

Performance of Equity Exchange Traded Funds in India: An Analysis

***Dr. (Mrs.) Prashanta Athma ** Mrs. B. Mamatha**

*Dr.Mrs.PrashantaAthma, Professor in Commerce & Principal, University College for Women, Hyderabad,
500018, Telangana., India.*

*Mrs. B. Mamatha, Asst Professor(c), Dept. of Commerce, University college for women, Hyderabad, 500018,
Telangana., India.*

Abstract: *Mutual Fund is a trust that pools money from a group of investors sharing common financial goals and invest the money thus collected into asset classes that match the stated investment objectives of the scheme. Exchange Traded Funds (ETFs) are Mutual Funds which can be bought and sold in the stock market, just like any other stocks or shares. As far as an investment is concerned, an Exchange Traded Fund is just like a Mutual Fund and as far as trading is concerned, an Exchange Traded Fund is just like a stock or equity which can be traded on Stock. The study is based on secondary data covering a period of 17 years i.e. 2001 to 2017 to reflect upon the growth of Exchange Traded Funds over a period of time since their inception. The parameters for evaluating the performance are Net Asset Value, Return, Risk, Reward to Variability (Sharpe) and Treynors Performance Evaluation Ratio. The statistical tools like Standard Deviation and Beta, are also used for data analysis.*

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I. INTRODUCTION

Mutual Fund is a trust that pools money from a group of investors (sharing common financial goals) and invest the money thus collected into asset classes that match the stated investment objectives of the scheme.

The Fund Manager manages the Mutual Fund and uses his investment management skills and necessary research works and ensures much better return than what an investor can manage on his own. The capital appreciation and other incomes earned from these investments are passed on to the investors (also known as unit holders) in proportion to the number of units an investor owns.

Mutual Fund was introduced in the year 1963 in India. From an historical point of view, Mutual Funds have been around four hundred years, but they are a relatively new investment phenomenon to the novice investors. Mutual Funds are a conglomeration of stocks, bonds, securities and even real estate, put together by a smart Fund Manager who hand-picks winners for a winning combination.

Exchange Traded Funds (ETFs)

Exchange Traded Fund is just like a Mutual Fund and as far as trading is concerned, an Exchange Traded Fund is just like a stock or equity which can be traded on Stock Exchanges. Most ETFs track an index. ETFs may be attractive as an investment because of their low costs, tax efficiency, and stock –like features. ETFs are listed on a recognized stock exchange. Their units can be bought and sold directly on the exchange, through a stockbroker during the trading hours.

II. Review of Literature

Jonne M. Hill and Barbara Mueller (2001)¹ made a research on ETFs and they concluded¹ that Tracking errors and returns based on fund NAV relative to the index reflect some factors characteristic of the product structure. In addition, price-to-index returns and tracking error reflect ETF prices that are captured at a different time from the underlying index and the short-supply and demand factors relevant to the ETF, as well as the hedging instruments used by the market makers. NAV tracking error is much lower than price-to-index tracking error and is the most useful measure in assessing the long-term characteristics of an ETF relative to its underlying index.

Joel T. Harper, Jeff Madura and Oliver Schnusenberg (2006)² made a study with the objective to compare the risk and return performance of Exchange-Traded Funds (ETFs) available for foreign markets and closed-end country funds. They utilized 29 closed-end country funds (CEFs) for 14 countries over the sample period from April 1996 to December 2001. The performance proxies are mean returns and risk-adjusted returns. Results indicate that ETFs exhibit higher mean returns and higher Sharpe ratios than foreign closed-end funds, while

CEFs exhibit negative alphas indicating that a passive investment strategy utilizing ETFs may be superior to an active investment strategy using CEFs. The findings reported here offer some insight on the relative advantages of each type of investment.

Benchmark Funds Asset Management Company (2008)³ research department did research in early 2008 on the topic of “**Myth of Eternal Alpha**”. It has often been argued that individual active fund managers are consistently able to exploit anomalies and aberrations that may exist in the market and while considering our performance/ under performance one should look at longer periods.

B Phaniswara Raju and K Mallikarjuna Rao (2009)⁴ made a study on —**Market Timing Ability of Selected Mutual Funds in India: A Comparative Study**” and they analysed the market timing ability of selected fund managers, which is a vital aspect in the success of a mutual fund. In order to measure the market timing ability of the fund managers, two important models, namely, Treynors and Mazuy and Heriksson and Merton, have been used with BSE sensex and NSE Nifty as market proxies.

Sangheon Shin, Gokçe Soydemir (2010)⁵ “**Exchange- Traded Funds, persistence in tracking errors and information dissemination**” stated that tracking errors from 26 exchange-traded funds (ETFs) utilizing three different methods and test their relative performance using Jensen's model. We find that tracking errors are significantly different from zero and display persistence. Based on Jensen's alpha, risk adjusted returns are significantly inferior to benchmark returns for all ETFs with two exceptions at conventional significance levels revealing that passive investment strategy does not outperform market returns.

Madhavi Lokhande and Shruti Manisha (2011)⁶ in their article explained in detail the concept of ETFs. They have made a comparative analysis of Shares, ETFs and traditional managed funds and concluded that Exchange traded Funds has the benefit of a stock and a traditional managed fund.

Suchismita Bose (2012)⁷ made a study on an overview of the developments in the Indian Mutual Fund industry since the financial crisis of 2007. It is found that there is statistically significant change in the causal relationship between Mutual Funds and foreign institutional investors investment in the Indian equity market during the most recent bout of heightened economic and policy uncertainties.

Swati Garg, Dr. Y. P. Singh (2013)⁸ stated that the performance of two competitive financial instruments available to Indian investors, namely Exchange Traded Funds (ETFs) and Index Funds. A set of five ETFs and Index Funds that in pairs track the same benchmark indices has been analyzed in this study over a period ranging from June 2006 to December 2009. The analysis demonstrates better performance of ETFs in terms of their replication strategy, tracking ability as well as performance effectiveness over long-term investment horizon. However, there is an evidence of potential disadvantage of ETFs from very short-term investor's point of view. There has been no previous published research study, which empirically compares the performance of ETFs and Index Funds in India, and this is the first such attempt in this direction.

Kamini Tandon, Nidhi Malhotra (2013)⁹ study is undertaken to evaluate the performance of indexed mutual funds in India for a period of five years. An attempt has been made to bring out a comparison between the public sector and private sector indexed mutual funds with respect to historical returns and risk adjusted performance measures such as Sharpe ratio and, Treynor ratio & Jensen's Alpha. The study indicates that there is not much significant difference in the performance of public owned and privately owned mutual funds.

M.Hassine and T.Roncalli (2013)¹⁰ study is undertaken to evaluate the performance measure based on the value-at-risk framework depending on three parameters (performance difference, tracking error volatility and liquidity spread), this shows how liquidity is more of an issue for institutional investors than retail investors.

Lei Gao, Yufeng Han, Sophia Zhengzi Li, Guofu Zhou(2014)¹¹ stated that intraday momentum pattern that the first half-hour return on the market predicts the last half-hour return on the market. The predictability is both statistically and economically significant, and is stronger on more volatile days, higher volume days, recession days and some macroeconomic news release days. Moreover, the intraday momentum is also strong for ten other most actively traded ETFs.

Denys Glushkov (2015)¹² study is undertaken to analyze whether these funds beat their Benchmarks by tilting their portfolios to well-known factors such as size, value, momentum, quality, beta and volatility and to test if Smart Beta funds harvest factor premiums more efficiently than their traditional cap-weighted benchmarks by periodic trading against price movements.

Research Gap

The review of literature points out that the studies are based on tracking errors, risk returns, price Transmission etc. The ETFs came in to existence in 2001, and growth over a period of time is not reflected. Hence, the study is undertaken to reflect upon the growth of Exchange Traded Funds over a period of time since their inception and evaluate its performance in terms of risk and return.

Objectives of the Study

The objectives of the study are

- To present the trends and progress of Equity Exchange Traded Funds in India and
- To evaluate the performance of Equity Exchange Traded Funds in India

Sources of Data

The study is based on secondary data. The Secondary data sources include Fact Sheets of Mutual Funds, Research Publications, SEBI Manuals, AMFI Reports and Websites.

Period of the Study

The study covers a period of 17 years from 2001 to 2017 i.e. since the inception of ETFs to analyze the trends in the growth of ETFs and evaluate their performance.

Parameters

The parameters for evaluating the performance are Net Asset Value, Return, Risk, Reward to Variability (Sharpe) and Treynors Performance Evaluation Ratio.

Sample Size

There are 38 Equity Exchange Traded Funds in India. Data with regard to all the parameters selected for the evaluation of performance are analyzed for 38 Exchange Traded Funds which were operating between the period of 2001 – 2017.

Tools and Techniques

The data are analyzed with the help of various tools like Averages, CAGR, Standard Deviation, Sharpe Ratio, Treynors Ratio and Beta.

Growth of Equity Exchange Traded Funds

The growth of Exchange Traded Funds in terms of the number of Funds and NAV is given in Table-1. Starting with 1 Equity Exchange Traded Fund in the year 2001 viz., GS Nifty BEES Exchange Traded Funds, the number of Equity Exchange Traded Funds increased to 38 by the year 2017 registering a CAGR of 25.53%. Net Asset Value (NAV) is a term used to describe the value of an entity's assets less the value of its liabilities. The term is most commonly used in relation to Mutual Funds due to the fact that shares of such funds are redeemed at their Net Asset Value. It may represent the value of the total equity, or it may be divided by the number of shares outstanding and, thereby, represent the per share Net Asset value.

NAV as per IRDA is calculated as follows:

$NAV = (\text{Market Value of the Investment held by the Fund} + \text{Value of Current Assets} - \text{Value of Current Liabilities and provisions}) / \text{Number of units existing on valuation date (before creation / redemption of units)}$

S.No	year	NAME OF THE EQUITY EXCHANGE TRADED FUNDS	2001 2002	2002 2003	2003 2004	2004 2005	2005 2006	2006 2007	2007 2008	2008 2009	2009 2010	2010 2011	2011 2012	2012 2013	2013 2014	2014- 2015	2015- 2016	2016- 2017	CAGR (%)	RANK
1	2001	GS Nifty BEES ETF	112	105	144	182	253	369	494	376	466	561	533	558	606	802	806.2	850	12.64	5
2	2003	ICICI Prudential Sensex ETF		32.4	45.3	58.3	84.3	126	170	127	174	183	184	197	221	274.9	267.2	281.5	15.5	3
3	2003	GS Junior BEES ETF		133	214	36.6	51.8	66.1	95	60.1	87.7	116	103	110	120	172.7	195.4	214.8	3.25	28
4	2004	GS Bank BEES ETF				289	420	519	765	547	788	1082	1019	1123	1123	1663	1724	1846	15.34	4
5	2007	GS Pru Bank BEES ETF							294	194	290	420	358	314	273	402.2	334.8	310.1	0.52	33
6	2008	R* S Banking ETF								503	805	1107	1041	1161	1179	1776	1851	1988	16.49	2
7	2009	GS S&P Shariah BEES ETF								70.6	110	126	119	121	138	176.2	183	191.6	11.72	6
8	2010	Kotak Pru Bank ETF									330	435	367	348	263	382.5	308	302.3	-1.76	37
9	2010	Kotak Sensex ETF									169	189	177	188	205	268.7	266.6	279.8	6.48	14
10	2010	GS Hang Sang BEES ETF									1239	1310	1317	1899	1570	2089	2227	2199	7.43	12
11	2010	Kotak Nifty ETF										582	530	565	610	798.9	806.5	850.3	5.57	20
12	2010	Motilal Most Shares M 50 ETF										82.1	71.7	75.7	80.5	94.92	76.59	81.08	-0.17	36
13	2010	GS Infra ETF										327	271	242	231	313.9	292.9	283.4	-2.04	38
14	2011	Motilal Most Shares Midcap 100 ETF										7.67	7.5	7.82	7.75	11.92	13.48	15.4	10.49	8
15	2011	Motilal Most Shares NASDAQ 100 ETF										104	113	146	197	245.7	288	319.9	17.34	1
16	2011	Birla Sun Life Nifty ETF											50.9	55.6	61.3	81.57	82.85	88.67	9.68	9
17	2013	SBI ETF Sensex												188	203	270.1	273.6	288	8.95	11
18	2013	ICICI Prudential Nifty ETF													60.6	81.21	82.09	85.52	8.98	10

TABLE-2

ANNUAL RETURNS OF EQUITY EXCHANGE TRADED FUNDS AS ON 31 st MARCH 2017 (Figures in %)																				
S.No	YEAR	NAME OF THE EQUITY EXCHANGE TRADED FUNDS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg	RANK
1	2001	* GS Nifty BEES ETF	10.4	14.8	59.1	11.1	51.3	9.28	21.8	-45	53.4	10.6	-10	7.31	16.4	23.6	9.47	-10	13.23	4
2	2003	ICICI Prudential Sensex ETF		-10	60.9	1.31	5.44	12.6	20.9	43.9	67.2	-8.5	8.89	8.89	18.4	13.1	9.24	-17	15.69	1
3	2003	*GS Junior BEES ETF		-13	-133	21.9	39.4	5.59	14.4	-59	87.4	4.18	-7.8	7.44	17.1	37.1	4.12	-20	0.378	19
4	2004	*GS Bank BEES ETF				47.3	24.5	11.7	22.3	-47	80.5	21.3	-13	10.6	11.3	36.7	13.8	-18	15.6	2
5	2007	*GS Psu Bank BEES ETF						-16	24.8	-35	73.4	29.2	-25	-8	-7.5	23	11.9	-19	4.674	12
6	2008	R* S Banking ETF								-27	82	21.3	-11	11	12.7	37.8	13.5	-17	13.56	3
7	2009	*GS S&P Shariah BEES ETF								12	51.7	5.07	-7.7	5.89	17.6	19	2.54	-8.9	10.81	6
8	2010	Kotak Psu Bank ETF									24.8	31	-25	-16	-8.2	18.3	34.8	-33	3.413	16
9	2010	Kotak Sensex ETF									11.3	9.4	-9.9	8.72	14.7	21.1	9.7	-15	6.322	10
10	2010	*GS Hang Sang BEES ETF									-0.6	9.62	1.13	17.2	11.7	17.4	10.4	-13	6.742	9
11	2010	Kotak Nifty ETF										-4.9	-8.7	7.81	13.8	23.6	9.14	-16	3.516	15
12	2010	Motilal Most Shares M 50 ETF										-9.3	-12	1.49	23	-15	9.92	-17	-2.77	21
13	2010	*GS Infra ETF										-21	-21	-13	15.9	22.1	25.1	-10	-0.24	20
14	2011	Motilal Most Shares Midcap 100 ETF										3.89	-4.1	-4.1	15.7	42.1	2.55	-29	3.837	14
15	2011	Motilal Most Shares NASDAQ 100 ETF											30.3	8.72	34	24.3	-9.4	-17	11.84	5
16	2011	Birla Sun Life ETF											-5.9	7.73	17.2	24.1	8.75	-19	5.574	11
17	2013	SBI ETF Sensex												1.03	18.3	23.3	8.59	-16	7.083	8
18	2013	ICICI Prudential Nifty ETF												0.56	17.5	24.5	9.12	-16	7.161	7
19	2013	R* Shares CNX 100 ETF												-10	26.3	16.8	9.13	-20	4.446	13
20	2013	ICICI Prudential Nifty 100 ETF													9.44	7.36	8.31	-20	1.299	18
21	2014	Kotak Banking ETF Fund Regular														1.5	13.5	-29	-4.67	24
22	2014	Reliance ETF Consumption														26.3	-0.5	-17	2.85	17
23	2014	Reliance ETF Dividend Opportunities														-17	8.54	-27	-11.9	36
24	2014	Reliance ETF Sensex														-5.9	9.45	-17	-4.56	23
25	2015	Edelweiss Exchange Traded Fund Nifty 50															4.81	-20	-7.5	28
26	2015	Edelweiss Exchange Traded Fund Nifty Bank															2.78	-29	-13.1	37
27	2015	HDFC Nifty ETF															-1.8	-19	-10.3	35
28	2015	HDFC Sensex ETF															-2	-17	-9.59	33
29	2015	Kotak NV 20 ETF															-3.4	-14	-8.51	30
30	2015	LIC MF Exchange Traded Fund Nifty 50															1.19	-19	-8.73	31
31	2015	LIC MF Exchange Traded Fund Sensex															2.91	-17	-7.13	27
32	2015	Reliance ETF NV 20															3.97	-14	-4.8	25
33	2015	SBI ETF BSE 100 Fund															8.93	-21	-5.85	26
34	2015	SBI ETF Nifty 50															9.8	-17	-3.81	22
35	2015	SBI ETF Nifty Bank Fund															13.5	-29	-7.78	29
36	2015	SBI ETF Nifty Next 50 Fund															3.23	-31	-13.7	38
37	2015	UTI Nifty Exchange Traded Fund															-1	-19	-9.95	34
38	2015	UTI Sensex Exchange Traded Fund															-0.2	-17	-8.75	32

www.amfi.com

Evaluation of the ETFs in terms of annual returns, is presented in Table-2. On the basis of the average returns, ICICI Prudential Sensex Exchange Traded Funds occupied the Rank 1st with an average return of 15.69% followed by GS Bank BEES Exchange Traded Funds with 15.6%, R* S Banking Exchange Traded Funds with 13.56%, GS Nifty BEES ETF with 13.23% and Motilal Most Shares NASDAQ 100 ETF with 11.84%. Returns on investments held in equity ETFs for more than a year are tax free therefore the above Funds are top ranked.

Risk Analysis of Exchange Traded Funds

The variability in the returns is called as risk and the same is measured with the help of Standard Deviation and Beta. Standard deviation is a measure of the deviation in the returns of the Fund. A volatile stock would have a high standard deviation. It tells us how much the return on a Fund is deviating from the expected returns based on its historical performance.

The below tables give the details relating to Standard deviation, Sharpe ratio, Beta and Treynors Ratio.

Table-3: Risk Analysis of Equity Exchange Traded Funds as on 31st March 2017

S.No	NAME OF THE EQUITY EXCHANGE TRADED FUNDS	Standard Dev(%)	Sharpe Ratio(%)	Beta	Treynors Ratio(%)
1	GS Nifty BEES ETF	8.58551	12.50(4)	0.2574	-11.04(28)
2	ICICI Prudential Sensex ETF	8.405296	14.942(1)	0.00613	-1003. (38)
3	GS Junior BEES ETF	8.060028	-0.397(19)	0.3899	-15.6(32)
4	GS Bank BEES ETF	8.174388	14.836(2)	0.277	-6.962(25)
5	GS Psu Bank BEES ETF	7.762107	3.8689(12)	0.6146	-5.495(19)
6	R* S Banking ETF	7.804557	12.759(3)	0.7409	5.1244(9)
7	GS S&P Shariah BEES ETF	7.426733	9.967(6)	0.0368	-159.0(37)
8	Kotak Psu Bank ETF	7.156623	2.5397(16)	0.7726	-4.676(17)
9	Kotak Sensex ETF	7.190895	5.452(10)	0.1251	-43.63(36)
10	GS Hang Sang BEES ETF	7.106608	5.8628(9)	-0.055	120.37(3)
11	Kotak Nifty ETF	6.976638	2.6202(15)	-0.0432	148.19(2)
12	Motilal Most Shares M 50 ETF	6.97285	-3.662(21)	2.1474	-5.676(20)
13	GS Infra ETF	7.108455	-1.116(20)	-0.306	20.187(6)
14	Motilal Most Shares Midcap 100 ETF	7.218652	2.9709(14)	0.564	-7.244(28)
15	Motilal Most Shares NASDAQ 100 ETF	7.189537	10.970(5)	0.126	-37.76(35)
16	Birla Sun Life ETF	6.46995	4.6082(11)	0.164	-32.53(34)
17	SBI ETF Sensex	6.197747	6.0746(7)	0.252	-17.71(33)
18	ICICI Prudential Nifty ETF	5.676971	6.0603(8)	-2.42	9.743(8)
19	R* Shares CNX 100 ETF	4.942351	3.181(13)	-0.0048	1306.5(1)
20	ICICI Prudential Nifty 100 ETF	4.317836	-0.148(18)	-0.1288	49.823(4)
21	Kotak Banking ETF Fund Regular	3.907846	-6.266(23)	-0.1278	44.237(5)
22	Reliance ETF Consumption	3.954006	1.2693(17)	1.278	-2.040(12)
23	Reliance ETF Dividend Opportunities	2.93146	-14.05(34)	-0.75	-3.593(14)
24	Reliance ETF Sensex	2.883166	-6.731(25)	-0.412	10.606(7)
25	Edelweiss Exchange Traded Fund Nifty 50	2.796205	-9.735(28)	-2.99	-5.40(18)
26	Edelweiss Exchange Traded Fund Nifty Bank	2.893774	-15.29(35)	-3.87	-11.52(30)
27	HDFC Nifty ETF	2.669107	-12.61(33)	-2.05	-7.221(27)
28	HDFC Sensex ETF	2.717869	-11.88(32)	-1.852	-6.210(23)
29	Kotak NV 20 ETF	2.814508	-10.73(30)	-1.257	-3.537(13)
30	LIC MF Exchange Traded Fund-Nifty 50	2.976625	-10.82(31)	-2.415	-6.137(22)
31	LIC MF Exchange Traded Fund Sensex	3.162055	-9.101(27)	-2.44	-4.563(16)
32	Reliance ETF NV 20	3.405419	-6.635(24)	-2.136	-1.873(10)
33	SBI ETF BSE 100 Fund	3.43573	-7.664(26)	-3.59	-4.104(15)
34	SBI ETF Nifty 50	3.596169	-5.542(22)	-3.31	-1.916(11)
35	SBI ETF Nifty Bank Fund	2.614366	-10.16(29)	-5.17	-6.56(24)
36	SBI ETF Nifty Next 50 Fund	2.606599	-16.13(36)	-4.13	-12.22(31)
37	UTI Nifty Exchange Traded Fund	0.852064	-17.28(37)	-2.18	-7.083(26)

Source: www.valueresearch.com

Note: UTI Sensex Exchange Traded Fund is not taken for analysis as it is only one year old.

Figures in Parentheses indicate ranking.

Standard Deviation

It is found that, among the Exchange Traded Funds, GS Nifty BEES ETF is having the highest risk i.e. 8.5 per cent and UTI Nifty Exchange Traded Fund has the lowest risk i.e. 0.85 per cent.

Sharpe Ratio

It shows the return to variability. Higher the ratio, better would be the performance of the Fund in terms of the returns for the risk taken. From the above table, it is found that 17 Exchange Traded Funds are showing a positive Sharpe ratio justifying the risk taken for earning a return and remaining all other Exchange Traded Funds are showing Negative Sharpe ratio.

Investors take risk commensurate with the return earned. Higher the risk, higher the return and lower the risk, lower the return. From the above analysis of Sharpe ratio it is clear that the performance of 17 ETFs showed a higher return for the high risk taken.

Beta Value

Beta measures the systematic risk and explains the nature of the volatility of the security return with that of the market return. If beta values are less than one, it means that Funds risk is less than the market risk; if it is one, it means the Funds risk is same as that of the market risk and if the beta is more than one, the risk of the Funds is greater than that of the market. The beta value can be less than zero, which means that the stock is losing money while the market is gaining.

We can find Beta with more than 1 in case of Motilal Most Shares M 50 ETF, Reliance ETF Consumption implying higher risk in these Funds compared to the market risk. Beta is less than 1 in case of rest of the Funds, Beta is negative in case of GS Hang Sang BEES ETF, Kotak Nifty ETF, GS Infra ETF, ICICI Prudential Nifty ETF, R* Shares CNX 100 ETF, ICICI Prudential Nifty 100 ETF, Kotak Banking ETF Fund Regular, Reliance ETF Dividend Opportunities, Reliance ETF Sensex, Edelweiss Exchange Traded Fund Nifty 50, Edelweiss Exchange Traded Fund Nifty Bank, HDFC Sensex ETF, Kotak NV 20 ETF, HDFC Nifty ETF, LIC MF Exchange Traded Fund-Nifty 50, LIC MF Exchange Traded Fund Sensex, SBI ETF Nifty 50, SBI ETF Nifty Next 50 Fund, SBI ETF Nifty Bank Fund, UTI Nifty Exchange Traded Fund.

Treynors Ratio

While Sharpe Ratio takes σ in the denominator, Treynors Ratio considers β as the denominator. While total risk is considered in Sharpe Ratio, only systematic risk (β) is considered in Treynors Ratio. A higher Ratio of Treynors indicates better performance compared to the other funds. On the basis of ranking according to Treynors Ratio, R* Shares CNX 100 Exchange Traded Funds occupied Rank 1st with 1306.5% followed by Kotak Nifty Exchange Traded Funds with 148.19%, GS Hang Sang BEES ETF with 120.37%, ICICI Prudential Nifty 100 ETF with 49.82%, Kotak Banking ETF Fund Regular with 44.23%.

Investors take risk commensurate with the return earned. Higher the risk, higher the return and lower the risk, lower the return. From the above analysis of Treynors performance ratio, it is clear that the first four ranks of performance of ETFs showed a higher return for the high risk taken.

III. FINDINGS

- ICICI Prudential Sensex Exchange Traded Funds occupied the Rank 1st with an average return of 15.69%.
- It is found that among the Exchange Traded Funds, GS Nifty BEES ETF is having the highest risk i.e. 8.5 per cent and UTI Nifty Exchange Traded Fund has the lowest risk i.e. 0.85 per cent.
- Out of 38 Schemes, 2 schemes were found more risky ($\text{Beta} > 1.0$) than the market and a majority of the schemes are ranging between 0.006 to 0.77.
- Out of 38 Schemes it is found that all the 17 Exchange Traded Funds are showing a positive Sharpe ratio justifying the risk taken for earning a return and remaining 21 Exchange Traded Funds are showing Negative Sharpe ratio.

IV. SUGGESTIONS

- The investors should have knowledge about the funds before they make any investment. Many investors go for the schemes in Mutual Funds which are popular and delivered good returns but that should not be the only criterion for choosing the schemes.
- When choosing an ETF, first decide on the market, market segment, or industry sector you wish to track, and then decide on the appropriate index for that market. Each index provider has its own construction methodology, resulting in wide variations in turnover and other portfolio characteristics. Benchmarks tracking the same market segment can deliver very different results.

V. CONCLUSION

The popularity of Exchange Traded Funds has increased manifold attracting a lot of attention from both the investors and the market participants resulting in a continuous innovation in the Exchange Traded Funds. ETFs are essentially IFs that are listed and traded on exchanges like stock. The introduction of Gold Exchange Traded Funds and growth in the prices of Gold has led to the increased performance of Exchange Traded Funds compared to Index Funds. Exchange Traded Funds can become best investment alternative if awareness is created among the investors.

Keywords

- ✓ MF-Mutual Funds
- ✓ ETFs-Exchange Traded Funds
- ✓ NAV-Net Assets Value

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