A STUDY ON THE PERFORMANCE OF NIFTY 50 ETFs IN INDIA

Project Report

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Under the guidance of

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In partial fulfilment of requirements for award of the degree of

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ST. TERESA'S COLLEGE, ERNAKULAM (AUTONOMOUS)

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CERTIFICATE

This is to certify that the project report titled **"A STUDY ON THE PERFORMANCE OF NIFTY 50 ETFs IN INDIA "** submitted by **AKNA SUNIL, ALEENA JOSE** and **AMALA COSMOS** towards partial fulfillment of the requirements for the award of the degree of **Bachelor of Commerce** is a record of bonafide work carried out by them during the academic year 2021-2024.

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DECLARATION

We, Akna Sunil, Aleena Jose and Amala Cosmos, do hereby declare that this dissertation entitled **"A STUDY ON THE PERFORMANCE OF NIFTY 50 ETFs IN INDIA "** has been prepared by us under the guidance of **Dr. JENCY TRESSA,** Assistant Professor, Department of Commerce, St Teresa's College, Ernakulam.

We also declare that this dissertation has not been submitted by us fully or partly for the award of any Degree, Diploma, Title or Recognition before.

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CHAPTER – 1
INTRODUCTION

1.1 INTRODUCTION

A sort of investment fund and exchange-traded vehicle, or ETF, is one that is exchanged on stock exchanges. Exchange-Traded Funds (ETFs) are cutting-edge investing choices that bring together the benefits of mutual funds and equities.

ETFs can be bought and sold at any time during the trading day like any stock, in contrast to traditional open-end mutual funds. Similar to equities, they are traded between open market hours through Demat accounts and are listed on NSE/BSE. Similar to mutual funds, these programs give investors access to a diverse portfolio that covers the important economic sectors. Compared to index funds, ETFs feature smaller annual adjustments and transaction costs. For risk-averse and novice investors seeking market-linked returns, ETFs are regarded as a safer investment.

Assets such as bonds, stocks, currency, futures agreements, and/or commodities like gold bars belong to the financial assets which ETFs own. Each shareholder owns a portion of an ETF, which is divided into shares. An ETF may have the legal form of a corporation, trust, open-end administration investments company, or unit's investment trust depending on the nation. The fund's assets are indirectly owned by the shareholders, who also have a claim to a portion of the earnings (such as interest or dividends) and a right to any remaining value in the event of a fund liquidation. Annual reports are also given to them. While variances are possible, an ETF often trades in close proximity to its net asset value thanks to an arbitrage mechanism.

1.2 SIGNIFICANCE OF THE STUDY

In the mutual fund sector, Exchange Traded Funds were a novel product. Over time, it drew fresh investments and fresh investors. ETFs make up a sizable portion of the assets held by mutual funds in developed economies like the US. In order to comprehend the true growth and significance of ETFs in the Indian capital market, it will be helpful to read this report. The fund management companies, as well as institutional and individual investors, will find this study helpful in further diversified their investment portfolios.

- An opportunity to understand a shift in investor strategies arises from the realization that the difference between active and passive investing is closing.

- ❖ Insights for better product design and placement can be obtained by regulators and product developers.

1.3 SCOPE OF THE STUDY

The study is based on Nifty 50 ETF's that track the performance of the Nifty50 index, which consists of the 50 largest and most liquid companies listed on National Stock Exchange of India. It aims to thoroughly assess the efficiency of ETFs with respect to risk-return viewpoint because ETFs have not received as much research attention as mutual fund products in India. For a typical investor, evaluating the performance of an investment is exceedingly challenging. This study focuses on evaluating the performance of 5 selected Nifty 50 ETF's. The study is covered over a period of five years data.

1.4 OBJECTIVES

- To figure out new developments and trends in ETFs.
- To comprehend the needs and difficulties faced by Indian ETF investors.
- To evaluate the stock market indices performance of a few ETFS in relation to the performance of a particular ETF against its stock market index.
- To make recommendations to ETF investors for better choices

1.5 PROBLEM STATEMENT

ETF's have become popular among investors during the recent years. The ETF industry is still in its early stages of growth. The current work is aimed to support investors in making valuable investments. Thus, the study aims to educate small and medium investors on the benefits of exchange traded funds. For this reason, the researcher plans to investigate the ETF's performance capabilities.

1.6 METHODOLOGY OF THE STUDY

Research is the methodical and deliberate study of a topic with the goal of learning new information or improving upon already known information. The systematic procedures and methods used to conduct research and acquire data for a study or investigation are referred to as research methodology. It includes the following essential elements: research design, data collection, data analysis, sampling, ethical considerations, literature review, hypothesis, data collection instruments, data presentation and references & citations.

This is a descriptive case study aimed for analysing the past growth and expansion of ETFs in India. The study is based on secondary data. We conducted a comparative study of ETFs of different companies. We recorded the current trend and growth of ETFs.

1.6.1 DATA SOURCES USED FOR THE STUDY

Secondary Data

Secondary data is information that has previously been gathered from primary sources and made available for use by other researchers. This particular type of data has already been gathered in the past. In order to conduct new research, it makes use of the information gathered from earlier studies.

Analysis of secondary data can help you avoid spending time on data collection. A researcher may have gathered the information for a specific project and subsequently made it accessible for use by other researchers. Like with the national census, the data may also have been gathered for broad use without a particular study goal.

The data collection used for the study is secondary data. Secondary data is collected from journals, books, websites etc. The data relating to the companies are collected from the websites of the respective companies.

1.6.2 TOOLS FOR DATA ANALYSIS

Graphical analysis - This tool can be used for visualizing data to see the trends and patterns in the data in different ways such as charts, graphs and diagrams.

Pie-Chart – A pie chart or a circle chart is a circular statistical chart that is divided into slices to show numerical proportion. The arc length of each slice in the pie chart is proportional to the quantity it represents.

Column Chart – A column chart is a type of graph in which the values are represented by vertical bars, each of which has a length that matches the data it represents. Usually each column denotes a different category, and the columns height or length indicates the value corresponding to the category.

Line Chart – A line chart is a type of data visualization which shows information as a series of data points joined by line segments. It is frequently used to illustrate trends or changes in data over time, with time depicted on horizontal axis and the value being measured on vertical axis.

1.7 LIMITATIONS OF THE STUDY

- The size of ETFs in India is a main limitation.
- The study is limited to a period of 5 years.
- The data collected is from secondary sources.
- The reliability and the findings are based on the data published in websites.

1.8 KEYWORDS

- **Exchange traded funds:** An exchange traded fund is a type of investment fund that trades on stock exchange like a stock. It can hold various assets like stocks, bonds, currencies and track the performance of a specific index.

- **Nifty 50:** Nifty 50 is the main index for the National Stock Exchange of India. It tracks the performance of the top 50 stocks by market capitalization from 13 sectors of the Indian economy.

- **NSE:** NSE stands for National Stock Exchange of India Limited, which is one of the leading stock exchanges in India, based in Mumbai. It was the first exchange in India to provide modern, fully automated electronic trading.

1.9 CHAPTERISATION

Chapter 1- Introduction

This chapter contains a brief introduction of the topic, its scope and significance, problem statement, methodology, limitations, keywords and chapterisation of the study.

Chapter 2- Review of Literature

This chapter deals with review of literature which includes previous similar studies conducted on the topic "Performance of Nifty 50 ETF".

Chapter 3- Theoretical Framework

This chapter deals with theoretical frameworks. It collects and compiles information relating with the topic.

Chapter 4 – Company Profile

This chapter consists of the details regarding the selected Nifty 50 ETFs in India.

Chapter 5- Data Analysis and Interpretation

In this chapter, collected data is analysed and interpreted based on the relevant statistical tools.

Chapter 6- Summary, Findings and Recommendations

This chapter shows the summary of the study, findings, recommendations and conclusion.

CHAPTER – 2

REVIEW OF LITERATURE

2.1 INTRODUCTION

A review of literature is an overview of past published papers. Before beginning any research project, it is essential to do a thorough literature review in order to determine the gaps in the field's knowledge and the scope of the project. Reading through this material will help us understand what data and facts need to be gathered and how to analyse them. The planned study won't be perfected until it is properly understood in relation to earlier research in the same field. Thus, with the help of literature review, one can further investigate and research the unknown answers to the topic and gain sufficient knowledge.

This chapter provide a summary of the studies that have been conducted based on Topic: Performance of Nifty 50 ETF's:

1. Suresh K Mittal (2021) :

This paper aims to assess the performance of exchange-traded funds (ETFs) that were active in India prior to 2009. Geometric mean, standard deviation, beta, tracking error, Treynor ratio, Sharpe ratio, and Jensen's alpha have all been used to assess the performance of exchange-traded funds (ETFs). It was discovered that although certain ETFs underperformed their benchmark, others exceeded it. However, after examining the relevance of the difference, the research came to the conclusion that there is no meaningful distinction between the ETF's performance and that of its benchmark. The study will aid managers and investors in comprehending ETF performance better. ETFs are a cutting-edge product in India. There isn't much research on ETF that is thorough enough to span a longer time period in India.

2. Harsh Kumar Anchalia (2020) :

Investment vehicles known as mutual funds are managed by qualified fund managers and combine the capital of numerous individual participants. Mutual funds come in a variety of forms in India, including exchange-traded funds (ETFs), equity funds, debt funds, liquid funds, and balance funds. Aditya Birla Sun Life Gold ETF, Axis Gold ETF, HDFC Gold Exchange Traded Fund, and SBI-ETF Gold are the four Exchange Traded Funds (ETFs) that are the topic of this study. The Nifty 50 is used as the benchmark for all these funds. Average returns, standard deviation, beta, sharpe ratio, Treynor ratio, Jensen alpha, Sortino ratio, and

information ratio were computed for five fiscal years (April 1st 2015 to March 31st 2020) in order to compare the performance of these funds. The findings imply that every plan outperforms the Nifty in terms of returns. The findings imply that every scheme outperforms the Nifty 50 in terms of returns and has a protective relationship with the market.

3. S Subhashini (2013) :

The present status of mutual funds as an investment vehicle is incredibly popular, evidenced by the strong growth rates of assets under management. When compared to international corporations, India's penetration levels are still low, even with this strong growth. The emergence of stock exchange platforms is thought to be a good way to boost mutual fund and other financial asset penetration rates. ETFs are equities that represent the constituents of an index, such as the S&P CNX Nifty or Sensex; they function similarly to stocks that are traded on exchanges. Seven of the approximately 19 ETFs and 14 Gold ETFs that are traded in India were chosen for this study. Performance of investments, risk, and stocks These funds' stock selection abilities, risk profile, and investment performance are examined. The empirical results of ETFs demonstrate the fund manager's stock selection abilities, the risk associated with ETFs, and the effectiveness of the fund performance above and above market returns.

4. Prasanna K Baral (2012) :

Global financial markets have seen new product improvements within the past 20 years. Professionals in the financial markets face a significant task in designing new and creative financial products that promise to match investors' expectations for returns as global risk appetite and market conditions evolve. A new class of affordable and tax-efficient financial instrument, Exchange Traded Funds, or ETFs, emerged as a result of investors' recent search for alternatives to structured products. The search for innovative and complex investing strategies is constant among investment professionals, and exchange-traded funds (ETFs) can provide them fresh approaches to creating strategy building pieces. This article examines the growth trajectory of exchange-traded funds (ETFs) and compares index-based ETFs and Gold based ETFs in India.

5. Chanchal Saini, Ishwar Sharma, Bhawana (2023) :

The study looks at tracking mistakes and disintegration hypothesis to analyze the performance of the top five stock ETFs. The disintegration theories are tested in relation to the latest COVID-19 situation in this study. Regarding Indian ETFs, the research refutes the disintegration theories. It is found that prior to, during, and following the COVID-19 financial crisis, three of the five ETFs exhibit persistent co-integration with their underlying index. Furthermore, it was found that 2 out of 5 were not co-integrated with their underlying index prior to the financial crisis. Only one ETF, though, was not co-integrated with its benchmark index during the financial crisis. But since the pandemic crisis, every ETF is co-integrated with the benchmark index. Furthermore, compared to the pre-crisis and post-crisis eras, these five exchange-traded funds' tracking errors grew and became more volatile during the financial crisis.

6. Suhas RH, Narayan Rao Sapar :

Exchange Traded Funds (ETFs) have increased from nearly nothing five years ago to 10% of the assets under management (AUM) of Indian mutual funds. The rise in ETFs is consistent with growth observed in other regions of the world. An investor in an exchange-traded fund (ETF) wants to replicate as much of the underlying indices' performance as feasible. Still, there are discrepancies in the performance of the index and the ETF, which mutual funds use to calculate tracking mistakes. Previous research has linked the occurrence of tracking errors to a number of different parameters. Our research attempts to pinpoint the variables that affect tracking mistakes and have not previously been taken into account in relation to Indian ETFs. Our analysis indicates that the volatility of the underlying indices and dividend drags—a phenomenon caused by a delay in dividend payments and the ex-dividend date of the underlying stock—are just as significant as the volatility of the ETF's prices. These considerations need to be taken into account while designing ETFs, in addition to the previously mentioned ones.

7. Aakanksha Sethi (2017) :

The objective of this study is to assess the performance of index funds and index exchange-traded funds (ETFs) using the following metrics: tracking error, data envelopment analysis

(DEA), sharpe ratio, active returns, and tracking error. According to the analysis, ETFs beat index funds throughout the research period on every metric save tracking inaccuracy. In a comparison between ETFs and Index funds, the Wilcoxon Signed Rank test was also used to analyze performance; again, ETFs yield noticeably higher returns in this scenario. Index funds are better suited for small retail investors, whereas exchange-traded funds (ETFs) are better for institutional and large investors, according to qualitative distinctions between these two classes of instruments.

8. Dr Bhupendra Kumar (2016) :

Exchange-traded fund (ETF) is a diversified basket of securities that is traded in real time on an exchange just like a single stock. ETFs can be purchased and sold like any other stock during the trading day, unlike traditional open-ended mutual funds. An exchange-traded fund (ETF) bears similarities to an index fund, except that ETFs have the option to invest in all of the securities included in the index or just a representative sample of them. In the United States, exchange-traded funds initially debuted in 1993. Crucially, like individual stocks, the exchange-traded funds (ETFs) provide one-stop exposure to a diverse basket of securities that can be exchanged in real time.

9. Priya Mahajan, Sanjeev Saxena (2014) :

In this research, we used the daily NAVs of seven exchange-traded funds (ETFs) and fourteen index funds that track the same index to compare the performance of these funds and ETFs between April 1, 2008, and March 31, 2013. Regarding these two passive investment vehicles that track the same benchmark Index, a number of statistical techniques have been applied, including risk, return, beta, Sharpe ratio, Treynor ratio, Jensen Alpha, and tracking error. The analysis has only included ETF and index fund schemes that are benchmarked against the S&P CNX Nifty. The goal of the study is to determine whether these two passive investing plans are outperforming their benchmark index and, if so, which plan has done better overall.

10. L Alamelu, Nisha Goyal (2023) :

One of the most popular passively managed funds is an exchange-traded fund (ETF), which gives institutional and ordinary investors access to a broad variety of highly profitable and diversifiable financial assets. The study uses a sample of 27 equities ETFs that were traded on the National Stock Exchange of India during the pre-pandemic period from January 1, 2015, to December 31, 2019, to evaluate how well Indian equity ETFs replicate the performance of their benchmark indices. Using risk-return analysis, risk-adjusted performance measures, multi-factor regression, and tracking error analysis, the performance of the sample ETFs was evaluated. The results showed that most of the sample ETFs outperformed their tracking indices, although there were some significant tracking errors during the study period. Additionally, the research shows that the sample returns ETFs possess a substantial and favorable correlation with the returns but have an inverse relationship with risk and fees for management. The findings of this research will impact significant ramifications for investors when assessing the effectiveness of fund managers and ETFs in implementing appropriate strategies to decrease tracking errors that will support the effective replication of the benchmark in addition to launching projects that will allow the pricing efficiency of the ETFs to increase.

11. S Prachee Jain, Stella Mary (2018) :

In India and other traditional investment markets, gold is regarded as one of the top investment avenues. Many gold investment choices, such as gold ETFs and futures on commodities, have emerged in recent years due to the capital market's expansion and the expanding demand for gold. This study looks at the performance of a few gold exchange-traded funds (ETFs) that are traded on the National Stock Exchange (NSE) in India. It also examines the volatility and risk behaviour of these Indian ETFs. The study's data was gathered over a three-year period, from January 1, 2015, to December 31, 2017, via the NSE website. It also attempts to assess, through correlation analysis, how Gold ETFs relate to the Nifty 50 and Spot Price. It is discovered that there is a negative correlation between ETFs and Nifty50 and a positive correlation with the current price of gold.

12. Kunal Agarwal, Praveenkumar L Joshi, Khwaja Shahnawaz :

This article compares Equity Exchange Traded Funds (ETFs) to the NIFTY50 index return and examines the link between the three factors. First, the standard deviation To ascertain the volatility between the two, use 1) Beta and 2) Pearson's correlation coefficient. In order to provide individual investors with the highest possible returns, the ETF with the closest correlation to the index is sought after. It additionally aids in ascertaining whether the ETF has outperformed or underperformed the specified index during the research period. It is an all-inclusive attempt to identify an ETF that might provide retail investors with the highest returns in accordance with the movement of the NIFTY50 throughout the course of the period. The goal of the data analysis from year to year is to give investors a general idea and viewpoint on the arbitrage opportunities that are accessible to them.

13. Merlin K Joseph, Jency Francis (2019) :

A mutual fund (MF) is a trust that invests the money it receives from a number of investors who have similar financial objectives into asset classes that meet the scheme's declared investment objectives. A knowledgeable fund manager curates a successful blend of stocks, bonds, securities, and even real estate, assembling them into mutual funds. Mutual funds known as exchange-traded funds, or ETFs, are tradable on the stock market like any other stocks or shares. ETFs often follow an index. Because of their cheap fees, tax efficiency, and stock-like characteristics, exchange-traded funds (ETFs) may be a desirable investment option. Examining the developments and trends of ETFs in India is the main goal of this study. Additionally, it makes an effort to rank mutual funds according to their exceptional performance, compare the performance of different ETFs with the S&P CNX Nifty Index, and assess the performance of certain funds based on a variety of performance ratios (Sharpe, Treynor, Jensen's alpha, etc.).

14. V Krishna Mohan, KS Prasad :

An innovative product that combines the best features of both closed-ended and open-ended mutual funds, an exchange-traded fund (ETF) and index funds provide investors with a more liquid and flexible option. The performance evaluation of ETFs in comparison to Index Funds

in India is covered in the report. The study aims to assess the performance of specific index ETFs and index funds in India. It is based on secondary data and spans eight years, from 2008–09 to 2015–16. The following factors are used to assess performance: Net Asset Value, Risk, Return, Differential Return, and Reward to Variability. In addition to standard deviation, other statistical methods used in data analysis include beta, Treynor's Ratio, Sharpe Ratio, Jensen Alpha, and Fema. It is determined that, in comparison to index funds, exchange-traded funds (ETFs) have provided small investors with greater opportunities in terms of diversified portfolios with smaller investment amounts, positive alpha, and reduced risk and volatility. If enough knowledge is raised among stock market participants, exchange-traded funds (ETFs) have the potential to rank among the top investing options.

15. Harsh Purohit, Nidhi Malhotra :

Exchange-traded funds (ETFs) represent a noteworthy instance of financial innovation, offering investors the distinct advantages inherent to both mutual funds and regular corporate stocks. The necessity to investigate the effectiveness of ETF pricing, index monitoring, and performance is the driving force for this study. Three goals are the focus of the research: (i) do the exchange-traded funds (ETFs) accurately replicate the returns of the underlying benchmark? (ii) is there a pricing discrepancy between the trading price and NAV of the corresponding ETFs under investigation.

16. Sarika Jaiswal, Kawal Nain Singh (2022) :

Exchange-traded funds (ETFs) are gaining popularity as a passive investment option, according to long-term global investing patterns. The first exchange-traded fund (ETF) in India to track passive equity assets was Nifty Bees, founded in 2001. Here, we'll examine the Indian ETF market in more detail as well as important policy issues and next steps. To put things in perspective, the research, whenever feasible, makes qualitative and quantitative comparisons between the Indian and US ETF markets due to the maturity of the US market. That is the format of the paper. Following a brief overview of ETFs and their history in India, the report delves deeply into the market's structure and the identities of its main participants.

17. S. Kevin (2012) :

The effectiveness of trading in the securities market is a major concern for both regulators and investors. Market efficiency may be negatively impacted by innovations in the securities market environment. Two such developments in the securities sector are index futures and index exchange-traded funds. The underlying asset of both these products is the stock market index. Together, the three instruments make up a set of informationally related instruments that are traded continuously and concurrently in the securities market. The price behaviour of index futures, index ETFs, and stock market indexes in the Indian securities market is empirically analysed in this study. For the analysis, price data for the period from April 2011 to March 2012 was employed. Finding market inefficiencies or distortions is the analysis's goal.

18. Kumara R Naveen (2016) :

Since they offer advantages over mutual funds and other comparable investment options, exchange- traded funds, or ETFs, have grown in popularity as passive investment vehicles in a short amount of time. The purpose of this study is to examine the differences between Gold ETFs and Equity ETFs, two extremely well- linked ETF categories. These funds bear similarities. However, in order to select the best market instrument for our financial investments, we must be aware of the variations in their performance. the objective of our research project is to comprehend this distinction, as the popularity of any investment option is mostly determined by its performance.

19. Joity Tomer, Nisar Ahmad Khan (2014) :

This study used month-end NAVs (Net Asset Values) of 46 mutual fund schemes for the period from January 1, 2005 to December 30, 2010 to evaluate the performance of mutual funds in India using five performance measures: Treynor Ratio, Jensen's Differential Return Measure, Sharpe Ratio, Risk & Return Measure, and Sharpe Differential Return Message. The study's findings demonstrate that the performance of the sample mutual fund schemes in the public and private sectors was uneven. On practically every front, the private sector

programs have outperformed the public sector programs. Among the mutual funds in the private sector, HDFC, Birla Sun Life, and Kotak Mahindra have the best performance.

20. S Prachee Jain, Stella Mary (2018) :

In India, gold is regarded as one of the greatest investment opportunities and conventional investing strategies. Growing gold demand and the capital market boom over the past several years have led to an abundance of gold investment choices, including gold exchange-traded funds (ETFs) and gold futures in commodities. The objective of this article is to examine the performance of specific gold exchange-traded funds (ETFs) listed on the National Stock Exchange (NSE) in India, as well as to examine the fluctuations and risk patterns of these ETFs. The NSE website provided the data for this study over a three-year period, from January 1, 2015, to December 31, 2017. Additionally, it makes an attempt to assess how Gold ETFs relate to the Nifty 50 and Spot Price through correlation analysis. It is discovered that there is a negative correlation between ETFs and Nifty50 and a positive correlation with the current price of gold.

21. Madhavi Eswara (2015) :

Due to India's gold obsession, corporations and investors changed their perspective from one of purchasing and preserving gold to one of investing in returns, which resulted in a wide range of gold investment possibilities. The biggest problem for every investment option in the current flourishing capital market is minimizing risk and optimizing rewards. Mutual funds were unable to meet this challenge, leading to the evolution of exchange-traded funds (ETFs), a new option where the underlying asset was an index rather than a single asset. Large companies also introduced Gold ETFs, which were listed on the Indian stock exchange, as ETFs performed well at bourses. In regard to this, the current study uses regression and correlation approaches to examine the performance of gold exchange-traded funds (ETFs) during the last five years (the post-crash period) as well as to assess the relationship between ETFs and spot gold prices as well as the Nifty. GOLDSHARE and GOLDBEES are the two gold ETFs that show the strongest correlation with the spot gold price, out of the five that were chosen for the study. The analysis also reveals that there is an inverse association between gold exchange-traded funds (ETFs) and the Nifty, which implies that when the Nifty falls, gold ETFs do better. This is a rare phenomena that is primarily seen in India.

CHAPTER – 3

THEORETICAL FRAMEWORK

3.1 INTRODUCTION

An ETF, or Exchange- Traded Fund, is a type of investment fund that is traded on stock exchanges, much like stocks. It holds assets such as stocks, commodities, or bonds and generally operates with an arbitrage mechanism designed to keep its trading close to its net asset value, although deviations can occasionally occur. ETFs offer investors a way to gain exposure to a diversified portfolio of assets with the flexibility of trading them like individual stocks on the stock exchange. An exchange-traded fund (ETF) is a type of pooled investment security that operates much like a mutual fund. Typically, ETFs track or seek to outperform a particular index, sector, commodity, or other asset. ETFs differ from mutual funds in that orders are executed throughout a trading day, whereas mutual fund orders can only be executed after-market hours. This means that you can place a buy or sell order with your broker during trading hours, and it will execute it. A mutual fund order placed during the day will be executed after the market closes.

3.2 HISTORY OF ETF

The 1987 stock market crisis marks the beginning of exchange-traded fund history. Black Monday, or October 19, 1987, experienced a 500 billion asset loss when the Dow Jones Industrial Average fell 508 points. Retail investors suffered the worst losses in the crash, despite everyone losing money. It tells the tale of the consequences of a financial innovation that levelled the playing field for institutional investors. In addition to offering retail fund investors the flexibility to trade whenever they pleased, it also charged the same nominal costs that institutions were already paying for the purchase and sale of big stock baskets. The American Stock Exchange's (Amex) Senior Vice President for New Product Development, Nathan Most, saw this as an opportunity to in the event that an exchange did create a market-basket security, the SEC further said (Eric Balchunas, 2016). Following a battle with the SEC spanning three years, the American Stock Exchange (AMEX). Exchange Traded Fund have become one of the most popular investment vehicles for both institutional and individual investors. Financial assets like stocks, bonds, currencies, debts, futures contracts, and/or commodities like gold bars are owned by exchange-traded funds (ETFs). Often promoted as cheaper and better than mutual funds, ETFs offer low-cost diversification, trading, and arbitrage options for investors. Now with ETFs regularly boasting billions of dollars in asset under management, new ETF launches number from several dozen to hundreds in any

particular year. An ETF splits up its ownership into shares that investors own. An ETF may be organised as a corporation, trust, open-end managed investment company, or unit investment trust, depending on the nation. ETFs are so popular that many brokerages offer their customers free trading in a limited number of ETFs.

- Exchange traded funds, or ETFs, were first developed in the 1990s as a way to provide access to passive, indexed funds to individual investors.
- Since their inception, the ETF market has grown enormously and are now used by all types of investor and trader around the world.
- ETFs now represent everything from broad market indices to niche sectors or alternative asset classes.

3.3 HISTORY OF ETF IN INDIA

The Exchange traded funds (ETFs) began their journey in India way back in 2002, when the first ETF by Nippon India Mutual fund (erstwhile Benchmark Asset Management Company Ltd) was launched in India. It tracked the Nifty 50 Index and was listed on the NSE. The ETF was listed on NSE on January 8, 2002 and day one witnessed trading of Rs. 1.30 crores on NSE.

At the time, Nifty BeES was a ground-breaking option since it allowed investors to maintain a diversified portfolio and have exposure to the entire index with just one effort, all without the need for an active fund management. Then, in 2004, Benchmark Mutual Fund introduced Liquid BeES, the first debt ETF. This fixed income fund catered to the demands of conservative investors by providing them with access to the money market. Not long after, in 2007, the AMC unveiled Gold BeEs, the first gold ETF. Between 2008 and 2013, Gold ETFs had a sharp increase in popularity. The 2008 global credit crisis caused people to seek out gold and safer havens. In actuality, gold funds held more than half of all ETF assets from 2009 to 2014.

But the first significant boost to ETFs came shortly after the 2013 budget included a recognition of ETFs as an asset class suitable for pension funds. The securities transaction taxes were also reduced to provide mutual funds and exchange-traded funds (ETFs) with an even playing field. In addition to raising awareness of ETFs, the government's 2014 efforts to reduce its stake in public sector companies through the ETF route also paved the ground for

the establishment of the CPSE. In 2014, the government's endeavours to remove its stake in public sector companies through the use of exchange-traded funds (ETFs) resulted in the dissemination of knowledge regarding ETFs and the introduction of the CPSE ETF (Central Public Sector Enterprise Exchange Traded Fund). This helped the government raise the disinvestment earnings to the tune of Rs 3000 crores. Furthermore, the NSE stated in a 2019 study that "low fund management fees of ETFs, growing awareness about ETFs, and large-cap active funds struggling to outperform large-cap indices-based ETFs are few other key factors which have helped the growth of ETFs in India".

3.4 TYPES OF ETF

1.Bond ETFs:

Bond ETFs are used to provide regular income to investors. Their income distribution depends on the performance of underlying bonds. They might include government bonds, corporate bonds, and state and local bonds called municipal bonds. Investing in bonds is a good way to mitigate the ups and downs of investing and diversifying a portfolio.

2.Commodity ETFs:

As their name indicates, commodity ETFs invest in commodities, including crude oil or gold. Commodity ETFs provide several benefits.

First, they diversify a portfolio, making it easier to hedge downturns.

3.Gold ETFs:

Such securities offer investors the path to hold claims in the bullion market without making it necessary to purchase physical gold. You could also purchase ETFs that focus on precious metals in general.

4. Index ETFs:

Index funds track the performance of their underlying index. They are further subdivided into replication and representative ETFs. Index funds that invest entirely in the securities underlying the index are called replication.

5.Liquid ETFs:

These funds try to minimize price risks and enhance returns by investing in a basket of short-term government securities, such as money and money market instruments with short maturities, while simultaneously attempting to maintain liquidity.

6.Inverse ETFs:

Inverse ETFs attempt to earn gains from stock declines by shorting stocks. Shorting is selling a stock, expecting a decline in value, and repurchasing it at a lower price. Such funds are designed to return the opposite of what is offered by the underlying market index. With these funds, share prices move in the opposite direction of the inverse ETFs' share.

7.Currency ETFs:

Currency ETFs are pooled investment vehicles that track the performance of currency pairs, consisting of domestic and foreign currencies Currency ETFs serve multiple purposes. They can be used to speculate on the prices of currencies based on political and economic developments for a country. They are also used to diversify a portfolio or as a hedge against volatility in forex markets by importers and exporters.

3.5 USES OF ETF's

Investors that require specialised exposure to a particular sector, asset class, geographic area, or currency at an affordable price may find ETFs to be quite helpful. Such investors are relieved of the burden of conducting industry research. Additionally, because of their minimal operating costs, 'buy & hold' investors can use them as long-term holdings. They are helpful to people anticipating the asset allocation method to investing as well. There are exchange-traded funds that concentrate on specific asset classes and have very low correlation coefficients with the other investments in your portfolio. This should reduce the volatility of your portfolio. One of the financial instruments with the fastest historical growth is ETFs. You can make up your mind and choose whether exchange-traded funds in India make sense for your portfolio now that you are knowledgeable about their fundamentals. A marketable security called an exchange traded fund, or ETF, monitors an index, a commodity, bonds, or a portfolio of assets similar to an index fund.

3.6 THEORIES FOR ANALYSING ETF PERFORMANCE

1.Market Efficiency Theory:

According to this theory, it is difficult to continuously outperform the market through active management as market prices represent all available information. According to this hypothesis, ETFs that mimic an index and are passively managed can capture market returns just as well as actively managed ones, sometimes at a lower cost.

2.Modern Portfolio Theory:

This theory highlights the significance of risk-adjusted returns and diversification. This theory can be used to examine how ETFs perform by taking into account how exposed they are to various asset classes and risk factors including size, value, and momentum. This enables investors to evaluate the risk-return characteristics of various ETFs and select those that complement their investing objectives and risk tolerance.

3.Efficient Market Hypothesis:

According to this hypothesis, security prices take into account all available information, making it challenging to regularly beat the market. There are three variations of EMH: weak, semi-strong, and powerful. Efficient market hypothesis analysis (EMH) can be used to determine whether Nifty 50 ETFs or the underlying index they monitor have pricing inefficiencies.

4. Factor Investing:

According to this concept, long-term asset returns can be influenced by a number of variables, including market capitalization, value, momentum, and quality. Certain elements may be the focus of some Nifty 50 ETFs. Analysing how well an ETF represents the returns of a particular component is made easier using factor investing.

5. Liquidity Risk Premium Theory:

According to this theory, investors expect a higher rate of return in exchange for owning fewer liquid assets. In an attempt to make up for their decreased tradability, less liquid ETFs may have a higher expense ratio.

3.7 ETF PERFORMANCE ANALYSIS MODELS

1. Traditional Performance Metrics:

1. Total Returns: Measures overall gain including price appreciation and reinvested dividends.

2. Annualized returns: Calculate annual return per year over a specific period.

3. Standard deviation: It indicates historical return volatility.

2. Risk-adjusted Performance Measures:

1.Sharpe Ratio: By dividing the ETF's return over the risk-free rate by its standard deviation, this measure excess returns relative to risk (volatility).

2.Sortino Ratio: This measure is comparable to the Sharpe Ratio, but it only penalizes downside volatility. Its purpose is to improve the risk-adjusted return picture for assets that have the potential to yield negative returns.

3.Treynor Ratio: By dividing the ETF's return over the risk-free rate by its beta coefficient, this ratio calculates the excess return per unit of systematic risk(beta).

3. Advanced Performance Analysis Models:

1. Performance Attribution Models: Break down the ETF's return into various sources like asset allocation, sector exposure, security selection and market movements.

2. Fama-French Three-Factor Model:

This model expands upon CAPM by incorporating size and value as two more components. It makes it possible to comprehend the ETF's return sources in more detail than merely market risk.

3.Carhart Four-Factor Model:

By adding a momentum factor, this model improves upon the Fama-French model and offers a more thorough examination of probable factors influencing the performance of the ETF.

4. Data Envelopment Analysis (DEA):

This method evaluates the comparative effectiveness of DMUs, such as exchange-traded funds (ETFs). It evaluates an ETF's performance in relation to its peers by taking into account a variety of inputs and outputs, such as return and expense ratio. This makes it easier to find ETFs that may be inefficient and underperforming in comparison to other funds with comparable risk profiles.

5. Benchmarking and Tracking Error Models:

Benchmarking assesses how an ETF performs in relation to its underlying index, such as the Nifty 50. The tracking error quantifies the difference between the return of the index and the ETF. Examining these factors aids in determining how closely an ETF resembles the intended benchmark.

6. Capital Asset Pricing Model (CAPM):

This model uses the asset's beta and the market risk premium to calculate the expected return. It assists in determining the proportion of the ETF's return that is due to market risk.

CHAPTER – 4

COMPANY PROFILE

4.1 INTRODUCTION

Exchange-traded funds (ETFs) have gained significant popularity in the recent years as an investment vehicle. These hybrid investment products combine the features of mutual funds with the trading features of common stocks, offering investors a unique blend of diversification, liquidity and transparency. Understanding the product profile of ETFs is crucial for both individual inveators and institutional players. In this chapter, we delve into the details of selected ETFs, analyzing their key features, investment objectives and underlying assets.

4.2 List OF ETF's Under Study:

1. Quantum Nifty 50 ETF
2. Kotak Nifty 50 ETF
3. ICICI Prudential Nifty 50 ETF
4. Nippon India ETF Nifty 50 BeES
5. HDFC Nifty 50 ETF

1. Quantum Nifty 50 ETF [QNIFTY]:

The Quantum Nifty 50 ETF is an exchange traded fund launched by Quantum Mutual Fund in India on 10th July 2008. This ETF is a replica of Nifty 50 index and the stocks which are listed in Nifty 50 is also the part of QNF's portfolio in the same proportion and weightage. This ETF also has additional benchmark index which is S&P BSE Sensex -TRI. This product is mainly suitable for investors who are seeking long term capital appreciation and investment in equity and equity related securities in Nifty 50 index.

Key Highlights:

- The current NAV of this ETF as of February 27,2024 is Rs. 2376.44
- Returns: 1 year: 15.32%
  5years: 11.84%
  Since inception: 12.86%
- This ETF holds asset under management worth of Rs. 55.09 Crores as of Jan 31,2024.
- The expense ratio of this fund is 0.06%.

- The minimum investment required is Rs. 500 and minimum additional investment is Rs. 500.

2. Kotak Nifty 50 ETF [KOTAKNIFTY]:

The Kotak Nifty 50 ETF is an exchange traded fund offered by Kotak Mahindra Mutual Fund. This ETF is launched on 2nd February 2010. It is traded in National Stock Exchange and Bombay stock exchange and it reflects the evolution of Nifty 50 Index. This product is suitable for investors seeking long term growth and investment in stocks of underlying index and endeavours the benchmark index, subject to tracking errors.

Key Highlights:

- The current NAV of Kotak Nifty 50 ETF as of February 23,2024 is Rs. 237. 63 for regular plan.
- Returns: 1 year: 10.55%
  3 years: 15.37%
  Since inception: 12.41%
- This ETF current holds asset under management worth of Rs. 2144.66 crores as on Jan 31,2024.
- The expense ratio of the fund is 0.04% for regular plan as on Feb 7,2024.
- The minimum investment required is Rs.5000

3. ICICI Prudential Nifty 50 ETF [NIFTYIETF]:

The ICICI Prudential Nifty ETF is an exchange traded fund offered by ICICI Prudential Mutual Fund that tracks the Nifty 50 index. It was launched on March 2013. ICICINIFTY offers liquidity as it can be bought and sold on the stock exchange during trading hours at market prices. Its objective is to provide returns that closely correspond to the total returns of the Nifty 50 index. It aims to provide returns that closely correspond to the total return of the Nifty 50 index, subject to tracking errors.

Key Highlights

- The current NAV of this ETF as of February 23,2024 is Rs. 244.4416 for regular plan
- Returns: 1 year: 14.26%

3 years: 17.46%

5 years: 15.66%

- This ETF holds asset under management worth of Rs. 11525.99 crores as of Jan 31,2024.
- The expense ratio of this ETF is 0.03% as of Jan 31,2024.
- The minimum investment required is Rs.5000

4. Nippon India ETF Nifty 50 BeES [NIFTYBEES]

The Nippon India ETF Nifty 50 BeES is an exchange traded fund launched on December 28,2001. It was introduced by Benchmark Asset Management and became the very first exchange-traded fund launched in India. This type of fund is being listed and traded on the stock exchange, NIFTYBEES offers liquidity to investors, allowing them to enter or exit their positions easily during market hours. Nippon India ETF Nifty 50 BeES, is an Exchange Traded Fund (ETF) in India that tracks the S&P CNX Nifty India index. It trades actively on the National Stock Exchange (NSE)and Bombay stock exchange (BSE), ensuring easy buying and selling.

Key Highlights:

- The current NAV of this ETF as of February 23,2024 is Rs. 245.762 for regular plan.
- Returns: 1 year: 13.85%

  3 years: 17.45%

  5 years: 15.67%
- This ETF holds asset under management worth of Rs. 20317 crores as of Jan 31,2024.
- The expense ratio of this ETF is 0.04% as of February 16,2024.
- The minimum investment required is Rs. 10000 and minimum additional investment is Rs. 1000.

5. HDFC NIFTY 50 ETF [HDFCNIFTY]:

An exchange traded fund that tracks the Nifty 50 index and Nifty 100 index. The fund type of HDFC NIFTY 50 is exchange traded fund and fund type of HDFCNIFTY 100 is mutual fund. It provides exposure to 100 large and mid- cap Indian companies across13 sectors. It is

generally cheaper than investing in individual stocks. HDFCNIFTY, or HDFC Nifty 50 ETF, is an exchange- traded fund (ETF) offered by HDFC Mutual Fund in India. It was launched on December 9, India. The objective of HDFCNIFTY is to provide investors with an investment option that mirrors the performance of the Indian stock market, with the benefits of diversification and liquidity that ETFs offer.

Key Highlights:

- The current NAV of this ETF as of February 23,2024 is Rs. 243.19 for regular plan.
- Returns: 1 year: 11.19%
  3 year: 10.42%
  5 year: 12.58%
- This ETF holds asset under management worth of Rs. 3154.746 crores as of Jan 31,2024.
- The expense ratio of this ETF is 0.05 % as of February 16,2024.
- The minimum investment required is Rs. 5000.

CHAPTER – 5

DATA ANALYSIS AND INTERPRETATION

5.1 INTRODUCTION

Exchange-Traded Funds (ETFs) have emerged as a popular investment choice for both individual and institutional investors. These funds provide diversification, liquidity, and transparency, making them an attractive option in today's financial markets. In this chapter, we delve into the analysis and interpretation of key aspects related to selected ETFs.

The primary objective of this chapter is to dissect the product profile of specific ETFs, shedding light on their underlying characteristics, performance metrics, and suitability for various investment strategies. By examining these factors, investors can make informed decisions when incorporating ETFs into their portfolios.

5.2 ASSET ALLOCATION:

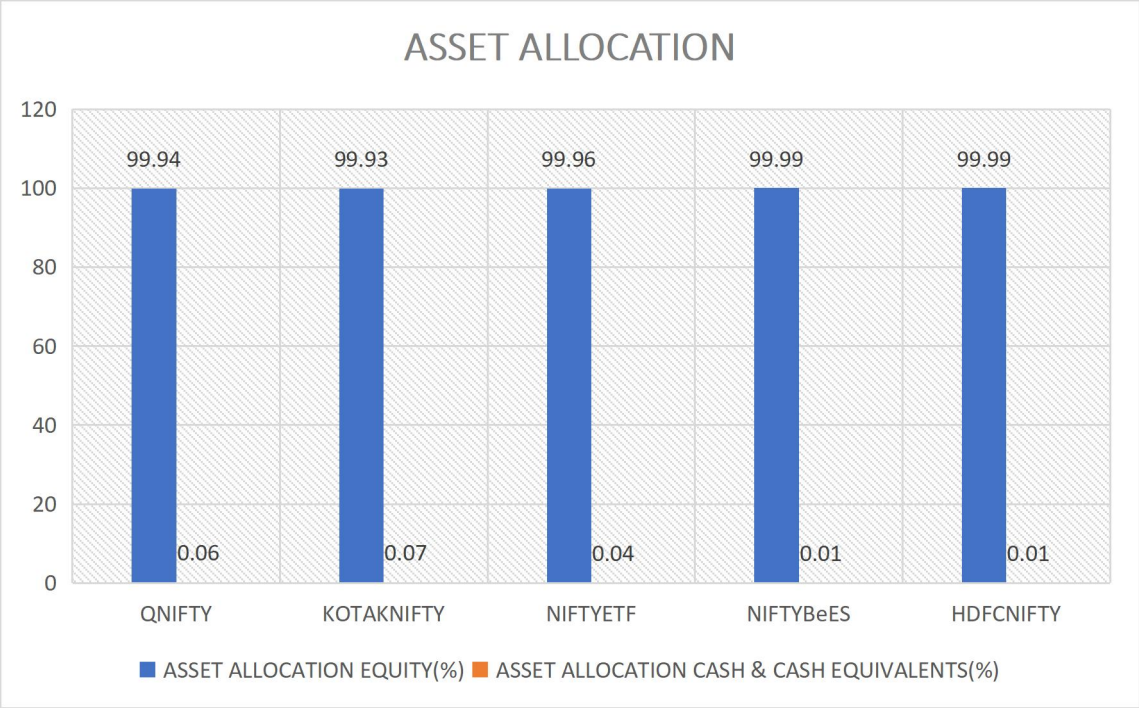
Table 5.1

Asset allocations of the selected Nifty 50 ETFs

ETF	ASSET ALLOCATION	
	Equity (%)	Cash & cash Equivalents (%)
QUANTUM NIFTY 50 ETF	99.94	0.06
KOTAK NIFTY 50 ETF	99.93	0.07
ICICI PRUDENTIAL NIFTY 50 ETF	99.96	0.04
NIPPON INDIA ETF NIFTY 50 BeES	99.99	0.01
HDFC NIFTY 50 ETF	99.99	0.01

Figure 5.1

Asset allocations of the selected Nifty 50 ETFs



INFERENCE:

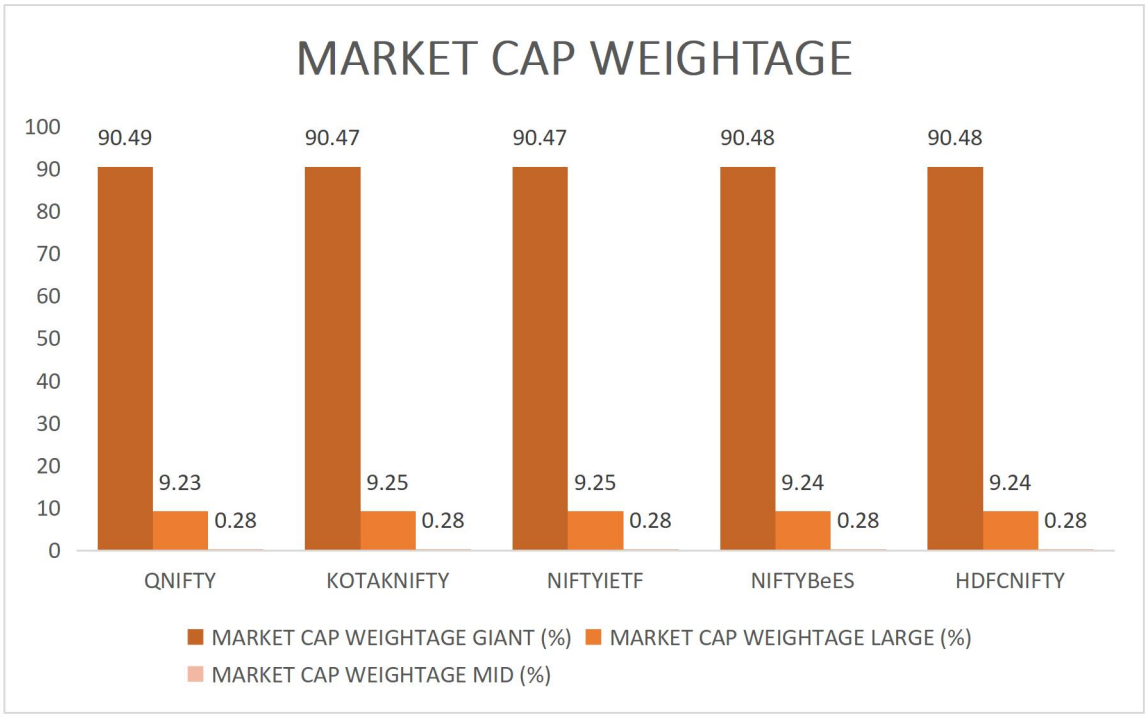
All the selected Nifty 50 ETFs are classified as highly equity- focused, with the allocations ranging from 99.93% to 99.99% in equities. This indicates that these ETF's primarily aims to track the performance of Nifty 50 index, which itself is an equity benchmark by investing in the same underlying companies. The minimal allocation of 0.01% to 0.07% represent the ETF's holdings in cash & cash equivalents. Quantum Nifty 50 ETF (0.06%) and Kotak Nifty 50 ETF (0.07%) holds slightly higher cash allocations compared to others. This could offer minor liquidity and used for covering operating expenses. ICICI Prudential Nifty 50 ETF (0.04%), Nippon India ETF Nifty 50 BeES (0.01%) and HDFC Nifty ETF (0.01%) have lower cash allocations while comparing with other two ETF's. It indicates a stronger focus on pure equity exposure.

5.3 MARKET CAP WEIGHTAGE:

Table 5.2
Market Cap Weightage of the selected ETFs

ETF	MARKET CAP WEIGHTAGE		
	GIANT (%)	LARGE (%)	MID (%)
QUANTUM NIFTY 50 ETF	90.49	9.23	0.28
KOTAK NIFTY 50 ETF	90.47	9.25	0.28
ICICI PRUDENTIAL NIFTY 50 ETF	90.47	9.25	0.28
NIPPON INDIA ETF NIFTY 50 BeES	90.48	9.24	0.28
HDFC NIFTY 50 ETF	90.48	9.24	0.28

Figure 5.2
Market Cap Weightage of the selected ETFs



INFERENCE:

The market cap weightage data indicates that all the selected Nifty 50 ETFs have very similar allocation across market capitalization. They primarily invest in giant-cap companies ranging from 90.47% to 90.49%. These are largest and most established companies whose market capitalization exceeds Rs.20000 crores and they offer lower volatility and potential growth compared to smaller companies. These ETF's also have invested in large- cap companies around 9.25% and they are well established companies whose market capitalization is between Rs 10000 crores and Rs.20000 crores. These companies offer a balance between potential growth and stability. All these ETF's have minimal allocation to mid-cap companies around 9.28%. These are medium sized companies with market capitalization between Rs.5000 crores and Rs.10000 crores and they offer higher growth potential and higher vitality. This reinforces that these Nifty 50 ETF's are primarily focused on large-cap stocks, mirroring the composition of Nifty 50 index.

5.4 AVERAGE MARKET CAPITALIZATION:

Table 5.3
Average Market Capitalisation of the selected ETFs

ETF	AVERAGE MARKET CAPITAILISATION
QUANTUM NIFTY 50 ETF	500686 CR
KOTAK NIFTY 50 ETF	500431 CR
ICICI PRUDENTIAL NIFTY 50 ETF	500292 CR
NIPPON INDIA ETF NIFTY 50 BeES	500490 CR
HDFC NIFTY 50 ETF	500490 CR

INFERENCE:

The average market capitalization of the selected Nifty 50 ETFs is very close, ranging from Rs.500292 crores to Rs.500686 crores. This indicates that all these ETF's invest in companies of similar sizes, closely mirroring the composition of Nifty 50 index. Since Nifty 50 Index is a large-cap focused benchmark, such companies generally considered to be less volatile. The slight variation in average market capitalization is due to minor differences in tracking error and individual stock weightage within the ETF.

5.5 SECTOR ALLOCATION:

Table 5.4
Sector Allocation of the selected ETFs

SECTOR	NIFTY 50 INDEX	QNIFTY	KOTAK NIFTY	NIFTY IETF	NIFTY BeES	HDFC NIFTY
Financials	33	31.69	31.69	31.69	31.7	31.7
Energy	12.67	14.53	14.51	14.53	14.53	14.53
Technology	14.18	14.19	14.18	14.17	14.19	14.19
Consumer staples	8.78	8.76	8.77	8.77	8.78	8.78
Automobile	6.71	6.71	6.7	6.71	6.71	6.71
Materials	2.08	4.44	4.45	4.46	4.45	4.45
Construction	4.33	4.33	4.33	4.33	4.33	4.33
Health care	4.31	4.3	4.3	4.31	4.3	4.3

Communication	3.12	3.12	3.12	3.12	3.12	3.12
Metals & mining	3.75	2.87	2.88	2.88	2.88	2.88
Services	0.98	1.8	1.8	1.8	1.8	1.8
Consumer discretionary	3.03	1.62	1.62	1.62	1.62	1.62
Insurance	2.83	1.3	1.3	1.3	1.3	1.3
Chemicals	0.28	0.28	0.28	0.28	0.28	0.28

INFERENCE:

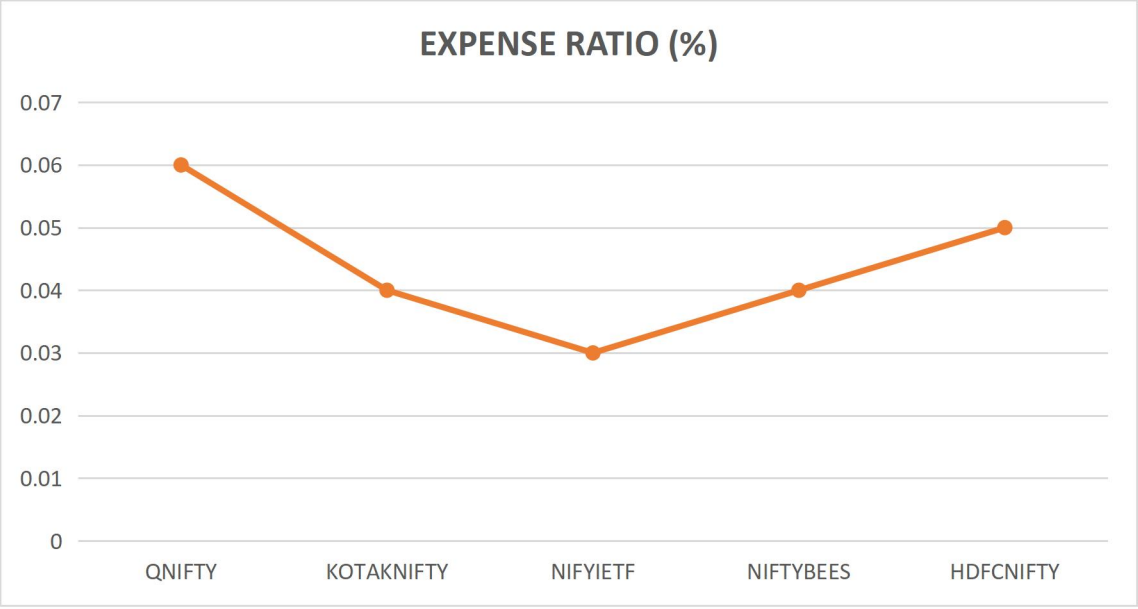
The financial sector holds the highest weightage across all the selected ETFs ranging from 31.69% to 31.7%. This indicates a significant focus on financial sector within these investment options. Following financials, Technology and Energy are the next most prominent sectors, each with a weight of around 14% in most of the ETFs. This highlights their importance in Indian stock market. Consumer staples and Automobiles sector holds a consistent weight of around 8%and 6.7% across all the options. This suggests a balanced representation of these sectors. The remaining sectors have lower weights ranging from 0.28% to 4.46% and this indicates a smaller contribution from these sectors to the overall portfolio. This comparison reveals the dominance of Financials, Technology and Energy sectors across Nifty 50 Index and the listed ETFs. All the selected ETFs exhibit minimal variations in their sector composition which indicates that they closely track the Nifty 50 index.

5.6 EXPENSE RATIOS:

Table 5.5
Expense Ratio of the selected ETFs

ETF	EXPENSE RATIO
QUANTUM NIFTY 50 ETF	0.06%
KOTAK NIFTY 50 ETF	0.04%
ICICI PRUDENTIAL NIFTY 50 ETF	0.03%
NIPPON INDIA ETF NIFTY 50 BeES	0.04%
HDFC NIFTY 50 ETF	0.05%

Figure 5.3
Expense Ratio of the selected ETFs



INFERENCE:

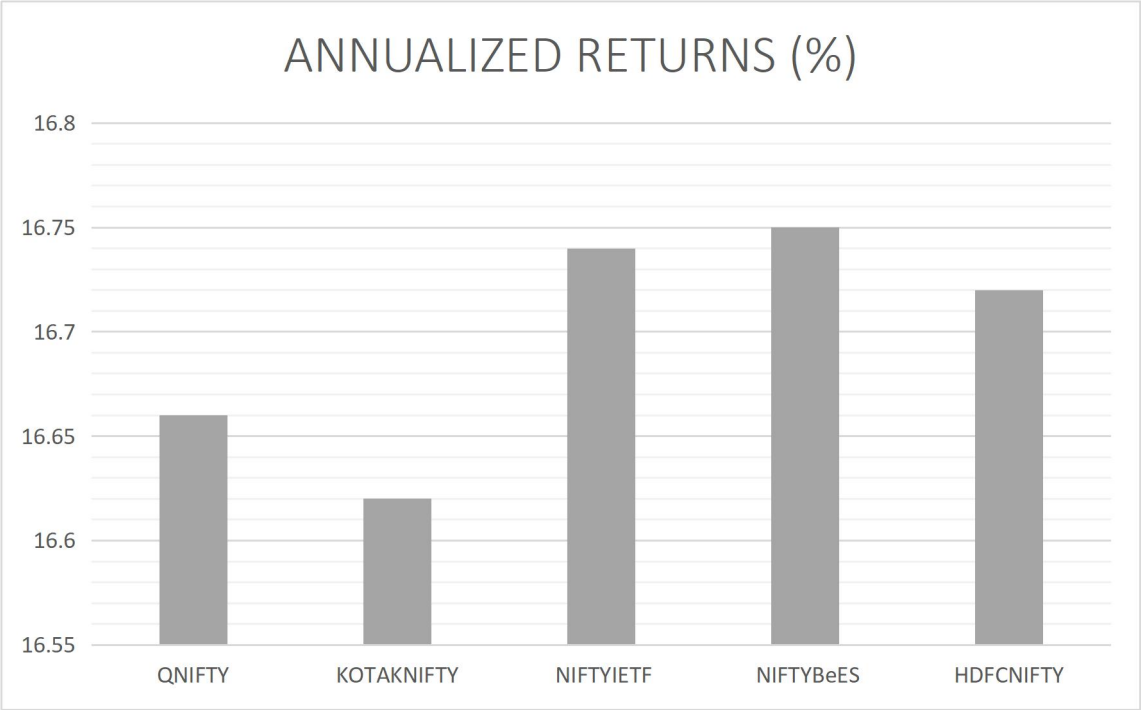
Among the selected ETF's ICICI Prudential Nifty 50 ETF has the lowest expense ratio of 0.03%, making it as a cost-effective option in this group. This means that a larger portion of the ETFs return will be retained by investors which leads to higher long-term return while compared to ETF's having higher expense ratio. Nippon India ETF Nifty 50 BeES and Kotak Nifty 50 ETF also have a low expense ratio of 0.04%. These ETFs are able to offer a good balance between cost effectiveness and potential returns. Quantum Nifty 50 ETF (0.06%) and HDFC Nifty 50 ETF (0.05%) have slightly higher expense ratio. While considering other actively managed funds their expense ratio is low. But among the selected ETFs these two funds have the highest expense ratio.

5.7 ANNUALIZED RETURNS:

Table 5.6
5 years Annualised Returns of the selected ETFs

ETF	ANNUALIZED RETURNS 5 years (%)
QUANTUM NIFTY 50 ETF	16.66
KOTAK NIFTY 50 ETF	16.62
ICICI PRUDENTIAL NIFTY 50 ETF	16.74
NIPPON INDIA ETF NIFTY 50 BeES	16.75
HDFC NIFTY 50 ETF	16.72

Figure 5.4
5 years Annualised Returns of the selected ETFs



INFERENCE:

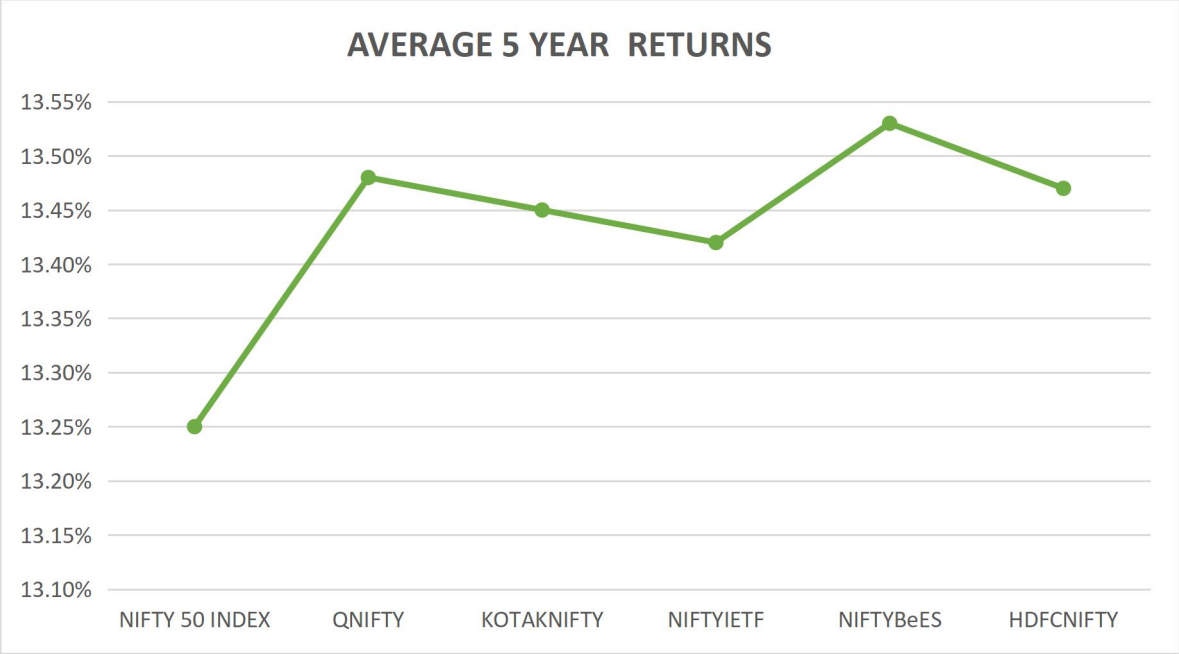
The annualized returns of the selected ETF's over the past five years are very close ranging from 16.62% to 16.75%. Nippon India ETF Nifty BeES delivered the highest annualized returns of 16.75% while Kotak Nifty 50 ETF had the lowest annualized returns of 16.62%. The remaining Quantum Nifty ETF, ICICI Prudential Nifty ETF and HDFC Nifty ETF fall within a narrow range of 16.66% to 16.74%. This indicates that all the selected ETF's were performing similarly and closely tracking the performance of Nifty 50 index.

5.8 AVERAGE 5 YEAR RETURNS:

Table 5.7
Average 5 years Returns of the selected ETFs

ETF	AVERAGE 5 YEAR RETURNS
NIFTY 50 INDEX	13.25%
QUANTUM NIFTY 50 ETF	13.48%
KOTAK NIFTY 50 ETF	13.45%
ICICI PRUDENTIAL NIFTY 50 ETF	13.42%
NIPPON INDIA ETF NIFTY 50 BEES	13.53%
HDFC NIFTY 50 ETF	13.47%

Figure 5.5
Average 5 years Returns of the selected ETFs



INFERENCE:

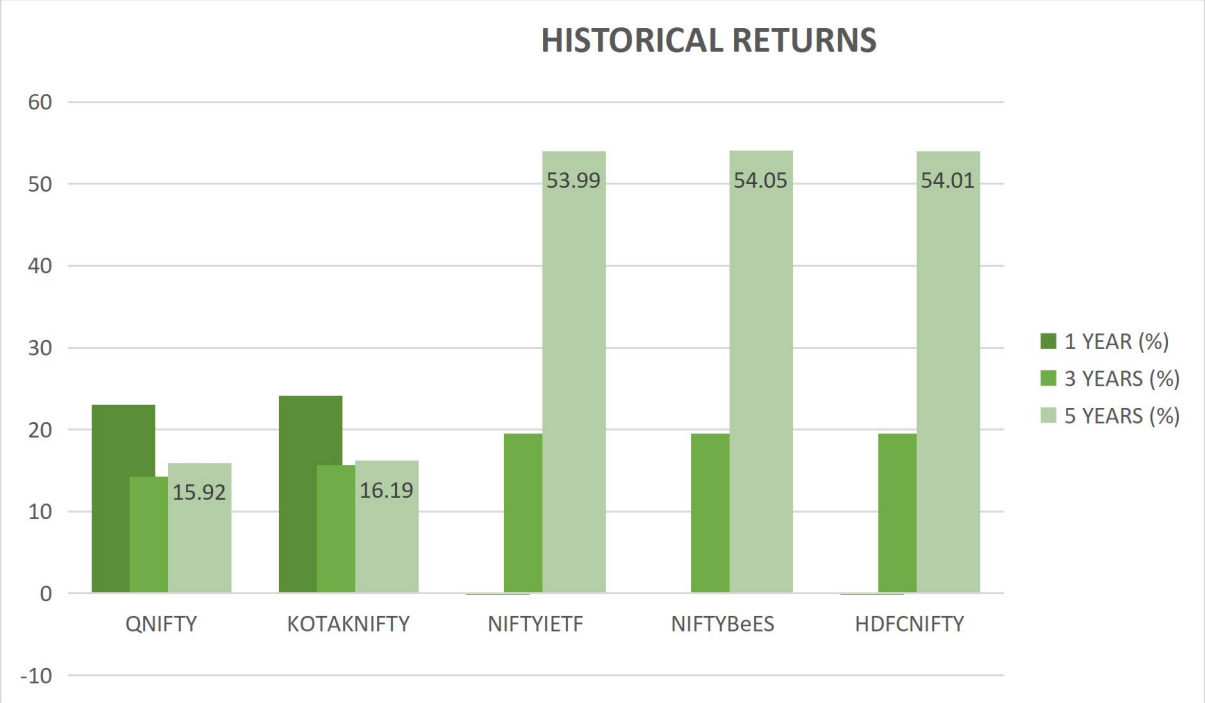
All the listed ETFs have delivered slightly higher returns ranging from 13.42% to 13.53% compared to Nifty 50 index (13.25%) over the past years. The difference in returns is only marginal ranging from 0.18% to 0.28%. This indicates that all the ETFs were able to slightly outperform the boarder market represented by Nifty 50 index over the past five years. Among the listed ETFs, Nippon India ETF Nifty 50 BeES delivered highest average 5-year return of 13.53% and this indicates that it outperformed both Nifty 50 index and other listed ETFs by small margin.

5.9 HISTORICAL RETURNS:

Table 5.8
Historical Returns of the selected ETFs

ETF	1 YEAR (%)	3 YEARS (%)	5 YEARS (%)
QUANTUM NIFTY 50 ETF	23.04	14.24	15.92
KOTAK NIFTY 50 ETF	24.10	15.65	16.19
ICICI PRUDENTIAL NIFTY 50 ETF	-0.15	19.49	53.99
NIPPON INDIA ETF NIFTY 50 BeES	-0.10	19.54	54.05
HDFC NIFTY 50 ETF	-0.14	19.50	54.01

Figure 5.6
Historical Returns of the selected ETFs



INFERENCE:

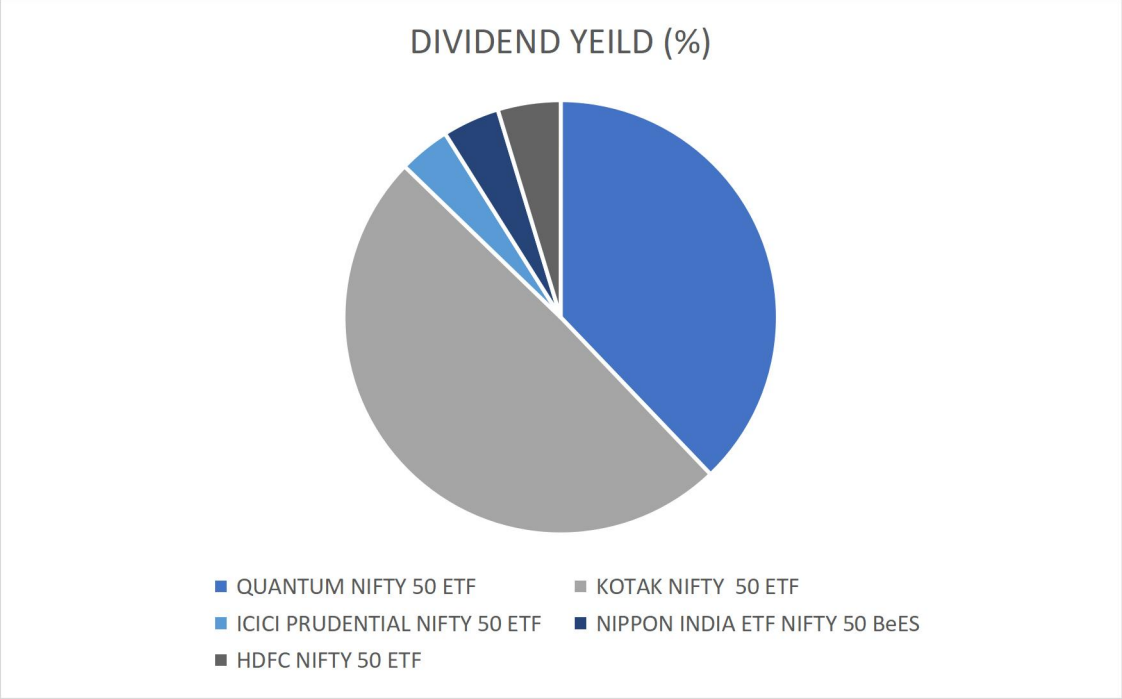
All the selected ETFs except Quantum Nifty 50 ETF have a negative result in all the timeframes. This indicates that it has underperformed compared to other ETFs. Kotak Nifty 50 ETF consistently outperformed Quantum Nifty 50 ETF in all timeframes so it will be a good option for investors seeking higher returns within this specific group. ICICI Prudential Nifty 50 ETF, Nippon India ETF Nifty 50 BeES and HDFC Nifty 50 ETF displayed highest long-term returns exceeding 50% over 5 years and 19% over 3 years.

5.10 DIVIDEND YIELD:

Table 5.9
Historical Returns of the selected ETFs

ETF	DIVIDEND YEILD
QUANTUM NIFTY 50 ETF	0.89 %
KOTAK NIFTY 50 ETF	1.16 %
ICICI PRUDENTIAL NIFTY 50 ETF	0.09 %
NIPPON INDIA ETF NIFTY 50 BeES	0.10 %
HDFC NIFTY 50 ETF	0.11 %

Figure 5.7
Historical Returns of the selected ETFs



INFERENCE:

Kotak nifty 50 ETF (1.16%) offers highest dividend yield among the selected Nifty 50 ETFs, making it as an attractive option for income seeking investors. On the other hand, ICICI Prudential Nifty 50 ETF and Nippon India ETF Nifty 50 BeES has the lowest dividend yield of 0.09% and 0.10% respectively. This suggests that these ETF's prioritize capital appreciation over dividend pay-outs. Investors seeking higher income finds it less attractive. Quantum Nifty 50 ETF (0.89%) and HDFC Nifty 50 ETF (0.11%) falls in the middle range in terms of dividend yield. They offer some level of income generation while also focusing on capital appreciation.

5.11 LIQUIDITY RISK ASSESSMENT:

Table 5.10
Historical Returns of the selected ETFs

ETF	AVERAGE DAILY TRADING VOLUME (LAST 3 MONTHS)	LIQUIDITY RISK ASSESSMENT
QUANTUM NIFTY 50 ETF	6.29Cr	MEDIUM – LOW
KOTAK NIFTY 50 ETF	13.74Cr	MEDIUM
ICICI PRUDENTIAL NIFTY 50 ETF	50Cr	MODERATE
NIPPON INDIA ETF NIFTY 50 BeES	300Cr	HIGH
HDFC NIFTY 50 ETF	150Cr	HIGH

INFERENCE:

Nippon India Nifty 50 ETF and HDFC Nifty 50 ETF have high liquidity risk, because they have the highest average trading volume compared to other options, it indicates that it is less easy to buy or sell them quickly at a fair price. Quantum Nifty 50 ETF and Kotak Nifty 50 ETF have the lowest average daily trading volume among other options, but its liquidity risk is considered to be medium – low. This suggests that they might still be relatively easy to buy and sell without difficulty. ICICI Prudential Nifty 50 ETF is having moderate liquidity risk and this suggests that it is less easy to buy or sell than the ETFs with lower liquidity risk but still easier to buy or sell than those with high liquidity risk.

5.12 ASSET UNDER MANAGEMENT:

Table 5.11
Asset under management of the selected ETFs

ETF	ASSET UNDER MANAGEMENT
QUANTUM NIFTY 50 ETF	55.09 Cr
KOTAK NIFTY 50 ETF	2144.66 Cr
ICICI PRUDENTIAL NIFTY 50 ETF	11526 Cr
NIPPON INDIA ETF NIFTY 50 BeES	19300.8Cr
HDFC NIFTY 50 ETF	3080.16 Cr

INFERENCE:

Nippon India ETF Nifty 50 BeES has the highest AUM of Rs. 19300.8 crores, it holds the most significant amount of investor money among the selected ETFs. This suggests that it is a well-established and popular choice for investors seeking exposure to Nifty 50 index. ICICI Prudential Nifty 50 ETF comes in second with AUM of Rs 11526 crores and it also indicates

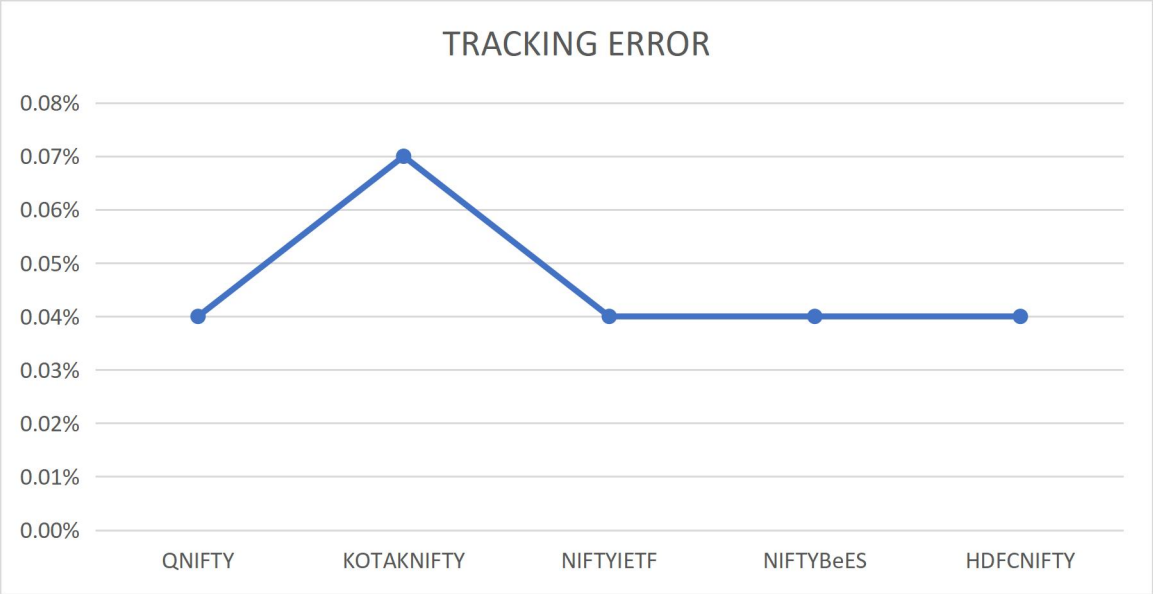
substantial investors interest. Kotak Nifty 50 ETF and HDFC Nifty 50 ETF has moderate AUM with respective values of Rs. 2144.66 crores and Rs. 3080.16 crores they attract a moderate amount of investor funds compare to other funds. Quantum Nifty 50 ETF has the lowest AUM of Rs. 55.09 crores and it suggests that it is relatively a small ETF in terms of money invested by investors .

5.13 TRACKING ERROR:

Table 5.12
Tracking Error of the selected ETFs

ETF	TRACKING ERROR
QUANTUM NIFTY 50 ETF	0.04%
KOTAK NIFTY 50 ETF	0.07%
ICICI PRUDENTIAL NIFTY 50 ETF	0.04 %
NIPPON INDIA ETF NIFTY 50 BeES	0.04 %
HDFC NIFTY 50 ETF	0.04 %

Figure 5.8
Tracking Error of the selected ETFs



INFERENCE:

Quantum Nifty 50 ETF, ICICI Prudential Nifty 50 ETF, Nippon India ETF Nifty 50 BeES and HDFC Nifty 50 ETF have the lowest tracking error of 0.04%. It indicates that these ETFs performance is very close to Nifty 50 index performance. Kotak Nifty 50 ETF has a tracking error of 0.07% which is higher than lowest performers, but it is still low. Overall, all the selected ETFs have relatively low tracking errors, which indicates that they closely track Nifty 50 index.

CHAPTER – 6

FINDINGS, SUGGESTIONS AND CONCLUSION

6.1 INTRODUCTION

The Exchange -Traded Fund (ETF) landscape has witnessed remarkable growth and evolution in recent years, emerging as a popular investment vehicle for both individual and institutional investors. This project aims to explore the dynamics, structures and implications of ETFs within the contemporary financial markets. By delving into the intricacies of ETFs, we seek to unravel the underlying mechanisms driving their popularity, understand their diverse applications, and assess their impact on investment strategies and portfolio management. Through comprehensive analysis and examination, we have gained a deeper understanding of the key factors influencing ETF dynamics, including market trends, regulatory frameworks, and investor behaviour. As ETFs continue to play a pivotal role in modern investment portfolios, it becomes increasingly imperative for investors and financial professionals to grasp implications.

6.2 FINDINGS:

- All the listed ETF are highly equity- focused its allocations ranging from 99. 93% to 99.99%.
- Among these listed ETF the QUANTUM NIFTY 50 ETF (0.66%) and KOTAK NIFTY 50 ETF (0.07%) holds higher cash allocations.
- All the listed ETF have very similar allocation across market capitalization ranging from 90.47% to 90.49%.
- QUANTUM NIFTY 50 ETF have more average market capitalization about (500686 CR) compared to other listed ETFs.
- In sector composition, the main focus is on financial sector ranging from 31. 69% to 31. 7%. After financial sector importance is given to Technology and Energy sector.
- Among the listed ETFs ICICI PRUDENTIAL NIFTY 50 ETF has the lowest expense ratio of 0.03% and its more effective option among the listed companies.
- NIPPON INDIA ETF NIFTY 50 BeES have the highest annualized returns of 16.75% while comparing with listed companies.
- Among the listed ETFs, NIPPON INDIA ETF NIFTY 50BeES delivered highest average 5-year return of 13. 53%.
- All the selected ETFs except QUANTUM NIFTY 50ETF have a negative result in all the timeframes.

- KOTAK NIFTY 50 ETF offers highest dividend yield among the selected NIFTY 50 ETFs of 1.16%.
- NIPPON INDIA NIFTY 50 ETF and HDFC NIFTY 50 ETF have high liquidity risk assessment.
- NIPPON INDIA ETF has the highest Asset Under Management of 19300.8 crores.
- Tracking error is low for all listed companies.

6.3 SUGGESTIONS:

- Providing diverse exposure to the Indian market, Nifty 50 ETFs monitor the top 50 Indian companies. These ETFs allow you to invest in top Indian companies because they concentrate almost entirely on stocks (99.93–99.99%). For smooth operations, they keep very little cash (0.01-0.07%) on hand. If you're looking for an easy method to participate in India's growth, think about Nifty 50 ETFs.
- This emphasis on large-cap stocks may result in less volatility for investors' holdings. It's crucial to keep in mind, though, that large-cap equities can potentially have less room for growth than mid-cap or small-cap stocks.
- The examined Nifty 50 ETFs' average market capitalization ranges from Rs. 500292 crores to Rs. 500686 crores, which is a narrow range. Their almost identical investment methods, which closely resemble the large-cap emphasis of the Nifty 50 index itself, are reflected in their extraordinary consistency. These large-cap firms are thought to be less erratic, providing your portfolio with some steadiness. The little fluctuations in market capitalization are caused by small tracking faults and the weights of individual stocks inside each ETF.
- Among all ETFs, financials come out on top (31.69%-31.7%), which is indicative of their significance in the Indian market. Energy and Technology come next, at about 14% apiece. Cars (6.7%) and consumer staples (8%) continue to have a balanced presence. The remaining sectors make up only a small portion (0.28%–4.46%). The ETFs' emphasis on key Indian sectors is shown by their alignment with the Nifty 50.
- ICICI Prudential Nifty 50 ETF stands out due to its exceptionally low expense ratio of 0.03%. A decent mix is provided by Kotak Nifty 50 ETF (0.04%) and Nippon India ETF Nifty 50 BeES. Within this group, the fees of Quantum Nifty 50 ETF (0.06%) and HDFC Nifty 50 ETF (0.05%) are marginally higher.

- Over the last five years, all ETFs produced returns between 16.62% and 16.75%, with Nippon India ETF Nifty BeES leading the group. Their constant monitoring of the Nifty 50 index is seen in this narrow range.
- Over a five-year period, all ETFs beat the Nifty 50 by a slim margin (0.18% - 0.28%), with Nippon India ETF Nifty BeES leading the group at13.53%. This implies that, in comparison to the whole market, they were able to obtain a higher return.
- Within this category, Kotak Nifty 50 ETF regularly outperformed, whereas Quantum Nifty 50 ETF constantly lags behind in all periods. Notably, the HDFC Nifty 50, Nippon India, and ICICI Prudential ETFs produced remarkable long-term returns, surpassing 50% over a period of five years and 19% over three.
- Take a look at the dividend yield! For income seekers, the Kotak Nifty 50 ETF leads (1.16%), while growth is prioritized by ICICI Prudential (0.09%) and Nippon India (0.10%). A compromise is provided by HDFC (0.11%) and Quantum (0.89%).
- There are fluctuations in liquidity. The biggest trading volume is seen in Nippon India and HDFC ETFs, which may make it more difficult to enter or exit at a reasonable price (high liquidity risk). On the other hand, the lower volume (medium low risk) of the Quantum and Kotak ETFs suggests that buying and selling will be simpler. The middle ground is occupied by ICICI Prudential (moderate risk).
- With the largest Assets Under Management (AUM) of Rs. 19,300.8crores, Nippon India ETF is at the top of the group, demonstrating its appeal to investors. Closely behind with Rs. 11,526 crores is ICICI Prudential. The AUMs of HDFC (Rs.3,080.16 crores) and Kotak (Rs. 2,144.66 crores) are reasonable. In terms of investor funds, Quantum Nifty (Rs. 55.09 crores) is the smallest.
- With tracking errors as low as 0.04% for the majority of them and 0.07% for the Kotak Nifty 50 ETF, all ETFs closely mimic the performance of the Nifty 50 index.
- Following the article of Priya Mahajan, ETFs and index funds are two passive investment vehicle tracking the same benchmark index. ETFs are recent phenomena but it has faster growth in terms of NAV and AUM than index funds. A passive investor who are risk averse trying to choose ETFs must be based on proper analysis with respect to its returns and risk patterns rather than its passive nature.
- According to the research by P.K Prasanna, the performance of ETFs are evaluated based on its benchmark index. The growth and success of ETFs requies the investors

the investors to choose superior funds rationally and and requires the fund mangers to deploy these funds efiiciently to improve fund performance.

- The better option among the selected ETFs mainly depends on factors like individual investors goals, risk tolerance and investment horizon.
- Investors should consider factors beyond those studied, such as fund managers track record, thematic ETFs,investment philosophy and global diversification.

6.4 CONCLUSION:

Nifty 50 ETFs provide investors with exposure to a broad portfolio of blue-chip equities listed on the National Stock Exchange of India, as demonstrated by their performance analysis. We examined a number of Nifty 50 ETF features during our investigation, such as past performance, risk profile, expense ratios, and liquidity. Based on performance data, Nifty 50 ETFs have generally outperformed the underlying index, giving investors returns that are nearly identical to the Nifty 50 index. These ETFs have shown to be successful in mirroring the overall movement of the market, even in the face of sporadic tracking faults and small variations.

Moreover, we noticed that Nifty 50 ETFs typically have lower expense ratios than actively managed mutual funds, which makes them an affordable choice for investors looking for broad market exposure. Over time, these ETFs' low expense ratios have a positive impact on the total returns they produce. Nifty 50 ETFs also stood out for their liquidity, as large trading volumes and close bid-ask spreads made them more appealing to investors. These ETFs' liquidity profile guarantees low impact costs for investors executing buy or sell orders while facilitating efficient trading.

The value proposition of Nifty 50 ETFs as effective and affordable investment vehicles for acquiring exposure to the Indian equities market is highlighted by the performance study, which concludes. Because of their high liquidity, low expense ratios, and tight tracking of the Nifty 50 index, they are attractive choices for institutional and retail investors looking for diversified equities exposure. Nifty 50 ETFs, which provide investors with long-term competitive returns, transparency, and ease of use, are expected to become vital components of investors' portfolios as the Indian capital markets continue to evolve.

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