

FINANCIAL PERFORMANCE EVALUATION OF EQUITY ORIENTED MUTUAL FUNDS AN INDIAN EXPERIENCE

By

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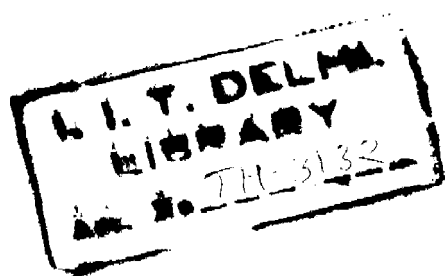
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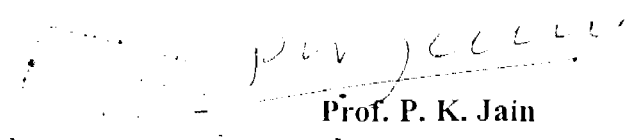


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CERTIFICATE

This is to certify that the thesis entitled **Financial Performance Evaluation of Equity Oriented Mutual Funds: An Indian Experience** being submitted by Hemant J. Sondhi to the Indian Institute of Technology, Delhi, India, for the award of the Degree of Doctor of Philosophy is a record of bonafide research carried out by him under my guidance and supervision. He has fulfilled the requirements for the submission of thesis which has attained standard required for a Ph.D. degree of the Institute. The results presented in this thesis have not been submitted in part or full to any other university or institution for award of a degree or diploma.


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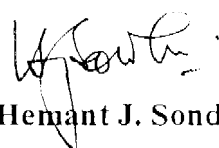
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(Hemant J. Sondhi)

ABSTRACT

Mutual fund industry in India has emerged as a dominant financial intermediary in Indian capital market. The industry is managing financial assets of over Rs 1537 billions (September 2004) contributed by estimated 15 to 20 millions investors. Further, the popularity of mutual funds can be assessed looking at the growth of financial assets under their management. The assets have grown at an astronomical compounded annualised growth rate of 48 per cent over a period of four decades (1965-2004). During the period (1993-2002) of this study, the financial assets of mutual fund industry have witnessed almost steady compounded growth rate of 23 per cent. This mammoth growth, *inter-alia*, can be attributed to the entry of commercial banks and the private players in the mutual fund industry.

In 1987, nationalised banks were allowed to set up their mutual funds. As a result, the monopoly of UTI as the sole player in mutual fund industry had come to an end. The monopoly of public sector mutual funds ended soon with the setting up of private sector mutual funds during 1992-1993. In fact, the real competition in mutual fund industry may be said to have began from 1993. The private players started swiftly with a share of 6.7 per cent of total assets under management of mutual fund industry during 1999 and swung into action thereafter to garner a share of 75.2 per cent of industry total of Rs 1396 billions of assets under management at the end of March, 2004.

The future of the mutual fund industry depends on the financial returns made available by the mutual funds to their investors. In general, the equity mutual funds are expected to earn higher returns, *vis-à-vis*, the risk-free return and return on market portfolio. Further, the funds are expected to earn returns in tune with risk exposure of the portfolio. Higher is the portfolio risk, more will be the expected return by the investors.

The present study uses above framework to evaluate the financial performance of equity mutual funds in India. The sample consists of 36 equity mutual funds existing prior to April 1999 so that the fund has at least three years track record of performance as on March 2002. The size of the equity funds has been determined based on the average

quarterly assets managed by them during 1999-2000. The sample comprises of 17 public sector undertaking (PSU) and 19 private sector mutual funds. The performance of each of the ownership-class has been evaluated. The sample of equity mutual funds represents more than three-fourths in terms of assets under management as on 31st March 2002. The sample has been drawn from 21 assets management companies (AMC) out of 31 AMCs affiliated to Association of Mutual Funds of India (AMFI). Thus, it may be considered as true representative of the universe. The sample has been regrouped into small funds (21), medium funds (10) and large funds (5) based on the size of assets under their management. The financial performance of each of the size-class has been evaluated during the period (1993-2002) of the study. The performance has also been evaluated for two types of funds, namely, open-ended and close-ended funds.

Return on 364 days T-bills has been taken as surrogate measure of risk-free return and return on Bombay Stock Exchange 100 National Index (BSE 100 index) has been taken as proxy for market return.

The financial performance of the sample equity mutual funds in terms of (i) rates of return, vis-a-vis, risk-free return (ii) benchmark comparison, (iii) risk-adjusted returns (Sharpe and Treynor's measure of performance), (iv) Jensen's alpha measure of performance (*stock selectivity* abilities) and (iv) *market-timing* parameter, have been evaluated. The study also has covered contemporary fund management practices pursued by the assets management companies operating in India to get insights into the various factors influencing their equity investment decisions.

The study shows that performance of equity mutual funds in terms of rates of return has been far from satisfactory. Only one-fourth of the sample equity funds could earn returns better than risk-free returns. Out of these, large numbers were open-ended, small sized and private sector equity funds. None of the public sector fund could produce returns better than risk-free returns. Nearly one-half (47 per cent) of these funds earned negative returns during 1993-2002 indicating abysmally poor performance of the PSU equity funds, in general.

However, the sample equity funds had shown better performance in terms of benchmark comparison. Three-fifths (61 per cent) of the sample equity funds performed superior to the market portfolio. The study further revealed that all the private equity funds (foreign, domestic and joint venture funds) have posted better performance except IDBI-Principal Equity Fund compared to the market portfolio. The performance of open-ended funds and small sized funds have also been better compared to their counterparts in close-ended and medium / large sized category.

It has also observed that financial performance of the sample funds in terms of rate of return, vis-à-vis, risk-free return and market returns have been better during phase 2 (1998-2002) compared to phase 1 (1993-1998) of the study period. Phase 2 characterises general buoyancy in the stock market, impressive corporate performance, robust economic growth, continued improved economic fundamentals, comfortable foreign exchange reserves, political stability, etc.

The performance in terms of risk-adjusted return has also been found to be far from satisfactory, both in terms of Sharpe as well as Treynor's index. The vast majority (75 per cent) of the sample funds have posted negative indices. Another notable observation has been related to risk-return characteristics. Nearly three-tenths (28 per cent) of the funds have been able to post higher returns than the market return assuming lower risk than the market risk.

Further, the PSU equity funds failed to perform superior than private sector equity funds even in terms of risk-adjusted returns. Differences in performance have also been noted due to the differences in size-class. Small sized funds have performed better than medium and large sized funds. Comparing category-wise performance, it is inferred that open-ended funds have performed better than their close-end counterpart.

Performance of equity funds during 1993-2002, in terms of stock selectivity (Jensen's alpha) and market timing (timing parameter) abilities, has shown that the majority of the funds have posted positive values of Jensen's alphas and timing parameters, which indicates better performance due to stock selection and timing abilities

by the funds. It has been further noted that large number of positive alphas and timing parameters were not found to be statistically significant.

The survey on fund management practices revealed that different assets management companies follow varied fund management practices. For instance, some AMC's use fundamental and some combination of fundamental and technical analysis as input of their investment decisions; likewise, some opined high effect of fundamental macro-economic / micro-economic factors on equity investment decisions and some moderate effect. Further, influence of stockbroker's recommendations on equity investment decisions has found to be moderate in the case of private mutual funds. The PSU mutual funds take longer time to review and reshuffle their portfolio compared to private funds has been yet another major finding. Therefore, it is suggested that the PSU fund managers need to be more prompt in portfolio review and reshuffle using advanced tools and techniques.

Given the unsatisfactory financial performance of the equity mutual funds, the mutual fund managers should explore the means by which it is possible for them to post better rate of return for their investors. Their better financial performance will go a long way in achieving their basic objectives of mobilizing savings of the small investors on the one hand and to make them available the benefits of equity investment on the other.

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