

# PERFORMANCE EVALUATION OF SELECT EXCHANGE TRADED FUNDS VIS-À-VIS MUTUAL FUNDS

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## Abstract :

There are lots of investment avenues available today in the financial market for an investor with an investable surplus. One can invest in bank deposit, corporate debenture and bonds where there is a low risk but low return. One may invest in Stock of companies where the risk is high and the return are also proportionately high. Exchange Traded Fund (ETF) and Mutual fund (MF), both are investment avenues having more similarities and fewer differences in their Fund's nature. Study of risk and return of securities is very important for an investor to make investment. The present article studies the performance evaluation of these two funds. It also focuses on the suitable investment option to be preferred by an investor by comparing both the funds. The findings at the end states that the performance largely depends upon individual fund scheme. To be more precise, it is inferred that both the asset class can generate higher return but ETFs are better than MF because it involves less cost than latter.

## Keywords :

ETF, Mutual fund, Risk, Return, Correlation of coefficient, Beta

## Introduction

A mutual fund is an investment vehicle made up of a pool of funds collected from many investors for the purpose of investing in securities such as stocks, bonds, money market instruments and similar assets. Mutual funds are operated by money managers, who invest the fund's capital and attempt to produce capital gains and income for the fund's investors. A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

An ETF, or exchange traded fund, is a marketable security that tracks an index, a commodity, bonds, or a basket of assets like an index fund. Unlike mutual funds, an ETF trades like a common stock on a stock exchange. ETFs experience price changes throughout the day as they are bought and sold. ETFs typically have higher daily liquidity and lower fees than mutual fund shares, making them an attractive alternative for individual investors.

## Objectives

The present article mainly analyse the performance of select ETF and select Mutual Funds in India. It also brings clarity in terms of better investment option by having comparison between both ETF and Mutual Fund.

## Rationale

ETF and Mutual fund, both are investment avenues having more similarities and fewer differences in their Fund's nature. Risk and return are two faces of single coin on which fund performance is based. Therefore, to invest in a security with an intention to reap profit out of it, one must adore risk. Study of risk and return of securities is very important for an investor. Therefore, performance evaluation of these two funds will advise the investor to invest in securities. For a common investor investing in mutual fund is easy because risk management is with the AMC. With this, I am focusing on analysis of performance of ETF and Mutual fund and its aspects.

## Method of data collection

### Secondary data

We have collected secondary data from various sources like website of AMFI (Association of Mutual Funds in India), NSE (National Stock Exchange).

### Sampling

For the purpose of analysis, we have selected two AMC (Asset Management Company) namely ICICI and Kotak. The benchmark index is considered as CNX Nifty. From these two AMC's, we have considered following:

Sl No Category	ICICI	Kotak
1 ETF	ICICI Prudential Nifty 100 iWIN price	Kotak Nifty ETF
2 Mutual Fund	ICICI Prudential Top 100's NAV	Kotak Select Focus Fund's NAV

### Study Period

This study is based on past 3 years' data of calendar year from 01-01-2014 to 01-12-2016.

### Tools Used for Analysing Data

#### 1. Return analysis

For analysing the return, arithmetic average of monthly returns from April 2013 to March 2016 is taken into consideration.

$$\text{Return for a single period} = (P1 - P0) / P0$$

$$\text{Average monthly return} = \frac{\text{Sum of the monthly return}}{\text{Total month considered for study}}$$

Where, P0 - Indicates price at beginning of period

P1 - Indicates price at ending of period

#### 2. Risk analysis

For analysing the various kind of risks, 5 tools are taken into consider. The selection of these tools is based on the objective of the study. To analyse a stock's risk it is necessary to find both its systematic and unsystematic risk and the total risk. Hence the tools which help to calculate and to analyse these risks are considered for the study. They are:

##### a. Variance and standard deviation.

$$\begin{aligned} \text{Variance} &= [\text{sum of } (\text{return} - \text{average return})^2] \div (n-1) \\ \text{SD} &= \sqrt{\text{Variance}} \end{aligned}$$

##### b. Covariance with market return

Covariance measures how two variables move together. It measures whether the two move in the same direction (a positive covariance) or in opposite directions (a negative covariance).

$$\text{COV}_{xy} =$$

$$\begin{aligned} \text{Here - } X &\text{ - represents market return} \\ Y &\text{ - represents stock return} \\ &= [\text{sum of } \{(X - \text{avg}X) * (Y - \text{avg}Y)\}] \div (n-1) \end{aligned}$$

##### c. Correlation coefficient

$$r = \text{COV}_{xy} \div (\text{SD}_x * \text{SD}_y)$$

##### d. Coefficient of determination

##### e. Beta coefficient

$$\beta = \text{COV}_{xy} \div \text{SD}_x$$

$$\text{Beta co-efficient} = (r * \text{SD}_y) \div \text{SD}_x$$

Parameters	Index	Kotak ETF	ICICI ETF	Kotak MF	ICICI MF
Average monthly return	0.85%	0.81%	1.02%	1.357%	1.357%
Variance	16.892	15.84	30.48	27.087	26.26
Standard Deviation	4.12	3.98	5.52	5.2046	5.125
Covariance		16.09	10.44		
Coefficient of Correlation		0.9812	0.4590		
Beta		0.94786	0.61497		
Coefficient of determination		0.9627	0.2107		
Unsystematic risk		15.249	6.422		
Systematic risk		0.591	24.058		

**Source:** Calculated and compiled by authors

### Findings

1. It is inferred that Kotak mutual fund (Kotak Select Focus Fund) has performed well than ICICI Prudential mutual fund (ICICI Prudential Top 100). Kotak mutual fund has higher degree of variation and risk than ICICI Prudential mutual fund.
2. It is inferred that ICICI Prudential ETF has higher return than Kotak ETF and Market return. Risk associated and variation is high in ICICI Prudential ETF than market and Kotak ETF.
3. Comparison of ETF and MF scheme shows that Kotak mutual fund (Kotak Select Focus Fund) has generated higher return with higher variation and risk in the prices than its own mutual fund scheme.
4. Comparison of ETF and MF scheme shows that ICICI Prudential ETF (ICICI Prudential Nifty 100 iWIN ETF) has generated higher return with higher variation and risk in the prices than its own mutual fund scheme.
5. Systematic risk or diversifiable risk is more than unsystematic risk in ICICI prudential Nifty 10 iWIN ETF with more return as compare to the Kotak ETF.

### Discussion

Investor who does not have more knowledge about investing in security market they can go with mutual fund schemes. Risk averse investors with long term time horizon can invest in mutual fund regularly based on its track record. Investors with risk taking ability can invest in ETF as it does not have any professional fund management. Specifically, investors can choose ICICI Prudential Nifty 100 iWIN ETF than Kotak Nifty ETF because ICICI Prudential ETF has more systematic or diversifiable risk. Investor who wants more capital gain or return can invest in Kotak Mutual fund with more risk. Further research can be explored by taking more number of ETFs and MF schemes.

### References

1. Websites :  
www.amfiindia.com, www.nseindia.com
2. Books:  
a. Security Analysis and Portfolio Management by Prasanna Chandra  
b. Security Analysis and Portfolio Management by Punithavathi Pandya