Performance of ETFs in India

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Abstract

This study is conducted to analyse the performance of the Exchange Traded Funds (ETFs) in the Indian market. It conducts a study on the profitability, volatility and the relatedness among five selected exchange traded funds in India for the past five years. The paper will give an idea about the current market situation of the ETFs and what may be the expected outcome for the investors from such traded funds. It will help the potential investors to get an idea about the returns to be expected from the ETFs and formulate their portfolio accordingly

Keywords: ETFs in India, Performance of ETFs, Statistical results of ETFs

1. Introduction

ETFs have always been a very good and efficient way to invest in stocks in foreign countries. That is why it has been introduced to Indian market as well recently. Regardless of how it is performing, it has given the Indian investors wide options to put their savings in. This study is conducted to study the financial performance of the ETFs in Indian stock exchanges.

An Exchange Traded Fund (ETF) is a type of investment fund that are traded in the stock exchanges like any other stocks. This kind of funds use arbitrage mechanism by holding assets (e.g. stocks, bonds or other commodities) to keep them trading close to the net assets value. ETF market has globally emerged during the past few years and has become a very famous kind of investment around the world. These investments surely have higher risks but the same implies higher returns as well. So, if invested with utmost care and well-revised analyse, they can ensure higher returns and that is why these funds have caught the eyes of the investors.

India also has introduced ETFs in its stock exchanges, not so long ago. The first ETF introduced in India was Nifty BeEs in 2002. Since then, the ETF market in India is growing even though at present, its performance is not so admirable or idealistic to the investors. In India, equity, debt, glod and international indices ETFs are available. Here, we are going to get an idea about the ETF trading market in India.

A lot of investors may not know the idea of how ETF functions. There are many advantages and disadvantages associated with ETFs. In India, this is probably still a new concept for many investors. Also, ETFs are not performing really well so far in our country. This demotivates many investors to invest in such funds. Lack of investments may also be a reason for this under performance of the funds.
So we are to show a brief analysis and study of how ETFs are doing in our country. We will also take help of past performance records and statistical tools for the purpose of this study.

2. Significance of the Study

The purpose of the study can be as follows:

- To determine whether it’s actually profitable for the Indian investors to invest in the ETFs of Indian stock exchanges or not.
- To analyse the growth of the ETF’s market in India over the years.
- To check the efficiency in the performance of ETFs with statistical tools.

3. Objective of the Study

The objectives of the research are as follows:

- To understand the performance of Exchange Traded Funds based on their returns.
- To analyse the risk attached to Exchange Traded Funds.
- To compare the performance of selected Exchange Traded Funds with each other.

4. Statistical Tools Used

- Average mean
- Standard deviation
- Correlation

5. Research Methodology

To support our research, we have selected performance of 5 different ETFs available in India that are as follows-

- Kotak Gold
- Juniorbee
- Inifty
- Goldshare
- BSL Gold ETF

The performance of the given ETFs is compared from the year 2016-2019, monthly returns and standard deviation of the given ETFs are taken as input and also correlation has been used a technique to determine how strong the relationship is there between the different ETFs which are available for comparison.

Our analysis will be based on the risk and return analysis and we have taken historical data directly from the National Stock Exchange website.

We have also used Microsoft Excel tool to make the calculation and to get the average out of it to support our analysis of whether we should invest in ETF or not in the current market situation.

6. Review of Literature

1. Gerasimos G. Rompotis (1) - This study investigates the price relation among ETFs and underlying indices by utilizing the daily data for a sample of 30 American ETFs during the period between 4/3/2001 and 8/7/2002. Further, it is discovered that ETFs are mainly traded in premium in regard to their Net Asset Values. The researcher uses three methods to measure the gap among ETFs and underlying indices return, the well-known tracking error, finding that this difference is not much greater than zero, implying that ETFs performances move closely to the tracking indices.

2. J.Gayathri and P.Bhuvaneswari (2) - In this paper the primary concern is to compare the performances of ETFs listed on the NSE from 2005-2009 by comparing the risks associated with ETFs and returns to that of the Index. Major statistical tools used were Sharepe ratio along with Treynor ratio. The results showed that ETFs underperformed the index.
3. Pedro Kono, Pan Yatrakis, Sabrina Segal (3) - In this paper the researchers aim at measuring the efficiency of Exchange Traded Funds in the Japanese Market. For the research the researchers examined two different portfolios of which one was consisted of handpicked ETFs and the other portfolio included securities which replicated the performance of the market. The study concluded that a carefully prepared ETF based portfolio can outperform the market index. It is important to note that the above said results are true if performance is measured by Sharpe ratio.
4. Alok Goyal and Amit Joshi (4) - This paper concentrates on the financial performance of the chosen Gold ETFs in comparison with that of NSE. The paper also focuses on the risk associated with Gold based ETFs. The research analysis is done with the helpof statistical tools such as Sharpe‘s index and Treynor‘s ratio.
5. Dr.Prashantha Athma and Ms Suchitra K (5) - In this paper the researchers focus on the utilization of Gold based ETFs in a portfolio for risk diversification and also lays down measures for the selection of best Gold ETFs. The researchers used various tools such as averages, standard deviation, etc. The research concludes that careful utilization of Gold ETFs can result in risk mitigation and healthy diversification.
6. Dr. Preethi Singh (6) - In this paper the performance of Exchange Traded Funds is compared to that of Mutual Funds. The paper compares both the subject on manifold levels. It is observed that while Exchange traded funds carry very less risk with them when compared to that of Mutual Funds, but at the same time the Mutual funds have been outperforming ETFs in the past years. The research also highlights the crucial features of ETFs such as low transaction cost and no conflict of interest amongst investors and managers make ETFs an attractive option for the investors.
7. Reena Aggarwal (7) - This paper focuses on the newer and more complex types of ETFs rather than the typical and simple ETFs. In this paper the researcher has tried to throw some light on the various types of risks that are associated with these new types of Exchange Traded Funds.
8. Harip R. Khanapuri (8) - This paper focuses on the fact that the value of ETFs is affected by the value of the underlying assets. The researchers use advanced statistical tools such as econometric technique of Vector Auto-regressions. The

study concludes that while the co-movement between the value of ETFs and underlying asset is relatively stronger in the equity based ETFs, this kind of strong co-movement is however absent in the case commodity based ETFs. This paper is highly influential regarding the investment style used by the investors in the ETF market.

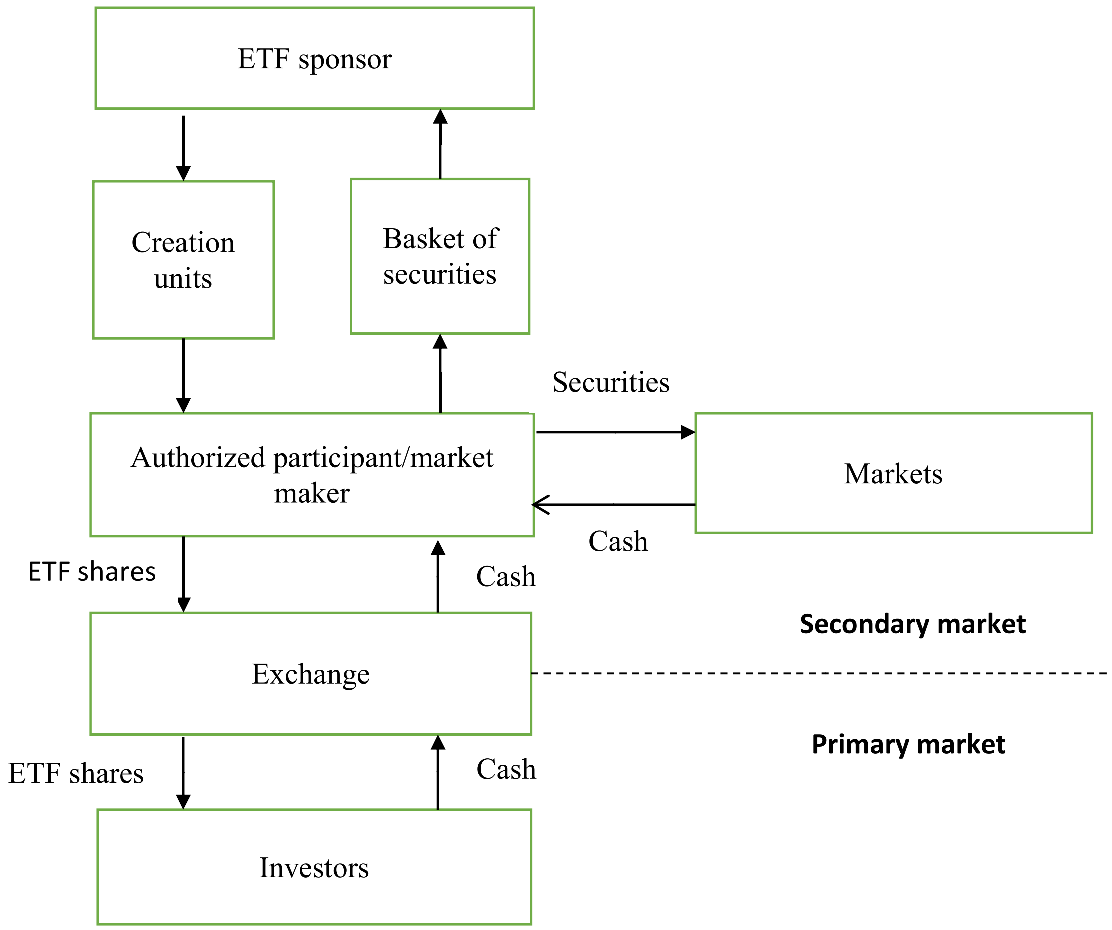
9. P. Krishna Prasanna (9) - The growth of ETFs has been exponential in the past decades and India too has seen drastic growth in the Exchange Traded Funds Market. P. Krishna in his paper talks about the growth of Exchange Traded Funds in India. It focuses on all 82 ETFs which were being floated at the time of his research, the returns from various ETFs are also compared with that of the Index. The paper highlights the increasing popularity of ETFs base on their low risk return pattern which is suitable for a country like India.

7. Types of ETFs and Its Creation Process

ETF was consider as one of the complex instrument, and in Indian context unsystematic risk in the portfolio is always high and there is no diversification involved in it. To target the same, ETF was created to capture the major companies, sectors and it works like a proxy for the same to kill the unsystematic risk and the only risk that investor has to bear is the systematic risk. There are various kinds of ETFs according to the investor preferences and demands like Commodity ETFs, Index ETFs, Bond ETFs, Leveraged ETFs and Currency ETFs etc.

For creation of an ETF, an authorized participant has an active role to play who can be a specialist, market maker or someone with a lot of buying power. An authorized participant acquires the security that the ETF want to hold. Financial institutions also has an important role to play because they trade in large blocks in size of 25000-200000 shares which are called creation units. Purchase and redeem of ETF shares is directly from the ETF and not the purchase and redemption at net asset value. It is also believed that expense ratio of an ETF is lower as compared to the mutual fund which can be compared on a regular basis.

Figure 1: OPERATIONAL STRUCTURE OF ETFs



8. Facts and Findings

The first thing that catches the eye is the fact that the returns of all the 5 selected ETFs has an average return of less than 1.4% for last 3 years. The nominal inflation rate in India for the year 2017-18 was 4.36% which is greater than the return provided by ETF in India.

The research has been undertaken to analyze and study the risk and returns associated with the ETFs. For this purpose, the data collected is the returns for last 3 years, taken monthly. Further from the analysis, it has been evidently found that the returns from all the 5 ETFs have been negligible. However, JuniorBee has given the highest average return of 1.3843% as compared to others, but over 3 years, it wouldn't suffice the expectations. Comparatively, Infity falls second in terms of average return as it has given a return of 0.9369%, whereas all the other three ETFs just provide an approximately return of 0.5%. When we look at the returns of ETFs from the perspective of the simultaneous risk, the level of returns are long way from the level of risk held. All the 5 ETFs have shown a very high rate of risk when compared to every single penny of return. Standard deviation, which shows the volatility in the deviation of the fund, is the highest in case of the JuniorBee i.e. 5.3105%. Further, it can be noticed that all other ETFs hold a lower risk factor as compared to Juniorbee, within the range of 3-4 %, still risk taken against return is extremely unacceptable.

Further in my view, if we are supposed to choose any of the 5 ETFs, on the basis of their risk-return analysis, Inifty suits the most because the risk factor is almost at the same level of the lower risk category ETFs and parallelly it produced a better return as compared to all other ETFs.

Stepping ahead, if we move with the monthly returns, for all the 5 ETFs, it can be well understood that a lot many months have stated returns positively but few negative returns have saturated all good. If we compare the returns yearly, 2016 is the most favourable year for all the ETFs with less negative average monthly returns and 2017 being the most inversely performing year.

Moving forward with the correlation, of how the ETFs are correlated to each other. Correlation has been found for all the ETFs with each other. Out of 10 correlation found, 7 are positive in nature, which means that majorly all the ETFs perform in the same direction. Out of these, KOT & GLG, KOT & BSL, JRB & INF, JRB & GLD, & GLD & BSL are heavily correlated with the value of about 7 and above.
This represents that almost all the ETFs tend to follow the same trend as prevailing in the market. On the other hand, 3 correlation values are in negative also, which means that those funds are negative in their movements. Further these negative correlations are at very low values of -0.25, which shows that these ETFs have their own movements and doesn't follow any equalizing trend.

On the concluding part, all the ETFs have been underperforming with about 1% return but inclusive of heavy blowing risks. It is possible that in a very long-term, it may turn to be fruitful but as per the data available for three years, such investments are not recommended.

Table 1: Statistical values of ETFs

	KOTAK GOLD (KOT)	JUNIORBEE (JRB)	INIFTY (INF)	GOLDSHARE (GLD)	BSL GOLDTF (BSL)
MEAN	0.4767	1.3843	0.9369	0.5103	0.5498
STANDARD DEVIATION	3.4463	5.3105	3.7308	3.1899	3.8039

Table 2: Correlation values between ETFs

CORRELATION									
KOT & JRB	**KOT & INF**	**KOT & GLD**	**KOT & BSL**	**JRB & INF**	**JRB & GLD**	**JRB & BSL**	**INF & GLD**	**INF & BSL**	**GLD & BSL**
0.0524	-0.1846	0.8669	0.6998	0.8091	0.8091	0.04243	-0.2422	-0.2020	0.7628

9. Market Analysis of ETF (India vs Global)

ETFs are well known for providing diversification benefits and lower expense ratio. It is often said that ETFs investment strategy is mostly passive and not active style of investing, but there are different kind of ETFs available according to the needs and requirements of the investors. There are also sectors ETFs available for all those investors who are particularly bullish on the sector.

In the global context, ETF commands an immense popularity with over more than 1262 ETFs listed on the NYSE Stock exchange. In Indian scenario there are only 39 ETFs, out of which one third of the ETFs belong to gold. Globally ETFs have a diversified choice of investment and wide variety of themes to play on. The major area of investment of ETFs in global scenario are currencies, several strategic indices, sector indices, market capitalization based indices, treasury bonds and emerging market groups and so on. However in Indian context, there are very limited options and also there is no much awareness about the ETF market.

In the global context there are various factors which are leading to accelerated growth of ETF. There is special market campaign performed by mega brokers to market their product. There were also regulatory changes in major developing countries like Europe, USA, that allow funds to make larger allocation to the ETF sector. Also the major reason why ETF is becoming so popular in the global market is they covered all the segments like equity, bond, commodity etc. In Indian context there are only major two type of ETF that is gold ETF and indices ETF.

Investors in India are losing their hard earned money who are investing in Gold ETF in these several years, because the return that the Gold ETF is generating is less than the nominal rate of inflation. Investors have pulled 54 Crore from the Indian gold ETF market in 2018. There is an outflow of 835, 775, 903, 1475, 2293 (Crore) in 2017-18, 2016-17, 2015-16, 2014-15 and 2013-14 respectively.

Some of the major findings regarding global ETFs are-

- ETFs continue to dominate in the global market as an alternative investment.
- Major success of the industry depends on the liquidity in both good and bad times.
- In retail sector, improving distribution is next crucial phase of the growth.
- Growing acceptance of regulation is balanced against its increasing complexity.
- In India major kind of ETFs include equity, bond, commodity, real estate ETF but only gold and equity ETF are popular among all these.

The major difference between investing in ETFs and other available investment in India arises the way the fund is managed. Comparing Mutual fund with ETF can clarify a lot of differences, because ETF are always passively managed. While trading on mutual fund does not require you to pay any commission except the management fees involved, trading in ETF requires you to pay commission to buy and sell them. ETF are more tax efficient than mutual fund and also ETF have lower fees and expenses as compared to mutual fund.

FUNCTIONALITY	**ETF**	**STOCK**	**MUTUAL FUND UNIT**
Real time trading and pricing throughout market hours	✓	✓	×
Ability to put limit orders	✓	✓	×
Can be purchased through NSE broker and /or online trading a/c	✓	✓	×
Can be traded real time on NSE	✓	✓	×
Is arbitrage possible between Futures and Cash market	✓	✓	×
Is diversification possible with a single unit	✓	×	✓
Returns at per with the market/index	✓	×	×
Intra-day trading	✓	✓	×
Paper less investing	✓	✓	×
Exit load	×	×	✓

10. Recommendations

According to the current scenario and analysis it can be concluded that ETF is not worth investing in India. ETFs in a global context is a pre-dominant factor and a very viable investment strategy for long term investment because of lower expense ratio, diversification benefits and high liquidity. In India, there are only limited options in ETFs and at the current situation Gold ETFs are not performing to the extent and just because of replication of the particular index does not make it worth investing.

11. Conclusion

While taking all the facts into consideration from our analysis as above, ETF can be considered good option in the coming future for those investor who have just started trading and earn passive returns on the same. In the Indian situation it has always seen that actively managed fund tends to outperform passively traded fund because of the market imperfection involved. In developing and underdeveloped countries markets are not perfect and imperfections are there, so an active trader can exploit the opportunity and make returns from the same. The average return from all the ETF in our analysis is less than 1.5% with high consideration of risk involved. The last 3 years could also be seen as the worst year when it comes to the performance of ETF as it has performed pathetic in terms of return. So to conclude our research considering the current situation and facts and on our analysis, it will be recommended not to invest in passive investment strategy like ETF.

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