, 2020)

Mutual Fund market is a tournament-like market with the winner (top-performing scheme) stealing all the attention and gets disproportionately higher new investments. Mutual fund investors are sensitive to fees, and higher advisory fees significantly reduce fund market shares and so constrain fees. (Coates, IV & Hubbard, 2007) Higher expense ratios will never make active funds outperform their passive fund counterparts. (Elton et al., 2019)

Further, the launch of new index funds will bring turbulence in the active management funds space and competition. Fund management fees of direct funds were reduced by 5% on average, while those sold through distributor networks have increased by 6 percent. Overall, the fund management fees are downward sloping because of heightened competition challenged by low-cost passive funds such as index funds and ETFs. (Sun, 2021)

### LITERATURE REVIEW

There are many ways that fund managers can explore to reduce fund expenses. Because any reduction in expenses indeed (positively impacts) funds returns, this has been a topic of interest in academic research circles. While most research is confined to single funds, some researchers examined common stock holdings and multi-fund management and found that it reduces fund operating expenses and enhances returns. The flipside is that the scheme concentration for the stock holding might increase and thereby increase risk. Hence, individual investors who are expense ratio cautious have to keep an eye on this factor. (Park, 2016)

Some studies separated sales expenses from management expenses. An examination of Korean mutual fund data from July 2001 to December 2009 showed an increase in management fees has resulted in improved risk-

adjusted scheme performance. However, excess sales expenses have not resulted in improved returns. Apart from these two factors, other expenses and total loads are examined for the schemes for the study period. The variables used in the study are stock returns, risk-free rate, market capitalization and accounting data, Effective Dates of Mergers and Acquisitions (M&As) among investment companies, and market concentration. Investors best avoid schemes with excess sales expenses. (Ban, 2015) The mutual fund industry is characterized by monopolistic competition determined at the local level. (Ellis & Underwood, 2018)

Factors influencing fund expenses include fund age, fee structure, share class, management style, trend effects within fund types and investment objectives, and distribution networks through the strength of the influence varies. It is found that a statistically significant negative relationship exists between expenses and risk-adjusted-performance across countries. (Vidal-García et al., 2018) Schemes of all types, including Environmental, Social, and Governance (ESG), Socially Responsible Funds (SRF), and sustainability-themed investments, can limit their fund costs by keeping load charges and expense ratio under control. (Chang et al., 2020) Studies show that SRF investors can get handsome returns with an expense ratio as the single most significant decision-making factor. (Chang et al., 2019) Regarding Target Date Mutual Funds (TDMF), expense ratio (and MorningStar rating) is not a significant variable and has scope for further research. (Johnson & Yi, 2017)

Further, the influence will be different for equity and debt funds. (LaPlante, 2001) Funds with an aggressive investment objective and higher portfolio turnover have a high expense ratio. However, a study based on the Thai mutual fund industry has not shown any relationship between fund size, fund age, and the number of funds in a fund family, thereby contradicting the U.S. experience. There appears to be inconsistency on this front which can be explored. (Low, 2017) Active fund management results in increased expense ratios and turnovers and thereby becomes risky. (Livingston et al., 2019)

Fund launch date can potentially be an influencing factor as late entrants face a disadvantage in the competition for fund flows. However, new entrants can get the attention and market share by strategically reducing the expense ratio.

Some regulators, such as the SEBI in India, allowed separate plans – Direct plan and distributor supported Regular plan. Performance measurement is done using the Data Envelopment Analysis (DEA) method with Sharpe ratio and expense ratio as input variables and the scheme returns as the output variables. (Shah et al., 2019)

Fund class benefits retail investors. The presence of institutional class or retirement class funds leads to a low expense ratio. (Handy et al., 2020) Schemes from fund houses with fewer trustee members and an independent chair are reported to have lower net expense ratios. (Muñoz, 2020) The tax regime on AMC services impacts expense ratio, as shown from the Indian experience wherein a Goods and Services Tax (GST) of 18 percent was imposed, resulting in the expense ratio going up by 3 percent. (Benjamin, 2020)

### **Literature Gap**

The most common themes of study in mutual funds are on Risk-Reward, Investor Behavior, fund governance, and management. Focus on cost-cutting in mutual funds is studied but relatively at a lower level. The researchers find that studies of expense ratio on midcap funds in general and on Indian midcap mutual funds are deficient. Hence, this research work attempts to expand the literature and knowledgebase.

### **Research Aims and Objectives**

This study aims to find the statistical relationship between various variables that impact mutual funds expense ratio. In particular, our research objectives are to Measure statistical relationship between the following:

1. Scheme Expenses and Scheme AUM
2. Scheme Expenses and Scheme Returns
3. Scheme Expenses and Portfolio Turnover

### **Methodology, Methods & Tools**

#### **Methodology**

The study employs the Quantitative Research Methodology and uses the Descriptive research approach.

#### **Methods**

With the broad domain of the Descriptive research approach, this study uses the Correlational research design. Correlation and Regression methods are used to assess and ascertain the statistical relationship or strength between various variables.

#### **Tools**

#### **Data Sources**

An essential requirement of correlational research is that the researcher controls neither of the variables. Archival data from secondary data sources are collected and studied in this research. The data is collected from the Association of Mutual Funds in India (AMFI) website and the Factsheets downloaded from the respective AMCs.

**Data Sample**

There are 26 midcap mutual fund schemes managing funds worth Rs. 1,13,515.03 crores at the end of February 28, 2021. For this research, the schemes are categorized into 3 clusters based on the scheme age. One scheme from each of the clusters is picked up for further data analysis.

**Table 1: Basic details of the clusters**

Age of scheme (in years)	Number of qualifying schemes	Scheme selected for analysis
1 – 8	9	1. DSP Midcap Fund 2. PGIM India Midcap Opportunities Fund
9 – 16	9	1. Kotak Emerging Equity Fund 2. SBI Magnum Midcap Fund
More than 16	8	1. HDFC Midcap Opp Fund 2. Nippon India Growth Fund

Source: Author compilation

**Variables**

The variables collected for this study are:

1. Total Expense Ratio of scheme’s Direct plans (TER-Direct)
2. Month-end Scheme Average AUM (AAUM)
3. Monthly Scheme Returns (Mom Returns)
4. Portfolio Turnover

**Data Analysis**

The correlation coefficient table for the sample data shows the statistical correlation between the Total Expense Ratio of the scheme’s Direct plans (TER-Direct) against variables. It is found that all schemes had shown either a strongly positive or strongly negative correlation except for monthly returns. The Regression statistics (p-value) between TER and other variables showed a significant or very significant trend for all variables except for monthly returns (in which case it had a non-significant trend) for all the schemes. For PGIM India Midcap Opportunities Fund (the youngest scheme in our sample), the Portfolio Turnover showed a significant non-trend.

**Table 2: Correlation Coefficient table of various mutual fund variables**

	DSP Midcap Fund				PGIM India Midcap Opportunities Fund			
	TER Direct	AAUM	Mom Returns	Portfolio Turnover	TER Direct	AAUM	Mom Returns	Portfolio Turnover
<b>TER-Direct</b>	1.00				1.00			
<b>AAUM</b>	-0.83	1.00			-0.33	1.00		
<b>Mom Returns</b>	-0.04	0.05	1.00		-0.11	0.26	1.00	
<b>Portfolio Turnover</b>	-0.85	0.64	0.00	1.00	0.15	-0.22	-0.02	1.00
	Kotak Emerging Equity Fund				SBI Magnum Midcap Fund			
<b>TER-Direct</b>	1.00				1.00			
<b>AAUM</b>	-0.76	1.00			0.33	1.00		
<b>Mom Returns</b>	-0.09	0.09	1.00		-0.13	0.07	1.00	
<b>Portfolio Turnover</b>	0.79	-0.83	-0.03	1.00	-0.06	0.56	0.06	1.00
	HDFC Midcap Opp Fund				Nippon India Growth Fund			
<b>TER-Direct</b>	1.00				1.00			
<b>AAUM</b>	-0.62	1.00			0.06	1.00		

<b>Mom Returns</b>	0.21	0.02	1.00		0.01	0.13	1.00	
<b>Portfolio Turnover</b>	0.10	-0.48	0.15	1.00	0.50	0.47	0.01	1.00

**Research Findings**

A summary of the variables that impact the expense ratio was depicted in the table. AAUM and Portfolio turnover influence expense ratio, while monthly returns are not significantly impacted.

**Table 3: Summary of expense ratio influencing variables on Indian Midcap Schemes**

Scheme Age	Name of Clustered Schemes	Influencing Variable
1 – 8 Years	DSP Midcap Fund	AAUM, Portfolio Turnover
	PGIM India Midcap Opportunities Fund	None
9 – 16 Years	Kotak Emerging Equity Fund	AAUM, Portfolio Turnover
	SBI Magnum Midcap Fund	None
More than 16 Years	HDFC Midcap Opp Fund	AUM
	Nippon India Growth Fund	Portfolio Turnover

Source: Author compilation

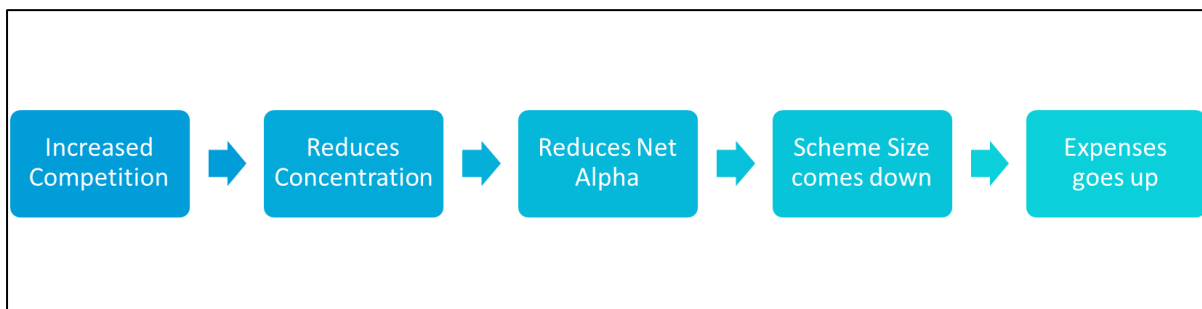
**DISCUSSION**

**Market concentration**

As observed in the U.S. markets, increased competition reduces concentration, and thereby net alpha and size come down as well. (Feldman et al., 2020) Another study found that increased competition decreased the ability of funds to outperform, made it difficult to attract new investments, and consequently, AMC’s are restoring to reducing their marketing expenses. (Parida, 2018) Concentration levels will impact industry regulations, transaction costs, tax rates, entry barriers (allows entry of new players because of low entry barriers), and funds’ idiosyncratic outcomes, gross alpha production, managerial effort cost, funds’ cost sensitivity to size. Further, a decline in market concentration in a country would benefit other global markets because fund managers can divert their managerial efforts in exploring investment opportunities in another foreign market and thereby get incentivized. (Feldman et al., 2019)

Competition and concentration impact scheme performance and will become an indirect influencing factor for scheme expense ratio. Market competition could increase because an existing AMC launched a new scheme in the category or a new AMC has started asset management operations in the industry. Market concentration thereby reduces, and this brings in increased scheme selection choice for the investors.

Consequently, fund managers will experience increased peer competition, experience more pressure, and struggle to bring net alpha. It will become difficult to attract new investors, and AMC’s will have to increase their marketing and sales efforts. Because scheme returns will be under pressure, there will be two problems. Existing investors would flock from one scheme to another, and hence the scheme suffers from outflows. Scheme size (AUM) comes down, and this forces fund managers to increase expenses.



Source: Author compilation based on literature survey

**Fig.1: Increased market competition increases scheme expenses**

**Total Expense Ratio**

Globally, capital market regulators have insisted that fund houses disclosure total expense ratio (TER) instead of the traditional expense ratio numbers. The TER includes expenses from four categories: management fees, transaction costs, distribution fees, and other expenses. Each of these categories further has sub-categories that give more detailed information on the classification of TER. (Haslem, 2018)

Regulators have put in maximum limits on TER for various scheme categories based on the AUM they manage. Further, fund houses are allowed to charge higher when they have 30% of gross new inflows in the scheme or 15% of the average assets under management (year to date) of the scheme, whichever is higher coming from “beyond top 30 cities (B30) cities” (Tier-2 and Tier-3) cities. (AMFI, 2021)

**Table 4: TER limits of Indian Mutual Funds**

Assets Under Management (AUM)	Maximum TER as a percentage of daily net assets	
	TER for Equity funds	TER for Debt funds
On the first Rs. 500 crores	2.25%	2.00%
On the next Rs. 250 crores	2.00%	1.75%
On the next Rs. 1,250 crores	1.75%	1.50%
On the next Rs. 3,000 crores	1.60%	1.35%
On the next Rs. 5,000 crores	1.50%	1.25%
On the next Rs. 40,000 crores	Total expense ratio reduction of 0.05% for every increase of Rs.5,000 crores of daily net assets or part thereof.	Total expense ratio reduction of 0.05% for every increase of Rs.5,000 crores of daily net assets or part thereof.
Above Rs. 50,000 crores	1.05%	0.80%

Source: AMFI (AMFI, 2021)

**CONCLUSIONS**

The expense ratio is a very critical factor in the scheme selection process by investors. This research has two interesting outcomes. First, the scheme Expense Ratio is influenced mainly by Average Assets Under Management (AAUM) and Portfolio Turnover. The practical implication of this is that fund houses can better increase their assets and market share by increasing marketing initiatives over tweaking scheme expenses. Fund Managers need to focus on reducing Portfolio Turnover to put expenses under control.

The second conclusion is that Monthly Portfolio Returns do not statistically influence the scheme expense ratio in the way and extent that the investors perceived it. While expense does impact the scheme returns, it is one of the several influencing variables. Investors might not have to give undue importance to the expense ratio alone in their quest for increased returns but instead, consider it one of the many influencing factors.

**CREDIT AUTHOR STATEMENT**

All the researchers have worked on this paper over the last year at different times and in different ways, and the paper evolved dynamically over time. We are happy that, overall, each author has contributed to the study.

### COMPLIANCE WITH ETHICAL STANDARDS

There were no humans or animals involved in this research, and the authors have complied with ethical standards of research.

### CONFLICTS OF INTERESTS

The authors declare that there are no conflicts of interest concerning the research, data, authorship, or publication of this article. It is safe to presume that the authors might have investment exposure in one or more schemes discussed in the paper in the role of being individual investors. Further, the author (VKM), being in the role of a capital markets trainer, might have suggested one or more schemes to his students.

### FUNDING

The authors performed the research in their individual/personal capacity and have not received any explicit funding for the purpose of this research from any institution or a funding agency.

### ACKNOWLEDGEMENTS

The authors wish to thank Dr. K. Lubza Nihaar of GIM, GITAM Deemed to be University, Visakhapatnam, India, for her inputs.

### REFERENCES

1. AMFI. (2021). What is Total Expense Ratio? <https://www.amfiindia.com/investor-corner/knowledge-center/Expense-Ratio.html>
2. Ban, J. (2015). Effects of Sales Expenses and Management Expenses on Mutual Fund Performance and Flows. *Asia-Pacific Journal of Financial Studies*, 44(1), 129–173. <https://doi.org/10.1111/ajfs.12082>
3. Benjamin, R. (2020). GST and Mutual Funds in India: A Case Study. 11(5), 179–184.
4. Chang, C. E., Krueger, T. M., & Witte, H. D. (2019). Saving green while going green: The role of expenses in socially responsible equity mutual fund selection. *Managerial Finance*, 45(1), 21–35. <https://doi.org/10.1108/MF-03-2018-0095>
5. Chang, C. E., Krueger, T. M., & Witte, H. D. (2020). Relative Importance of Sustainability Measures and Costs in Mutual Fund Selection. *The Journal of Wealth Management*, 23(1), 32–46. <https://doi.org/10.3905/jwm.2020.1.103>
6. Coates, IV, J. C., & Hubbard, R. G. (2007). Competition in the Mutual Fund Industry: Evidence and Implications for Policy. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1005426>
7. Ellis, J. A., & Underwood, S. (2018). The Only Fund in Town? Geographic Segmentation in the US Mutual Fund Industry: The Only Fund in Town? *Financial Management*, 47(3), 715–737. <https://doi.org/10.1111/fima.12216>
8. Elton, E. J., Gruber, M. J., & de Souza, A. (2019). Are Passive Funds Really Superior Investments? An Investor Perspective. *Financial Analysts Journal*, 75(3), 7–19. <https://doi.org/10.1080/0015198X.2019.1618097>
9. Feldman, D., Saxena, K., & Xu, J. (2019). The International Active Fund Management Industry: Concentration Cross Effects. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3330131>
10. Feldman, D., Saxena, K., & Xu, J. (2020). Is the active fund management industry concentrated enough? *Journal of Financial Economics*, 136(1), 23–43. <https://doi.org/10.1016/j.jfineco.2019.08.009>
11. Handy, J., Hennessey, J., & Smythe, T. (2020). Class Matters: Analyzing Mutual Fund Class Structure and Expenses. *The Journal of Wealth Management*, 23(3), 85–97. <https://doi.org/10.3905/jwm.2020.1.114>
12. Haslem, J. A. (2018). The Total Expense Ratio: The Reality of Distribution Fees—“Behind the Mutual Fund Curtain.” *The Journal of Wealth Management*, Winter 2018, 37–43.
13. Johnson, W. F., & Yi, H.-C. (2017). Do target date mutual funds meet their targets? *Journal of Asset Management*, 18(7), 566–579. <https://doi.org/10.1057/s41260-017-0054-7>
14. LaPlante, M. (2001). INFLUENCES AND TRENDS IN MUTUAL FUND EXPENSE RATIOS. *Journal of Financial Research*, 24(1), 45–63. <https://doi.org/10.1111/j.1475-6803.2001.tb00817.x>
15. Livingston, M., Yao, P., & Zhou, L. (2019). The volatility of mutual fund performance. *Journal of Economics and Business*, 104, 105835. <https://doi.org/10.1016/j.jeconbus.2019.02.001>
16. Low, S.-W. (2017). Explaining the expense ratio of international equity funds. *American Journal of Business*, 32(2), 82–92. <https://doi.org/10.1108/AJB-07-2016-0021>
17. Muñoz, F. (2020). How do the size and independence of the board of trustees affect the financial and sustainable performance of socially responsible mutual funds? *Corporate Social Responsibility and Environmental Management*, 27(4), 1834–1850. <https://doi.org/10.1002/csr.1930>
18. Parida, S. (2018). Impact of Competition on Mutual Fund Marketing Expenses. *International Journal of Financial Studies*, 6(1), 29. <https://doi.org/10.3390/ijfs6010029>

19. Park, Y. (2016). The effects of fund commonality in mutual fund families on fund operating expenses and return correlations: Evidence from U.S. equity mutual funds. *Financial Services Review*, 25(1), 29–49.
20. Shah, C., Aadalarasu, M., Saraiwala, P., Mansata, A., & Misra, S. (2019). Measuring performance efficiency of direct vs regular plans of mutual funds in india: A dea approach. 11(4 (Special Issue)), 177–189.
21. Stein, R. (2020). Mutual Fund Competition and Fund Manager Strategy Choice. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3713386>
22. Sun, Y. (2021). Index Fund Entry and Financial Product Market Competition. *Management Science*, 67(1), 500–523. <https://doi.org/10.1287/mnsc.2019.3444>
23. Vidal-García, J., Vidal, M., Boubaker, S., & Hassan, M. (2018). The efficiency of mutual funds. *Annals of Operations Research*, 267(1–2), 555–584. <https://doi.org/10.1007/s10479-017-2429-z>
24. Vijaya Kittu, M., & Aruna, P. (2020). Application of Marketing 4.0 Principles By the Indian Mutual Fund Industry. *International Journal of Recent Technology and Engineering*, 8(5), 3197–3205. <https://doi.org/10.35940/ijrte.D9027.018520>