RESEARCH REVIEW JOURNALS
Volume-04
Issue-03
March-2019

ISSN: 2455-3085 (Online)
RESEARCH REVIEW International Journal of Multidisciplinary
www.rrjournals.com[UGC Listed Journal]

Performance of Hedge Fund Strategies in an Emerging Market: A Study in the Indian Context

[*1]Mritunjay Mahato & [2]Prof. A. K. Das Mohapatro

[1]*Research Scholar, Department of Business Administration, Sambalpur University, Sambalpur, Odisha (India)*
[2]*Professor, Department of Business Administration, Sambalpur University, Sambalpur, Odisha (India)*

ARTICLE DETAILS

Article History
Published Online: 13 March2019

Keywords
Hedge fund, Emerging market, Arbitrage, Managed future, Event driven, long and short position, fixed income..

***Corresponding Author**
Email: mritunjaymahato2012[at]gmail.com

ABSTRACT

Hedge fund investment have virtually become an important indicator of develop of a country in recent time. Hedge fund contributes to develop the economic activities through the wealthy investors and institutions. Hedge funds have increased significantly with popularity and large amount of wealth are introduced in this industry by their strategies. Despite indication of high risk and uncertainty, emerging markets are considered the most attractive investment regions in terms of growth opportunities. The present study attempts to know the performance of hedge fund in Indian emerging market through the various strategies. The study reveals that the five strategies, namely, Arbitrage, Managed future, Event Driven, long and short position, and fixed income of hedge fund.

1. Introduction

The world has been experienced various economic distress during the past decades, like the Asia Crisis, the IT-sector crises and the recent Financial crisis. Due to these crises various investors have motivated to seek alternative investment options. For this hedge funds have increased significantly with popularity and large amount of wealth are introduced in this industry. In the contrast of classical investments like stocks and bonds, the purpose of hedge funds is to generate absolute returns, which means generating positive returns regardless of the market movement. Furthermore, hedge funds are complex to define but these are characterized by flexible strategies, lack of investment restrictions, limited licensing requirements, strong managerial incentives and unrestricted allocation rules.

Despite indication of high risk and uncertainty, emerging markets are considered the most attractive investment regions in terms of growth opportunities. In the last decades assets allocation has been shifted and the aggregate market size of the emerging market has increased. Due to the growth opportunities, the hedge fund industries have also attracted in emerging market region. Even though, hedge funds have historically poor performance in the emerging markets. At the end of year 2017, $3.21 trillion worth of assets were held in hedge funds all over the world. Out of these, $250 billion were allocated in the region of emerging markets (HFR, 2017).

2. Review of Literature

Capocci Daniel, corhay Albert & Hübner Georges, (2003) in their study titled “hedge fund performance and persistance in bull and bear market” concluded that most hedge fund significantly out- performed the market during the bullish period. Fung and Hsieh (2011) concluded that long/short strategies was applied for sample of 3000 hedge funds, which represented less than 20% of the funds produce positive alphas, which implies they perform better than the market. Furthermore, they found indications that alpha declines over time. Eling and Faust (2010) studied results indicate that some hedge funds generate significant positive alpha, whereas most mutual funds do not outperform traditional benchmarks. In contrast, Strömqvist (2007) conclude that at the strategy-level, emerging market hedge funds have only been able to generate risk-adjusted returns in the most recent period when analyzing data between 1994 and 2004. They also show upward trend for alphas and that they might be found in emerging markets in the future. Furthermore, Eling and Faust (2010) find that hedge funds are more efficient in compare than mutual funds in allocating their assets, which is mainly due to the lack of restrictions. Ackermann et al. (1999), Brown et al. (1999), Capocci and Hübner (2004) and Liang (1999) study that difference among the hedge funds and mutual funds’ according to risk-adjusted performance and their persistence in to return basis. Their findings are the same, and conclude that hedge funds are better than mutual funds on a regular basis, mostly due to the combination of return/incentive arrangements and the investment flexibilities that hedge funds allow. Ackermann et al.,1999 studied, hedge funds have a higher liability to change rapidly and unpredictably than mutual funds and performance can be explain through incentive fees of hedge fund. Brown et al. (1999) find that the positive risk-adjusted returns of off shore hedge funds are outcomes of investment style rather than fund manager’s skills. These findings are vital for the hedge Fund industry, since hedge funds tend to have higher attrition rate compared to mutual funds. Agarwal & Naik, (2000) study that hedge funds often perform better than mutual funds, but not always the compared benchmark. Ackermann et al., (1999); Brown et al. (1999); Capocci & Hübner, (2004);Eling & Faust, (2010); Liang, (1999) Study that examine hedge funds persistence performance with passive index benchmarks, such as gold and the S&P 500 show mixed results . Findings by Brown et al. (1999) and Liang (1999) find that hedge funds perform better than traditional benchmarks, while the results by Agarwal and Naik (2004) vary significantly. Amin and Kat (2001) suggest that a greater risk-return profile cannot be offered by investing in hedge funds alone due to inefficiency. Agarwal & Naik, 2000; Fung & Hsieh, 1997; Liang,

1999 conclude that hedge funds appear to increase the return of a portfolio by having a weak correlation to other securities in the market. Fung and Hsieh (1997) find evidence that the risk-return profile improves in a portfolio when adding hedge funds,due to low correlation with the market. Amenc and Martellini (2002) demonstrate that hedge funds are included in a portfolio result in a decrease of risk without any change in return. Strömqvist (2007) finds that hedge fund performance has been weak historically, and suggests that hedge funds do not provide any diversification benefit when combining it in a portfolio with other assets.

3. Objectives of the study

Following are the objectives of the study:

- To examine how different hedge fund investment strategies perform in emerging market.
- To study how emerging market hedge funds produce higher risk-adjusted returns than global hedge funds.
- To examine different hedge fund strategies performance used by hedge fund managers.

4. Limitation of the study

The study has concentrated only on emerging hedge fund market and given to effort hedge fund strategies performance used by the hedge fund manager. There are few studies on how different hedge fund strategies perform in the area of emerging markets. Hence, there is an evident knowledge gap. Additionally, due to the large amounts of assets that hedge fund managers are handling in these area and the performance is interesting to analyse.

5. Scope of the study

The study provide scope for analysis of hedge fund strategies in emerging market and action plan of the said top performing strategies of hedge fund and to find out the clue of their investment hedge fund strategies used by investors or managers.

6. Hedge fund strategies

The investment strategy of a hedge fund determines how the fund is managed; hence, it indicates how the manger will use investment techniques to generate the desired returns. The independent data providers of hedge fund information and the five hedge fund strategies are Arbitrage, Managed future, Event Driven, long and short position, and fixed income. (Eurekahedge, 2018)

7. Research Methodology

In order to compare hedge fund strategies with a selected benchmark, which is the measure of what the strategies try to out-perform, the paper uses a quantitative method. Hedge fund returns are collected as secondary data and statistically analyzed. The selected time interval is January 2008 to December 2017, which offers a large sample of returns over a long time span.

8. Sample selection and data collection

The objective of this Paper is to examine returns of hedge funds that operate in emerging markets. All hedge fund data is collected from the Eurekahedge database, which comprises a large sample. To be considered an emerging market fund; at least 90% of the funds' assets must be allocated in the region. In this research, emerging markets is defined in accordance with Eurekahedge as the Asia region. (Eurekahedge, 2018).

The hedge fund data regarding emerging markets on Eurekahegde consists of 3,949 equally weighted funds, categorized into different strategies. This study includes five strategies i.e. Arbitrage, Managed future, Event Driven, long and short position, and fixed income. Further, the selected benchmark is the Eurekahedge Hedge Fund index, from now on called the GHF index, which comprises 23,612 global hedge funds.

All fund results included in this study are assembled monthly by Eurekahedge and measured in terms of profit/loss of the whole portfolio worth and are net of fees. There are no "twin" funds in the benchmark index, e.g. no onshore and offshore type of the same fund. New funds, with at least a three-month history, are rebalanced into the index while closed funds historical performance remains permanently.

9. Variables

This study includes five different hedge fund strategies to represent the strategy variable. The five strategies; arbitrage, managed futures, event driven, long/short and fixed income are selected for their variation in terms of investment characteristics. Some of which are based on reducing risk and others enhance return by taking higher risks. Arbitrage, long/short and fixed income is categorized as risk-reducing strategies while managed futures and event driven enhance risk more frequently (Connor & Woo, 2004). Further, long/short have a style of taking different positions in the market whereas fixed income locates their investments into various asset classes, such as currencies and equity (Fung & Hsieh, 1997). The event driven strategy is based on the managers' speculation of events that will affect the market. Lastly, managed futures use sophisticated computer-programs to beat the market (Connor & Lasarte, 2004).

The benchmark variable is included as a measure to Out-perform. As mentioned above it is the GHF index, which is useful since it provides performance of all underlying funds in the database, irrespective of region (Eurekahedge, 2018).

10. Analysis of Data

The descriptive statistics presented *table 1* represent four moments the mean, standard deviation, Skewness and Kurtosis of the distribution for the five strategies, the benchmark and the S&P 500. The table also contains information on the minimum and maximum values of each variable.

Table 1: Descriptive statistics: monthly returns for strategies, GHF index and the S&P 500

Strategies	Mean(%)	Std.Dev.(%)	Skewness	Kurtosis	Min (%)	Max (%)
GHF index	0.4729	2.4559	-0.629	2.6099	-9.2239	8.2483
Arbitrage	0.5468	0.9712	-0.6485	2.7263	-3.3985	2.9500
Managed Future	1.3984	3.2234	2.0112	7.8391	-5.8272	16.982
Event Driven	0.5725	2.8312	-1.155	3.2710	-11.471	7.4143
Long/Short	0.4483	3.2348	-0.4601	2.0067	-10.854	10.8693
Fixed Income	0.4854	1.7053	-1.8594	9.0621	-9.3199	4.5919
S&P500	0.1038	0.1925	4.2008	-1.7735	-0.37	0.3239

Note: All statistics are analyzed as monthly returns. Descriptive statistics for each strategy, GHF Index and the S&P 500 are calculated as average values from January 2008 to December 2017. The four moments mean, standard deviation, Skewness, and Kurtosis together with minimum and maximum values are also presented.

It is observed from the table 1 that managed future is the strategy that gives the highest returns (1.3984%) as well as the highest maximum value (16.982%). Further, managed future is the strategy that takes the most risk and is the most volatile among the different strategies. This is followed by Event driven strategy, Arbitrage strategy, fixed income strategy, GHF index, long/ short strategy and S&P 500 with the mean value percentage of 0.5725, 0.5468, 0.4854, 0.4729, 0.4483 and 0.1038 respectively. All the strategies provide positive mean percentage. It is also reveals that most of the hedge fund strategies gives better result than general hedge fund industry (GHF index). It is also observed from the table 1 that most of the hedge fund strategies give negative Skewness value. But managed future strategy gives positive Skewness which implies that periodic minor negative returns, where extreme negative return is rare. Furthermore, it is found that kurtosis in most of the strategies gives leptokurtic distribution.

The managed futures strategy is the only strategy with positive Skewness which implies that it is desirable amongst investors. However, the distribution is also leptokurtic, which should make investors think twice about investing in the managed futures strategy funds. In the case of positive relationship between risk and return, suggesting more risk exposures increases the possibility of higher outcome in return.

10.1: Correlation

The correlation presented *table 2* represent relationship between GHF index, S& P 500, and five hedge funds strategies i.e. Arbitrage, Event driven, long/ short, Fixed income and managed future.

Table 2: Correlation between the GHF index, S&P 500 and hedge fund strategies

	S & P 500	*Arbitrage*	*Event driven*	*Long/ Short*	*Fixed income*	*Managed future*	*GHF Index*
S & P 500	1	0.3747	0.8654	0.8744	0.6789	-0.5018	**0.8501**
Arbitrage	0.3747	1	0.6910	0.7082	0.5893	0.1969	**0.6974**
Event driven	0.8654	0.6910	1	0.9933	0.8915	-0.2620	**0.9928**
Long/ Short	0.8744	0.7082	0.9933	1	0.8816	-0.2329	**0.9957**
Fixed income	0.6789	0.5893	0.8915	0.8816	1	-0.0066	**0.9201**
Managed future	-0.5018	0.1969	-0.2620	-0.2329	-0.0066	1	**-0.1975**
GHF Index	0.8501	0.6974	0.9928	0.9957	0.9201	-0.1975	**1**

Note: Table 2 illustrate the correlation co-efficient between the GHF index, S & P 500 and hedge fund strategies measured from January 2008 to December 2017. Correlation co-efficient values fall between -1 to 1. Positive correlation coefficient represent that securities move in same directions and negative correlation coefficient represent that securities move in opposite direction.

It is observed from the table 2 that the variability between the different strategies is high, ranging from the 0.9957 to -0.1975. The GHF index has a high correlation between the strategies with four out of five strategies and S& P 500. The GHF index and long / short strategies have high correlation coefficient with the value of 0.9957. It is followed by Event driven strategy, Fixed income strategy, S&P 500, Arbitrage strategy, and Managed future strategy with the value of 0.9928, 0.9201, 0.8501, 0.6974 and -0.1975 respectively. The GHF index has correlated most of the hedge fund strategies with the positive correlation coefficient value. This is representing securities move in the same directions.

11. Conclusion

Hedge fund companies play a significant role to development of a country, with India not being an exception. The current study while confirming the trend also indicates a significant development through the wealthy investors and institutions. In this study found that the hedge fund strategies perform significantly in emerging market and performance of the hedge fund in Indian emerging market were developed. It is also found that the relationship between hedge fund strategies, HF index and S& P 500 correlated in most of the strategies with the positive coefficient value.

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