

**UNLOCKING GOLDEN POTENTIAL: A COMPARATIVE  
ANALYSIS OF THE TOP 5 GOLD ETFS IN INDIA**

**Project Report**

*Submitted by*

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*Under the guidance of*

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*In partial fulfillment of requirements for the award of the Post*

*Graduate degree of*

**Master of Commerce and Management**



**ST. TERESA'S COLLEGE (AUTONOMOUS),  
ERNAKULAM**

**COLLEGE WITH POTENTIAL FOR EXCELLENCE**

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**ST. TERESA'S COLLEGE (AUTONOMOUS), ERNAKULAM**

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**CERTIFICATE**

This is to certify that the project report titled '**UNLOCKING GOLDEN POTENTIAL: A COMPARATIVE ANALYSIS OF TOP 5 GOLD ETF IN INDIA**' submitted by **VAISHNA P C** towards partial fulfillment of the requirements for the award of postgraduate degree of **Master of Commerce and Management** is a record of bonafide work carried out during the academic year 2023-24.

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**Date: 31.03.2024**

## **DECLARATION**

I, **VAISHNA P C** hereby declares that this dissertation titled, '**UNLOCKING GOLDEN POTENTIAL: A COMPARATIVE ANALYSIS OF TOP 5 GOLD ETF IN INDIA**' has been prepared by me under the guidance of **DR. JENCY TREESA**, Assistant Professor, Department of Commerce, St Teresa's College, Ernakulam.

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

**Place: ERNAKULAM**

**VAISHNA P C**

**Date: 31.03.2024**

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**VAISHNA P C**

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# **INTRODUCTION**



## **INTRODUCTION**

With economic fluctuations intensifying across international markets, astute investors seek assets offering both stability and growth potential. Within this dynamic landscape, gold retains its luster as a timeless refuge, having weathered countless economic storms throughout history (Bernanke, 2012). However, accessing this haven in the modern era necessitates contemporary methods. Gold Exchange-Traded Funds (ETFs) present themselves as gilded chariots of accessibility, serving as a bridge between the tangible security of physical gold and the streamlined convenience of exchange-traded securities (Aiyappan & Kannan, 2013). This innovative financial instrument paves a promising path for a multitude of investors, broadening their access to the previously exclusive domain of gold investment.

Amidst the ever-evolving tapestry of financial instruments, Gold Exchange Traded Funds (ETFs) have emerged as a compelling option for astute investors seeking both diversification and refuge in the face of market turbulence. For centuries, gold has held an almost mythical allure, revered for its unwavering intrinsic value and coveted for its historical role as a haven asset. While the undeniable appeal of the physical metal persists, contemporary concerns regarding storage, security, and accessibility have paved the way for an innovative solution: the Gold ETF.

Conceived with both convenience and accessibility in mind, Gold ETFs operate as collective investment vehicles pooled from the contributions of multiple investors. This collaborative approach allows for the acquisition of physical gold bullion in bulk, securing attractive wholesale prices inaccessible to individual investors. Subsequently, this amassed gold is securely deposited in insured vaults, offering a stark contrast to the complexities and anxieties associated with personal storage.

The true brilliance of Gold ETFs lies in their inherent liquidity. Unlike the cumbersome logistics of physically trading gold bars, shares of a Gold ETF can be bought and sold with remarkable ease on the open market, just like any other stock. This seamless integration into the existing financial infrastructure empowers investors of all stripes to seamlessly integrate the stability of gold into their portfolios, regardless of their risk tolerance or initial capital outlay.

Beyond offering a modern take on a timeless asset, Gold ETFs serve a multitude of strategic purposes. For portfolio diversification, their inclusion provides a valuable counterpoint to the volatility inherent in traditional stock and bond markets. Gold ETFs' established reputation as a

safe-haven asset further amplifies their attractiveness during periods of economic turbulence. They offer investors a dependable hedge against potential market downturns, thereby mitigating portfolio losses (Baur& Lucey, 2009). This characteristic arises from gold's historical tendency to exhibit low correlations with other asset classes, particularly during periods of economic stress (Brunnermeier& Nagel, 2003). Moreover, the affordability of fractional shares democratizes access to this previously exclusive haven, allowing even modest investors to reap the benefits of gold's unwavering value.

This study undertakes a comprehensive comparative analysis of the five most prominent Gold ETFs in India, delving into critical aspects such as historical performance, risk, volume, and asset under management. Through a meticulous examination of each company's approach to Gold ETF management, this analysis aims to provide a discerning evaluation that serves as a valuable resource for investors navigating the nuances of this dynamic sector. By shedding light on the distinct attributes and potential benefits offered by each entity, this study seeks to empower prospective investors to make informed decisions in their pursuit of optimal portfolio diversification. The ultimate objective is to equip investors with the knowledge and insights necessary to confidently integrate Gold ETFs into their portfolios, unlocking their potential for value preservation and strategic portfolio diversification within the Indian market.

## **1.1. BACKGROUND**

As Gold ETFs gain traction in India, offering a convenient and accessible way to invest in the precious metal, a critical need arises for comprehensive analysis. While they hold potential benefits like diversification and inflation hedging, a lack of readily available information on the performance, risk, and cost-effectiveness of leading Gold ETFs can hinder informed investor decisions. This study aims to bridge this gap by analyzing the top 5 Gold ETFs in India, acknowledging the limitations of the chosen timeframe (2019-2023) in capturing all market conditions, and contributing to the existing research by providing a comparative assessment within the Indian context.

## **1.2. STATEMENT OF THE PROBLEM**

“Despite the growing popularity of Gold ETF investments in India, there is a lack of comprehensive analysis and information available to investors regarding the performance, risk, and cost-effectiveness of the leading Gold ETFs. This knowledge gap hinders investors’ ability to make informed investment decisions. Therefore, the primary problem to address in this study is to assess and compare the key performance indicators, risk factors, and cost structures of the top 5 Gold ETF companies in India. By doing so, we aim to provide investors with valuable insights and recommendations that will enable them to make more informed and strategic investment choices in the Indian Gold ETF market.”

## **1.4. RESEARCH OBJECTIVES**

1. **Performance Analysis:** Evaluate and compare the historical performance of the top 5 Gold ETFs in terms of returns over different periods.
2. **Risk Assessment:** Analyze the risk profiles of these Gold ETFs by examining metrics such as volatility, standard deviation, and beta.
3. **Expense Ratio Evaluation:** Compare the expense ratios of each ETF to assess their cost-effectiveness for investors.
4. **Liquidity Assessment:** Evaluate the liquidity of these ETFs by analyzing their average trading volumes and bid-ask spreads.

## **1.5. HYPOTHESES OF THE STUDY**

### **Hypothesis 1**

**H<sub>0</sub>:** There is no positive correlation between the return and expense ratio of gold ETFs.

**H<sub>1</sub>:** There is a positive correlation between the return and expense ratio of gold ETFs.

### **Hypothesis 2**

**H<sub>0</sub>:** Gold ETFs with higher risk levels do not exhibit significantly higher returns compared to those with lower risk levels.

**H<sub>1</sub>:** Gold ETFs with higher risk levels exhibit significantly higher returns compared to those with lower risk levels.

### **Hypothesis 3**

**H<sub>0</sub>:** There is no significant difference between the average returns of 5 gold ETFs.

**H<sub>1</sub>:** There is no significant difference between the average returns of 5 gold ETFs.

## **1.6. SIGNIFICANCE OF THE STUDY**

Comparative evaluation of the top five Gold ETFs is extremely important in today's financial environment. It gives investors the know-how to successfully negotiate the complexity of Gold ETF investing, enabling them to make wise choices that support their financial objectives. Additionally, by laying the groundwork for future research in the area, this study adds to the larger body of knowledge regarding Gold ETFs in academia. The practical ramifications of this include investment strategies, economic trends, and regulatory issues, affecting financial advisors, institutions, and regulators. In the end, this study is a useful tool that provides stakeholders with the knowledge that is essential for wise investment decisions in a constantly changing financial landscape.

## 1.7. METHODOLOGY

This study employs a non-experimental, descriptive design to compare and analyze five selected Gold ETFs in India. The goal is to provide investors with valuable insights into these ETFs' characteristics and aid in informed decision-making. The five Gold ETFs were chosen based on their assets under Management. The five Gold ETFs are Nippon India Gold ETF, ICICI Prudential Gold ETF, HDFC Gold ETF, SBI Gold ETF, and Kotak Gold ETF.

Secondary data was utilized for this analysis, collected from both the official websites of each Gold ETF and the National Stock Exchange website. The analysis of performance relied on assessing the return, while the evaluation of cost-effectiveness involved examining the expense ratio. Tools such as Standard Deviation were employed to analyze the level of risk. A statistical tool called the standard deviation is used to quantify how much variance or dispersion there is in a collection of data points. Standard deviation is used in the context of Gold ETFs to evaluate the risk or volatility of the fund's returns.

$$\text{Standard deviation} = \sqrt{\frac{\text{Sum of Squared Deviations}}{N-1}}$$

Where N is the number of observations

## 1.8. SCOPE

The scope of this study encompasses a comprehensive analysis of the top 5 Exchange-Traded Funds (ETFs) in the Indian market. This research will primarily focus on evaluating the historical performance of these selected ETFs over a specified time frame. The study will culminate in tailored recommendations for potential investors, considering return, risk, investment horizon, and financial objectives.

## 1.9. LIMITATIONS

- The study is based on secondary data only. Primary data is not collected as it requires more time and financial resources to identify the investors who invest in gold ETFs.
- The period from 2019 to 2023 may not capture all relevant market conditions or economic cycles that could impact the performance of gold ETFs. Economic events such as recessions, geopolitical tensions, or changes in monetary policy could have significant

effects on gold prices and ETF performance, but may not be fully represented within this time frame.

- The study was limited to 5 Gold ETFs.
- The study has not considered the perception of the investors who have invested in gold ETFs.

## **1.10. CHAPTER OUTLINE**

Chapter 1 – Introduction: This section serves as an introduction to the research, encompassing its significance, problem statement, objectives, methodology, scope, limitations, keywords, and chapter structure.

Chapter 2 – Literature Review: In this chapter, a comprehensive review of existing literature is provided, comprising various published works relevant to the research topic.

Chapter 3 – Theoretical Framework: This chapter delves into the theoretical foundations relevant to the study, presenting theoretical works pertinent to the research.

Chapter 4 – Data Analysis and Interpretation: This section involves the analysis and interpretation of primary data collected for the study's purpose. It includes tables, and graphical representations, as well as their analysis and interpretations.

Chapter 5 – Summary, Funding, Recommendations, and Conclusion: Serving as the conclusion chapter, this section encapsulates a summary of the study, its findings, recommendations, and conclusions drawn from the research.

# **REVIEW OF LITERATURE**

## REVIEW OF LITERATURE

A literature review serves as a comprehensive synthesis of previous research within a specific subject area. It meticulously investigates scholarly literature, encompassing books, journals, and relevant sources germane to the field of study. The review entails listing, describing, summarizing, impartially evaluating, and elucidating prior research findings. By providing a theoretical framework, it aids the author in delineating the scope of the study. Moreover, the literature review assures readers of the thoroughness of the work, as it acknowledges and appraises the contributions made by earlier scholars, thereby demonstrating the careful consideration and thoughtfulness applied to the study.

### 2.1 REVIEW OF STUDIES ON GOLD ETFs

- i) **Beyers Bosman (2011)** argues that gold ETFs have diminished the novelty that gold stock previously had. Compared to gold equities, gold ETFs are a different kind of investment, and they seem more appealing to investors. The results imply that gold ETFs have a significant influence on expert predictions, and buying gold ETFs can be a tempting alternative to buying gold stocks because they carry less risk.
- ii) **Lixia Wang et al (2010)** explore the potential for gold exchange-traded funds in China. They discovered that the conditions in China are favorable for gold exchange-traded funds. An equivalent of 2,500 tonnes of gold would be purchased if each of the 80 million middle-class Chinese bought just one ounce. As a result, there will be greater chances for investors as well as an increase in Chinese gold reserves. They concluded that China has made large investments in gold ETFs. China's capacity to handle issues like currency hedging, inflation protection, and diversification would improve with the introduction of gold ETFs.
- iii) **Michael, J. Naylor, et al. (2011)** evaluated three gold-backed and three silver-backed ETFs and compared their return performance to physical gold and silver. The testing showed a remarkable degree of agreement between the return characteristics of the ETFs and the physical gold and silver assets found in earlier investigations. It was discovered that there is little chance for an investor utilizing a trading technique to outperform a passive investor.
- iv) According to the study, exchange-traded fund pricing and returns for gold and silver exhibit the same fundamental behavior as returns on actual gold and silver. Particularly, their price changes do not occur randomly. However, they demonstrate that this inefficiency, which in the past prevented actual gold and silver from being exploited, now offers a chance. through a straightforward filter, for unusual returns rule of trading. According to the study, gold and the second asset might be silver ETFs. the particular value in the class is due to their inefficiency.



- v) **PrashantaAthma and Mamatha B. (2012)** found that the launch of Gold ETFs and the rise in gold prices have improved the performance of ETFs when compared to Index Funds. If people are made aware of ETFs, they may end up being the best alternative to traditional investments.
- vi) **Fons Bok (2012)** investigated whether there was another precious metal other than gold that could be used as a haven and whether there was a better risk-return trade-off than a physically backed gold ETF compared to other precious metal ETFs. Silver, palladium, and platinum are further valuable metals. The conclusion was that while other precious metal ETFs occasionally offer a better risk-return trade-off than gold ETFs, overall, there is no superior risk-return trade-off offered by other precious metal ETFs. The findings revealed that gold ETFs are the only precious metal ETFs that continuously outperform all others and that only gold can be considered a haven during periods when index values decline. These metals will never be regarded as a wise investment in hard times as long as the other precious metals are so dependent on industrial demand. As a result, investors cannot use the precious metals silver, platinum, or palladium as a haven, although gold can.
- vii) **Tim Pullen and colleagues (2011)** investigated the uses of gold exchange-traded funds (ETFs), gold stocks, gold mutual funds, and gold bullion as tools for diversification, haven, and hedging. According to the data, gold bullion offers greater hedging potential than diversification alone. Diversifiers include gold stocks, mutual funds, and exchange-traded funds. Another study revealed that bullion and gold exchange-traded funds (ETFs) both add to the haven quality.
- viii) **Prabhdeep Kaur and Jaspal Singh (2019)** inferred that gold ETFs and spot gold as well as gold ETFs and gold futures converge over time. Additionally, it has been discovered that changes in spot prices and futures prices precede those in ETF prices, opening the door for the implementation of successful trading strategies in ETFs. The paper goes into more detail on the potential causes of the relative inefficiency seen in ETF price movements. While concurrently resolving the difficulties of disproportionately higher prices, purity, and costs of storage and insurance associated with holding real gold, gold ETFs can assist investors in taking advantage of all the benefits of investing in gold.

## **2.2 REVIEW OF STUDIES ON GOLD AS AN INVESTMENT**

- i) **Mukesh Kumar Mukul et al. (2012)** concluded that gold investments provided a higher monthly return than diversified stock funds. He discovered that gold investments have performed better when looking at portfolio performance metrics. The most intriguing finding of the analysis is that gold investments have a negative association with stock investments and may therefore be used as the ideal tool for mitigating the risk associated with equities investments.

- ii) **Martin Surya Mulyadi and Yunita Anwar (2012)** concluded that investing in gold is quite safe for investors and may be regarded as a haven. This is also reinforced by earlier research that showed gold to be an effective portfolio diversifier, a hedge against equities, and a haven asset during volatile stock market conditions. The return on gold typically rises when stock investors are losing money. As the return on gold rises, so does the impact on stock return.
  
- iii) **Kannan et al. (2003)** found that financial wealth caused by medium-term trends in equity prices has a positive impact on gold and real yield on government bonds has an inverse relationship with gold demand. They studied the various factors affecting gold demand in India and concluded that gold has an inverse relationship with its price and is positively related to income.
  
- iv) **Rabi N. Mishra and G. Jagan Mohan (2012)**, domestic gold prices and global gold prices are tightly related. Changes in the price of gold internationally have nearly the same effect on domestic gold prices. According to the study's empirical analysis, the variables influencing the international gold prices' data generation process underwent a structural change in 2003. The most important elements influencing the international gold prices before 2003 were macro fundamentals including global commodity prices, the US dollar exchange rate, and equity prices, and their effects were consistent over both the long and short terms. However, this relationship's statistical and first and second-order econometric qualities have declined since 2003.

### **2.3 REVIEW OF STUDIES ON GOLD AND INFLATION**

- i) **Adrangi et al. (2003)** The relationship between gold and silver returns and inflation in the United States was examined by Adrangi et al. in 2003. They discovered that the projected inflation rate and gold price were positively correlated. The explanation offered for the positive link is that gold prices rise as a result of increased demand brought on by gold hoarding motivated by inflationary fears.
- ii) **Jaffe (1989)** discovered a positive correlation between gold returns and CPI percentage change, but he also warns that gold's low R-square (less than 2%) prevents it from being utilized as an inflation hedge.

## 2.4 REVIEW OF STUDIES ON GOLD AND GDP

- i) **Sharma and Aggarwal (2012)** investigated the connection between the price of gold and GDP. Using information from major gold-producing nations like the US, UK, France, Germany, Italy, Brazil, and others, they examined how GDP affects gold prices. According to the study, Italy's GDP and gold price had the lowest correlation of all the nations looked at, while Brazil's GDP and gold price had the highest correlation on an individual basis. Additionally, it was discovered that seven countries' GDPs were capable of accurately forecasting changes in the price of gold, but the US and France's GDPs performed poorly.

## 2.5 REVIEW OF STUDIES ON GOLD AND EXCHANGE RATE

- i) **Capie et al. (2005)** evaluated the viability of employing gold as a currency hedge. They specifically looked at the sterling-dollar and yen-dollar exchange rates to see how much gold served as an exchange rate hedge. The study's overarching finding was that gold served as a hedge against the currency. They explained gold's potential to act as a hedge by noting that it can be traded easily on the open market and that governments cannot generate gold (unlike they can with currencies).
- ii) **Sjaastad and Scacciavillani (1996)** studied the connection between the major exchange rate and the costs of commodities that are traded globally. They concluded, among other things, that fluctuations in the value of European currencies had an impact on the global gold market.

## 2.6 REVIEW OF STUDIES ON GOLD AND ECONOMIC ACTIVITY

- i) **Constable and Wright (2011)** According to them, investors shouldn't buy gold when the economy is strong, the financial system is solid, and there aren't any major turbulences going on in the world. As a result, it is possible to gauge sentiment using the price of gold. As a result, the price of gold is thought of as a leading economic indicator. Constable and Wright (2011) also back the idea that gold protects against economic catastrophes and that investors should have some gold in their portfolios, particularly when the prognosis for the economy is bleak.
- ii) According to **Conover et al. (2009)**, there was a large increase in returns on precious metals (such as gold, silver, and platinum) after periods of restrictive policies. Compared to metals like platinum, which are mostly used for industrial purposes, gold is less vulnerable to demand shocks that can arise from a decline in industrial use. This provides investors with a means of safeguarding themselves in periods of subpar economic growth. Therefore, it is doubtful that during a recession, the price of gold will drop significantly.

# **THEORETICAL FRAMEWORK**

## **GOLD ETFS**

Gold exchange-traded funds (ETFs) are financial instruments designed to facilitate investors in directing their funds towards gold, a metal known for its purity of 99.5%. Referred to colloquially as "paper gold," these ETFs are actively traded on stock markets. Instead of physical gold, investors are provided with mutual fund units, each typically denoting one gram of gold, although fractional units are also available. Managed passively, these funds simply replicate the market price movements of gold, thereby mimicking the returns one would obtain from purchasing gold offline.

The appeal of gold ETFs lies in their ease of trading on stock exchanges, akin to individual stocks. This characteristic provides investors with the advantage of accessing gold price fluctuations without the need to physically possess the metal. Furthermore, these funds offer liquidity, making it convenient for investors to buy or sell them as needed.

A notable feature of gold ETFs is their potential to hold actual gold bullion in secure vaults under the custody of designated custodians. This aspect adds a layer of assurance for investors regarding the authenticity and safety of their investments.

In essence, gold ETFs provide investors with a cost-effective and efficient means of gaining exposure to gold's price movements. Each unit typically represents a fraction of an ounce of gold, allowing investors to tailor their investment according to their preferences and budget constraints.

Gold ETFs were introduced to the Indian market in 2007 as an alternative to investing in physical gold. However, between 2017 and 2018, there was a notable decline in capital flowing into these funds, despite an increase in gold investments during the same period. Similar to stocks, gold exchange-traded funds (ETFs) are listed and traded on the National Stock Exchange of India (NSE) and the Bombay Stock Exchange Ltd. (BSE). When investors purchase gold ETFs, they are essentially investing in electronic gold, which can be traded similarly to stocks. Unlike physical gold, redeeming a Gold ETF results in receiving cash rather than actual gold. These ETFs provide a convenient electronic means of investing in gold, traded through brokers and dematerialized accounts (Demat).

Gold ETFs boast transparency, as their holdings are directly linked to gold pricing, offering investors clear insight into their investments. Moreover, due to their unique structure and production method, Gold ETFs incur significantly lower costs compared to investing in physical gold.

## HOW TO DO GOLD ETF'S WORK??

Here's how they work:

1. **Creation:** The process commences with an authorized participant, often a financial institution or market maker, seeking to generate new shares of the Gold ETF. This is achieved by delivering a specific quantity of physical gold, typically in the form of bars or bullion, to the custodian appointed by the ETF issuer.
2. **Issuance of Shares:** In return for the delivered physical gold, the authorized participant receives a corresponding number of ETF shares. These newly issued shares, termed creation units, are usually provided in sizable quantities, such as 50,000 shares per creation unit.
3. **Secondary Market Trading:** Once creation units are issued, they become available for purchase and sale on stock exchanges, similar to individual stocks. This accessibility caters to a broad range of investors, enabling them to acquire shares in any desired quantity.
4. **Net Asset Value (NAV):** The Gold ETF calculates its net asset value based on the value of the physical gold held in the custodian's vault. This NAV represents the per-share value of the ETF and is typically updated periodically throughout the trading day.
5. **Price Tracking:** Gold ETF share prices are designed to closely replicate the price movements of gold. The ETF issuer employs various mechanisms to ensure that the ETF's price remains closely aligned with the prevailing market price of gold.
6. **Redemption:** Authorized participants have the option to redeem their shares by exchanging creation units for physical gold. This process reverses the creation process, with the custodian delivering the corresponding amount of gold in exchange for the shares.
7. **Costs and Fees:** Gold ETFs impose management fees, known as expense ratios, to cover fund management expenses. These fees, deducted from the fund's assets, can impact the ETF's performance over time.
8. **Ownership and Custody:** Although investors in Gold ETFs do not directly own physical gold, they have a claim to the underlying assets held in custody by the ETF issuer's custodian. The gold is typically subject to stringent quality and purity standards.

9. **Tax Treatment:** The taxation of gains from Gold ETFs varies by jurisdiction. In some regions, long-term capital gains may be subject to a lower tax rate than short-term gains. Investors should be aware of the tax implications specific to their location.
10. **Liquidity:** Gold ETFs offer high liquidity as they are traded on stock exchanges. Investors can buy and sell shares during regular trading hours at prevailing market prices.
11. **Dividends or Income:** Some Gold ETFs may distribute dividends or interest income if the fund generates income from its holdings. However, these distributions depend on the fund's specific strategy.

## **HOW TO FIND THE BEST GOLD ETF'S**

1. **Establish Your Investment Goals:** Before selecting a Gold ETF, it's critical to establish your investment goals. Decide if your goals are to preserve your wealth over the long term, diversify your holdings, or profit from transient trading opportunities. Knowing your objectives can help you develop your selection criteria.
2. **Evaluate Expense Ratios:** The expense ratio, which shows the ETF's yearly management cost, is an important factor to take into account. Less expensive ratios are generally better because they provide investors with higher rewards. Examine the expense ratios of many Gold ETFs.
3. **Analyze Trading Volume and Liquidity:** Easy transactions depend on liquidity. Examine the Gold ETFs you are thinking about bid-ask spreads and average trading volume. More trading volume and tighter spreads between bid and ask prices usually signify improved liquidity.
4. **Analyze Past Performance:** Evaluate the historical returns of Gold ETFs across different time frames to gauge their performance in tracking gold prices. While past performance doesn't guarantee future results, it provides insights into the fund's ability to mirror gold price movements.
5. **Consider Tax Implications:** Take into account the potential tax consequences associated with various Gold ETFs. Understand how gains are taxed under the tax code, especially long-term capital gains, and how this might impact your overall investment returns.
6. **Review Fund Size:** Assess the size of the fund as it can indicate its popularity and stability. Larger Gold ETFs may benefit from lower costs and economies of scale.

7. **Consult Expert Opinions:** Seek insights from investment websites, financial news sources, and expert reviews to gain a better understanding of the Gold ETFs you're considering.
8. **Determine risk Tolerance:** Determine how much danger you can tolerate. Certain Gold ETFs may use intricate derivatives or techniques, which increases risk. Make sure the strategy of the fund fits with your comfort zone.
9. **Analyze Diversification:** Think about how it will affect your portfolio overall. In addition to tracking gold prices, some exchange-traded funds (ETFs) may also track the gold mining sector, which could introduce other risk considerations.
10. **Speak with a Financial expert:** If you're looking for individualized advice based on your unique financial objectives, you might want to speak with a financial expert. They can assist in navigating the complexity of investing in Gold ETFs and provide customized advice.

#### **WHO SHOULD INVEST IN GOLD ETF'S IN INDIA**

1. **Portfolio Diversifiers:** An easy way to diversify investment portfolios is with gold exchange-traded funds (ETFs). Since gold frequently shows little correlation to other asset classes like equities and bonds, portfolio risk may be reduced overall.
2. **Currency Hedgers or Inflation:** Gold is a popular choice among investors looking to hedge against depreciating currencies or inflation. Investing in gold ETFs is a practical way to get exposure to the metal without having to hold any physical gold.
3. **Long-Term Believers:** Gold ETFs might be a desirable choice for people who have trust in the enduring worth of gold and are looking for a reliable store of value.
4. **Risk-Minimizers:** Gold is frequently thought of as a comparatively safe asset. A portion of an investor's portfolio may be allocated to gold for stability if they are risk-averse or concerned about market volatility.
5. **Investors on a Budget:** Because gold ETFs often have lower expense ratios than actively managed gold mutual funds, they offer a financially sensible option for investors who are worried about costs.



6. **For Investors Seeking Convenience:** Because gold exchange-traded funds are listed and tradable on stock exchanges, they provide investors with convenient accessibility through brokerage accounts. They also make investing easier by doing away with the requirement for actual gold storage.
  
7. **For Investors Who Are Tax-Aware:** Compared to actual gold holdings, long-term capital gains from gold exchange-traded funds (ETFs) frequently result in lower tax rates. For investors who are concerned about taxes, Gold ETFs are a more alluring investment option due to their increased tax efficiency.

### **BENEFITS OF INVESTING IN GOLD ETF'S**

1. **Convenience:** Owning physical gold bullion and dealing with storage and security concerns are removed when investing in gold through exchange-traded funds (ETFs).
2. **Liquidity:** Shares of exchange-traded gold ETFs are very liquid due to their trading on stock markets. Due to their ability to be bought or sold at market prices during regular trading hours, they provide investors with flexibility and accessibility.
3. **Diversification:** Gold is considered a "safe-haven" asset because of its low connection to other asset classes like stocks and bonds. A portfolio can become more diversified and have a lower overall risk by including Gold ETFs.
4. **Cost-Efficiency:** Gold exchange-traded funds (ETFs) frequently have lower cost ratios than actively managed gold mutual funds.
5. **Transparency:** By frequently disclosing their holdings, gold exchange-traded funds (ETFs) enable investors to ascertain the exact proportion of the fund that is allocated to real gold and other assets, if any.
6. **Portfolio Hedging:** Gold is frequently thought of as a hedge against depreciation of value, inflation, and economic uncertainty. Putting money into Gold ETFs helps shield a portfolio from these dangers.

## **DISADVANTAGES OF INVESTING IN GOLD ETF'S**

1. **Tracking Variance:** While Gold ETFs aim to closely mirror the gold price, minor deviations, known as tracking errors, can occur. These disparities may lead to distinctions between the ETF's performance and the actual gold price.
2. **Management Charges:** Gold ETFs levy management fees, also known as expense ratios, to cover operational expenses. Although typically lower than actively managed funds, these fees can diminish the overall investment returns.
3. **Lack of Physical Possession:** Investing in Gold ETFs does not entail physical gold ownership. Instead, investors hold a stake in the underlying assets managed by the fund. For those desiring physical gold ownership, Gold ETFs may not be the ideal option.
4. **Market Volatility:** Like all investments, Gold ETFs are susceptible to market fluctuations. If gold prices decline, the ETF's value will also decrease accordingly.
5. **Counterparty Risk:** Gold ETFs depend on custodians and other intermediaries for fund management and physical gold custody. While the risk is generally low, potential financial difficulties or failures of these parties could impact the ETF.
6. **Income Variability:** Certain Gold ETFs may generate income from their holdings, but the amount may fluctuate over time. This variability can result in inconsistent returns for investors.
7. **Emotional Attachment Absence:** Owning physical gold may hold emotional significance for some investors, a sentiment absent in Gold ETFs, which lack the tangible aspect of precious metal ownership.
8. **Market Trading Hours:** Gold ETFs trade on stock exchanges, subjecting them to market hours. Significant gold price-related events occurring outside trading hours may limit investors' ability to react until the market reopens.

To address these drawbacks, investors should carefully assess their financial objectives, risk tolerance, and investment strategies. Depending on individual preferences and goals, alternative forms of gold investment such as physical gold, gold mining stocks, or gold mutual funds may be more suitable. Seeking advice from a financial advisor and conducting thorough research is recommended when making investment decisions.

# **DATA ANALYSIS AND INTERPRETATION**

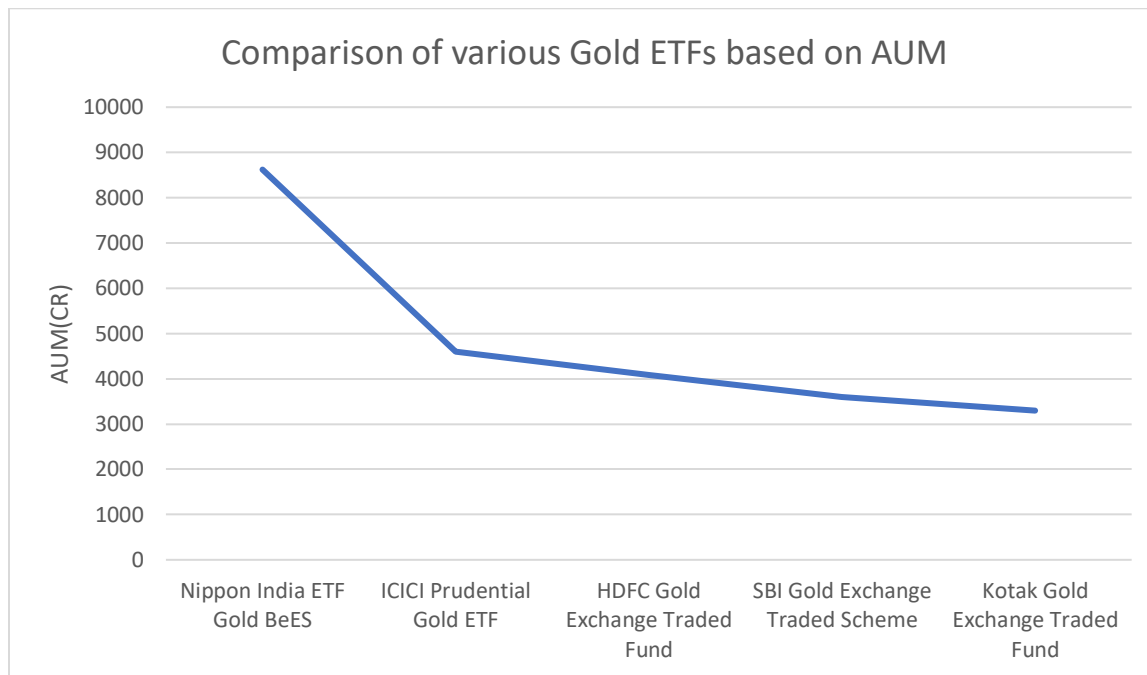
Analysis and interpretation of data are necessary to understand the problem and arrive at a conclusion. Data analysis transforms the data into the information for the research. Secondary data is used for the analysis.

#### 4.1 COMPARISON OF GOLD ETFs BASED ON ASSET UNDER MANAGEMENT

**TABLE 4.1**

Fund Name	Aum (Cr) as of 17/01/2024
Nippon India ETF Gold BeES	8621
ICICI Prudential Gold ETF	4597
HDFC Gold Exchange Traded Fund	4088
SBI Gold Exchange Traded Scheme	3592
Kotak Gold Exchange Traded Fund	3296

**FIGURE 4.1**



#### INFERENCE

Nippon India ETF Gold BeES has the highest AUM among the listed gold ETFs, with ₹862.1 crores. This suggests that it is the most favored gold ETF among investors as of January 17, 2024. The combined AUM of all the listed gold ETFs (Nippon India ETF Gold BeES, ICICI Prudential Gold ETF, HDFC Gold Exchange Traded Fund, SBI Gold Exchange Traded Scheme, Kotak Gold Exchange Traded Fund) is substantial, totaling over ₹130 crores. This indicates a considerable

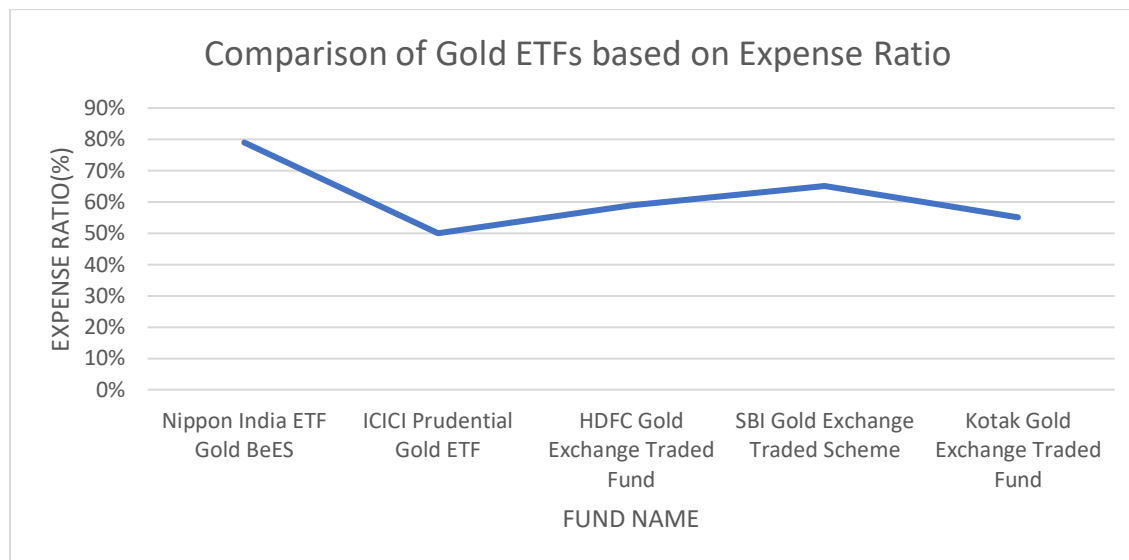
investor interest in gold as an investment option. The variations in AUM among different funds (ranging from ₹32.96 crores to ₹86.21 crores) suggest that investors have different preferences when it comes to choosing a gold ETF.

#### 4.2 COMPARISON OF GOLD ETFS BASED ON EXPENSE RATIO

**TABLE 4.2**

<b>Fund Name</b>	<b>Expense Ratio (%) as on 17/01/2024</b>
Nippon India ETF Gold BeES	0.79
ICICI Prudential Gold ETF	0.50
HDFC Gold Exchange Traded Fund	0.59
SBI Gold Exchange Traded Scheme	0.65
Kotak Gold Exchange Traded Fund	0.55

**FIGURE 4.2**



#### INFERENCE

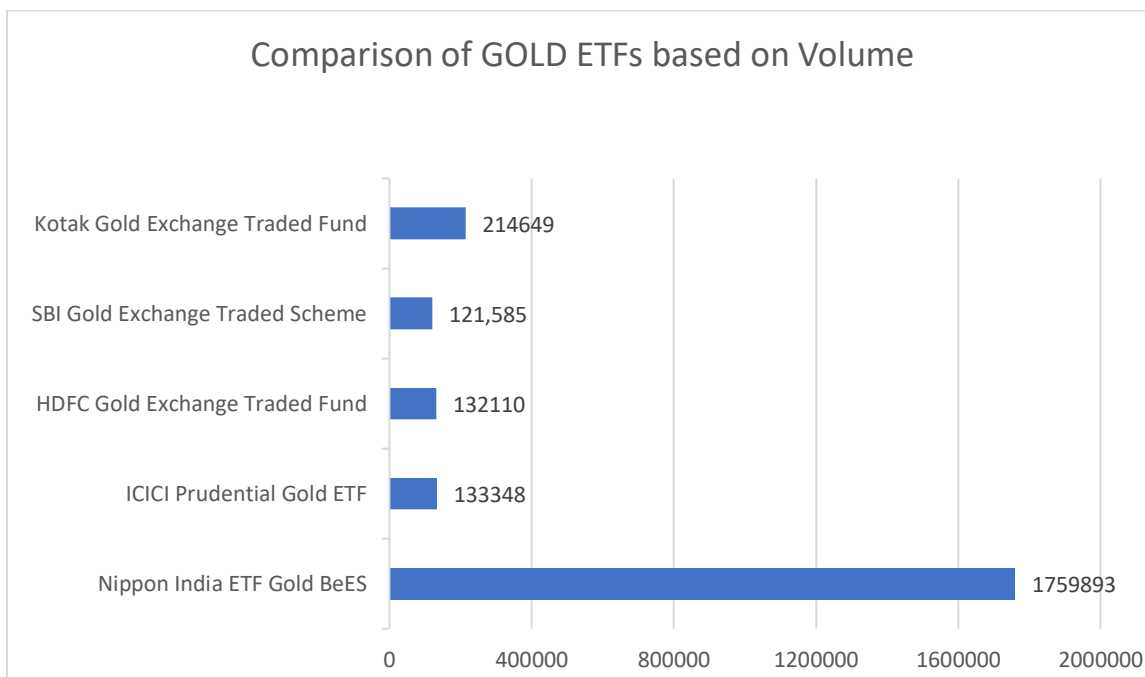
There is a range of expense ratios among the listed gold ETFs, with values ranging from 0.50% to 0.79%. ICICI Prudential Gold ETF has the lowest expense ratio at 0.50%, while Nippon India ETF Gold BeES has the highest at 0.79%. Investors may consider these expense ratios when choosing a fund, as lower expense ratios can contribute to higher returns over the long term. Investors looking for cost-effective options may find ICICI Prudential Gold ETF and Kotak Gold Exchange Traded Fund attractive, as they have relatively lower expense ratios (0.50% and 0.55%, respectively). This suggests that these funds aim to provide exposure to gold with lower management costs. The expense ratios for HDFC Gold Exchange Traded Fund (0.59%) and SBI Gold Exchange Traded Scheme (0.65%) fall in the middle range. This suggests that these funds aim for a balance between cost-effectiveness and potential returns.

### 4.3 COMPARISON OF GOLD ETFS BASED ON VOLUME

**TABLE 4.3**

Fund Name	Volume as of 20/01/2024
Nippon India ETF Gold BeES	17,59,893
ICICI Prudential Gold ETF	1,33,348
HDFC Gold Exchange Traded Fund	1,32,110
SBI Gold Exchange Traded Scheme	1,21,585
Kotak Gold Exchange Traded Fund	2,14,649

**FIGURE 4.3**



#### **INFERENCE**

As of January 20, 2024, the trading volumes for various gold exchange-traded funds (ETFs) reveal distinct market dynamics. Nippon India ETF Gold BeES stands out with the highest volume of 17,59,893 shares, indicating robust market activity and investor interest. Kotak Gold Exchange Traded Fund follows closely with the second-highest volume of 2,14,649 shares, suggesting active trading and liquidity. ICICI Prudential Gold ETF and HDFC Gold Exchange Traded Fund show comparable volumes of 1,33,348 and 1,32,110 shares, respectively, reflecting moderate investor participation. SBI Gold Exchange Traded Scheme lags slightly with a volume of 1,21,585 shares. Investors may interpret higher volumes as a sign of liquidity.

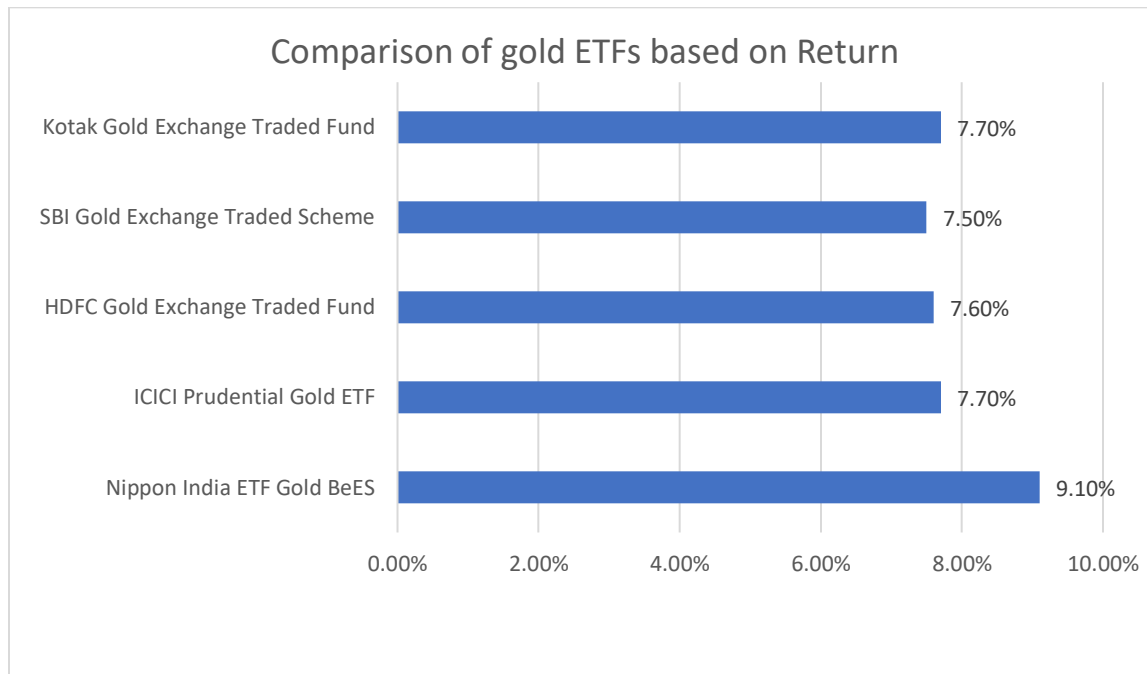
#### 4.4 COMPARISON OF GOLD ETFs BASED ON 1-YEAR RETURN

Gold ETFs have been analyzed based on both 1-year returns as well as returns since inception.

**TABLE 4.4**

<b>Fund Name</b>	<b>1 Year Return (%) as on 20/01/2024</b>
Nippon India ETF Gold BeES	9.1
ICICI Prudential Gold ETF	7.7
HDFC Gold Exchange Traded Fund	7.6
SBI Gold Exchange Traded Scheme	7.5
Kotak Gold Exchange Traded Fund	7.7

**FIGURE 4.4**



#### INFERENCE

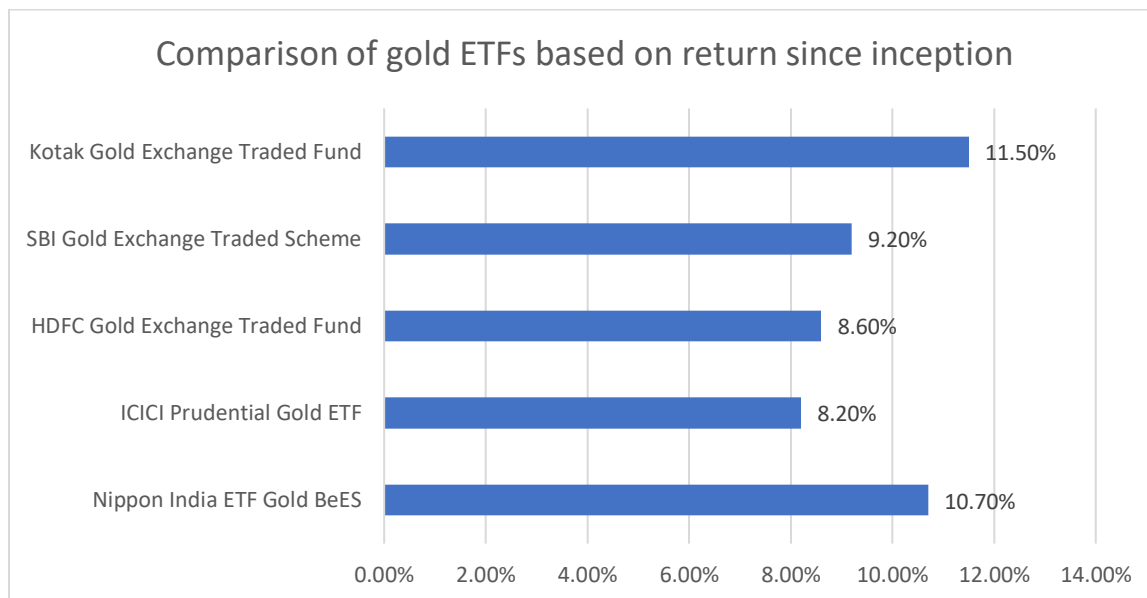
As of January 20, 2024, the one-year return percentages for various gold exchange-traded funds (ETFs) highlight differences in their performance over the past year. Nippon India ETF Gold BeES has demonstrated the highest one-year return at 9.1%, indicating a relatively stronger performance compared to other funds in the list. ICICI Prudential Gold ETF and Kotak Gold Exchange Traded Fund closely follow with returns of 7.7%, suggesting consistent performance. HDFC Gold Exchange Traded Fund and SBI Gold Exchange Traded Scheme, with returns of 7.6% and 7.5% respectively, also show positive performance but are slightly lower compared to their counterparts.

#### 4.5 COMPARISON OF GOLD ETFs BASED ON RETURN SINCE INCEPTION

TABLE 4.5

Fund Name	Return since inception (%) as on 20/01/2024	Year of Inception
Nippon India ETF Gold BeES	10.7	2011
ICICI Prudential Gold ETF	8.2	2010
HDFC Gold Exchange Traded Fund	8.6	2010
SBI Gold Exchange Traded Scheme	9.2	2009
Kotak Gold Exchange Traded Fund	11.5	2007

FIGURE 4.5



#### INFERENCE

As of January 20, 2024, the return since inception percentages for various gold exchange-traded funds (ETFs) provide insights into their long-term performance since their respective inception dates. Kotak Gold Exchange Traded Fund stands out with the highest return since inception at 11.5%, having been established in 2007. Nippon India ETF Gold BeES follows closely with a return of 10.7% since its inception in 2011. SBI Gold Exchange Traded Scheme, with a return of 9.2% since its inception in 2009, also demonstrates strong long-term performance. ICICI Prudential Gold ETF and HDFC Gold Exchange Traded Fund, both established in 2010, have returned since inception of 8.2% and 8.6%, respectively. Investors may interpret these figures as indicators of the historical success of each fund in delivering returns over the long term.



#### 4.6 ANALYSIS OF RISK OF GOLD ETF

Standard deviation is a measure of risk or volatility.

#### CALCULATION OF STANDARD DEVIATION OF NIPPON INDIA GOLD ETF

TABLE 4.6.1

YEAR	RETURN	DEVIATION FROM MEAN (13.25)	SQUARE OF DEVIATIONS
2023	9.05	4.20	17.64
2022	10.73	-2.52	6.35
2021	12.88	-0.37	0.14
2020	24.41	11.16	124.55
2019	18.53	5.28	27.88
2018	5.05	-8.20	67.24
2017	14.49	1.24	1.54
2016	12.31	-0.94	0.88
2015	10.21	-3.04	9.24
2014	14.87	1.62	2.62
<b>TOTAL</b>			<b>258.08</b>

$$\text{Standard deviation} = \sqrt{\frac{\text{Sum of Squared Deviations}}{N-1}}$$

$$= \sqrt{\frac{258.08}{10-1}}$$

$$= 5.35$$

#### CALCULATION OF STANDARD DEVIATION OF ICICI PRUDENTIAL GOLD ETF

TABLE 4.6.2

YEAR	RETURN (%)	DEVIATION FROM MEAN (11.32)	SQUARE OF DEVIATIONS
2023	13.63	2.31	5.3361
2022	9.84	-1.48	2.1904
2021	12.99	1.67	2.7889
2020	14.47	3.15	9.9225
2019	-4.41	-15.73	247.4329
2018	10.56	-0.76	0.5776
2017	8.45	-2.87	8.2369

2016	14.28	2.96	8.7616
2015	22.49	11.17	124.7689
2014	10.86	-0.46	0.2116
<b>TOTAL</b>			<b>410.2274</b>

$$\begin{aligned} \text{Standard deviation} &= \sqrt{\frac{\text{Sum of Squared Deviations}}{N-1}} \\ &= \sqrt{\frac{410.2274}{10-1}} \\ &= 6.75 \end{aligned}$$

### CALCULATION OF STANDARD DEVIATION OF HDFC GOLD ETF

**TABLE 4.6.3**

<b>YEAR</b>	<b>RETURN (%)</b>	<b>DEVIATION FROM MEAN</b>	<b>SQUARE OF DEVIATIONS</b>
2023	7.64	-5.146	26.481316
2022	8.60	-4.186	17.522596
2021	12.92	0.134	0.017956
2020	25.07	12.284	150.896656
2019	16.07	3.284	10.784656
2018	8.57	-4.216	17.774656
2017	12.33	-0.456	0.207936
2016	11.07	-1.716	2.944656
2015	13.70	0.914	0.835396
2014	11.89	-0.896	0.802816
			<b>228.26864</b>

$$\begin{aligned} \text{Standard deviation} &= \sqrt{\frac{\text{Sum of Squared Deviations}}{N-1}} \\ &= \sqrt{\frac{228.26864}{10-1}} \\ &= 5.04 \end{aligned}$$

## CALCULATION OF STANDARD DEVIATION OF SBI GOLD ETF

TABLE 4.6.4

YEAR	RETURN (%)	DEVIATION FROM MEAN (10.595)	SQUARE OF DEVIATIONS
2023	7.45	-3.145	9.891025
2022	12.89	2.295	5.267025
2021	7.47	-3.125	9.765625
2020	26.23	15.635	244.453225
2019	-12.51	-23.105	533.841025
2018	10.56	-0.035	0.001225
2017	9.25	-1.345	1.809025
2016	19.47	8.875	78.765625
2015	14.28	3.685	13.579225
2014	10.86	0.265	0.070225
			<b>897.44325</b>

$$\begin{aligned}
 \text{Standard deviation} &= \sqrt{\frac{\text{Sum of Squared Deviations}}{N-1}} \\
 &= \sqrt{\frac{897.44325}{10-1}} \\
 &= 9.98
 \end{aligned}$$

## CALCULATION OF STANDARD DEVIATION OF KOTAK GOLD ETF

TABLE 4.6.5

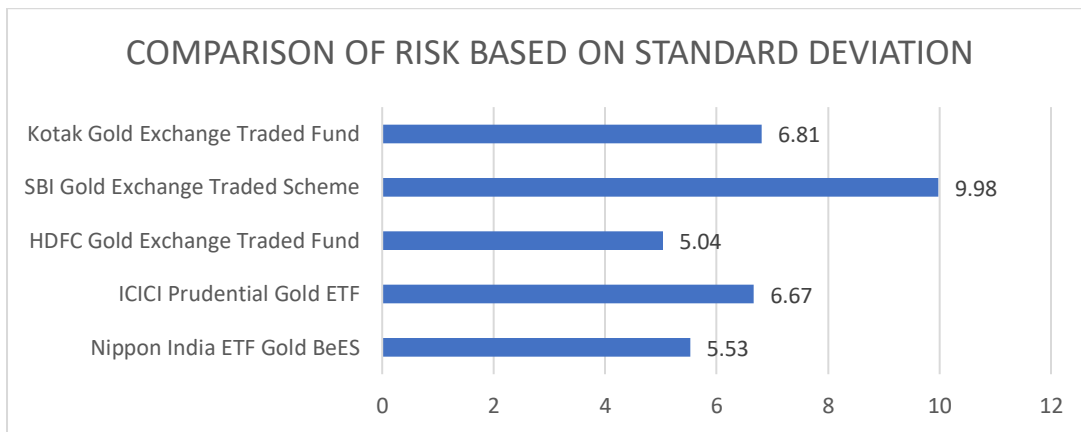
YEAR	RETURN (%)	DEVIATION FROM MEAN	SQUARE OF DEVIATIONS
2023	3.86	0.329	0.108241
2022	7.47	3.939	15.515721
2021	-12.09	-15.621	244.015641
2020	11.29	7.759	60.202081
2019	-0.46	-3.991	15.928081
2018	10.65	7.119	50.680161
2017	4.69	1.159	1.343281
2016	3.64	0.109	0.011881
2015	-0.69	-4.221	17.816841
2014	6.95	3.419	11.689561
			<b>417.31149</b>

$$\begin{aligned} \text{Standard deviation} &= \sqrt{\frac{\text{Sum of Squared Deviations}}{N-1}} \\ &= \sqrt{\frac{417.31149}{10-1}} \\ &= 6.81 \end{aligned}$$

**TABLE 4.6.6**

FUND NAME	STANDARD DEVIATION
Nippon India ETF Gold BeES	5.53
ICICI Prudential Gold ETF	6.67
HDFC Gold Exchange Traded Fund	5.04
SBI Gold Exchange Traded Scheme	9.98
Kotak Gold Exchange Traded Fund	6.81

**FIGURE 4.6**



**INTERPRETATION**

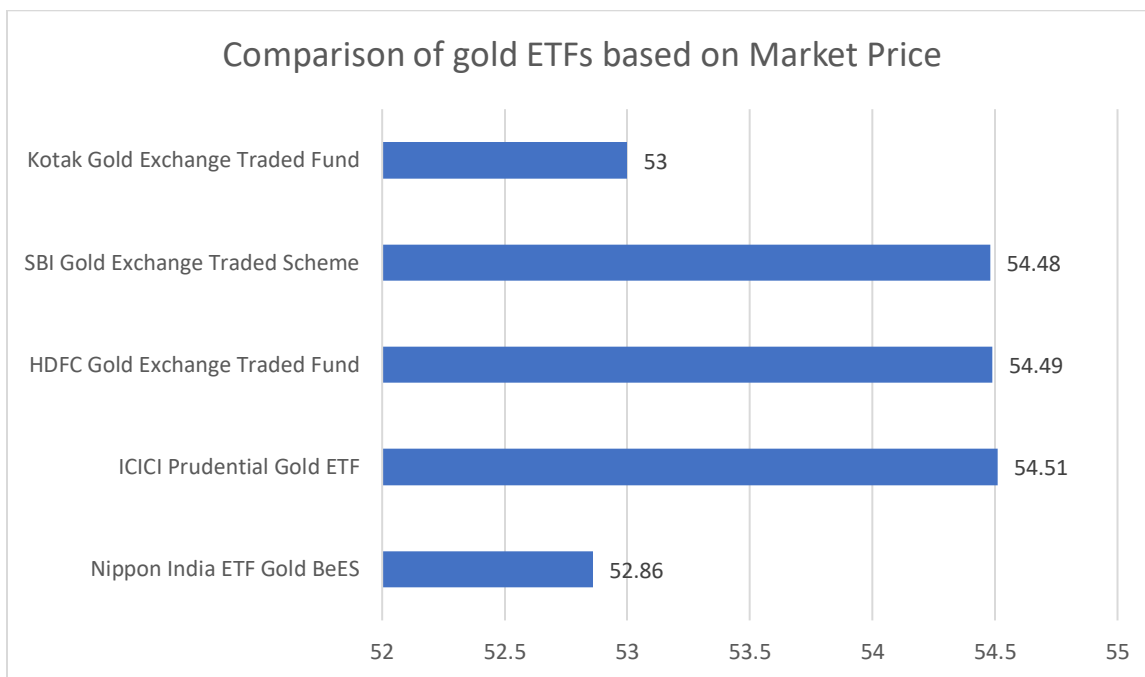
Nippon India Gold BeES emerges as the most conservative option, boasting a moderate standard deviation of 5.53, ideal for investors prioritizing capital preservation. In contrast, the SBI Gold Exchange Traded Scheme sits at the other end of the spectrum with a significantly higher standard deviation of 9.98, offering potentially substantial gains but having high risk. Sandwiched between these extremes are ICICI Prudential Gold ETF and Kotak Gold ETF, both exhibiting moderately high-risk profiles with standard deviations of 6.67 and 6.81 respectively. Finally, HDFC Gold Exchange Traded Fund stands out with the lowest standard deviation of 5.04, catering to investors seeking a balance between potential returns and risk mitigation

## 4.7 COMPARISON OF GOLD ETFS BASED ON MARKET PRICE

**TABLE 4.7**

<b>Fund Name</b>	<b>Market Price as of 20/01/2024</b>
Nippon India ETF Gold BeES	52.86
ICICI Prudential Gold ETF	54.51
HDFC Gold Exchange Traded Fund	54.49
SBI Gold Exchange Traded Scheme	54.48
Kotak Gold Exchange Traded Fund	53

**FIGURE 4.7**



### INFERENCE

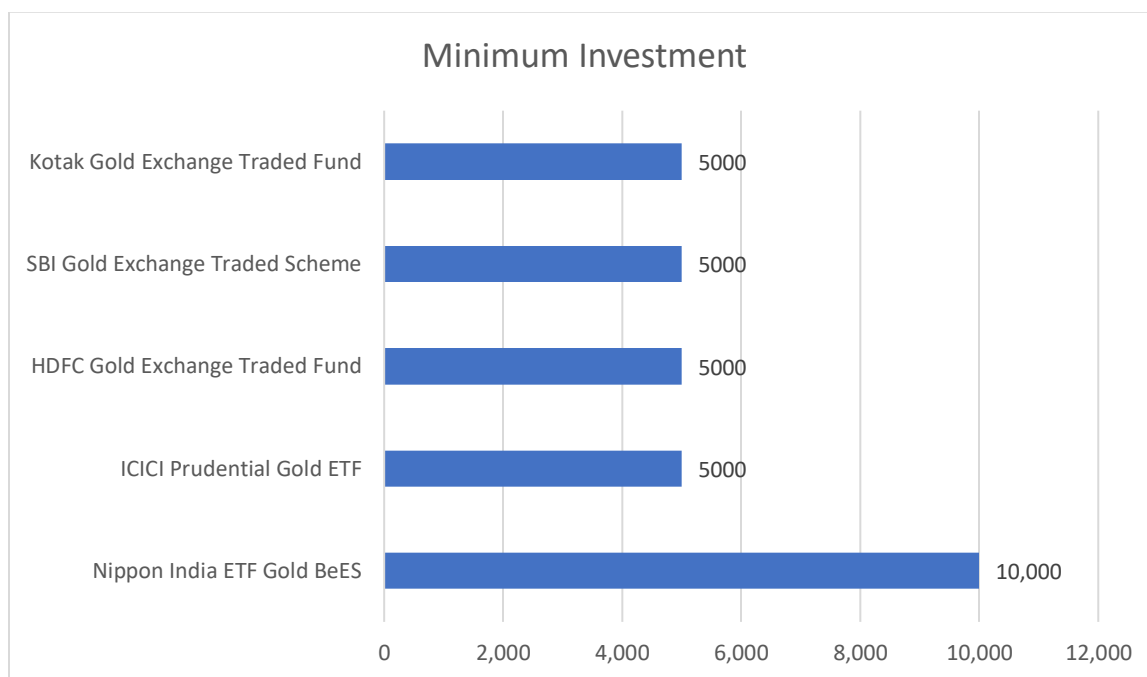
As of January 20, 2024, the market prices of different gold exchange-traded funds (ETFs) provide insights into their relative valuations. ICICI Prudential Gold ETF has the highest market price at 54.51, closely followed by HDFC Gold Exchange Traded Fund at 54.49 and SBI Gold Exchange Traded Scheme at 54.48. Nippon India ETF Gold BeES is priced at 52.86, while Kotak Gold Exchange Traded Fund has a market price of 53. These prices reflect the market's current assessment of the value of each ETF's underlying assets.

## 4.8 COMPARISON OF GOLD ETFS BASED ON MINIMUM INVESTMENT

**TABLE 4.8**

<b>Fund Name</b>	<b>Minimum Investment</b>
Nippon India ETF Gold BeES	10,000
ICICI Prudential Gold ETF	5000
HDFC Gold Exchange Traded Fund	5000
SBI Gold Exchange Traded Scheme	5000
Kotak Gold Exchange Traded Fund	5000

**FIGURE 4.8**



### **INFERENCE**

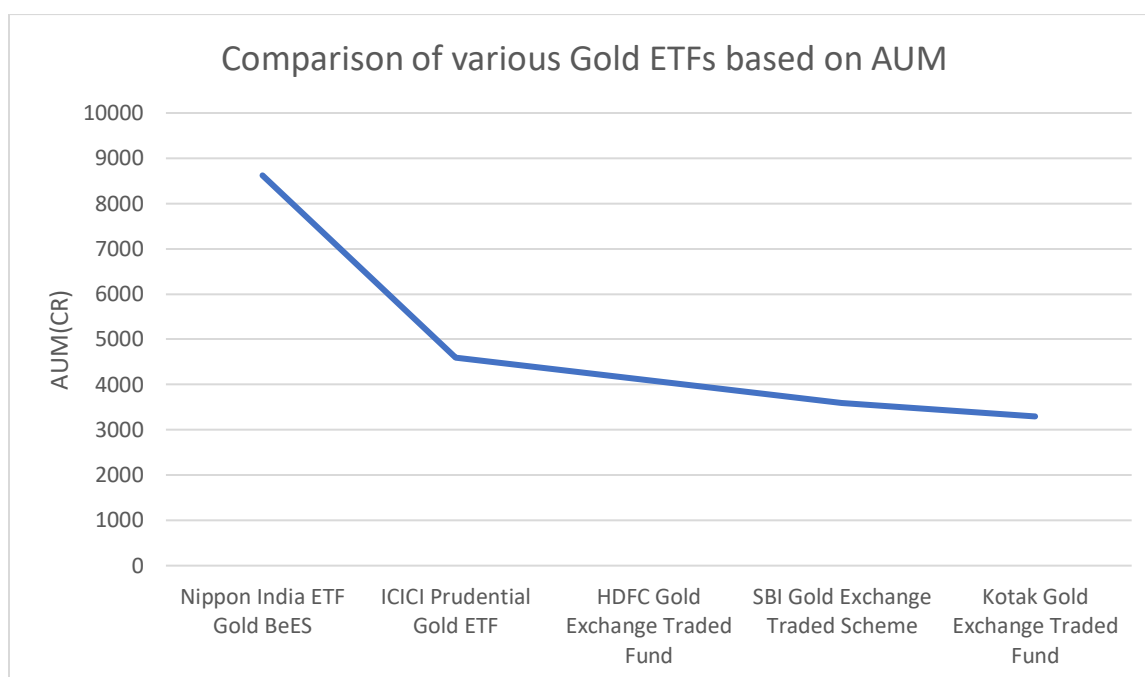
The minimum investment amounts for different gold exchange-traded funds (ETFs) provide information about the accessibility of these funds to different investors. Nippon India ETF Gold BeES has the highest minimum investment requirement at 10,000, making it potentially less accessible to investors with smaller capital. On the other hand, ICICI Prudential Gold ETF, HDFC Gold Exchange Traded Fund, SBI Gold Exchange Traded Scheme, and Kotak Gold Exchange Traded Fund all have a lower minimum investment requirement of 5000, which may make them more accessible to a broader range of investors. This information is important for investors to consider, especially those with specific budget constraints or those looking for investment options with lower entry barriers.

#### 4.9 COMPARISON OF GOLD ETFS BASED ON CATEGORY AVERAGE

TABLE 4.9

Fund Name	Category Average for 1 Year (%) as of 20/01/2024
Nippon India ETF Gold BeES	7.3
ICICI Prudential Gold ETF	8.2
HDFC Gold Exchange Traded Fund	8.2
SBI Gold Exchange Traded Scheme	8.2
Kotak Gold Exchange Traded Fund	8.2

FIGURE 4.9



#### INFERENCE

The "Category Average for 1 Year" percentages for various gold exchange-traded funds (ETFs) as of January 20, 2024, represent the average performance of funds within the same category over the past year. Comparing individual fund returns to the category average can provide insights into their relative performance. In this context:

Nippon India ETF Gold BeES with a 1-year return of 7.3% is below the category average of 8.2%.

ICICI Prudential Gold ETF, HDFC Gold Exchange Traded Fund, SBI Gold Exchange Traded Scheme, and Kotak Gold Exchange Traded Fund all have a 1-year return of 8.2%, which matches the category average.

This suggests that, on average, ICICI Prudential Gold ETF, HDFC Gold Exchange Traded Fund, SBI Gold Exchange Traded Scheme, and Kotak Gold Exchange Traded Fund have performed in

line with the broader category over the past year. Nippon India ETF Gold BeES, on the other hand, has underperformed the category average during the same period.

### HYPOTHESIS 1

**H<sub>0</sub>:** There is no positive correlation between the return and expense ratio of gold ETFs.

**H<sub>1</sub>:** There is a positive correlation between the return and expense ratio of gold ETFs.

**TABLE 4.10**

<b>Model Summary</b>				
Coefficient®	N	T Statistics	DF	P Value
0.382673	5	0.717416	3	0.524933172

### INTERPRETATION

The model, based on Pearson’s correlation coefficient, indicates a positive correlation between expense ratio and return. Given the p-value of 0.525, which is greater than the typical significance level of 0.05, we accept the null hypothesis. The correlation coefficient between return and expense ratio is 0.383. It’s worth noting that the correlation coefficient being positive (0.383) suggests a tendency for higher expense ratios to be associated with higher returns. So there seems to be a positive correlation between the return of the gold ETF and its expense ratio.

### HYPOTHESIS 2

**H<sub>0</sub>:** Gold ETFs with higher risk levels do not exhibit significantly higher returns compared to those with lower risk levels.

**H<sub>1</sub>:** Gold ETFs with higher risk levels exhibit significantly higher returns compared to those with lower risk levels.

**TABLE 4.11**

	<b>RISK</b>	<b>RETURN</b>
Mean	6.806	9.64
Variance	3.70993	1.983
Observations	5	5
Degree of Freedom	4	4
F	1.870867	
P(F<=f) one-tail	0.279469	
F Critical one-tail	6.388233	



## INTERPRETATION

The P-VALUE (0.279469) is greater than 0.05, so it can be concluded that there is no difference in variance between risk and return. Therefore Risk and Return have equal variance.

## T-TEST RESULTS

**Confidence interval:** The mean of Risk minus Return equals -2.8340, 95% confidence interval of this difference -5.2946 to -0.3734

### Intermediate values used in calculations:

T=2.6559

Degree of Freedom = 8

Standard error of difference = 1.067

P value and statistical significance:

P value equals 0.0290.

Since the p-value (0.0290) is less than  $\alpha$  (0.05), we reject the null hypothesis. Therefore, based on the statistical analysis, we have sufficient evidence to reject the claim that gold ETFs with higher risk levels do not exhibit significantly higher returns compared to those with lower risk levels. In other words, the evidence suggests that there is a significant difference in returns between gold ETFs with higher risk levels and those with lower risk levels, favoring the ones with higher risk levels.

## HYPOTHESIS 3

**H<sub>0</sub>:** The average returns of 5 gold ETFs are not equal.

**H<sub>1</sub>:** The average returns of 5 gold ETFs are equal.

**TABLE 4.12**

	Nippon India gold ETF	ICICI Prudential gold ETF	HDFC Gold ETF	SBI Gold ETF	Kotak gold ETF
2023	9.05	13.63	7.64	7.45	3.86
2022	10.73	9.84	8.6	12.89	7.47
2021	12.88	12.99	12.92	7.47	-12.09
2020	24.41	14.47	25.07	26.23	11.29
2019	18.53	-4.41	16.07	-12.51	-0.46
2018	5.05	10.56	8.57	10.56	10.65
2017	14.49	8.45	12.33	9.25	4.69
2016	12.31	14.28	11.07	19.47	3.64
2015	10.21	22.49	13.7	14.28	-0.69

Anova: Single Factor

**TABLE 4.13**

<i>FUND NAME</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Nippon India gold ETF	10	132.53	13.253	28.67538
ICICI Prudential gold ETF	10	113.16	11.316	45.5808
HDFC Gold ETF	10	127.86	12.786	25.36318
SBI Gold ETF	10	105.95	10.595	99.71592
Kotak gold ETF	10	35.31	3.531	46.36794

**TABLE 4.14**

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	618.3897	4	154.5974	3.14602	0.023045	2.578739
Within Groups	2211.329	45	49.14065			
Total	2829.719	49				

Interpretation

The analysis using ANOVA indicates a statistically significant difference in the average returns among the five gold ETFs (Nippon India, ICICI Prudential, HDFC, SBI, and Kotak). The p-value of 0.023045 suggests that we reject the null hypothesis, implying that the average returns are not equal. This finding is supported by the significant F-statistic of 3.14602. Therefore, we accept the alternative hypothesis the average returns of 5 gold ETFs are equal.

## **FINDING, SUGGESTIONS, AND CONCLUSION**

The following are the key findings.

- i. **Asset Under Management (AUM):** Nippon India ETF Gold BeES holds the largest AUM, suggesting investor preference.
- ii. **Expense Ratio:** ICICI Prudential boasts the lowest expense ratio, while Nippon India has the highest. Consider cost-effective options like ICICI and Kotak for long-term returns.
- iii. **Trading Volume:** Nippon India and Kotak Gold ETFs exhibit the highest liquidity, followed by SBI.
- iv. **Returns:** Nippon India offers the highest one-year return, followed by ICICI and Kotak. Kotak has taken the crown for long-term returns since 2007, followed by Nippon India and SBI.
- v. **Risk:** HDFC Gold ETF shows the lowest risk, followed by Nippon India and Kotak. ICICI offers moderate risk, while SBI carries the highest risk with the potential for significant gains.
- vi. **Market Price:** ICICI Prudential has the highest market price and Nippon has the lowest.
- vii. **Category Average:** ICICI Prudential Gold ETF, HDFC Gold Exchange Traded Fund, SBI Gold Exchange Traded Scheme, and Kotak Gold Exchange Traded Fund have performed in line with the broader category over the past year. Nippon India ETF Gold BeES, on the other hand, has underperformed the category average during the same period.

This study offers valuable insights for Indian investors considering Gold ETFs. **Nippon India's dominance in AUM and one-year returns suggests investor preference for established options, but Kotak's long-term outperformance highlights the potential of choices.** For cost-conscious investors, ICICI and Kotak offer the most affordable options. Liquidity varies, with Nippon India and Kotak being the most readily tradable. Ultimately, the optimal choice depends on individual risk tolerance and investment goals. Investors seeking stability can prioritize low-risk options like HDFC, while those comfortable with higher volatility may find SBI's potential for significant gains attractive. By understanding these key performance metrics and aligning them with personal investment objectives, Indian investors can make informed decisions when selecting Gold ETFs for their portfolios.

## SUGGESTIONS

- Gold ETFs include asset under management fees and other additional charges, making its return a bit less compared to that of gold. So, reducing these expenses could make Gold ETFs more profitable and acceptable among investors.
- Investors do not have adequate knowledge about Gold ETFs, so there is a need to make investors aware of Gold ETFs.
- All the Gold ETFs have given almost the same return, so more than the return, the reputation and other factors of the Gold ETF companies matter the most. So regular auditing should be conducted to check the actual value of the asset.
- Introducing Gold ETFs that adhere to socially responsible investing principles, such as avoiding investments in companies with poor environmental or labor practices, can attract socially conscious investors and enhance the overall appeal of Gold ETFs.
- Incorporating risk management strategies, such as hedging against currency fluctuations or geopolitical risks, can help mitigate downside risks and provide investors with a more stable investment option.
- Introducing Gold ETFs with diversified exposure beyond traditional gold holdings, such as including gold mining stocks or other related assets, can offer investors more choices and potentially higher returns.
- Implementing measures to enhance transparency, such as providing regular updates on holdings, expense ratios, and performance metrics, can build trust and confidence among investors.
- Simplifying the fee structure of Gold ETFs and reducing additional charges can attract more investors by improving transparency and lowering the overall cost for investors.
- Investor Engagement and Feedback Mechanisms: Implementing mechanisms for investor engagement and feedback, such as surveys or investor forums, can help Gold ETF providers better understand investor preferences and tailor their offerings accordingly.

## **CONCLUSION**

The analysis of various Gold ETFs in the Indian market reveals valuable insights for investors. While Nippon India ETF Gold BeES emerges as a frontrunner in terms of assets under management and recent returns, ICICI Prudential Gold ETF stands out for its low expense ratio. Additionally, HDFC Gold ETF presents an attractive option for investors prioritizing stability, while Kotak Gold ETF shows promise for long-term performance potential.

In summary, when evaluating different Gold ETFs, it's crucial to consider factors like expense ratios, liquidity dynamics, and the quality of underlying assets (Kaur & Singh, 2020). Ultimately, the most suitable choice depends on individual investor preferences, risk tolerance, and investment objectives. By carefully weighing these factors, investors can confidently tap into the potential benefits of Gold ETFs, enhancing portfolio diversification and exploring new opportunities for growth and wealth preservation in the dynamic Indian financial landscape.

Ultimately, the optimal choice among Gold ETFs depends on individual investor preferences, risk tolerance, and investment goals. By carefully evaluating these factors and aligning them with personal objectives, investors can confidently navigate the dynamic landscape of Gold ETF investments, diversify their portfolios, and pursue long-term financial success.

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