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Comparative Study of Performance of Actively Managed Funds and Index Funds in INDIA

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ABSTRACT
Actively Managed funds always overlapped Passively managed funds or Index Funds this research deals with a comparative analysis between the performance of both of the funds Actively managed and passively managed. T test is applied to compare their means and by this research the derived results shows that though actively managed funds gives more returns.

Indexing terms/Keywords
Mutual Funds, Index Funds, Actively Managed Funds, Mutual Funds performance

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1.0.INTRODUCTION

An index fund or index tracker is a collective investment scheme that aims to replicate the movements of an index of a specific financial market, or a set of rules of ownership that are held constant, regardless of market conditions. Tracking can be achieved by trying to hold all of the securities in the index, in the same proportions as the index. Other methods include statistically sampling the market and holding "representative" securities. Many index funds rely on a computer model with little or no human input in the decision as to which securities to purchase and are therefore a form of passive management.The lack of active management (stock picking and market timing) usually gives the advantage of lower fees. However, the fees will generally reduce the return to the investor relative to the index. In addition it is usually impossible to precisely mirror the index as the models for sampling and mirroring, by their nature, cannot be 100% accurate. The difference between the index performance and the fund performance is known as the 'tracking error' or informally 'jitter'.managers or a team of managers, to actively manage a fund's portfolio. Active managers rely on analytical research, forecasts, and their own judgment and experience in making investment decisions on what securities to buy, hold and sell.

The proponents of active management believe it is possible to profit from the stock market through number of strategies that aim to identify mispriced securities. Investment companies and fund sponsors believe it's possible to outperform the market, and employ professional investment managers to manage one or more of the mutual funds. The objective with active management is to produce better returns than those of passively managed funds or Index funds. For example, a large cap stock fund manager would look to beat the performance of the Standard & Poor's 500 Index.So the challenge to a majority of active managers is to beat the market.

1.1 Development of Index Funds in India

The development of index funds started in US in 1970's with the establishment the efficient markets concept began to trickle down to the finance industry.EMH states that stocks always trade at their fair value on stock exchanges, making it impossible for investors to either purchase undervalued stocks or sell stocks for inflated prices. As such, it should be impossible to outperform the overall market through expert stock selection or market timing, and that the only way an investor can possibly obtain higher returns is by purchasing riskier investments (Bodie,2006). There are about a thousand index funds in the US like the Vanguard 500, which tracks the S&P 500 index.

Over 2007 the returns from index funds have been good about 30 percent. This is higher than the returns equity schemes posted in the market. These funds are expected to provide returns that closely track the benchmark index and are also subject to all the risks associated with the class of securities invested in. Index funds are used by investors who are risk-averse. In comparison to actively managed funds, index funds have lower expense ratio, lower transaction costs, better control of risk through diversification and less prone to risk of fund manager's performance. Among institutional investors, index funds are used by pension and insurance funds. Among individuals, investors who do not have knowledge of the markets or are averse to sector-specific risks prefer index funds. Index funds can be either for equity funds or debt funds. Indexing is popular with investors who prefer steady returns through a conservative, long-term and low risk investment strategy. These funds do not eliminate or reduce market risk. Indexing is an investment approach that attempts to match the investment returns of a specified stock market benchmark or index. The fund attempts to replicate the investment results of the target index by holding all or a representative sample of the securities in the index. No attempt is made to use traditional stock management, take positions on individual stocks, or narrow industry sectors in an attempt to outpace the index. These funds are cost-effective. The schemes are pretty transparent. The investor knows in which companies his money is going to be invested. For example, if one invests in an index fund linked to the BSE Sensex, the investor knows that his money would be invested in the companies comprised in the BSE Sensex only and not in any other company. These funds are ideal for investors having a medium term view of the market. The graph shown on next page indicates the growth of aseets managed by mutual funds over 2003 to 2008 period. Mutual funds have been a consistent avenue of investment for the investors in the past.

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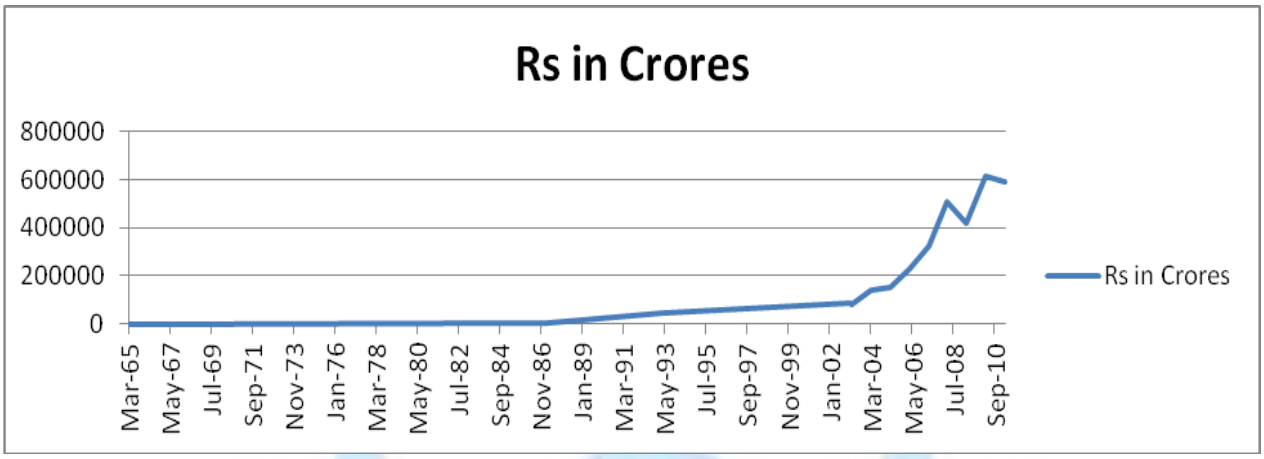

Source: www.amfiindia.com, Asset Under Management

2.0.Existing Literature Review-

Haslem, Baker & Smith (2007) have studied the performance and attributes of 136 Retail Mutual funds tracking the S&P 500 Index across diverse expense ratio classes. S&P 500 Index funds with low expense ratios outperform those with high expense ratios. And they found expense ratio generally decreases as fees and deffered charges decreases.
Cuthbertson, Nitzsche, & Sullivan(2006) used Non-Parametric Methodology to test market timing of UK Equity Mutual Funds and Small no. of funds around (1.5%) demonstrate positive market timing ability at a 5% significant level. 10-20% of funds exhibit negative market timing.Market timing ability results in better ratios for actively managed funds.

Ding and Shawky(2006) found all hedge fund categories achieve above average performance, when measured against an aggregate market index. When performance at individual hedged fund level is estimated, only 40 to 47% of the funds are shown above average performance over that time.
Miranda (1995) studied the risk & Return characteristics of Global Bond Mutual Fun during
1988-1995. Jensen measures, Sensitivity, Return are used as performance measure during the sample period, returns on global bond funds were sensitive to exchange rate movements, even after controlling for local currency returns on country bond indices.

Narayan Rao (2002) carried out the performance evaluation of Indian Mutual Funds in a Bear market .He used relative performance index, risk return analysis , treynor's ratio , Sharpe's ratio , Jenson's measures , Fama's measures to analyze the performance.

Christensen investigated (2005) Danish Mutual Funds. The timing ability of the Danish Mutual Funds is analyzed with the help of Treynor's and options approach and It is concluded that Danish Mutual Funds perform neutrally, returns are non-persistence and they have no timing ability.

Paul (2006) used stepwise SPA test and found that only eight mutual funds are found to beat the S&P 500 index, and only few hedge funds outperform the risk-free rate. Dietze, Entrop, Wilkens(2006) Studied the risk adjusted performance of European Mutual Funds
offered in Germany. The funds that are showing lower exposure to BBB rated bonds, Larger and older funds & funds charging lower fees attain higher risk adjusted performance.

Jay Cai & Houge (2007) examined on how index additions and deletions affect long-term benchmark performance. Based on changes to the small-cap Russell 2000 index from 1979-2004, it was found that a buy-and hold portfolio significantly outperforms the annually rebalanced index by an average of 2.22% over one year and by 17.29% over five years.

Ekholm (2007) investigated 17 different mutual fund characteristics on mutual fund
performance. And it was found that an increased number of investors have an adverse effect on mutual fund performance, and that index funds underperform their actively managed peers.

Gil-Bazo and Ruiz (2007) drew attention to the puzzle that investors buy actively-managed funds even though, on average, they underperform index funds. He also indicated that funds with bad performance charge higher fees. Zhao

(2005) used the portfolio performances for samples of U.S. mutual funds with the data from January 2001 to December 2003. A multi-linear factor model and the Mean Tracking error analysis the data indicated that majority of the mutual funds have substantially under-performed the chosen benchmark.

3.0. Objectives

This research focuses on achieving the following objectives.

1-To compare the performance of Index funds and equity diversified funds.over the period 2004-2009.

2- To analyze the performance of funds based on their investment style & top securities of their portfolios.

4.0. Hypohesis:-

H° : There is no difference in the performance of Managed funds and index funds.

4.1.-Research Methodology-

Equity Index funds and equity diversified funds have been compared using t-test.Systematic

sampling method is used in sample selection.17 equity index funds and 17 equity diversified funds are taken as sample for comparison. And the returns are used for comparison of their funds. All data has been collected from www.mutualfundsindia.com. Microsoft office (Excel) software is used for calculation. T-test is applied for hypothesis testing

Sample of Equity Diversified Funds which have been taken:-

Equity diversified Funds	Returns over 5 years	Returns oer 3 years	Return over 1 year
Reliance Growth-Growth	35.26	18.77	80.95
ICICI Prudential Dynamic Plan Growth	32.02	13.75	67.42
HDFC Top 200 Growth	32.80	20.11	81.60
Tata Pure Equity Fund- Growth	27.69	15.02	70.44
ING Core Equity Fund- Growth	25.86	9.06	66.05
Franklin India Bluechip-Growth	26.90	13.56	66.14
HDFC Core Satellite Fund-Growth	24.77	8035	75.26
DBS Chola Midcap Fund-Growth	24.49	12.50	97.84
UTI Top 100 Fund-Growth	20.49	9.02	60.94
JM Equity - Growth	19.23	1.58	63.88
Taurus Discovery Funds-Growth	14.57	0.94	40.23
SBI Magnum Sector Umbrella-Contra Fund Growth	35.82	16.13	77.42
Kotak Opportunities Fund- Growth	32.01	16.63	75.69
Kotak 30- Growth	28.97	14.16	60.22
Reliance Vision- Growth	28.52	13.65	72.94
Franklin India Prima Plus- Growth	28.51	14.60	58.60
Tata Equity Opportunity Fund- Growth	26.22	11.98	68.95

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Indian Index Funds	Return over 5 years	Return over 3 years	Return over 1 year
HDFC Index Plans	25.72	13.61	50.17
ICICI Prudential Index Plan	24.28	12.86	41.57
UTI Master Index Funds - Growth	23.26	9.72	43.84
Franklin India Index Fund- BSE Sensex Plan- Growth	23.21	10.72	46.07
Tata Index Fund- Nifty Plan- Option A	22.99	10.01	38.41
Franklin India Index Funds- NSE Nifty Plan- Growth	22.31	11.14	39.60
UTI Nifty Fund- Growth	21.92	10.83	39.32
Tata Index Fund- Sensex Plan- Option A	21.71	10.01	44.59
Birla Sun Life Index Fund- Growth	21.29	10.17	39.98
ING Nifty Plus Fund-Growth	20.57	10.39	39.14
HDFC Index Fund- Sensex Plan	20.36	6.45	39.85
SBI Magnum Index Fund- Growth	20.18	8.59	40.01
Principal Index Fund- Growth	19.73	9.32	37.72
LIC MF Index Fund-Sensex Plan- Growth	19.20	5.23	44.39
HDFC Index Funds-Nifty Plan	19.17	7.47	4439
LIC MF Index Fund- Sensex Advantage Plan- Growth	16.48	5.23	48.50
LIC MF Index Funds- Nifty Plan- Growth	16.20	5.91	32.77

Sample which has been taken for Index funds:-

Analysis:-

t-Test: Two-Sample Assuming Unequal Variances

	Variable 1	Variable 2
Mean	27.30059	21.09294
Variance	31.74511	6.433222
Observations	17	17
Hypothesized Mean Difference	0	
df	22	
t Stat	4.142314	
P(T<=t) one-tail	0.000213	
t Critical one-tail	1.717144	
P(T<=t) two-tail	0.000426	
t Critical two-tail	2.073873	

Comparison of performance of managed funds and Index funds over 5 year's period- Table

Table 2- Comparison of performance of managed funds and Index funds over 3 years period

t-Test: Two-Sample Assuming Unequal Variances

	Variable 1	Variable 2
Mean	12.32059	9.274118
Variance	27.95037	6.169288
Observations	17	17
Hypothesized Mean Difference	0	
df	23	
t Stat	2.150399	
P(T<=t) one-tail	0.021135	
t Critical one-tail	1.713872	
P(T<=t) two-tail	0.042269	
t Critical two-tail	2.068658	

Table 3- Comparison of performance of managed funds and Index funds over one year period

t-Test: Two-Sample Assuming Unequal Variances

	Variable 1	Variable 2
Mean	69.68059	41.78353
Variance	151.337	18.5409
Observations	17	17
Hypothesized Mean Difference	0	
df	20	
t Stat	8.824996	
P(T<=t) one-tail	1.24E-08	
t Critical one-tail	1.724718	
P(T<=t) two-tail	2.48E-08	
t Critical two-tail	2.085963	

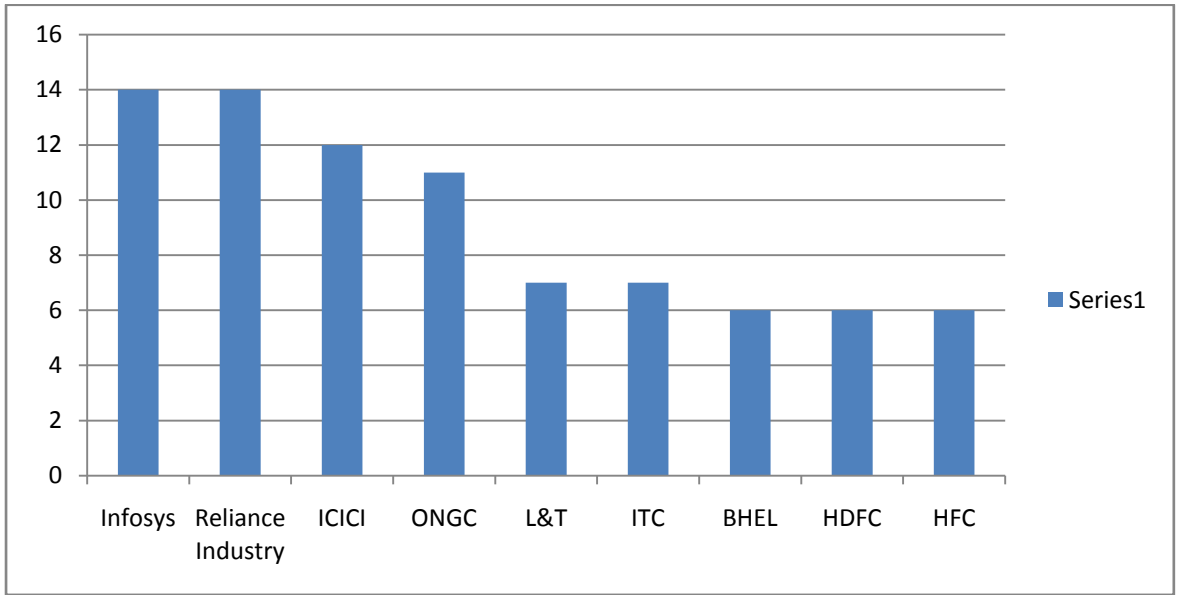
Analysis of Performance of Managed Funds (Equity Diversified funds)

	1 year	3 years	5 years
Large Cap	68.73	13.32	27.73
Mid Cap	72.06	9.98	25.87

t-Test: Two-Sample Assuming Unequal Variances

	Variable 1	Variable 2
Mean	36.59333	35.97
Variance	826.486	1039.989
Observations	3	3
Hypothesized Mean Difference	0	
df	4	
t Stat	0.02499	
P(T<=t) one-tail	0.49063	
t Critical one-tail	2.131847	
P(T<=t) two-tail	0.98126	
t Critical two-tail	2.776445	

No. of Holdings for top Companies of Growth funds



Conclusions:-

The comparison of performance of equity diversified funds and index funds indicated that companies of growth style diversified funds are doing better during the study.

Since Hypothesis is rejected which means there is deiffrenc between theperformance of Diversified funs and Index Funds.

Both growth style and blend styles have yielded good results in the managed funds.

Infosys, reliance, ICICI, ONGC L&T are top holdings of Diversified funds.

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