iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 6 **Issue:** V **Month of publication:** May 2018

DOI: http://doi.org/10.22214/ijraset.2018.5213

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 6.887
Volume 6 Issue V, May 2018- Available at www.ijraset.com

A Study on Performance Evaluation of Select Mutual Fund Schemes in HDFC

Dr. S. P. Dhandayuthapani[1], S. Arunpratheep[2]
[1] *Assistant Professor, Department of Management studies, Anna University (BIT CAMPUS)*
[2] *PG Student, Department Of Management Studies, Anna University (Bit Campus) Tiruchirapalli, Tamil Nadu, India*

Abstract: Mutual Fund refers to trust which pools the savings of a large number of investors who share a common financial goal. The money collected from the investors is invested in the capital market instruments based on the fund's objective. The income owned and assets appreciations realized out of these savings are shared by its entity holders in percentage to the number of units own by them. The main objective of this research paper is to evaluate the performance of select Mutual fund schemes in HDFC. For the purpose of conducting this study open ended Mutual fund schemes in HDFC have been studied over the period of 1 year data which is from 4th April 2017 to 3rd April 2018. The analysis has been made on the basis of Sharpe ratio, Treynor ratio and Jenson's alpha ratio. The data has been taken from various websites of mutual fund. The analysis depict that most of the funds selected for learn have outperformed below Sharpe Ratio as well as Treynor Ratio and Jenson's alpha ratio.
Keywords: Beta, Equity schemes, Sharpe, Treynor, Jenson, Statistical Tools)

I. INTRODUCTION

Investment is most significant key to use the surplus support of an entity for the purpose of earning supplementary income or capital appreciation or together. The investor has to consider various factors while making an investment decision these are as follows: risk associated with the investment, tax benefits, liquidity, and marketability etc. A mutual fund is a pool of money collected from many small investors which is professionally managed by the portfolio managers. It is a type of collective investment scheme and invests it various securities such as in stocks, bonds and short-term money market instruments. The performance of the fund depends upon the economic condition of the country and the world as a whole. The performance of the fund will be evaluated in terms of rate of return, Treynor, Sharpe and Jensen's measure of performance. Mutual funds are considered as one of the best attractive investment options available to small investors as compare to others alternatives because it is managed by professional portfolio managers. Mutual Fund is a trust that pools money from investors by selling shares of the fund like any other type of company that sells stock to the public. The raised money is used in different securities like stocks, bonds, money markets & commodities. Each mutual fund has common financial goal and the money is invested in accordance with the objective. Fund is managed by a professional fund manager, who is responsible for implementing a fund's investing strategy and managing its portfolio trading activities. Each investor in the mutual fund participates proportionally (based upon the number of shares owned) in the gain or loss of the fund. Any investor can invest minimum amount that is affordable and diversify their portfolio in different sectors depending upon their interests and risks.

A. Let us have a look at some Important Mutual fund Schemes under the Following three Categories based On Maturity Period of Investment

1) *Open-Ended* - This scheme allow investors to get or vend units at any situation in time. This does not have a fixed maturity period.

a) *Debt/ Income* - In a debt/income scheme, a major part of the investable fund are channelized towards debentures, government securities, and other debt instruments. Even though capital appreciation is small, this is a fairly short risk-low return investment avenue which is ideal for investors seeing a steady income

b) *Money Market/ Liquid* - This is ideal for investors looking to utilize their surplus funds in short term instruments while awaiting better options. These schemes spend in short-term liability instruments and try to find to provide logical returns for the investors.

c) *Growth* - Equities are a popular mutual fund category amongst retail investors. while it might be a high-risk venture in the short term, investors can wait for capital appreciation in the long time. If you are at your prime earning stage and looking for long-term benefits, growth schemes could be an ideal investment.

©IJRASET: All Rights are Reserved

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 6.887
Volume 6 Issue V, May 2018- Available at www.ijraset.com

d) *Balanced* - This scheme allows investors to enjoy growth and income at regular intervals. Funds are invested in both equities and fixed income securities; the proportion is pre-determined and disclosed in the scheme related offer document. These are ideal for the cautiously aggressive investors.

2) Closed-Ended - This kind of scheme have a fixed middle age period and investors can use just through the opening period well-known as the New Issue time.

a) *Capital Protection* - The primary objective of this scheme is to safeguard the principal amount while trying to deliver reasonable returns. These supply in high-class fixed profits securities with trivial coverage to equities and grown-up along with the maturity time of the scheme.

b) *Fixed Maturity Plans (FMPs)* - FMPs, as the name suggests, are mutual fund schemes with a defined maturity period. These schemes usually include of debt instruments which grown-up in line with the ripeness of the scheme, thus earning from side to side the interest factor (also called coupons) of the securities in the portfolio. FMPs are normally passively managed, i.e. there is no active trading of debt instruments in the portfolio. The expenses which are charged to the scheme are hence, generally lower than actively managed schemes.

c) *Interval* - working as a mixture of open and closed ended schemes, it allows investors to buy and sell their units at pre-defined intervals.

II. SCOPE OF THE STUDY

The present study attempts to provide an idea into the performance of various HDFC mutual funds. This study has been done under the motive to analyze the funds depending on the scheme. The study is mainly concentrated on open ended schemes & their returns involved. The Indian mutual funds industry is witnessing a rapid growth as a result of infrastructural development, increase in personal financial assets, and rise in foreign participation. With this learning rising risk desire, growing income, and rising awareness, mutual funds in India are becoming a favoured investment alternative compared to other investment vehicles like Fixed Deposits (FDs) and postal savings that are measured safe but give moderately low returns, according to “Indian Mutual Fund Industry”.

A. Need Of The Study

Make investors aware about the concept of mutual funds and to suggest the investors where to invest (or) not to invest. And provide information regarding merits and demerits of mutual funds. Mutual fund is booming sector now a days and it has lot of scope to generate income and providing return to the investor. The imposing expansion of mutual funds in India has fascinated the concentration of Indian researchers, individuals and institutional investors. The need of the Research work is to evaluate the performance of different mutual funds in India available in the selected banks and keep the mutual fund investors fully aware of it. Thus, there is the need to investigate how efficiently the hard earned money of the investors and resources of the economy are efficiently utilized.

B. Objectives Of The Study

1) To study the performance of select mutual fund scheme’s in HDFC.

2) To examine the performance of selected schemes by using the performance evaluation models namely Sharpe, Treynor and Jensen.

3) To compare the performance of 10 open ended mutual fund schemes according to the performance evaluation.

III. LETRATURE REVIEW

Daniel (1997) has done that the 'persistence in mutual funds performance' is due to the use of easy force ideas by the fund managers slightly than owed to firm fund managers having that let them to pick charming stocks. Results show that particularly aggressive growth funds exhibit some "selectivity" ability but no "timing ability.”

Cochran (2001) has examined 'predictability' of stock returns. They suggested that stock returns are predictable. The degree of predictability increases as the time horizon lengthens. The author has examined the predictability of stock returns using international stock market data from 18 countries. Their results show that dividend yield can predict stock returns and the level of predictability increase as the return horizon increase from one month to 48 months.

©IJRASET: All Rights are Reserved

Jaspal Singh and Subhash (2006) stated that the investors consider gold to be the most preferred form of investment, followed by National Savings Certificate and Post Office schemes. Hence, the basic psyche of an Indian investor, who still prefers to keep his savings in the form of yellow metal, is indicated.

Noulas & John and John (2005) concluded the danger attuned performance of Greek equity funds in the age 1997-2000. This learning is based on periodical data for fairness mutual funds and include 23 equity funds that exist for the entire time below concern. Mutual funds are ranked on the tools used by Treynor (1965), Sharpe (1966) and Jensen. Grades showed positive income of the stock bazaar for the first three years and depressing returns for the fourth year.

The marks also denotes that the beta of all funds is lesser than one for four year age. The authors concluded that the equity funds have neither the same risk nor the same return. The investor needs to know the long-term behaviour of mutual funds in order to make the right investment decision.

Dr. S.Narayanrao, (2003) evaluate the performance evaluation of Indian mutual funds in a bear market is carried out through relative performance index. The marks of act measures propose that generally of the mutual fund schemes in the model of 58 were capable to satisfy investor's prospect by giving surplus returns over accepted returns based on both low-quality for systematic risk and total risk.

Dr. R. Narayanaswamy 2013 In India, capital market provides various investment avenues to the investors. The findings of this research study will be help full to investors for their future investment decisions. The mutual \fund guarantees the minimum risks and maximum return to the investor. This study mainly focused on the performance of selected equity large cap mutual fund schemes in terms of risk- return relationship the various statistical tools used for calculated the performance of the selected open ended equity mutual fund schemes.

DR. G.S. Batra 2012 Mutual fund invested in a well-diversified portfolio of different companies. The findings of the study reveal that only three schemes have performed better than benchmark. To learn the performance evaluation of certain open ended schemes in provision risk and return bond.

Jack L Treynor suggested a new predictor of mutual fund performance, one that differ from close to all those used previously by incorporating the volatility of a funds return into a simple yet meaningful manner.

Jensen 1967 explained a risk adjusted measure of portfolio performance (Jensen alpha) so as to approximation how a enormous deal a manager's forecasting ability provide to a fund's profits.

The importance of risk and return for any investment, this paper analyses risk adjusted returns of mutual funds and also absolute returns. They have attempted to find out if the fund managers have outperformed the benchmark for a given risk class. This reveals that the selection of performance measure is very important in assessing the performance of the mutual fund.

Dr. R. Perumal 2016 Investment decision making towards mutual funds by using Statistical tools and ratio analysis of mutual fund schemes. The objective of this research work is to exploits the use of statistical tools and ratio analysis in terms of financial performance. The study result are helpful to the Mutual Fund firms in terms of realize their recital among the mutual fund companies in the marketplace

Burlakanti & Chiruvoori 2013 All These Fund houses have several mutual fund schemes in each segment like equity, debt, gilt and liquid funds. Accessibility of broad variety of equity MF schemes in each ASSERT MANAGEMENT COMPANY, it would be hard for the saver to decide the finest scheme. It is fail to notice to judge risk and return of every fund to earnings improved returns before attractive investment resolution.

IV. RESEARCH METHODOLGY

A. Research Design

To examine the performance of mutual fund schemes were randomly selected which were offered by HDFC Mutual Fund. Data regarding NAV were obtained from the web site of www.mutualfundindia.com and www.amfiindia.com.

B. Data Collection

The study is purely based on secondary data. The data are collected from the previously done projects, researches, thesis, and websites.

C. Tools

The tools used for the present study

1) Sharpe ratio

©IJRASET: All Rights are Reserved

2) Treynor ratio
3) Jenson ratio

Analysis has been done by using following statistical tools.

Sharpe ratio: It indicates the risk-return performance of portfolio.

$$\text{Sharpe Index} = \frac{R_p - R_f}{\sigma_p}$$

4) Treynor Ratio: It measure the returns earned in excess of that which could have been earned on investment that has no diversifiable risk.

$$\text{Treynor Index} = \frac{R_p - R_f}{\sigma_m}$$

5) Jensen ratio: It measures the risk-adjusted performance of a security or portfolio in relation to the expected market return.

$$\text{Alpha } (\alpha) = (Rx - Rf) - \beta(Rm - Rf)$$

6) Beta: It measures the volatility or systematic risk of a security with comparison to the market as a whole. Beta is calculated as,

$$\beta = \frac{R_x, R_m}{R_m}$$

7) Standard deviation: It shows the historical volatility.

$$\sigma x = \frac{\sqrt{\Sigma(Rx - \bar{Rx})^2}}{N}$$

D. Sharpe Ratio

In this model, presentation of a fund is examined on the basis of Sharpe Ratio, which is a ratio of returns generate by the fund over and below risk free rate of homecoming and the whole risk connected with it.

S_p= Sharpe's Ratio, R_p = portfolio return, R_f= risk free return, σ_p = SD of portfolio returns. Even as a elevated and optimistic Sharpe Ratio show a better risk-adjusted recital of a fund, a low and pessimistic Sharpe Ratio is an put forward of deprived act. If S_p of the mutual fund scheme is better than that of the souk selection, the fund has deperformed in the market. Who assumes that a small investor invests entirely in the mutual fund and do not grip any portfolio to get rid of unsystematic risk and, hence demands a finest for the total risk. A joint finance plan with huge Treynor ratio and short Sharpe ratio can be done to boast somewhat larger sole risk. Thus the two indices rank the schemes differently.

E. Treynor's Ratio

Treynor's ratio is a dimension of the returns earned in excess of income can have been earn on a riskless investment. Senior the Treynor Ratio is meant the enhanced portfolio.

At whatever time $R_p > Rf$ and $\beta_p > 0$ a big T value pay a better range for all investors ill will of of their being risk rate. In two cases we may have a pessimistic T value: when $R_p < R_f$ or when $\beta_p < 0$. If T is apathetic since $R_p < R_f$, we refer the portfolio act as very scanty. Though, if the unhelpfulness of T come from a unenthusiastic beta, fund's performance is superb. After when R_p- R_f, and βp are together negative, T resolve be positive, except in order to meet the criteria the fund's act as good or bad we should see whether R_p is over or below the refuge market line pertaining to the study period.

F. Jensen Ratio

It measures the difference between market risk and actual performance of the fund. Helpful Jensen Ratio show greater Michael C. Jensen (1968) has given diverse aspect and restrict his awareness to the crisis of evaluate a fund manager's capability of providing higher income to the investor. He process the piece as the surplus arrival provide by the collection more than the ordinary (CAPM) returns. J = Portfolio. Return − CAPM. Return

A helpful value of J_p would point out that the scheme has provide a higher return over the CAPM return and lies above Security Market Line (SML) and a negative price would specify it has provided a minor than ordinary profits and lies below SML. Jensen uses αj as his performance measure. A bigger range manager would have a momentous affirmative αj value as of the constant

©IJRASET: All Rights are Reserved

activist residuals. Inferior managers, on the other hand, would have a significant negative αj. regular range managers having no forecasting skill but, motionless, cannot be measured lower would take home as much as one could expect on the root of the CAPM. . In other writing, a helpful value for Jensen's alpha earnings a fund manager has strike the bazaar by means of his or her stock option skill.

G. Analysis

This table shows analyzed data:

SCHEMES	NAV	RETURN	SD	BETA	SHARPE	TRENOR	JENSON
HDFC EQITY FUNDS	618.4210	36.86	0.9061	1.1882	0.41	0.30	-0.0116
HDFC RETIREMENT SAVINGS FUNDS	16.739	37.7	0.6465	0.8587	0.58	0.43	0.0238
HDFC SMALL CAP FUNDS	478580	60.75	0.776	0.7816	0.78	0.77	0.0813
HDFC INCOME FUNDS	40.1846	1.3	0.2292	0.2343	0.05	0.05	-0.0056
HDFC REGULAR SAVING FUNDS	35.3119	6.44	0.0516	0.0493	1.24	1.29	0.0116
HDFC CORPORATE DEPT OPERTUNITY FUNDS	14.908	6.57	0.0971	0.0969	0.67	0.69	0.0118
HDFC LIQUID FUNDS	3426.7396	6.53	0.0176	0.0064	3.68	10.12	0.0056
HDFC CASH MANAGEMENT FUNDS	3602.31	6.45	0.0176	0.0064	3.64	10	0.0052
HDFC CHILDREN GIFT FUNDS	113.840	30.69	0.5971	0.0633	0.51	4.84	0.0471
HDFC GOLD FUNDS	10.16	2.81	06694	0.0084	0.04	3.28	0.0094

H. Interpretation

The Sharpe Ratio measures the fund's excess return per unit of its risk (i.e. total risk). This ratio indicates the relationship between the portfolio's additional return over risk-free return and total risk of the portfolio, which measured in terms of standard deviation. A lofty and encouraging Sharpe Ratio show a better risk-adjusted recital of a fund as short and unhelpful Shape Ratio is an sign of bad performance. Generally, proviso Sharpe Ratio is larger than the benchmark contrast the fund's routine is more over the market and vice-versa. Top performing fund schemes as per Sharpe ratio analysis were HDFC LIQUID FUNDS, HDFC CASH MANAGEMENT FUNDS. Thus, it can be concluded that the performance in terms of Sharpe Ratio of most of the selected mutual funds have been satisfactory and have outperformed the market index during the study period.

©IJRASET: All Rights are Reserved

Treynor's Ratio measures the relationship between fund's additional return over risk-free return and market risk is measured by beta. The larger the value of Treynor ratio, the better is the performance of portfolio. Usually, if the Treynor ratio is better than the benchmark association, the group is believed to have outperformed the bazaar and indicate higher risk-adjusted show. Table presents the results of Treynor Ratio from the selected mutual fund schemes with their respective benchmark portfolios. The study reveal that four out of ten schemes are greater than the benchmark assessment which means the range has outperformed the market and indicate the greater risk- adjusted performance.

In the Jensen's Ratio measure of the mutual fund schemes. Outcome of Jensen computation revealed that 8 out of 10 schemes were showed positive alpha which indicated finer feat of the schemes and left over 2 schemes negative alphas. Among the entire scheme higher alpha was found with HDFC SMALL CAP FUNDS followed by HDFC CHILDFEN GIFT FUNDS.

I. Findings

1) The Sharpe ratio of HDFC liquid Fund (0.41) maintains 1st rank followed by HDFC cash management Fund (0.58). The lowest Sharpe Ratio found in the case of HDFC gold Fund (0.04).

2) The Treynor ratio of HDFC liquid Fund (0.30) highest ratio and the lowest Treynor Ratio found in the case of HDFC income funds Fund (0.05).

3) The Jensen alpha of HDFC small cap Fund (0.0813) found the highest ratio. The lowest Jensen ratio found in the case of HDFC equity fund (-0.0116).

J. Suggestions

1) Based on the analysis the HDFC Liquid Funds, HDFC Cash management funds performed good. These are suggested to invest by the investors.

2) HDFC Income funds, HDFC Equity Funds results shows that the fund managers failed to forecast appropriate security prices in time, which result in poor performance.

3) Investors who are interested in consistent returns also can invest in reliance diversified power sector fund, among all the other selected mutual funds.

V. CONCLUSION

The present paper investigates the performance of 30 open-ended, diversified equity schemes for the period from April 2017 to April 2018 of transition economy. Daily closing NAV of different schemes have been used to calculate the returns from the fund schemes. This study provides some ideas on mutual fund performance so as to assist the common investors in taking the rational investment decisions for allocating their resources in correct mutual fund scheme. The past performance of the particular schemes are evaluated on the source of Sharpe, Treynor, and Jensen's tools. Whose outcomes will be helpful for the investors for handling better investment decisions. In the study, the Sharpe ratio & Treynor ratio was positive for all schemes which showed that the funds were given that incomes bigger than risk free rate.

REFFERENCES

[1] Kalpesh.p.prajapati,mahesh.k.patel. (2012). Comparative study of performance evaluation of mutual funds schemes of india companies (Vol. 3). Gujarat: Journal of arts science & commerce.

[2] M.S.Annapoorna , Pradeep K.Gupta. (2013). A comparative analysis of returns of mutual funds schemes ranked 1 by CRISIL. Bijapur , Karnataka: Tactful Management Research Journal.

[3] Mr. Ashok Bantwar , Mr. Krunal Bhuva. (2012). Performance evalution of selected indian equity diversified mutual fund schemes:An empirical study . GJRIM.

[4] MS. M.V. Subha , MS.S.Jaya bharathi. (2007). An empirical study on the performance of selected mutual fund schems in India. coimbatore: Journal of contemporary research in management.

[5] S.P.Kothari & Jerold, B.Warner. (2001). Evaluating mutual fund performance. Journal of Finance.

[6] Sahiljain. (2012). Analysis of equity based mutual funds in india (Vol. 2). Roorkee: IOSR Journal of business and management (IOSRJBM).

[7] Suchitashukla. (2015). A comparative performance evaluation of selected mutual funds (Vol. 4). kanpur: International journal of science technology & management.

[8] Tej singh, Priyanka. (2014). An analysis of gap between the public and private sector mutual funds in india (Vol. 1). Rewari,Rohtak: Prestige e-journal of management and research.

[9] Daniel, K. Grinblatt, M., Titman, S., & Wermers.R Measuring mutual fund performance with characteristic-based benchmarks. Journal of Finance 52, Pp.1035-1058, 1997

[10] Cochran, John. "Capital-Based Macroeconomics" Quarterly Journal of Austrian Economics, 4(3), pp. 17-25, 2001.

[11] Noulas, John and John, Performance of mutual funds. Managerial finance, 31(2), pp.101 112, 2005.

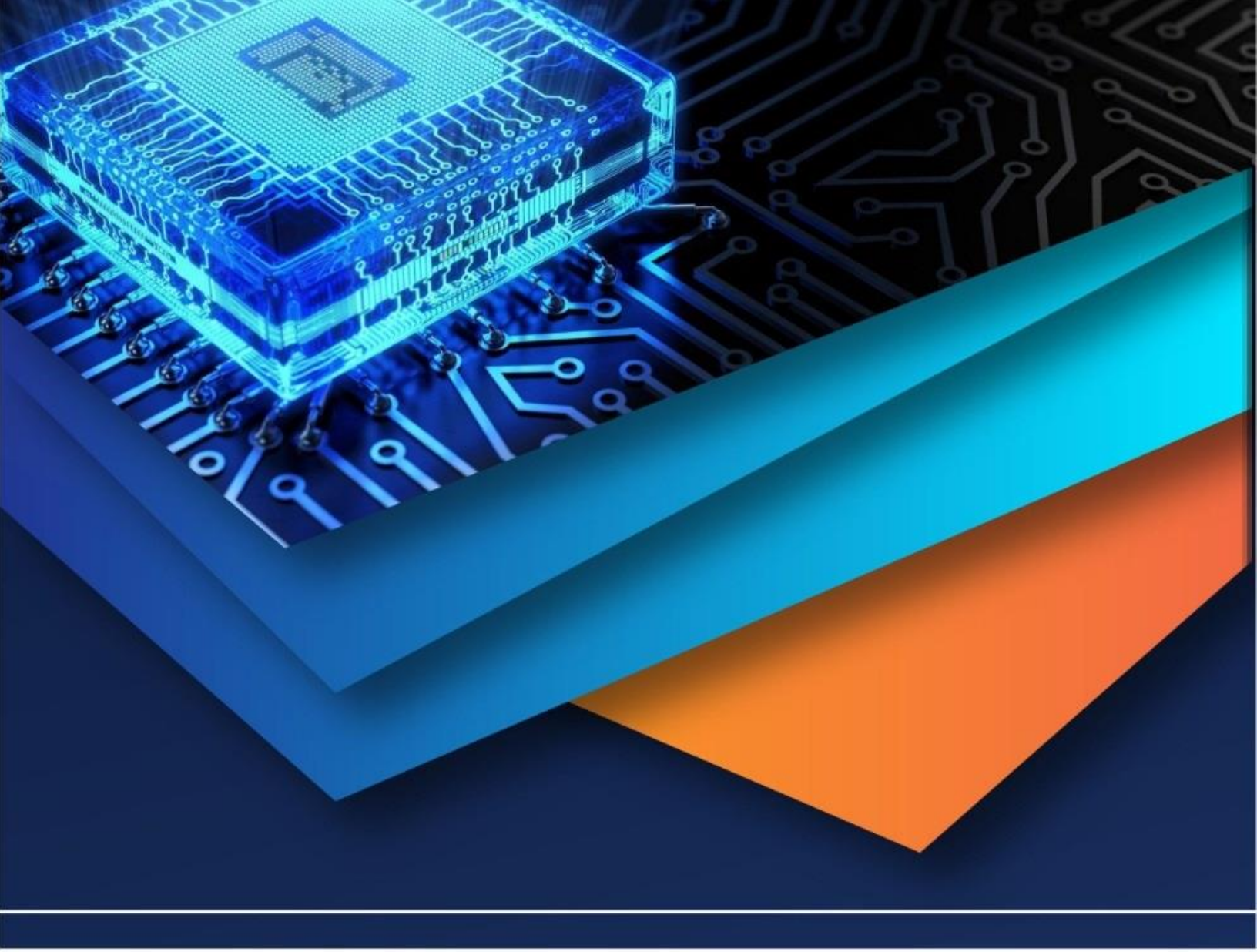
[12] Leite and Cortez, "Conditional Performance Evaluation: Evidence from the Portuguese Mutual Fund Market" Working paper, University of Minho 2006.

©IJRASET: All Rights are Reserved

A. WEBSITES

[1] www.mutualfundindia.com
[2] www.amfiindia.com
[3] www.bseindia.com
[4] www.sebi.org
[5] www.fundzbazar.com

©IJRASET: All Rights are Reserved



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)