# INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT

A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

*Indexed & Listed at:*

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., EBSCO Publishing, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A., Google Scholar,
Open J-Gage, India [link of the same is duly available at Inflibnet of University Grants Commission (U.G.C.)],
The American Economic Association's electronic bibliography, EconLit, U.S.A.,
Index Copernicus Publishers Panel, Poland with IC Value of 5.09 & number of libraries all around the world.

Circulated all over the world & Google has verified that scholars of more than **4767 Cities** in **180 countries/territories** are visiting our journal on regular basis.

Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA

http://ijrcm.org.in/

# CONTENTS

# CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the areas of Computer Science & Applications; Commerce; Business; Finance; Marketing; Human Resource Management; General Management; Banking; Economics; Tourism Administration & Management; Education; Law; Library & Information Science; Defence & Strategic Studies; Electronic Science; Corporate Governance; Industrial Relations; and emerging paradigms in allied subjects like Accounting; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Rural Economics; Co-operation; Demography: Development Planning; Development Studies; Applied Economics; Development Economics; Business Economics; Monetary Policy; Public Policy Economics; Real Estate; Regional Economics; Political Science; Continuing Education; Labour Welfare; Philosophy; Psychology; Sociology; Tax Accounting; Advertising & Promotion Management; Management Information Systems (MIS); Business Law; Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labour Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; International Relations; Human Rights & Duties; Public Administration; Population Studies; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism & Hospitality; Transportation Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic; Web Design and emerging paradigms in allied subjects.

Anybody can submit the **soft copy** of unpublished novel; original; empirical and high quality **research work/manuscript** ***anytime*** in ***M.S. Word format*** after preparing the same as per our **GUIDELINES FOR SUBMISSION**; at our email address i.e. infoijrcm@gmail.com or online by clicking the link **online submission** as given on our website (***FOR ONLINE SUBMISSION, CLICK HERE***).

# GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION**:

**DATED: _____________**

***THE EDITOR***

IJRCM

Subject: **SUBMISSION OF MANUSCRIPT IN THE AREA OF _______________________.**

**(e.g. Finance/Mkt./HRM/General Mgt./Engineering/Economics/Computer/IT/ Education/Psychology/Law/Math/other, please specify)**

**DEAR SIR/MADAM**

Please find my submission of manuscript entitled '____________________________________________' for possible publication in one of your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published elsewhere in any language fully or partly, nor is it under review for publication elsewhere.

I affirm that all the co-authors of this manuscript have seen the submitted version of the manuscript and have agreed to their inclusion of names as co-authors.

Also, if my/our manuscript is accepted, I agree to comply with the formalities as given on the website of the journal. The Journal has discretion to publish our contribution in any of its journals.

**NAME OF CORRESPONDING AUTHOR** :
Designation :
Institution/College/University with full address & Pin Code :
Residential address with Pin Code :
Mobile Number (s) with country ISD code :
Is WhatsApp or Viber active on your above noted Mobile Number (Yes/No) :
Landline Number (s) with country ISD code :
E-mail Address :
Alternate E-mail Address :
Nationality :

**NOTES**:

a) The whole manuscript has to be in ***ONE MS WORD FILE*** only, which will start from the covering letter, inside the manuscript. ***pdf. version* is liable to be rejected without any consideration**.

b) The sender is required to mention the following in the **SUBJECT COLUMN of the mail**:

**New Manuscript for Review in the area of** (e.g. Finance/Marketing/HRM/General Mgt./Engineering/Economics/Computer/IT/ Education/Psychology/Law/Math/other, please specify)

c) There is no need to give any text in the body of mail, except the cases where the author wishes to give any **specific message** w.r.t. to the manuscript.

d) The total size of the file containing the manuscript is expected to be below **1000 KB**.

e) **Abstract alone will not be considered for review** and the author is required to submit the **complete manuscript** in the first instance.

f) ***The journal gives acknowledgement w.r.t. the receipt of every email within twenty four hours*** and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of manuscript, within two days of submission, the corresponding author is required to demand for the same by sending a separate mail to the journal.

g) The author (s) name or details should not appear anywhere on the body of the manuscript, except the covering letter and the cover page of the manuscript, in the manner as mentioned in the guidelines.

2. **MANUSCRIPT TITLE:** The title of the paper should be **bold typed**, **centered** and **fully capitalised**.

3. **AUTHOR NAME (S) & AFFILIATIONS**: Author (s) **name**, **designation**, **affiliation** (s), **address**, **mobile/landline number** (s), and **email/alternate email address** should be given underneath the title.

4. **ACKNOWLEDGMENTS:** Acknowledgements can be given to reviewers, guides, funding institutions, etc., if any.

5. **ABSTRACT**: Abstract should be in **fully italicized text**, ranging between **150** to **300 words**. The abstract must be informative and explain the background, aims, methods, results & conclusion in a **SINGLE PARA**. ***Abbreviations must be mentioned in full***.

6. **KEYWORDS:** Abstract must be followed by a list of keywords, subject to the maximum of **five**. These should be arranged in alphabetic order separated by commas and full stop at the end. All words of the keywords, including the first one should be in small letters, except special words e.g. name of the Countries, abbreviations.

7. **JEL CODE**: Provide the appropriate Journal of Economic Literature Classification System code (s). JEL codes are available at www.aeaweb.org/econlit/jelCodes.php, however, mentioning JEL Code is not mandatory.

8. **MANUSCRIPT**: Manuscript must be in ***BRITISH ENGLISH*** prepared on a standard A4 size ***PORTRAIT SETTING PAPER***. *It should be free from any errors i.e.* ***grammatical, spelling*** *or* ***punctuation.*** *It must be thoroughly edited at your end*.

9. **HEADINGS**: All the headings must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.

10. **SUB-HEADINGS**: All the sub-headings must be bold-faced, aligned left and fully capitalised.

11. **MAIN TEXT**:

***THE MAIN TEXT SHOULD FOLLOW THE FOLLOWING SEQUENCE***:

**INTRODUCTION**

**REVIEW OF LITERATURE**

**NEED/IMPORTANCE OF THE STUDY**

**STATEMENT OF THE PROBLEM**

**OBJECTIVES**

**HYPOTHESIS (ES)**

**RESEARCH METHODOLOGY**

**RESULTS & DISCUSSION**

**FINDINGS**

**RECOMMENDATIONS/SUGGESTIONS**

**CONCLUSIONS**

**LIMITATIONS**

**SCOPE FOR FURTHER RESEARCH**

**REFERENCES**

**APPENDIX/ANNEXURE**

The manuscript should preferably range from ***2000 to 5000 WORDS***.

12. **FIGURES & TABLES**: These should be simple, crystal **CLEAR**, **centered**, **separately numbered** & self explained, and **titles must be above the table/figure**. **Sources of data should be mentioned below the table/figure**. *It should be ensured that the tables/figures are referred to from the main text*.

13. **EQUATIONS/FORMULAE**: These should be consecutively numbered in parenthesis, horizontally centered with equation/formulae number placed at the right. The equation editor provided with standard versions of Microsoft Word should be utilised. If any other equation editor is utilised, author must confirm that these equations may be viewed and edited in versions of Microsoft Office that does not have the editor.

14. **ACRONYMS**: These should not be used in the abstract. The use of acronyms is elsewhere is acceptable. Acronyms should be defined on its first use in each section: Reserve Bank of India (RBI). Acronyms should be redefined on first use in subsequent sections.

15. **REFERENCES**: The list of all references should be alphabetically arranged. ***The author (s) should mention only the actually utilised references in the preparation of manuscript*** and they are supposed to follow Harvard Style of Referencing. **Also check to make sure that everything that you are including in the reference section is duly cited in the paper**. The author (s) are supposed to follow the references as per the following:

- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
- Use (**ed.**) for one editor, and (**ed.s)** for multiple editors.
- When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
- Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
- The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
- For titles in a language other than English, provide an English translation in parenthesis.
- ***Headers, footers, endnotes*** *and* ***footnotes*** *should* ***not be used*** *in the document.* However, **you can mention short notes to elucidate some specific point**, which may be placed in number orders after the references.

**PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:**

**BOOKS**

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

**CONTRIBUTIONS TO BOOKS**

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

**JOURNAL AND OTHER ARTICLES**

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

**CONFERENCE PAPERS**

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

**UNPUBLISHED DISSERTATIONS**

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

**ONLINE RESOURCES**

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

**WEBSITES**

- Garg, Bhavet (2011): Towards a New Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

# PERFORMANCE EVALUATION OF MUTUAL FUND: A STUDY OF RELIANCE MUTUAL FUND

*ANKIT SRIVASTAVA*
*RESEARCH SCHOLAR*
*FACULTY OF COMMERCE*
*G.S. COLLEGE OF COMMERCE & ECONOMICS*
*JABALPUR*

*DR. VIKAS KUMAR*
*ASST. PROFESSOR*
*FACULTY OF COMMERCE*
*GOVERNMENT P. G. COLLEGE*
*OBRA*

## ABSTRACT

*In this paper we tried to evaluate the performance of Reliance open-ended equity schemes with growth option. The period of the study spans from 1st April 2006 till 31st March 2015.To evaluate the performance of the selected mutual fund schemes, monthly returns are compared with Benchmark BSE National 100 and SENSEX returns. Further, statistical tools like average, standard deviation, beta, coefficient of determination and the risk adjusted performance measures suggested by Sharpe (1966), Treynor (1965) and Jenson (1968) were employed to evaluate the performance for the selected period.*

## KEYWORDS

equity schemes, jenson, open-ended, sharpe, treynor.

## INTRODUCTION

Many of the financial instruments mutual fund is one of the most attractive financial investment instrument that plays a vital role in the economy of a country. Mutual fund schemes provides new opportunities for investors. Mutual fund Industry was introduced in India 1963 with the formation of Unit Trust of India. During the last few years many extraordinary and rapid changes have been seen in the Mutual fund industry. Therefore, due to the changed environment it becomes important to investigate the mutual fund performance. The need for evaluating the performance of mutual fund schemes in India to see whether the mutual fund schemes are outperforming or underperforming than the benchmark and to see the competency of schemes to make out a strong case for investment. The present paper investigates the performance of open-ended, growth-oriented equity schemes. Open-ended mutual fund schemes are those which don't have a fixed maturity, not listed in the stock exchange and these schemes offer new unit for sale and ready to buy any time. The success of any scheme depends upon the competence of the management and its soundness.

## REVIEW OF LITEARTURE

Despite the existing of a mutual fund industry for over four and half decades in India, there have been only a few studies, which examined the performance of Indian mutual fund using standard methodology a brief review of this studies is now presented below:

**Gupta [1981]** had laid the foundation of performance evaluation with his study on performance of Indian equities. Immediately thereafter, Jain (1982) had pioneered the work on financial performance of investment schemes of Unit Trust of India during the period 1964-65 to 1979-80. His work is considered as the first notable work on performance evaluation of mutual funds in India.[1]

**Sarkar [1991]** critically examined mutual fund performance evaluation methodology. He opined that both Sharpe [1966] and Treynor [1965] performance measures rank mutual funds performance in similar fashion though they differ in the measurement of risk parameter.[2]

**Obaidullah and Sridhar [1991]** evaluated the performance of two major growth oriented mutual fund schemes – Mastershare and Canshare. They concluded that both of these on a total-risk-adjusted basis while Canshare did on a market risk-adjusted basis.[3]

**Shukla and Singh [1994**] tested the proposition whether portfolio manager's professional education resulted in superior performance. They reported that equity mutual funds managed by professionally qualified managers were riskier but better diversified than those managed by others. The study also pointed out that these fund managers outperformed others as a group though the difference in performance was not found to be statistically significant.[4]

**Shome [1994]** reported that average rate of return of selected Indian mutual funds was marginally lower than that of the benchmark portfolio (BSE Sensex). However, he reported that the risk measure of the majority of funds was higher than that of the benchmark portfolio. This implies that the fund managers were taking larger risk but were generating lower returns.[5]

**Adhikari and Bhosale [1994]** evaluated the relative performance of eleven growth schemes in terms of various performance measures during Feb. 1992 to May 1994 utilizing monthly NAV data. They reported that some of the sample schemes outperformed the relevant benchmark portfolio.[6]

**Vaid [1994]** looked at the performance in terms of the ability of the mutual fund to attract more investors and higher fund mobilization. It shows the popularity of the mutual fund as it is perceived to pay superior returns to the investors. She concludes that even for equity oriented funds, investment is more in fixed income securities rather than in equities, which is a distortion.[7]

**Kale and Uma [1995]** evaluated the performance of 77 mutual fund schemes managed by eight mutual funds. The rates of return were compared with the return on the BSE National Index over the sample period to assess the performance of the scheme vis-a-vis, the market. The study also examined the accounting and disclosure policies followed by the sample funds.[8]

**Sahadevan and Raju [1996]** have carried out a study on mutual funds. Their study has focused on data presentation on expenses and other related aspects, which are generally covered in annual reports of the mutual funds without going into the details of financial performance evaluation of the funds.[9]

**Agarwal [1996]** has dwelt upon various conceptual aspects related to mutual funds. The study has covered data on UTI's equity, debt and balanced funds. It traces the historical background of mutual fund industry in the USA and UK. The study covers in details the operational aspects of mutual fund management including the regulatory framework. The related chapters also cover data on NAV, market prices, national index, etc., pertaining to some of the funds in operation in India, without any financial performance evaluation of equity oriented funds.[10]

**Khurana [1996]** reported inverse relationship between probability of managerial replacement and fund performance by taking growth rate in a fund's asset base its portfolio returns as two separate measures of performance.[11]

**Jayadev [1996]** evaluated performance of two schemes during the period, June 1992 to March 1994 in terms of returns/benchmark comparison, diversification selectivity and market timing skills. He concluded that the schemes failed to perform better than the market portfolio (ET's ordinary share price index). Diversification was unsatisfactory. The performance did not show any signs of selectivity and timing skills of the fund managers.[12]

**Sadhak [1997]** traced the historical background of mutual fund industry. It has delineated the investment and marketing strategies followed by mutual fund organization in India. It contains statistical information about growth of mutual fund industry in terms of funds available for investment and investors account holding. However, the study misses out on financial performance of the mutual funds in operations.[13]

**Jayadev M [1998]** evaluated the performance of 62 mutual funds schemes using monthly NAV data for varying period between 1987 – March, 1995. He reported superior performance for bulk (30 out of 44) of the sample schemes when total risk was considered. However, in terms of systematic risk only 24 out of 44 schemes outperformed the benchmark portfolio. He also found that Indian Mutual funds were not properly diversified. Further, in terms of Fama's measure, he did not find selectivity ability of the fund manager.[14]

**Gupta and Sehgal [1998]** are quite comprehensive. They evaluated investment performance of 80 mutual fund schemes for the Indian market over a four-year period 1992-96. In addition, they tested several related propositions regarding fund diversification, consistency of performance, parameter stationarity over time, performance in relation to fund objectives and risk-return relationship they reported that mutual fund industry had performed reasonably well during the study period. However, they pointed out lack of adequate diversification. They also found evidence to support consistency of performance. They, however, reported that parameters are not stationarity over-time. Finally, a significant and positive risk return relationship was documented by the study when standard deviation was used a risk measure.[15]

**Rao and Venkateswaralu [1998]** examined the market timing abilities of fund managers of UTI using its nine closed ended schemes. The data set comprised daily closing prices of the schemes from their respective listing dates to March 1998. They employed both the Treynor-Mazuy and Henriksson-Merton models and reported that UTI's fund managers were not able to time the market in general.[16]

**Mishra [2001]** evaluated performance over a period, April 1992 to December 1996. The sample size was 24 public sector sponsored mutual funds. The performance was evaluated in terms of rate of return, Treynor, Sharpe and Jenson's measures of performance. The study also addressed beta's instability issues. The study concluded dismal performance of PSU mutual funds in India, in general, during the period, 1992-1996.[17]

**G. Sethu [2001]** used weekly NAV data for 18 open-ended growth schemes in India for the period April 1995-July 1999. His study used three alternatives indices for equity market viz. NSE Nifty, BSE Sensitive Index and S&P CNX 500. The 91-day treasury auction rate was used as the risk free rate. He concluded that the fund portfolios are not adequately diversified; the excess returns after adjusting for systematic risk is zero and the portfolios do not show any market timing.[18]

**Singh and Singh** have highlighted the fact that mutual funds have not attained equal status as their counterparts in USA, UK and other developed countries. It has emphasized on the gradual but slow growth of mutual funds in India giving a exclusive attention to the UTI as it was through to be the pioneers in this field. The private, money market funds, offshore mutual funds has been critically analyzed.[19]

**Gupta**, study was conducted with the primary objective to evaluate the performance of selected mutual funds schemes and to apply test for analyzing timing abilities of the mutual funds managers during the period April 1, 1994 to march 31, 1999 it also examines the growth and development of the mutual fund industry in India during the period 1987 to September 1999. However, No conclusive evidence was available which could warrant the study to accept its performance as superior.[20]

**Kumar Vikas [2010]** Evaluated the performance of 20 mutual funds schemes managed by five mutual funds using monthly NAV for period between 1st Jan 2000 to 31st Dec 2009 for 10 year i.e. 120 months. The rate of return was compared with the BSE National 100 index over the period. The performance was evaluated in the term of rate of return, Total risk (i.e. S.D.), systematic risk (i.e. Beta), coefficient of determination and risk adjusted performance suggested by Sharpe (1966), Treynor (1965) and Jensen (1968). The outcome shows that out of 20 schemes selected equity schemes shows better return as compared to debt and balanced schemes. [21]

## SIGNIFICANCE OF THE STUDY

The need for evaluating the performance of mutual fund schemes in India to see whether the mutual fund schemes are outperforming or underperforming than the benchmark and to see the competency of schemes to make out a strong case for investment. The present paper investigates the performance of open-ended, growth-oriented equity schemes. Open-ended mutual fund schemes are those which don't have a fixed maturity, not listed in the stock exchange and these schemes offer new unit for sale and ready to buy any time. The success of any scheme depends upon the competence of the management and its soundness. Evaluating historical performance of mutual funds is important both for investors as well as portfolio managers. It enables an investor to access as to how much return has been generated by the portfolio manager and what risk level has been assumed in generating such returns. The various constituents of the society have been deprived of the detailed knowledge about the mutual fund's operations, management, regulations, growth, performance, relations with capital market and risk and return involved. This study is expected to fill this gap. The present research work is supposed to be useful especially to present and potential investors, managers of mutual funds, agents of mutual funds, academicians, present and future research scholars and also government and regulated bodies. This study will guide the investors in planning and effecting their investments in mutual funds. It will also act as a guide for beginning investors.

## OBJECTIVES OF THE STUDY

- To Evaluate the Performance of sample schemes.
- To compare schemes return and risk with benchmark i.e. BSE 100.
- To compare schemes return and risk with benchmark i.e. SENSEX.
- To appraise the performance of mutual funds with regard to risk-return adjustment, the model suggested by Sharpe, Treynor and Jenson.

## RESEARCH MATHEDOLOGY

- **BENCHMARK INDEX**

For this study, broad-100 shared base BSE National Index and SENSEX has been used as a proxy for market index. Hence it would cover the majority percentage of different scheme portfolios and therefore is expected to provide better performance benchmark.

- **RISK FREE RATE**

Risk free rate of return refers to that minimum return on investment that has no risk of losing the investment over which it is earned. For the present study, it has been taken as Public Provident Fund (PPF) on the average rate from 2006 to 2015 marked as 8.0111% per annum or 0.006676 per month.

- **PERIOD OF STUDY**

The growth oriented schemes, which have been floated by the Reliance Mutual Funds during the period 1st April. 2006 to 31st March 2015 have been considered for the purpose of the study. Monthly Net Asset Value (NAV) as declared by the relevant mutual funds from the 1st April. 2006 to 31st March 2015 has been used for the purpose.

- **DATA**

Study examines six open-ended equity schemes with growth option being launched by Reliance Mutual Funds. These schemes have been selected on the basis of regular data availability during the period of 1st April 2006 to 31st March 2015. Monthly Net Asset Value (NAV) data has been used and the period.

- **STATISTICAL TOOLS**

For the purpose of the performance evaluation various tools were used to measure the performance which are as Average Return, Standard Deviation, Co-efficient of Determination, Beta, Sharpe, Treynor and Jenson.

## ANALYSIS AND INTERPRETATION

**TABLE 1.1: LIST OF MUTUAL FUNDS SCHEMES STUDIED**

| Name of the Equity Scheme Selected |
|---|
| RELIANCE BANKING FUND |
| RELIANCE DIVERSIFIED POWER SECTOR FUND |
| RELIANCE EQUITY OPPORTUNITIES FUND |
| RELIANCEFOCUSED LARGE CAP FUND |
| RELIANCE GROWTH FUND |
| RELIANCE MEDIA AND ENTERTAINMENT FUND |
| RELIANCE NRI EQUITY FUND |
| RELIANCE PHARMA FUND |
| RELIANCE REGULAR SAVINGS FUND |
| RELIANCE VISION FUND |

Different scheme launch in different dates therefore, for the purpose performance evaluation the period covers 1st April, 2006 to 31st March, 2015.

Table 1.2 **s**hows the average return earned by the various schemes. For calculation of average return earned by the schemes Growth in the value for each month over the previous month has been divided by the value of the previous month. Then the average of the full series has been taken. In schemes all the sample schemes had shown the highest return earners as against BSE 100 return (0.011384) except one i.e. **Reliance Focused Large Cap Fund** which has shown the worst performance as against BSE 100 return and Sensex, also all the schemes shows better return as against Sensex (0.01091) except **Reliance Focused Large Cap Fund**. **Reliance Pharma Fund** (0.020369) has shown the best return followed by **Reliance Banking Fund** (0.020055) and **Reliance Regular Savings Fund** (0.016969) .

**TABLE 1.2: AVERAGE MONTHLY RETURN EARNED BY THE SCHEMES**

| SCHEMES | RETURN |
|---|---|
| Reliance Pharma Fund | 0.020369 |
| Reliance Banking Fund | 0.020055 |
| Reliance Regular Savings Fund | 0.016969 |
| Reliance Equity Opportunities Fund | 0.015703 |
| Reliance NRI Equity Fund | 0.014465 |
| Reliance Growth Fund | 0.014353 |
| Reliance Media and Entertainment Fund | 0.012664 |
| Reliance Vision Fund | 0.012521 |
| Reliance Diversified Power Sector Fund | 0.012184 |
| Reliance Focused Large Cap Fund | 0.009889 |

**TABLE 1.3: STANDARD DEVIATION**

| SCHEMES | SD |
|---|---|
| Reliance Focused Large Cap Fund | 0.063929 |
| Reliance Pharma Fund | 0.072496 |
| Reliance NRI Equity Fund | 0.072758 |
| Reliance Equity Opportunities Fund | 0.074776 |
| Reliance Vision Fund | 0.075706 |
| Reliance Growth Fund | 0.076667 |
| Reliance Regular Savings Fund | 0.083384 |
| Reliance Media and Entertainment Fund | 0.083707 |
| Reliance Diversified Power Sector Fund | 0.089196 |
| Reliance Banking Fund | 0.092936 |

Table 1.3 shows the standard deviation of selected schemes. it is the most common expression to measure risk of the fund return. Higher the value of standard deviation of the fund returns, greater will be the total risk carried by the fund. It is observed that the maximum deviation of funds return is shown by **Reliance Banking Fund** (0.092936) whereas **Reliance Focused Large Cap Fund** was least risky scheme with lowest standard deviation (0.063929) on the other hand Standard Deviation of benchmark BSE 100 National Index is (0.075408) and Sensex ( 0.070924). It could be seen here that four out of selected schemes selected for study shows less standard deviation then BSE 100 Index and one out of the sample shows less risky than Sensex.

**RISK - RETURN CLASSIFICATION OF SAMPLE SCHEMES**

In order to undertake further analysis, sample schemes have been classified into the following four categories on the basis of their return and risk characteristics:

1) **Low Return and Low Risk:** This category consists of schemes whose average returns are less than the average market return and their standard deviations are also lower than that of the market.
2) **High Return and Low Risk:** This category comprises those schemes whose returns are more that the market but their standard deviations are lower than that of the market.
3) **High Return and High Risk:** This category includes all those schemes whose returns as well as standard deviations are higher than that of the market.
4) **Low return and High Risk:** The final category includes all those schemes whose returns have been found to be lower than that of the market but their standards deviations are higher than that of the market.

**Categorizations of Schemes** Table 1.4 presents the risk return grid of Mutual Funds schemes from BSE100.

After classification of the sample schemes in to risk return category **1 scheme** fall in category 1st i.e. **Low Return Low Risk**.

Further **3 schemes** fall in 2nd category i.e**. High return and low risk**. These 5 schemes fulfils one basic objective of Mutual Fund i.e. High Return and Low Risk compared to the capital market.

Only **6 schemes** fall in 3rd category i.e. **High Return and High Risk** and **no schemes** falls in 4th category i.e. **Low Return and High Risk**.

**TABLE 1.4: RISK RETURN GRID OF MUTUAL FUNDS SCHEMES**

| | |
|---|---|
| **Category 1**<br>Reliance Focused Large Cap Fund | **Category 2**<br>Reliance Equity Opportunities Fund<br>Reliance NRI Equity Fund<br>Reliance Pharma Fund |
| **Category 3**<br>Reliance Banking Fund<br>Reliance Diversified Power Sector Fund<br>Reliance Growth Fund<br>Reliance Media and Entertainment Fund<br>Reliance Regular Savings Fund<br>Reliance Vision Fund | **Category 4**<br><br>**NIL** |

**Categorizations of Schemes** Table 1.5 presents the risk return grid of Mutual Funds schemes from SENSEX.
After classification of the sample schemes in to risk return category **1 scheme** fall in category 1st i.e. **Low Return Low Risk**.
Further **no schemes** fall in 2nd category i.e**. High return and low risk**.
Rest **All schemes** fall in 3rd category i.e. **High Return and High Risk** and no schemes falls in 4th category i.e. Low Return and High Risk.

**TABLE 1.5: RISK RETURN GRID OF MUTUAL FUNDS SCHEMES**

| | |
|---|---|
| **Category 1**<br>Reliance Focused Large Cap Fund | **Category 2**<br>**NIL** |
| **Category 3**<br>Reliance Banking Fund<br>Reliance Diversified Power Sector Fund<br>Reliance Equity Opportunities Fund<br>Reliance Growth Fund<br>Reliance Media and Entertainment Fund<br>Reliance NRI Equity Fund<br>Reliance Pharma Fund<br>Reliance Regular Savings Fund<br>Reliance Vision Fund | **Category 4**<br><br>**NIL** |

**TABLE 1.6: CO-EFFICIENT OF DETERMINATION ($R^2$)**

| SCHEMES | BSE 100 | SENSEX |
|---|---|---|
| Reliance NRI Equity Fund | 0.937684 | 0.916597 |
| Reliance Vision Fund | 0.921379 | 0.886457 |
| Reliance Focused Large Cap Fund | 0.920177 | 0.888304 |
| Reliance Growth Fund | 0.908428 | 0.860995 |
| Reliance Equity Opportunities Fund | 0.904277 | 0.863409 |
| Reliance Regular Savings Fund | 0.884528 | 0.833689 |
| Reliance Diversified Power Sector Fund | 0.805674 | 0.761896 |
| Reliance Banking Fund | 0.736529 | 0.691007 |
| Reliance Media and Entertainment Fund | 0.693779 | 0.640527 |
| Reliance Pharma Fund | 0.539784 | 0.503791 |

Table 1.6 shows that Coefficient of determination ($R^2$), the coefficient measure to extent to which market index has been able to explain the variation in mutual fund. The table 1.6 shows that in the equity schemes the maximum and minimum values of ($R^2$) where found in case of **Reliance NRI Equity Fund** and **Reliance Pharma Fund** respectively. It shows that approx 94% of **Reliance NRI Equity Fund** varies due to market fluctuations and approx 54% of **Reliance Pharma Fund** varies due to market fluctuations..The low value of ($R^2$) indicates less diversification of the portfolio.
Table 1.7 presents the systematic risk of the sample schemes. Considered for the purpose of this study in majority of the scheme have beta less than 1 (i.e. market beta) except 3 in case of BSE 100 and except 5 in case of Sensex implying thereby that all these schemes selected for the study tends to hold portfolios that were less risky than the market portfolio. The best beta value was shown by **Reliance Pharma Fund** (0.706322) in BSE 100 and (0.725505) in Sensex and the worst was shown by **Reliance Diversified Power Sector Fund** in both BSE 100 and Sensex.

**TABLE 1.7: BETA**

| SCHEMES | BSE 100 | SENSEX |
|---|---|---|
| Reliance Pharma Fund | 0.706322 | 0.725505 |
| Reliance Focused Large Cap Fund | 0.813241 | 0.849545 |
| Reliance Media and Entertainment Fund | 0.924591 | 0.944561 |
| Reliance NRI Equity Fund | 0.934299 | 0.982131 |
| Reliance Equity Opportunities Fund | 0.942961 | 0.979656 |
| Reliance Vision Fund | 0.963676 | 1.004993 |
| Reliance Growth Fund | 0.969018 | 1.003018 |
| Reliance Regular Savings Fund | 1.039964 | 1.073463 |
| Reliance Banking Fund | 1.057686 | 1.089243 |
| Reliance Diversified Power Sector Fund | 1.061707 | 1.097729 |

**TABLE 1.8: SHARPE OF THE SCHEMES**

| SCHEMES | SHARPE |
|---|---|
| Reliance Pharma Fund | 0.188886 |
| Reliance Banking Fund | 0.143955 |
| Reliance Regular Savings Fund | 0.123448 |
| Reliance Equity Opportunities Fund | 0.120715 |
| Reliance NRI Equity Fund | 0.107049 |
| Reliance Growth Fund | 0.100138 |
| Reliance Vision Fund | 0.077194 |
| Reliance Media and Entertainment Fund | 0.071533 |
| Reliance Diversified Power Sector Fund | 0.061742 |
| Reliance Focused Large Cap Fund | 0.050261 |

Table 1.8 depicts value of Sharpe's reward to variability ratio. It is an excess return earned over risk free return per unit of risk involved, i.e. per unit of standard deviation. Positive value of the index shows good performance it could be seen that all sample schemes have recorded better Sharpe index than the BSE National Index(0.062426) except two i.e .**Reliance Diversified Power Sector Fund** and **Reliance Focused Large Cap Fund** and in Sensex (0.059769) except one i.e. **Reliance Focused Large Cap Fund** . **Reliance Pharma Fund** has shown the best Sharpe ratio among the selected schemes. This indicates Nearly 80-90 percent schemes have outperformed the BSE national index and Sensex. This implies that the funds decision for diversified portfolio in a falling market has proved successful in earning higher excess returns per unit of risk as compared to the market. The Sharpe index is important from small investor point of view who seek diversification through mutual funds, i.e. mutual funds are supposed to protect small investors against vagaries of stock markets and the fund managers of these schemes has done well to protect them.

Table 1.9 shows Treynor of the scheme it is the excess return over risk free return per unit of systematic risk i.e. beta. Here, too, all the schemes recorded positive value indicating there by that the schemes provided adequate returns as against the level of risk involved in the investment**. Reliance Pharma Fund** shows the best Treynor ratio among all. Analysis of table 1.9 reveals that all the mutual funds schemes have positive values. A higher Treynor Index as compared to market indicates that investor who invested in mutual fund to form well diversified portfolio did receive adequate return per unit of systematic risk undertaken.

**TABLE 1.9: TREYNOR OF THE SCHEMES**

| SCHEMES | BSE 100 | SENSEX |
|---|---|---|
| Reliance Pharma Fund | 0.019387 | 0.018875 |
| Reliance Banking Fund | 0.012649 | 0.012283 |
| Reliance Regular Savings Fund | 0.009898 | 0.009589 |
| Reliance Equity Opportunities Fund | 0.009573 | 0.009214 |
| Reliance NRI Equity Fund | 0.008337 | 0.007931 |
| Reliance Growth Fund | 0.007923 | 0.007655 |
| Reliance Media and Entertainment Fund | 0.006477 | 0.006339 |
| Reliance Vision Fund | 0.006065 | 0.005815 |
| Reliance Diversified Power Sector Fund | 0.005188 | 0.005017 |
| Reliance Focused Large Cap Fund | 0.003952 | 0.003783 |

**TABLE 2.0: JENSON OF THE SCHEMES**

| SCHEMES | BSE 100 | SENSEX |
|---|---|---|
| Reliance Banking Fund | 0.022165 | 0.022738 |
| Reliance Pharma Fund | 0.022001 | 0.022385 |
| Reliance Regular Savings Fund | 0.015836 | 0.016303 |
| Reliance Equity Opportunities Fund | 0.013479 | 0.013853 |
| Reliance NRI Equity Fund | 0.011106 | 0.011395 |
| Reliance Growth Fund | 0.010762 | 0.011106 |
| Reliance Media and Entertainment Fund | 0.007675 | 0.008009 |
| Reliance Vision Fund | 0.007182 | 0.007424 |
| Reliance Diversified Power Sector Fund | 0.005945 | 0.006247 |
| Reliance Focused Large Cap Fund | 0.003245 | 0.003346 |

Table 2.0 shows the Jenson's measures. It is the regression of excess return of the schemes with excess return of the market, acting as dependent and independent variables respectively. Higher positive value of alpha posted by the schemes indicates its better performance. The analysis of the table reveals that all the schemes have positive Jenson's Measures. Highest value of Jenson's Measure is shown in **Reliance Banking Fund** Followed by **Reliance Pharma Fund**. Lowest Jenson's measure found again in the case of **Reliance Focused Large Cap Fund**. Higher value of Jenson's measures indicates good market timing ability of fund managers as regard investment in the securities.

**TABLE 2.1: RANKING OF SELECTED MUTUAL FUNDS SCHEMES ACCORDING TO DIFFERENT MEASURES**

| SCHEMES | SHARPE | TREYNOR | JENSON |
|---|---|---|---|
| Reliance Pharma Fund | 1 | 1 | 2 |
| Reliance Banking Fund | 2 | 2 | 1 |
| Reliance Regular Savings Fund | 3 | 3 | 3 |
| Reliance Equity Opportunities Fund | 4 | 4 | 4 |
| Reliance NRI Equity Fund | 5 | 5 | 5 |
| Reliance Growth Fund | 6 | 6 | 6 |
| Reliance Vision Fund | 7 | 8 | 8 |
| Reliance Media and Entertainment Fund | 8 | 7 | 7 |
| Reliance Diversified Power Sector Fund | 9 | 9 | 9 |
| Reliance Focused Large Cap Fund | 10 | 10 | 10 |

TABLE 2.2: AVERAGE RANKING OF SELECTED MUTUAL FUNDS SCHEMES ACCORDING TO DIFFERENT MEASURES

| SCHEMES | AVERAGE RANK |
|---|---|
| Reliance Pharma Fund | 1 |
| Reliance Banking Fund | 2 |
| Reliance Regular Savings Fund | 3 |
| Reliance Equity Opportunities Fund | 4 |
| Reliance NRI Equity Fund | 5 |
| Reliance Growth Fund | 6 |
| Reliance Media and Entertainment Fund | 7 |
| Reliance Vision Fund | 8 |
| Reliance Diversified Power Sector Fund | 9 |
| Reliance Focused Large Cap Fund | 10 |

Table 2.2 shows the average ranking of all the schemes are same, as different measures leads to different results ,but each tools has its own way of measuring which is more important. It can be seen that **Reliance Pharma Fund** has outperformed all the other sample schemes as it is the best among all the measures i.e. Sharpe, Treynor and Jenson based on Average Ranking.

## CONCLUSION

Out of the total schemes studied, all schemes showed an average return higher than in comparison to the market return i.e. BSE 100 and SENSEX except one i.e. **Reliance Focused Large Cap Fund**. Mutual funds are supposed to protect small investors against vagaries of stock market and the fund managers of these schemes have done well to protect them, based on both benchmarks **Reliance Pharma Fund**, **Reliance NRI Equity Fund, Reliance Focused Large Cap Fund and Reliance Equity Opportunities Fund in** BSE 100 and **Reliance Focused Large Cap Fund** in Sensex has performed better than the other schemes in comparison of risk and return which Indicates that investors who invested in these schemes to form well diversified portfolio did receive adequate return per unit of total risk & systematic risk undertaking. It can be seen that **Reliance Pharma Fund** has outperformed all the other sample schemes as it is the best among all the measures i.e. Sharpe, Treynor and Jenson based upon the average ranking.

## LIMITATIONS OF THE STUDY

For the purpose of performance evaluation, those schemes have been selected which are in operation since last 9 years i.e. 1st April 2006 to 31st March 2015. Only open ended equity schemes have been considered for this purpose. The schemes having only growth options are being taken into consideration. The series schemes and the plan schemes were not taken as a part of sample as it lacks uniformity. Performance evaluation of all schemes was not possible due to unavailability of data.

## SCOPE FOR FURTHER RESEARCH

As evaluating the performance of Mutual Fund is an ongoing process and a never ending task. This study has taken only open-ended schemes for its consideration and thus, a similar study can be done on Close-ended schemes. As in the present study an attempt has been made to compare the selected schemes with two benchmarks i.e. BSE 100 and Sensex, so same can be made with various other benchmarks and different Risk free return which is taken as Public Provident Fund in the present study. The number of sample schemes too can be increased, which might provide some more variations in the result. Also many private sector mutual fund exist in the industry, in the present study only Reliance Mutual Fund was taken , many are yet to be evaluated. A study can be made also for the evaluation of Bank Sponsered Mutual Fund or Institution along with the comparative study.

## REFERENCES


1. Gupta L.C., (1881), “Rates of Returns on Equities; The Indian Experience”, Oxford University Press, New Delhi. Page No. 5-17
2. Sarkar, A.K. (1992), “Should We Invest in Mutual Funds”’ Management Accountant, 10: 738-739
3. Obaidullah, M. amd Ganesha, Sridhar (1991), “Do Mutual Funds in India Provide Abnormal Returns”, Chartered Financial Analysis, 5:3-6.
4. Shukla, Ravi and Singh, Sandeep (1994), “Are CFA Charter holders Better Equity Fund Managers”, Financial Analysts Journal, 2: 68-74.
5. Shome, Sujan (1994), “A Study of Performance of Indian Mutual Funds”, Unpublished Thesis, Jhanshi University.
6. Adhikari, Umesh and Bhosale, Meenal (1994), “Risk Return Analysis of Mutual Fund Growth Schemes”. Indian Management, August 1994.
7. Vaid S, (1994), “Mutual Funds operation in India”, Rishi Publication, Varanasi, India. Page No. 101-119.
8. Kale, Sunita and Uma, S. (1995), A study on the evaluation of the Performance of Mutual Funds in India, National Bank Institute, Pune.
9. Sahadevan and Raju MT, (1996), “Mutual Funds Data, Interpretation and Analysis”, Prentice hall of India.
10. Agarwal P.R. (1996), “Mutual funds-A Comprehensive Approach”, Orient Law house, Delhi.
11. Khuran, Ajay (1996), “Top Management Turnover – An Empirical Investigation of Mutual Fund Managers”, Journal of Financial Economics,3.
12. Jayadev M. (1996)’ “Mutual Fund Performance; An Analysis of Monthly Returns”, Finance India, Vol. X, No.1, (March), Page No.73-84
13. Sadhak H, (1997) “Mutual Fund Investment and Market Practices in India”, Sage Publication India.
14. Jayadev M. (1998), “Performance Evaluation of Portfolio Managers: An Empirical Evidence on Indian Mutual Funds”, Applied Finance Vol.5, No.2, July.
15. Gupta, O.P. and Sehagal S. (2000), “Investment Performance of Mutual Funds: The Indian Experience”, In Indian Capital Markets: Trends and Dimensions edited by UMA Shashikant and Arumugam, Tata McGraw Hill, New Delhi.
16. Rao K.V. and Venkateshwarlu, K. (1998), “ Market Timing Abilities of Fund Managers-A case Study of Unit Trust of India”, A paper presented at the Second Capitla Market Conference Organised by UTI Institute Capital Market, Mumbai.
17. Mishra B, (2001), “A study of Mutual Funds in India”, un published Research paper under the aegis of Faculty of Management Studies, University of Delhi.
18. Sethu, G. (2001),”The Mutual Fund Puzzle” in Indian Capital Markets: Modern perspective and Empirical Evidence, Allied Publishers Mumbai.
19. Singh, H.K. and Singh, Meera, ‘Mutual funds and Indian capital market, performance and profitability’.
20. Gupta, Amitabh. Mutual Funds in India - A study of Investment Management, Anmol Publication Pvt. Ltd. New Delhi. 2002.
21. Kumar, Vikas, Mutual Funds in India: Growth and Performance. ERT Publication, Pvt.Ltd., Varanasi,2012.

**WEBSITES** (Viewed on January 01, 2016)

22. www.amfi.com
23. www.bseindia.com
24. www.investopedia.com
25. www.moneycontrol.com
26. www.reliance mf.com
27. www.sebi.gov.in
28. www.wikipedia.com

# REQUEST FOR FEEDBACK

**Dear Readers**

At the very outset, International Journal of Research in Commerce & Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue, as well as on the journal as a whole, on our e-mail **infoijrcm@gmail.com** for further improvements in the interest of research.

If you have any queries, please feel free to contact us on our e-mail **infoijrcm@gmail.com**.

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward to an appropriate consideration.

With sincere regards

Thanking you profoundly

**Academically yours**

Sd/-
**Co-ordinator**

# DISCLAIMER

# ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

## Our Other Journals