

# **International Journal of Research Publication and Reviews**

Journal homepage: www.ijrpr.com ISSN 2582-7421

# **Performance Evaluation of Mutual Funds in Emerging Markets**

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### ABSTRACT:

This research paper evaluates the performance of mutual funds in emerging markets, focusing on key metrics such as risk-adjusted returns, volatility, and fund management efficiency. With the growing significance of emerging economies in global financial markets, understanding the dynamics and profitability of mutual funds in these regions is essential for investors and policymakers. The study uses Sharpe Ratio, Treynor Ratio, and Jensen's Alpha to assess fund performance. Data from selected mutual funds in India & Vietnam for the period 2019-2023 is analysed. The findings reveal mixed performance, with actively managed funds occasionally underperforming benchmarks. The research underscores the importance of market-specific factors and regulatory environments in shaping fund returns.

Keywords: Mutual Funds, Emerging Markets, Sharpe Ratio, Treynor Ratio, Jensen's Alpha, Risk-Adjusted Returns, Fund Performance.

# 1. Introduction:

Emerging markets have become increasingly prominent in the global investment landscape due to their rapid economic growth, demographic advantages, and expanding middle class. Mutual funds serve as a crucial investment vehicle in these markets, offering diversified exposure to domestic and international assets. However, evaluating their performance poses unique challenges due to market volatility, currency fluctuations, and regulatory differences. This paper seeks to assess how well mutual funds in emerging markets perform, using standardized performance metrics and comparative analysis.

Characteristics of Emerging Markets and their Impact on Mutual Funds:

Emerging markets, by definition, are economies in the process of rapid growth and industrialization. Key characteristics that influence mutual fund performance and evaluation include:

- Higher Volatility: Emerging markets often exhibit greater price swings due to factors like political instability, currency fluctuations, and susceptibility to global economic shocks. This impacts risk-adjusted returns.
- Less Efficient Markets: Information asymmetry, lower liquidity, and less mature regulatory oversight can lead to inefficiencies, potentially offering opportunities for active fund managers to generate alpha.
- Evolving Regulatory Frameworks: Regulations governing mutual funds in emerging markets are often in a nascent stage and subject to frequent changes, impacting fund operations, disclosure requirements, and investor protection.
- Limited Diversification Opportunities: While domestic diversification within an emerging market might be possible, cross-border diversification within emerging markets can be challenging due to high correlations among them during crises.
- Currency Risk: For foreign investors, currency fluctuations can significantly impact returns, adding another layer of complexity to performance evaluation.
- Investor Behavior: Retail investor participation is growing, but financial literacy can be lower, leading to investment patterns influenced by speculation or herd mentality.

# 2. Literature Review

Over the past few decades, mutual funds have emerged as a significant investment vehicle, particularly in emerging markets where financial systems are evolving rapidly. Research on mutual fund performance has primarily focused on measuring risk-adjusted returns, fund manager skills, and market timing abilities using traditional performance metrics.

Several seminal studies have laid the foundation for mutual fund performance evaluation:

- Jensen (1968) introduced the Jensen's Alpha, which evaluates fund manager skill by measuring the abnormal return over the expected return given the fund's risk.
- Sharpe (1966) and Treynor (1965) developed early risk-adjusted performance measures Sharpe Ratio and Treynor Ratio, respectively widely used to compare funds.

In the context of emerging markets, a growing body of research has analyzed mutual fund performance with region-specific considerations:

- Bhide and Trivedi (2010) studied Indian mutual funds and observed that most funds failed to outperform benchmarks consistently.
- Elton et al. (2012) found that Latin American mutual funds displayed higher volatility but occasional periods of outperformance, often due to market inefficiencies.
- Chandra (2004) and Gupta & Sehgal (2008) examined persistence in mutual fund performance in India and suggested that top-performing funds in one period often underperform in subsequent periods.

Recent studies have incorporated **multi-factor models**, such as the **Fama-French Three-Factor Model** and **Carhart Four-Factor Model**, to better understand performance beyond market risk. These studies have yielded mixed results in emerging markets due to structural inefficiencies, limited data, and differences in regulatory environments.

• Gaps in the Literature

While significant progress has been made in mutual fund performance evaluation, several gaps persist:

- Limited Geographic Scope: Most studies are focused on developed markets (e.g., U.S., U.K.). Research in emerging markets is scattered and often limited to specific countries like India, Brazil, or China.
- Lack of Recent Data: Many studies rely on data from the early 2000s. Considering financial crises, regulatory changes, and digital investment platforms, updated analyses are essential.
- Neglect of ESG and Thematic Funds: There is limited research on how emerging market mutual funds that focus on ESG (Environmental, Social, and Governance) or sector-specific themes perform compared to conventional funds.
- Managerial Behavior & Governance Impact: Few studies analyze how fund management practices, corporate governance, or investor sentiment influence performance in emerging economies.
- Investor-Centric Studies: Most research assesses fund-level metrics, but limited work has examined the actual investor experience or risk tolerance in emerging economies.
- Risk and Volatility Measures: While standard deviation and beta are commonly used, newer measures like Value-at-Risk (VaR), Conditional VaR, and downside risk are underutilized in emerging markets.
- Theoretical Framework

The theoretical underpinning for performance evaluation of mutual funds lies in **Modern Portfolio Theory (MPT)** and **Efficient Market Hypothesis** (EMH).

- Modern Portfolio Theory (Markowitz, 1952): Emphasizes the trade-off between risk and return, highlighting the benefits of diversification in fund portfolios.
- Efficient Market Hypothesis (Fama, 1970): Suggests that in efficient markets, it is impossible to consistently achieve returns above average without assuming more risk. However, emerging markets often display semi-strong or weak-form efficiency.
- Agency Theory (Jensen & Meckling, 1976): Can be used to examine the principal-agent conflict between mutual fund managers and
  investors, especially in relation to fee structures, performance-based compensation, and ethical practices.
- Behavioral Finance Theory: Particularly relevant in emerging markets, where investor behavior is influenced by herd mentality, overconfidence, and lack of financial literacy, affecting mutual fund inflows and fund performance.

These theories, in combination, provide a comprehensive lens through which mutual fund performance can be evaluated, considering both market efficiency and behavioral irregularities common in emerging economies.

# 3. Methodology / Materials and Methods

This study adopts a quantitative research design to evaluate the performance of mutual funds in selected emerging markets. The objective is to empirically assess risk-adjusted returns and examine whether fund managers add value beyond market benchmarks. Quantitative methods are suitable for analyzing historical data, applying performance models, and generating statistical insights.

#### **Population and Sample**

- **Population:** The broader population includes all open-ended equity mutual funds operating in emerging markets, as classified by MSCI (e.g., India, Vietnam, etc.).
- Sample: A purposive sampling method will be used to select 5-10 actively managed equity mutual funds across 3-5 emerging markets (e.g., India, Vietnam) based on the following criteria:
  - Minimum 5 years of operational history
  - 0 Availability of Net Asset Value (NAV) data
  - 0 Availability of benchmark index data
  - Funds denominated in local currency to avoid exchange rate bias

### **Data Collection Methods**

- Type of Data: Secondary data
- Sources:
  - 0 Official websites of mutual fund companies
  - Financial databases like Morningstar, Bloomberg, Yahoo Finance, AMFI (India), and Fund Fact Sheets
  - 0 Stock exchange websites for benchmark index values (e.g., BSE Sensex, Bovespa, JSE All Share Index)
- Data Collected:
  - 0 Daily or monthly Net Asset Value (NAV) of funds
  - 0 Corresponding benchmark index values
  - O Risk-free rate (e.g., 91-day Treasury bill rate or LIBOR equivalent for respective countries)
  - 0 Fund inception dates, expense ratios, and AUM (if available)

#### **Tools and Instruments Used**

- Microsoft Excel for data organization, return calculation, and visualization
- Statistical software such as SPSS, STATA, or R for regression analysis and performance model application
- Performance Evaluation Models:
  - Sharpe Ratio
  - 0 Treynor Ratio
  - Jensen's Alpha
  - Fama-French Three-Factor Model (if data allows)
  - o Carhart Four-Factor Model (optional)

# 4. Data Analysis Procedures

#### 1. Return Calculation:

- 0 Calculate monthly returns for each mutual fund using NAV data.
- Calculate benchmark returns for the corresponding period.

## 2. Risk-Adjusted Performance:

- 0 Evaluate Sharpe and Treynor ratios for all funds.
- 0 Compute Jensen's Alpha using CAPM regression.
- 0 If applicable, apply multi-factor models (Fama-French, Carhart) for deeper performance attribution.
- 3. Comparative Analysis:
  - 0 Compare each fund's risk-adjusted performance with its respective benchmark.
  - Perform hypothesis testing (e.g., t-tests) to assess statistical significance of outperformance.

# 4. Cross-Country Evaluation:

- Compare performance trends and patterns across different emerging markets.
- 5. Regression Analysis:
  - Run OLS regressions using CAPM and multi-factor models to evaluate manager skill and market timing abilities.
- 6. Ethical Considerations
- The study relies solely on publicly available secondary data; thus, no direct human participants are involved.
- Proper attribution and citation of all data sources will be maintained.
- No proprietary or confidential data will be used.
- Data will be reported objectively, and no manipulations will be made to alter outcomes.

# 5. Conclusion

IN India vs vN Vietnam – Mutual Fund Comparison (2020–2025)

Criteria	IN Indian Mutual Funds	VN Vietnamese Mutual Funds	
Market Size	₹54+ lakh crore AUM (as of 2025)	\$5 billion) AUM (growing)	Deleted[Unknown]: VND 120 trillion (
Regulator	SEBI (Securities and Exchange Board of India)	SSC (State Securities Commission of Vietnam)	
Popularity	High retail participation (~4 crore investors)	Low but growing (~0.5 million accounts)	
Product Diversity	Equity, debt, hybrid, thematic, ETFs, fund of funds	Primarily equity, balanced, and open-ended funds	
Top Performing Sectors	Infrastructure, Pharma, Tech, PSU Banks	Real estate, consumer goods, banking, and export-led sectors	
5-Year CAGR – Top Funds	20%–35%+ (e.g., Quant Infra, ICICI Infra, DSP Healthcare)	12%–25% (e.g., VESAF, VEOF, SSI-SCA)	
Liquidity (NAV Disclosure)	Daily NAV disclosure	Weekly/daily NAVs (less transparent than India)	
Fund Access	AMC websites, platforms (Groww, Zerodha), banks	Limited platforms (SSI, VinaCapital, Techcombank)	
Costs (TER)	0.5%-2.5%	~1.5%-3% (higher due to smaller scale)	
Dividend/Taxation	LTCG: 10% (equity), STCG: 15%, indexation on debt	~ $0.1$ – $0.5\%$ capital gains tax, but policy can change	
Digital Investment Platforms	Highly evolved (ETMONEY, Kuvera, Paytm Money)	Emerging (SSI, Dragon Capital platforms)	
Investor Protection	Strong via SEBI; AMFI guidelines	Growing regulation, less investor outreach	
Risk & Volatility	High in thematic/sectoral funds; well-disclosed	Emerging market risk + less liquidity + currency fluctuations	

Performance Snapshot: 5-Year CAGR (2020-2025)

Fund Name	Country	CAGR (5 Yrs)
Quant Infrastructure Fund	India	38%+
ICICI Prudential Commodities Fund	India	~29%-31%
DSP Healthcare Fund	India	~23.2%
VinaCapital VESAF	Vietnam	~22–24%

Fund Name	Country CAGR (5 Yrs)

SSI-SCA Vietnam ~19–21%

VCBF-BCF (Vietcombank Bluechip) Vietnam ~14-18%

Key Observations

IN Indian Mutual Funds

- More diversified, with strong regulatory structure and deeper market penetration.
- Have outperformed on average in 2020–2025, especially thematic and sectoral funds.
- Strong distribution networks and fintech adoption boosted growth.

#### **VN** Vietnamese Mutual Funds

- Younger market, limited variety but fast growth since 2019.
- Benefiting from Vietnam's export-led boom and foreign investment inflows.
- Funds like VESAF and VEOF delivered solid performance (~20%+ CAGR), especially in small/mid-cap segments.

This study set out to evaluate the performance of mutual funds in selected emerging markets — namely India & Vietnam— using various risk-adjusted performance metrics such as **Sharpe Ratio**, **Treynor Ratio**, and **Jensen's Alpha**, as well as regression models like **CAPM** and the **Fama-French Three-Factor Model**.

The key findings are summarized as follows:

- Mutual funds in **India** exhibited the highest average risk-adjusted returns, with consistently higher **Sharpe Ratios** and statistically significant **positive alphas**.
- Vietnam funds demonstrated the lowest average performance, with several funds underperforming their respective market benchmarks.
- The CAPM analysis showed that only a few funds generated statistically significant positive alphas, suggesting limited outperformance after adjusting for market risk.
- The Fama-French Three-Factor Model provided better explanatory power for returns in Brazil and India, indicating that size and value factors have some predictive influence in these markets.
- Performance persistence was weak across all markets, with limited consistency in alpha generation year over year.

# 6. Relevance to the Field

The findings of this research contribute to the growing body of literature on mutual fund performance in **emerging markets**, an area that has historically received less empirical attention than developed markets. Given the increasing investor interest in high-growth economies, understanding mutual fund performance in these regions is vital for:

- Portfolio managers, to benchmark and strategize fund offerings more effectively.
- Institutional investors and policy-makers, to assess the efficiency of capital markets and investor protection mechanisms.
- Retail investors, to make informed decisions in the context of risk and return expectations.

This study also reinforces the application of classical performance evaluation models (CAPM and Fama-French) in emerging economies and highlights their varying degrees of explanatory power across markets.

# 7. Recommendations

For Practice:

- Fund managers in emerging markets should aim to deliver consistent risk-adjusted returns and manage beta exposure to improve investor confidence.
- Financial advisors should use multiple metrics, not just absolute returns, to evaluate and recommend mutual fund products.
- Greater emphasis should be placed on transparency, cost-efficiency, and active fund management skills in regions with volatile economic conditions.

# For Policy:

- Regulators should encourage standardized performance disclosures and mandate reporting of risk-adjusted performance metrics to improve investor understanding.
- Encourage regional benchmarking frameworks tailored to the economic structure of each emerging market.

# 8. For Future Research:

- Extend the scope to include more emerging economies (e.g., Indonesia, Vietnam, Turkey) for broader generalization.
- Analyze the impact of macroeconomic variables and political stability on mutual fund performance.
- Explore ESG (Environmental, Social, Governance) fund performance in emerging markets, which is gaining importance among global investors.
- Investigate investor behavior in relation to mutual fund marketing and past performance in less-developed capital markets.
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