



# **BIJU PATNAIK INSTITUTE OF INFORMATION TECHNOLOGY & MANAGEMENT STUDIES (BIITM), BHUBANESWAR**

Plot No. F/4, Chandaka Industrial Estate, Infocity, Patia, Bhubaneswar-24  
Approved by AICTE, Govt. of India | Affiliated to BPUT, Odisha | NAAC Accredited | ISO 9001 : 2015

## **SUMMER INTERNSHIP PROJECT 2024**

### **REPORT TITLE**

**Navigating the Market: A Performance  
Analysis of Stock Market Indices**

### **SUBMITTED BY**

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**MBA Batch: 2023-25**

**University Regn. No.: 2306258055**

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Bhubaneswar



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## **CERTIFICATE OF INTERNAL GUIDE**

This is to certify that **Mr Debi Prasad Dora** bearing university registration no **2306258055** of 2023-25 batch, has completed his summer internship at **Zerodha Pvt Ltd.** from **3<sup>rd</sup> June 2024 to 13<sup>th</sup> July 2024** under the supervision of **Mr. Tarang Meher** and has submitted this project report under my guidance in partial fulfilment of the requirements for award of the degree of Master of Business Administration at Biju Patnaik Institute of Information Technology and Management Studies, Bhubaneswar. To the best of my knowledge and belief, this project report has been prepared by the student and has not been submitted to any other institute or university for the award of any degree or diploma.

Date:

Place: Bhubaneswar

**Mr. Ajitav Acharya**

Assistant professor (finance)

## CERTIFICATE OF CORPORATE GUIDE

Bizwiz Learnings Private Limited



Date: 15 July 2024

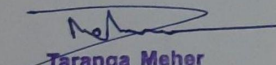
### TO WHOM IT MAY CONCERN

This is to certify that **Mr. Debi Prasad Dora** student of batch 2023-25 from BIITM, Bhubaneswar has successfully completed the Summer Internship Program in the field of "**Stock Broking/Equity Investment**" from 3rd June 2024 to 13th July 2024 at our organization.

During the period of his internship program with us he has been exposed to various practical aspects of stock broking as well as to the field of investment and trading in financial markets. He is found to be diligent, hardworking and inquisitive.

We wish him every success in his life and in his career.

For Bizwiz Learnings Pvt. Ltd.

  
**Taranga Meher**  
Director



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ROOM NO-402B, PLOT NO-971/1415, JANPATH TOWER, 4<sup>th</sup> FLOOR, ASHOK NAGAR BHUBANESWAR-751009, INDIA

## **DECLARATION**

I, **Mr. Debi Prasad Dora** Bearing university registration no **2306258055** (2023-25 batch), hereby declare that the project report titled **Navigating the Market: A Performance Analysis of Stock Market Indices** is based on my internship at **Zerodha Pvt Ltd**, during the period **3<sup>rd</sup> June 2024 to 13<sup>th</sup> July 2024** and is an original work done by me under the supervision of **Mr. Tarang Meher** and **Mr. Ajitav Acharya**. This report is being submitted to Biju Patnaik Institute of Information Technology and Management Studies, Bhubaneswar, affiliated to Biju Patnaik University of Technology, Odisha, in partial fulfilment of the requirements for the award of the degree of Master of Business Administration. This project report has not been submitted to any other institute/university for the award of any degree or diploma.

**Date:**

**Place:**

**Debi Prasad Dora**

## **ACKNOWLEDGEMENT**

The accomplishment of this project might not be so easy without the kind support & cooperation of many individuals. I would like to extend my sincere thanks to all of them.

First & foremost, I extend my special gratitude to Dr. Mihir Ranjan Nayak, Head of the Department of Business Management for giving me this opportunity.

I am extremely thankful to Mr. Ajitav Acharya, Professor for guiding & helping me on my project and to Mr. Tarang Meher, corporate guide for giving me the idea and knowledge on actual field work.

I also acknowledge with a deep sense of reverence, my gratitude towards my parents & family members, who have always supported me morally as well as economically.

**Date:**

**Debi Prasad Dora**

**Place:**

**Regn. No.: 2306258055**

**BIITM, Bhubaneswar**

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## **CHAPTER 1: INTRODUCTION**

### **1.1 What is Stock Market?**



The stock market, also known as the equity or share market, is a complex and dynamic ecosystem where ownership stakes in companies (represented by stocks or shares) are bought and sold. Imagine a giant marketplace where businesses can raise capital by selling pieces of themselves to investors, and those investors can potentially profit if the company's value grows. This marketplace can be physical, like the iconic floor of the New York Stock Exchange, or increasingly, a vast electronic network connecting buyers and sellers around the world.

At its core, the stock market facilitates the transfer of capital. Companies seeking funds for growth or expansion can issue shares, essentially inviting investors to become partial owners. Investors, in turn, are seeking a return on their investment. This return can come in two forms: dividends, which are a portion of a company's profits distributed to shareholders, and capital gains, which is the profit made by selling a stock at a higher price than it was bought for.

Participation in the stock market can be direct, where individuals buy and sell stocks themselves, or indirect, through investment vehicles like mutual funds or exchange-traded funds (ETFs) that pool investor money and invest it in a basket of stocks. This allows even those with limited capital to participate in the market and benefit from diversification, a risk-reduction strategy that spreads investments across different companies and industries.

Stock prices are constantly fluctuating based on a complex interplay of factors. Company performance, industry trends, economic conditions, investor sentiment, and even global events can all influence stock prices. News about a successful new product launch, a disappointing earnings report, or an interest rate hike by the Federal Reserve can all send stock prices up or down.

Understanding these factors and how they interact is crucial for successful investing. Investors rely on various tools and strategies to navigate the market. They analyse financial statements, follow economic news, and employ technical analysis using charts and historical data to identify potential buying and selling opportunities. There are also different investment styles, ranging from active investing, where investors frequently trade to capitalize on short-term market movements, to passive investing, which focuses on buying and holding stocks for the long term.

The stock market plays a vital role in the global economy. It provides businesses with a crucial source of funding, allowing them to grow and create jobs. For investors, it offers the potential for significant long-term returns, enabling them to build wealth and achieve financial goals. However, the stock market is not without risks. Stock prices can be volatile, and investors can lose money if they sell their shares at a loss. Market crashes, though relatively rare, can wipe out significant portions of invested capital.

Understanding these risks and developing a sound investment strategy are essential for anyone considering entering the stock market. There are numerous resources available to help investors learn about the market, different investment options, and how to manage risk. Consulting with a financial advisor can be especially beneficial for those new to investing or with complex financial goals.

The stock market's impact extends far beyond individual investors and companies. It is a barometer of economic health, reflecting investor confidence in the future prospects of



businesses and the broader economy. A strong stock market can boost consumer spending and business investment, contributing to economic growth. Conversely, a weak stock market can trigger a recessionary spiral.

In conclusion, the stock market is a powerful engine driving economic activity. It offers both opportunities and risks for investors, requiring careful consideration and research before entering. By understanding its core functions, the factors influencing stock prices, and the potential risks involved, individuals can make informed decisions about participating in this dynamic and ever-evolving marketplace.



## **History Of Stock Market**

The seeds of the stock market were sown in medieval Europe. By the 13th century, Italian city-states like Venice saw bankers trading government issued debt – a precursor to modern stocks. These early markets were informal gatherings, often held at specific locations like the Bruges Beurze, which gave its name to "bourse," the French word for stock exchange.

The concept of companies issuing shares to raise capital emerged around the same time. The Dutch East India Company, formed in 1602, is considered the first publicly traded company, selling shares to finance its spice trade expeditions. This innovation spurred the creation of the Amsterdam Stock Exchange in 1611, the first formal marketplace for buying and selling shares.

Across Europe, similar institutions emerged, with London establishing its stock exchange in the late 17th century. Initially, trading was limited to a small group of wealthy merchants and brokers. Information travelled slowly, and transactions were based on trust and reputation.

The 18th and 19th centuries saw the stock market evolve alongside growing economies and technological advancements. The invention of the telegraph in the mid-19th century revolutionized communication, allowing for faster dissemination of financial news and influencing stock prices. Stock exchanges also moved indoors, with iconic trading floors like the New York Stock Exchange (NYSE) established in 1817.

This era also witnessed the first major stock market crashes. The "South Sea Bubble" of 1720 in Britain exposed the dangers of speculation in a company with inflated promises. The crash of the NYSE in 1929, however, had a far more devastating global impact, triggering the Great Depression.

In response to these crashes, regulations were introduced to bring stability and transparency to the market. The US Securities and Exchange Commission (SEC) was formed in 1934 to protect investors from fraud and manipulation.

The 20th century also saw the rise of technology in the stock market. Ticker tapes provided real-time price updates, and computers began to automate trading in the latter half of the century. The internet revolutionized the market further, with electronic trading platforms replacing the open outcry system on exchange floors.

Today, the stock market is a global network, with exchanges operating 24 hours a day across different time zones. Algorithmic trading and high-frequency transactions dominate modern markets, alongside continued participation from individual investors.

Looking ahead, the future of the stock market likely lies in further technological advancements like blockchain and artificial intelligence. While these innovations offer increased efficiency and potential new investment opportunities, they also raise concerns about market volatility and potential manipulation.

The history of the stock market is a story of innovation, regulation, and adaptation. From its humble beginnings in medieval Europe to the global network it is today, the stock market

continues to play a crucial role in driving economic growth and offering opportunities for investors around the world.

## **1.2 How Does it Works**

The stock market is a platform where buyers and sellers trade shares of publicly listed companies. Here's a basic overview of how it works:

1. **Companies Go Public:** A company decides to go public (IPO - Initial Public Offering) by offering its shares to the public for the first time. This is when it becomes listed on a stock exchange.
2. **Stock Exchanges:** Stocks are traded on stock exchanges like the New York Stock Exchange (NYSE) or NASDAQ. These exchanges provide the infrastructure for trading and ensure transparency and fairness.
3. **Buying and Selling:** Investors (individuals, institutions, etc.) buy shares of a company if they believe its value will increase over time. They sell shares when they want to realize a profit or cut losses.
4. **Stock Prices:** The price of a stock is determined by supply and demand. If more people want to buy a stock (demand), its price typically goes up. If more people want to sell a stock (supply), its price generally goes down.
5. **Market Participants:** Besides individual investors, there are institutional investors like mutual funds, pension funds, and hedge funds that buy and sell large volumes of stocks.
6. **Market Indices:** Indices like the S&P 500 or Dow Jones Industrial Average track the overall performance of the market or specific sectors. They give an indication of how well the market is doing overall.
7. **Market Mechanisms:** Trades are executed through brokers (online or traditional), who act as intermediaries between buyers and sellers. Orders can be executed in real-time (market orders) or at a specified price (limit orders).
8. **Market Influences:** Various factors influence stock prices, including company earnings reports, economic indicators, geopolitical events, and investor sentiment.
9. **Risks and Rewards:** Investing in stocks can offer potential for high returns but also carries risks. Prices can be volatile, and individual companies can face challenges that affect their stock price.

10. **Regulation:** Stock markets are regulated by government agencies to ensure fairness, transparency, and investor protection. Regulations vary by country.

Overall, the stock market plays a crucial role in the economy by facilitating capital formation for companies and offering opportunities for investors to grow their wealth.

### **Stock Market Indices:**

Stock market indices are numerical indicators that represent the performance of a specific group of stocks within a financial market. These indices are designed to provide a benchmark idea of how a particular market segment is performing. Stock market indices reflect market sentiment by showing whether the market is bullish or bearish. They are typically calculated on the basis of the weighted average of the prices or market capitalizations of the constituent stocks. Stock market indices are essential instruments in the world of finance, offering insights into the collective performance of select groups of stocks.

Indexes are important since they are used as benchmarks for stocks and portfolios. For example, if you're invested in technology stocks, you'll want to see how your stocks are doing against a tech index. You'll then have a better way to rate your returns.



India boasts a vibrant stock market with a rich history. Two primary stock exchanges dominate the scene: the Bombay Stock Exchange (BSE), established in 1875, and the National Stock Exchange of India (NSE), founded in 1992. While both exchanges offer a platform for trading stocks and other securities, they are most well-known for their benchmark indices – the Sensex and the Nifty 50.

The Sensex, short for S&P Bombay Stock Exchange Sensitive Index, is the older of the two. It tracks the performance of the 30 largest and most actively traded companies listed on the BSE. The Sensex is a free-float market capitalization weighted index, meaning the weightage of each company in the index is based on the market value of its publicly available shares. A higher stock price or more outstanding shares of a company within the Sensex will lead to a greater influence on the overall index value.

The Nifty 50, on the other hand, is a product of the NSE. It reflects the performance of the 50 largest companies by market capitalization listed on the NSE. Similar to the Sensex, the Nifty 50 is also a free-float market capitalization weighted index. Both indices are crucial indicators of the overall health of the Indian stock market. A rising Sensex or Nifty 50 signifies investor confidence and economic optimism, while a decline suggests potential concerns or market corrections.

These indices are constantly monitored and rebalanced periodically to ensure they accurately represent the leading companies in the Indian economy. Companies are added or removed from the indices based on their market capitalization and liquidity. This ensures the indices remain relevant and reflect the evolving landscape of the Indian corporate sector.

Beyond the Sensex and Nifty 50, several other sector-specific indices exist in India. These indices track the performance of companies within specific industries, such as the BSE Bankex for banking stocks or the Nifty FMCG for fast-moving consumer goods companies. These sectoral indices provide valuable insights for investors interested in specific segments of the Indian market.

The performance of the Indian stock market indices is influenced by a multitude of factors. Domestic economic conditions, interest rates, government policies, and global events all play a role. Additionally, the performance of individual companies within the indices can significantly impact their respective values.

Following the stock market indices allows investors to gauge market sentiment, identify potential investment opportunities, and track the overall progress of the Indian economy. These indices are a vital tool for navigating the dynamic world of Indian equities.

### **1.3 Literature Review:**

1. Research by Agarwal (2022) analysed the long-term performance of the NIFTY 50 and BSE Sensex, showing a consistent upward trend driven by economic reforms, globalization, and technological advancements. The study emphasized the resilience of these indices in the face of economic disruptions and their ability to recover and grow over extended periods.
2. Kumar et al. (2021) conducted a comprehensive analysis of the BSE Sensex over a 20-year period, highlighting significant growth phases during periods of economic liberalization and market-friendly policies. The study noted the impact of regulatory changes and global economic events on market performance.
3. Jain et al. (2022) explored the sectoral contributions to the growth of major stock indices. The research highlighted the critical role of the IT, financial services, and consumer goods sectors in driving the performance of the NIFTY 50 and BSE Sensex. The study also noted the increasing importance of the healthcare and pharmaceutical sectors post-COVID-19.
4. Mishra and Verma (2021) investigated the correlation between economic indicators (such as GDP growth, inflation rates, and industrial production) and stock market performance. Their findings suggested that stock indices often act as leading indicators of economic health, reflecting investor expectations and market sentiment ahead of actual economic changes.
5. A report by the Reserve Bank of India (RBI) in 2023 discussed how understanding stock market indices could help investors adjust their strategies based on market conditions. The report emphasized the importance of diversification and the need to stay informed about sectoral trends and economic policies.
6. A comparative analysis by the World Bank (2022) highlighted the role of structural reforms and policy measures in enhancing the performance of stock indices in developing economies. The study pointed out that India's stock market has benefited from consistent policy support and a favourable investment climate.

## **1.4 Objective of the Study:**

- To understand the Stock market and Stock market Indices
- To know more about the different types of indices
- To know the market performance of the selected indices i.e. BSE SENSEX, Nifty 50, Nifty Next 50, Nifty Bank and much more.

## **1.5 Research Methodology:**

Research methodology refers to the systematic, theoretical analysis of the methods applied to a field of study. It encompasses the principles, procedures, and techniques used to collect and analyse information. The methodology section of a research paper outlines the specific processes used to conduct research, including the selection of samples, data collection methods (such as surveys, interviews, or experiments), and data analysis techniques (such as statistical analysis or qualitative content analysis). It ensures the research is conducted in a structured, rigorous manner, providing a clear roadmap for how the study will be executed and enabling reproducibility. The chosen methodology must align with the research objectives, allowing the researcher to effectively address the research questions or hypotheses and ultimately contribute to the validity and reliability of the study's findings.

In this report on indices, the data was meticulously collected from various secondary sources such as the National Stock Exchange (NSE), the Bombay Stock Exchange (BSE), and other reliable platforms. The NSE and BSE are pivotal in providing real-world data on the current market trends, offering a comprehensive view of the indices and their performance. These exchanges maintain a rich repository of historical and current data that is crucial for analysing market behaviour and trends. Additionally, platforms like Zerodha Varsity and Screener were instrumental in providing conceptual clarity and analytical tools that aided the research process. Zerodha Varsity, with its detailed educational modules, helped in understanding the intricacies of market indices, technical analysis, and trading strategies. On the other hand, Screener provided a robust platform for screening stocks, offering detailed financial data and metrics which were essential for the in-depth analysis conducted in this study. The integration of data from these sources ensured a holistic approach to the research, enabling a thorough examination of the indices. The real-world data from NSE and BSE formed the backbone of this study, offering insights into the market's current state and historical trends. This data was crucial for identifying patterns, correlations, and deviations in the performance of various indices. Furthermore, the analytical tools and resources

provided by platforms like Zerodha Varsity and Screener enhanced the research process by enabling detailed financial analysis and conceptual understanding.

### **1.6 Scope of Study:**

A stock market is a centralized marketplace where stocks, also known as shares or equities, of publicly traded companies are bought and sold. It plays a crucial role in the economy by enabling companies to raise capital for growth and operations through the issuance of shares. Investors purchase these shares, thereby gaining ownership stakes in companies and potentially earning returns through dividends and capital appreciation.

Stock market indices are statistical measures that track the performance of a specific group of stocks within the market. They provide a snapshot of market trends and are used as benchmarks to gauge the overall health of the market or a particular sector. By grouping together, a selection of representative stocks, indices help investors and analysts understand how different segments of the market are performing. Some of the most widely recognized indices include the BSE Sensex, which tracks 30 well-established and financially sound companies listed on the Bombay Stock Exchange (BSE), and the Nifty 50, which includes 50 major companies listed on the National Stock Exchange (NSE).

For this study, the selected indices for analysis are BSE Sensex, Nifty 50, Nifty Next 50, Nifty Midcap 150, Nifty Bank, Nifty Financial Services, Nifty FMCG, and Nifty IT. These indices have been chosen for their representativeness of various sectors within the Indian economy and their significance in reflecting market dynamics. The analysis will cover the performance of these indices over a ten-year period from 2014 to 2024, using key financial metrics such as Compound Annual Growth Rate (CAGR) and overall market growth during this period.

### **1.7 Limitations of the study:**

- 1. Historical Data Dependence:** The study relies on historical data from 2014 to 2024 to analyse the performance of selected stock market indices. This backward-looking approach may not fully account for future market dynamics, emerging trends, or potential structural changes in the economy and financial markets.



2. **CAGR Limitations:** While Compound Annual Growth Rate (CAGR) provides a useful measure of growth over the period, it does not capture the volatility or fluctuations that occurred within the ten-year timeframe. Therefore, periods of extreme market highs or lows may be smoothed out, potentially obscuring significant short-term trends or risks.
3. **Sectoral Representation Bias:** The selected indices for the study, such as BSE Sensex, Nifty 50, Nifty Next 50, and others, represent specific sectors of the Indian economy. This may lead to a bias in the analysis, as it may not capture the performance of other sectors or smaller companies that are not included in these indices. The study may therefore overlook the broader market performance.
4. **Exclusion of Global Factors:** The study focuses on Indian stock market indices, potentially overlooking the impact of global economic events, such as international trade disputes, foreign policy shifts, or global financial crises, which could have significantly influenced the Indian market during the study period.
5. **Focus on Selected Indices:** By limiting the analysis to specific indices, such as BSE Sensex, Nifty 50, and others, the study may not provide a comprehensive view of the entire market. Other indices, such as those representing small-cap or micro-cap stocks, could provide different insights into market performance and trends.
6. **Time Period Limitation:** The chosen time frame of 2014 to 2024 may not capture long-term trends or cycles in the stock market. Market performance can be cyclical, and a ten-year period may not fully reflect the long-term growth potential or challenges faced by the market.

## **CHAPTER 2: INDEX OVERVIEW AND ANALYSIS**

### **2.1 History of Stock Market Indices:**

The concept of tracking stock market performance through indices has roots in the 19th century. Early examples include the Dow Jones Industrial Average (DJIA) launched in 1896, which tracked a small basket of U.S. blue-chip companies. As markets grew more complex, so did indices. The 20th century saw the rise of broader and more sophisticated indices like the S&P 500, reflecting the performance of a wider range of companies. Today, a vast array of indices exists, catering to specific sectors, regions, and investment styles. These indices play a crucial role in gauging market sentiment, benchmarking performance, and informing investment decisions around the world.

India's journey with stock market indices began in 1986, marking a significant milestone. The Bombay Stock Exchange (BSE) launched the BSE Sensitive Index, popularly known as the Sensex. This 30-company index, based on market capitalization, aimed to provide a single, holistic view of the Indian stock market's performance. The Sensex initially tracked companies across various sectors, reflecting the overall market sentiment.

Over a decade later, in 1992, the National Stock Exchange of India (NSE) entered the scene. It introduced its flagship index, the Nifty 50, in 1993. Similar to the Sensex, the Nifty 50 is a market capitalization-weighted index, but it focuses on the 50 largest companies listed on the NSE. This initial focus on large-cap companies provided a strong foundation for both indices.

The early years of these indices saw constant refinement. The composition of both the Sensex and Nifty 50 underwent periodic reviews to ensure they accurately represented the evolving landscape of the Indian corporate sector. Companies were added or removed based on their market performance and liquidity.

The late 20th and early 21st centuries witnessed the rise of sectoral indices in India. Recognizing the growing importance of specific industries, both the BSE and NSE launched indices tracking the performance of companies within sectors like banking, information technology, and fast-moving consumer goods. These sectoral indices provided valuable insights for investors seeking targeted exposure to specific segments of the Indian market.

Today, India boasts a robust ecosystem of stock market indices. The Sensex and Nifty 50 remain the most widely tracked benchmarks, but a multitude of sectoral and thematic indices cater to diverse investor needs. Studying this rich tapestry of indices empowers investors to understand market movements, identify promising sectors and companies, and ultimately, make informed investment decisions in the ever-growing Indian economy.

## **2.2 Why Stock Market Indices:**

The primary purpose of stock market indices in the world of finance is to provide a numerical representation of the performance of a specific group of stocks, offering a snapshot of the overall health and direction of a financial market. A price-weighted index calculates its value on the basis of the prices of the constituent stocks, with each stock's price having an equal

impact on the index's value. In contrast, a market-capitalization-weighted index calculates its value based on the constituent stocks' total market capitalization (market value), giving larger companies a more significant influence on the index.

Stock market indices help investors assess the performance of their portfolios by providing a benchmark against which they can compare their investment returns. A rising index typically indicates optimism and bullish sentiment, whereas a declining index may suggest pessimism and bearish sentiment among investors. If an investor's portfolio outperforms the index, it suggests successful investing; if it underperforms, it may indicate underperformance or the need for a portfolio adjustment. Stock market indices are the foundation for various investment products such as index funds and exchange-traded funds (ETFs). These products replicate the performance of a specific index, allowing investors to gain exposure to a diversified portfolio of stocks without purchasing individual securities. Traders and algorithmic trading systems often use index levels and trends to make short-term trading decisions. Technical analysis and trading signals are frequently based on index movements, which contribute to trading volumes and price volatility.

Overall, stock market indices are the guiding stars that illuminate the path toward informed investment decisions and financial success. Stock market indices are indispensable tools for investors, analysts, and financial professionals. Their influence extends beyond the financial sector, affecting the broader economy and public sentiment. Understanding and monitoring these indices is crucial for anyone involved in finance.

### **2.3 Different Types of Indices:**

1. **Broad Market Indices:** These are the most widely tracked indices and serve as a general indicator of the overall health of the Indian stock market. They typically consist of a basket of large-cap companies, representing the biggest and most established businesses:
  - **BSE Sensex (S&P Bombay Stock Exchange Sensitive Index):** Launched in 1986, the Sensex tracks the performance of the 30 largest and most actively traded companies listed on the Bombay Stock Exchange (BSE).

- **Nifty 50 (National Stock Exchange 50):** Introduced in 1993, the Nifty 50 reflects the performance of the 50 largest companies by market capitalization listed on the National Stock Exchange of India (NSE).
2. **Sectoral Indices:** These indices focus on specific sectors of the Indian economy, providing a more granular view of how different industries are performing:
- **BSE Bankex:** Tracks the performance of companies in the banking sector.
  - **Nifty FMCG:** Reflects the performance of companies in the fast-moving consumer goods sector.
  - **CNX IT:** Tracks the performance of companies in the information technology sector.

These are just a few examples, and there are numerous sectoral indices catering to various industries like infrastructure, healthcare, and automobiles.

3. **Market-Cap Based Indices:** These indices categorize companies based on their market capitalization (total market value) and track their performance within those categories:
- **BSE Sensex (already mentioned):** While a benchmark index, the Sensex also falls under this category as it's weighted by market capitalization. Companies with a higher market value have a greater influence on the overall index movement.
  - **BSE Midcap:** Tracks the performance of mid-sized companies with a market capitalization lower than large-cap companies but higher than small-cap companies.
  - **BSE Smallcap:** Tracks the performance of small-sized companies with the lowest market capitalization among the three categories.

Understanding these different types of indices allows investors to tailor their investment strategies. By studying benchmark indices, they can gauge the overall market sentiment. Sectoral indices help identify promising industries, and market-cap based indices can be used to target specific company sizes with varying risk-return profiles.

## **2.4 Broad Market Indices:**

In the context of the Indian stock market, the term "broad market" doesn't refer to a single specific index, but rather a concept encompassing a wider range of companies compared to traditional benchmark indices like the Sensex or Nifty 50. These broader market indices aim to provide a more comprehensive picture of the overall market health by including companies beyond just the largest and most established ones.

### **Traditional vs. Broad Market Indices:**

- **Traditional Benchmark Indices (Sensex, Nifty 50):** These typically focus on the top 30-50 companies by market capitalization. While they offer a good snapshot of the performance of leading companies, they might not capture the health of the entire market, especially smaller and mid-sized companies with high growth potential.
- **Broad Market Indices:** These indices go beyond the biggest companies and incorporate a larger universe of stocks. This can include mid-cap, small-cap, and even micro-cap companies. By including these segments, they offer a more holistic view of the market's performance.

### **Examples of Broad Market Indices in India:**

- **Nifty 500:** This index, launched by the NSE, tracks the performance of the top 500 companies listed on the exchange by market capitalization. It provides a broader view compared to the Nifty 50 and captures a significant portion of the listed companies in India.
- **Nifty Next 50:** This index focuses on the next 50 largest companies after the ones included in the Nifty 50. It offers insights into the performance of companies that are on the cusp of becoming large-cap leaders.
- **BSE 100:** This index, offered by the BSE, tracks the performance of the top 100 companies listed on the exchange. Similar to the Nifty 500, it provides a wider view compared to the Sensex.
- **Nifty Midcap 150 & Nifty Smallcap 50:** These indices delve even deeper, focusing on mid-cap and small-cap companies respectively. These segments can offer higher growth potential but also come with greater risk.

### **Benefits of Studying Broad Market Indices:**

- **Diversification:** Broad market indices help investors diversify their portfolio beyond just large-cap companies. This can help mitigate risk and potentially capture growth opportunities in emerging sectors.
- **Identifying Future Leaders:** Studying the performance of companies in broader market indices can help investors identify promising mid-cap and small-cap companies with high growth potential before they become large-cap leaders.
- **Market Sentiment:** By analysing the performance of a broad market index, investors can gauge the overall sentiment of the market, including the health of smaller companies that might not be reflected in traditional benchmark indices.

### **BSE SENSEX:**



S&P BSE SENSEX, first compiled in 1986, was calculated on a 'Market Capitalization-Weighted' methodology of 30 component stocks representing large, well-established and financially sound companies across key sectors. The base year of S&P BSE SENSEX was taken as 1978-79. S&P BSE SENSEX today is widely reported in both domestic and international markets through print as well as electronic media. It is scientifically designed and is based on globally accepted construction and review methodology. Since September 1, 2003, S&P BSE SENSEX is being calculated on a free-float market capitalization methodology. The 'free-float market capitalization-weighted' methodology is a widely

followed index construction methodology on which majority of global equity indices are based; all major index providers like MSCI, FTSE, STOXX, and Dow Jones use the free-float methodology.

The growth of the equity market in India has been phenomenal in the present decade. Right from early nineties, the stock market witnessed heightened activity in terms of various bull and bear runs. In the late nineties, the Indian market witnessed a huge frenzy in the 'TMT' sectors. More recently, real estate caught the fancy of the investors. S&P BSE SENSEX has captured all these happenings in the most judicious manner. One can identify the booms and busts of the Indian equity market through S&P BSE SENSEX. As the oldest index in the country, it provides the time series data over a fairly long period of time (from 1979 onwards). Small wonder, the S&P BSE SENSEX has become one of the most prominent brands in the country.

#### **Calculation Methodology:**

S&P BSE SENSEX is calculated using the 'Free-float Market Capitalization' methodology, wherein, the level of index at any point of time reflects the free-float market value of 30 component stocks relative to a base period. The market capitalization of a company is determined by multiplying the price of its stock by the number of shares issued by the company. This market capitalization is further multiplied by the free-float factor to determine the free-float market capitalization.

Free-float methodology refers to an index construction methodology that takes into consideration only the free-float market capitalization of a company for the purpose of index calculation and assigning weight to stocks in the index. Free-float market capitalization takes into consideration only those shares issued by the company that are readily available for trading in the market. It generally excludes promoters' holding, government holding, strategic holding and other locked-in shares that will not come to the market for trading in the normal course. In other words, the market capitalization of each company in a free-float index is reduced to the extent of its readily available shares in the market.

- **Market capitalization = Share Price/Share \* Number of Shares Issued by the Company.**
- **Free Float Market Capitalization = Market Capitalization\*Free Float Factor.**

- **Sensex Value = (Total free float market capitalization/ Base market capitalization) \* Base period index value.**

### **CAGR (Compounded Annual Growth Rate):**

CAGR stands for Compound Annual Growth Rate. It's a mathematical calculation used to determine the **smoothed annual growth rate** of an investment over a specific period of time.

### **Calculating CAGR:**

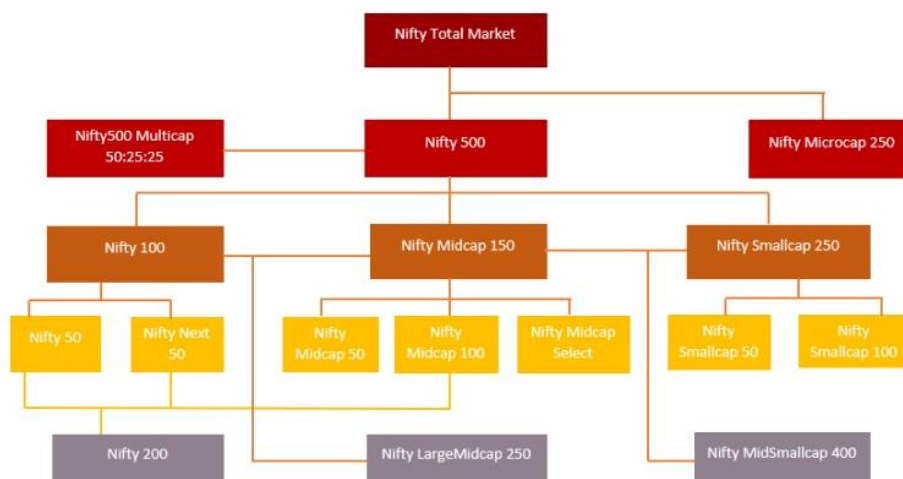
$$\text{CAGR} = (\text{Ending value} / \text{Beginning value})^{1/n} - 1$$

- **Ending Value:** The value of the investment at the end of period
- **Beginning Value:** The value of the investment at the beginning of the period
- **n =** The number of years in the period

### **NIFTY BROAD MARKET INDICES:**

NSE Indices Limited (formerly known as India Index Services & Products Limited-IISL), a NSE group company, was set-up in May 1998 to provide a variety of indices and index related services for the capital markets. In order to develop, construct and maintain indices on Indian equities that serve as useful market performance benchmarks that may be useful underlying indices for investment products, NSE Indices Limited, an NSE group company has developed a series of broad equity indices introducing a structure that efficiently represents large, mid and small market capitalisation segments of the Indian capital market.

Under this structure, there are 17 broad market indices:





## **INDEX CALCULATION METHODOLOGY:**

### **Market capitalization-based indices (price return):**

Formula for computing price return variant of indices based on market capitalization method (full or free-float market cap method) is as under:

$$\text{Index Value} = \text{Index Market Capitalisation} / \text{Base Free Float Market Capitalisation of index} \\ * \text{Base Index Value}$$

where Index market capitalisation is the aggregate of market capitalisation of each scrip in the Index adjusted for free float and/or capping factor depending upon the methodology; and Base index value is the initial value assigned to each index (For example 1000 or 100).

### **NIFTY 50:**



Nifty 50 Index is a broad-based index consisting of 50 blue chip large and liquid stocks listed on the National Stock Exchange of India. Since inception, the Nifty 50 Index has successfully become the 'stock of the nation', helping investors gauge the pulse of Indian capital market. It has lived up to its core purpose of providing a fair representation of the Indian equity market focusing on portfolio diversification, liquidity and replicability. Over the years, the Nifty 50 has become the most widely used benchmark for exchange traded products on Indian equity market.

### **Importance of the Nifty 50:**

The Nifty 50 serves several important functions:

- **Market Barometer:** It reflects the overall sentiment of the Indian stock market. A rising Nifty indicates investor confidence, while a falling Nifty suggests caution.

- **Benchmarking:** Mutual funds and other investment products often use the Nifty 50 as a benchmark to track their own performance.
- **Investment Tool:** Investors can invest in the Nifty 50 directly through Index Funds or Exchange Traded Funds (ETFs) that replicate the index composition.

#### **Portfolio Characteristics:**

Methodology	Free Float Market Capitalization
No of Constituents	50
Launch Date	April 22, 1996
Base Date	November 03, 1995
Base Value	1000
Calculation Frequency	Real Time
Index Rebalancing	Semi-Annually

The NIFTY 50 index spans 13 sectors of the Indian economy, offering a single portfolio for market exposure. As of July 2024, it allocates 34.44 percent to financial services (including banking), 12.52 percent to information technology, 12.56 percent to oil and gas, 8.04 percent to consumer goods, and 8.5 percent to automotive.

#### **EVOLUTION:**

Nifty 50 Index has an inception date of November 3, 1995. The index was constructed using a unique concept of impact cost, which helps in the selection of highly liquid stocks and results in the creation of a replicable index. Initially, index constituents were weighted based on their full market capitalization, however, starting June 26, 2009, the index computation was changed to free float methodology. At inception, Nifty 50 constituents captured 33.7% of full market capitalization and 62.2% of turnover of active traded equities on NSE. Over the years, market representation in terms of full market capitalization by Nifty 50 constituents has grown to 53.2%, and in terms of turnover, representation is currently 32.5% of active traded equities on NSE.

### **Nifty 50 Sector Representation:**

The Nifty 50 currently has exposure to 13 sectors. Since Nifty 50 index's inception, the weights of sectors have changed over time due to evolving market dynamics.

Weightage and Representation of Sectors across years:

SECTOR	2024	2023	2022	2015	2005	1995
Financial Services	34.44	37.6	37.7	31	12.8	19.7
Information Technology	12.52	12.7	14	16.3	20	-
Oil, Gas & Consumable Fuels	12.56	12.0	12.7	10.6	25	9.8
Fast Moving Consumer Goods	7.90	9.8	8.6	8.7	8	19
Automobile and Auto Components	8.05	6.0	5.3	9.9	6.8	12.2
Metal & Mining	3.93	3.5	4.2	1.3	5.5	10.9
Healthcare	4.15	3.9	3.8	7.3	4.2	2.7
Construction	3.91	3.5	3.1	3.7	1.8	4.5
Consumer Durables	2.58	3.3	3.1	1.4	-	-
Telecommunication	3.64	2.6	2.5	2.2	6.3	-
Power	3.11	2.1	1.9	2.6	1.5	2
Construction Materials	2.20	1.9	1.8	2.8	2.5	5.5
Services	1.02	0.7	0.8	0.8	1.1	1.1

### Top constituents by weightage

Company's Name	Weight(%)
HDFC Bank Ltd.	11.95
Reliance Industries Ltd.	9.98
ICICI Bank Ltd.	7.95
Infosys Ltd.	5.33
Larsen & Toubro Ltd.	3.91
Tata Consultancy Services Ltd.	3.73
ITC Ltd.	3.70
Bharti Airtel Ltd.	3.64
Axis Bank Ltd.	3.39
State Bank of India	3.07

### NIFTY NEXT 50:



The Nifty Next 50 is an index in the Indian stock market that consists of the next 50 stocks after the Nifty 50, which represents the top 50 large-cap companies by market capitalization. These stocks in the Nifty Next 50 index are considered to be promising in terms of potential growth and represent a diverse range of sectors beyond those already included in the Nifty 50. The index serves as a benchmark for investors interested in tracking the performance of mid-cap companies that have the potential to become large-caps in the future. Investing in the Nifty Next 50 allows for exposure to a broader segment of the market compared to just the Nifty 50, offering diversification benefits and the opportunity to participate in the growth of emerging companies that may not yet be part of the top tier of the market. This index is widely followed by investors and market analysts as an indicator of the overall health and trends in the Indian equity market beyond the largest companies.

### Composition:

- The index is reconstituted semi-annually, in March and September, based on a set of criteria including liquidity, market capitalization, and free-float market capitalization (the portion of shares readily available for trading).
- This ensures the inclusion of companies with strong growth potential and active trading.
- The composition reflects a diverse range of sectors, mirroring the evolving Indian economy. Sectors like IT, financials, consumer goods, and pharmaceuticals are typically well represented, alongside emerging sectors like renewable energy and logistics.

### PORTFOLIO CHARACTERISTICS:

<b>Methodology</b>	<b>Periodic Capped Free Float</b>
<b>No of Constituents</b>	<b>50</b>
<b>Launch Date</b>	<b>December 24, 1996</b>
<b>Base Date</b>	<b>November 04, 1996</b>
<b>Base Value</b>	<b>1000</b>
<b>Calculation Frequency</b>	<b>Real Time</b>
<b>Index Rebalancing</b>	<b>Semi Annually</b>

### Sector Representation for the Year 2024:

Sector	Weightage%
<b>Financial Services</b>	<b>21.99</b>
<b>Capital Goods</b>	<b>14.79</b>
<b>Consumer Services</b>	<b>12.26</b>
<b>Fast Moving Consumer Goods</b>	<b>10.09</b>
<b>Automobile and Auto Components</b>	<b>6.24</b>
<b>Oil, Gas &amp; Consumable Fuels</b>	<b>5.88</b>
<b>Power</b>	<b>5.85</b>
<b>Metal &amp; Mining</b>	<b>4.71</b>

<b>Chemicals</b>	<b>3.84</b>
<b>Construction Materials</b>	<b>3.53</b>
<b>Services</b>	<b>3.23</b>
<b>Consumer Durables</b>	<b>2.75</b>
<b>Realty</b>	<b>2.44</b>
<b>Health Care</b>	<b>2.41</b>

#### **Top Constituents by Weightage:**

Company's Name	Weight%
Trent Ltd.	<b>5.55</b>
Bharat Electronics Ltd.	<b>5.04</b>
Hindustan Aeronautics Ltd.	<b>4.53</b>
Tata Power Ltd.	<b>3.43</b>
Power Finance Corporation Ltd.	<b>3.24</b>
InterGlobe Aviation Ltd.	<b>3.23</b>
Siemens Ltd.	<b>3.15</b>
REC Ltd.	<b>2.99</b>
Vedanta Ltd.	<b>2.95</b>
Indian Oil Corporation Ltd.	<b>2.79</b>

#### **NIFTY MIDCAP 150:**

The Nifty Midcap 150 index, maintained by the National Stock Exchange (NSE) of India, comprises 150 mid-sized companies listed on the exchange. Positioned between large-cap and small-cap stocks, these companies are selected based on their market capitalization, typically falling within the 101st to 250th range on the NSE. The index serves as a benchmark for the performance of India's midcap segment, offering investors a gauge of how mid-sized companies are faring in the market. It is a weighted index, where larger market cap companies exert greater influence. Investors often use the Nifty Midcap 150 to diversify portfolios beyond large-cap stocks, seeking exposure to potentially higher growth companies with varying sector representations. Despite higher volatility compared to large-

caps, midcap stocks historically offer greater growth potential, making the index significant for institutional and retail investors alike as they assess sectoral diversification and overall market trends.

### **Objective and Significance:**

The primary objective of the Nifty Midcap 150 is to serve as a benchmark for the midcap segment's performance. It provides investors, fund managers, and analysts with a reliable metric to gauge the performance of mid-sized companies in comparison to broader market indices like the Nifty 50 (large-cap index) and the Nifty Smallcap 250 (small-cap index). As midcap stocks often exhibit different growth trajectories and risk profiles compared to large-caps, the index is valuable for portfolio diversification and risk management strategies.

### **Performance and Investment Considerations:**

Midcap stocks are known for their potential to deliver higher returns over the long term compared to large-cap stocks, albeit with higher volatility. The Nifty Midcap 150, therefore, serves as a barometer not only for returns but also for risk management strategies that consider sectoral diversification within the midcap space. Investors often use the index as a benchmark to evaluate the performance of midcap-focused mutual funds, exchange-traded funds (ETFs), and other investment products.

### **Portfolio Characteristics:**

<b>Methodology</b>	<b>Free Float Market Capitalization</b>
<b>No of Constituents</b>	<b>150</b>
<b>Launch Date</b>	<b>April 01, 2016</b>
<b>Base date</b>	<b>April 01, 2005</b>
<b>Base Value</b>	<b>1000</b>
<b>Calculation Frequency</b>	<b>Real Time</b>
<b>Index Rebalancing</b>	<b>Semi Annually</b>

**Sector Representation:**

Sector	Weight
Financial Services	18.19%
Capital Goods	16.51%
Health care	10.29%
Automobile and Auto Components	8.30%
Chemicals	6.17%
Information Technology	6.09%
Realty	4.94%
Consumer Durables	3.88%
Consumer Services	3.82%
Oil, Gas & Consumable Fuels	3.45%
Power	3.25%
Metals & Mining	3.15%
Telecommunication	2.82%
Services	2.42%
Fast moving Consumer Goods	1.99%
Construction Materials	1.90%
Textiles	0.99%
Construction	0.73%
Media, Entertainment & Publication	0.63%
Diversified	0.49%

**Top Constituents by Weightage:**

Company's Name	Weightage%
Max Healthcare Institute Ltd.	2.16%
Suzlon Energy Ltd.	1.74%
Indian Hotels Co. Ltd.	1.69%
Cummins India Ltd.	1.68%
Tubes Investments of India Ltd.	1.41%
CG Power and Industrial Solutions Ltd.	1.41%



Dixon Technologies (India) Ltd.	1.40%
Persistent System Ltd.	1.38%
Yes Bank Ltd.	1.34%
Bharat Forge Ltd.	1.33%

## **2.5 Sectoral Indices and its Analysis:**

The Indian stock market, a vibrant landscape of opportunities, can be daunting for new investors. Sectoral indices offer a valuable tool to navigate this complexity. These indices track the performance of companies within specific industry segments, providing a focused view of a particular sector's health. Let's delve deeper into the world of sectoral indices in India.

Imagine the Indian stock market as a giant tree. The broad market indices, like the Nifty 50 and Sensex, represent the entire tree – a mix of branches (sectors) and leaves (companies). Sectoral indices, on the other hand, focus on specific branches. For instance, the Nifty Bank tracks the performance of leading banking companies, while the Nifty Pharma focuses on pharmaceutical giants. These indices provide valuable insights into the health and growth prospects of a particular sector.

Sectoral indices offer a valuable lens to understand and invest in specific segments of the Indian stock market. By utilizing them strategically, investors can gain insights, manage risk, and potentially enhance their returns. These indices are just a tool, and a thorough understanding of the market and individual companies within the sector is crucial for successful investing.

### **Benefits of Using Sectoral Indices**

- **Targeted Investment:** They allow investors to focus their investments on sectors with high growth potential or align their portfolio with their interests. For example, an investor bullish on the future of healthcare might choose to invest in an index fund based on the Nifty Pharma.
- **Risk Management:** Sectoral diversification helps mitigate risk. While a downturn in the overall market might affect all sectors, a strong performance in one sector can potentially offset losses in another.

- **Benchmarking Performance:** By comparing their portfolio's performance to a relevant sectoral index, investors can gauge their success in capturing the sector's growth.

### Popular Sectoral Indices in India

The National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) offer a wide range of sectoral indices in India, covering various sectors:

- **Banking:** Nifty Bank, Bank Nifty
- **Financial Services:** Nifty Financial Services
- **Information Technology:** Nifty IT
- **Pharmaceuticals:** Nifty Pharma
- **Automobile:** Nifty Auto
- **Fast-Moving Consumer Goods (FMCG):** Nifty FMCG
- **Energy:** Nifty Energy
- **Metals:** Nifty Metal

### NIFTY BANK:



The Nifty Bank serves as a vital barometer for the Indian banking sector, offering a comprehensive view of the health and performance of the country's leading lenders. This key sectoral index, maintained by the National Stock Exchange (NSE), tracks the performance of the 12 largest and most liquid banking institutions in India. Let's delve deeper into the significance of the Nifty Bank and how it can inform your investment decisions.

the Nifty Bank serves as a powerful lens to analyse and potentially profit from the Indian banking sector's dynamism. By understanding its composition, the factors influencing its

movement, and its utility as an investment tool, investors can make informed decisions to navigate the ever-evolving landscape of the Indian banking sector.

It's crucial to remember that the Nifty Bank, while comprehensive, doesn't encompass the entire Indian banking landscape. Smaller banks and specialized lenders might not be reflected in the index. Therefore, investors should complement their understanding of the Nifty Bank with research on broader economic trends and individual bank performances before making investment decisions.

### **Composition and Weighting**

The Nifty Bank is meticulously constructed to represent a diversified portfolio of the Indian banking sector. It encompasses a mix of public sector banks (PSBs) like State Bank of India (SBI) and Bank of Baroda, alongside prominent private sector lenders like HDFC Bank and ICICI Bank. The weightage of each bank within the index is determined by its free-float market capitalization, ensuring that the performance of larger banks has a more significant impact on the overall index movement. This reflects the true influence of these major players on the banking sector's overall health.

### **Understanding Nifty Bank's Movements**

The Nifty Bank's performance is influenced by a multitude of factors, both internal and external. Internal factors include loan growth, credit quality, net interest margins (NIMs), and operating efficiency of the member banks. External factors encompass the overall economic climate, interest rate movements, government policies impacting the banking sector, and global financial market conditions. When the Indian economy thrives and loan demand surges, the Nifty Bank typically witnesses an upswing, reflecting the banking sector's profitability. Conversely, economic downturns or rising interest rates can lead to a decline in the Nifty Bank, as loan delinquencies increase and margins contract for banks.

### **Nifty Bank as an Investment Tool**

The Nifty Bank serves as a valuable tool for investors seeking exposure to the Indian banking sector. Here's how it can be leveraged:

- **Targeted Sectoral Investment:** For investors bullish on the prospects of the Indian banking sector, the Nifty Bank offers a convenient way to gain diversified exposure.

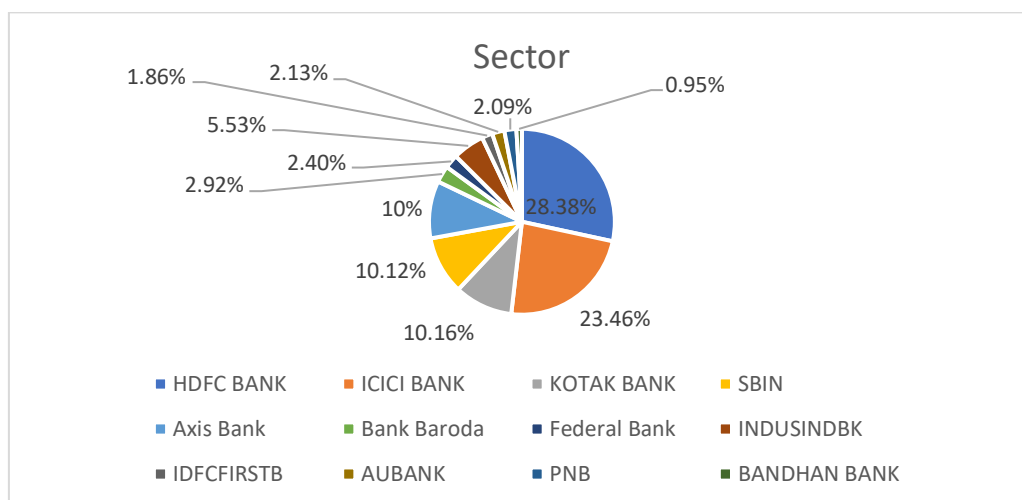
By investing in Nifty Bank ETFs (Exchange Traded Funds) or index funds, investors can mirror the performance of the banking sector without the need to pick individual stocks.

- **Benchmarking Performance:** The Nifty Bank serves as a benchmark for investors to gauge the performance of their banking sector investments. By comparing their portfolio's returns to the Nifty Bank's movement, investors can assess their success in capturing the sector's growth.
- **Hedging Strategy:** The Nifty Bank can be used for hedging purposes. Investors holding a basket of individual banking stocks can hedge their positions by short-selling Nifty Bank futures contracts. This can help mitigate potential losses in their portfolio if the banking sector experiences a downturn.

#### Portfolio Characteristics:

Methodology	Periodic Capped Free Float
No of Constituents	12
Launch Date	September 15, 2003
Base Date	January 01, 2000
Base Value	1000
Calculation Frequency	Real Time
Index Rebalancing	Semi Annually

#### Sectoral Distribution:



## **NIFTY Financial Services:**



The Nifty Financial Services index is a sectoral index comprising stocks from the financial services sector listed on the National Stock Exchange (NSE) of India. The Nifty Financial Services Index is designed to reflect the behaviour and performance of the Indian financial market which includes banks, financial institutions, housing finance, insurance companies and other financial services companies. The Nifty Finance Index comprises of 20 stocks that are listed on the National Stock Exchange (NSE).

### **Composition:**

- **Banking:** Major public and private sector banks, including State Bank of India, HDFC Bank, ICICI Bank, and others.
- **Financial Services:** Non-banking financial companies (NBFCs), microfinance institutions, asset management companies (AMCs), stock exchanges, and other financial service providers.
- **Insurance:** Life insurance, general insurance, and reinsurance companies.
- **Housing Finance:** Companies engaged in providing housing loans and related financial services.

### **Purpose and Importance:**

- The Nifty Financial Services index serves as a benchmark to track the performance of the financial services sector in India.
- It provides investors with insights into the overall health and growth trends within the sector.
- Sectoral indices like Nifty Financial Services help investors gauge sector-specific risks and opportunities, allowing for targeted investments and portfolio diversification.

**PORTFOLIO CHARACTERISTICS:**

<b>Methodology</b>	<b>Periodic Capped free Float</b>
<b>No of Constituents</b>	<b>20</b>
<b>Launch Date</b>	<b>September 07, 2011</b>
<b>Base Date</b>	<b>January 01, 2004</b>
<b>Base Value</b>	<b>1000</b>
<b>Calculation Frequency</b>	<b>Real Time</b>
<b>Index Rebalancing</b>	<b>Semi Annually</b>

**Constituents By Weightage:**

<b>Company's Name</b>	<b>Weightage</b>
HDFC Bank Ltd.	<b>31.66%</b>
ICICI Bank Ltd.	<b>21.07%</b>
Axis Bank Ltd.	<b>8.98%</b>
State Bank of India	<b>8.49%</b>
Kotak Mahindra Bank Ltd.	<b>6.91%</b>
Bajaj Finance Ltd.	<b>5.16%</b>
Bajaj Finserve Ltd.	<b>2.25%</b>
Shriram Finance Ltd.	<b>2.11%</b>
Power Finance Corporation Ltd.	<b>1.84%</b>
SBI Life Insurance Company Ltd.	<b>1.75%</b>

**NIFTY FMCG:**

The Nifty FMCG Index is a benchmark index comprising select fast-moving consumer goods (FMCG) companies listed on the National Stock Exchange of India (NSE). It serves as a barometer for the performance of the FMCG sector, which encompasses a wide range of consumer essentials such as food and beverages, personal care products, household items, and more. This index is crucial for investors, analysts, and market participants seeking insights into the health and trends of the FMCG industry in India.

From its inception to the present day, the Nifty FMCG Index has reflected the dynamic nature of the FMCG sector in India. The index includes leading companies known for their strong brand presence, extensive distribution networks, and robust financial performance. These companies cater to a diverse consumer base spanning rural, urban, and semi-urban area, making FMCG products an integral part of everyday life across the country.

Over the years, the Nifty FMCG Index has experienced various growth phases driven by several key factors. Demographic trends, such as a youthful population with increasing disposable incomes and changing consumption patterns, have been pivotal in driving demand for FMCG products. Urbanization, coupled with rising consumer awareness about health, hygiene, and convenience, has further propelled the sector's expansion.

Technological advancements and digital transformation have also reshaped the FMCG landscape, influencing how companies market their products and interact with consumers. E-commerce platforms and digital marketing strategies have become essential avenues for FMCG companies to enhance their market reach and engage directly with a tech-savvy consumer base.

The regulatory environment has played a significant role in shaping the Nifty FMCG Index's performance. Policy reforms like the Goods and Services Tax (GST) have streamlined taxation and simplified supply chains, benefiting FMCG companies in terms of operational efficiency and cost management. Moreover, initiatives promoting ease of doing business and infrastructure development have provided a conducive environment for both domestic and international FMCG players to thrive in the Indian market.

Market dynamics within the Nifty FMCG Index reflect intense competition among established players and emerging startups alike. Established brands continuously innovate to maintain market leadership, while newer entrants leverage niche segments such as organic, natural, and health-oriented products to capture consumer interest. This competitive landscape fosters a culture of innovation and adaptation within the FMCG sector, driving product diversification and quality enhancements.

Despite growth opportunities, the Nifty FMCG Index faces challenges typical of the sector. Economic fluctuations, inflationary pressures, and supply chain disruptions can impact profitability and operational efficiency for FMCG companies. Moreover, evolving consumer

preferences towards sustainability and ethical sourcing practices necessitate continuous adaptation by FMCG firms to maintain consumer trust and market relevance.

#### **PORTFOLIO CHARACTERISTICS:**

Methodology	Periodic Capped Free Float
No of Constituents	15
Launch Date	September 22, 1999
Base Date	January 01, 1996
Base Value	1000
Calculation Frequency	Real Time
Index Rebalancing	Semi Annually

#### **Constituents by Weightage:**

Company's Name	Weight (%)
ITC Ltd.	<b>32.83%</b>
Hindustan Unilever Ltd.	<b>19.34%</b>
Nestle India Ltd.	<b>7.97%</b>
Varun Beverages Ltd.	<b>6.86%</b>
Tata Consumer products Ltd.	<b>6.04%</b>
Britannia Industries Ltd.	<b>5.66%</b>
Godrej Consumer Products Ltd.	<b>4.56%</b>
Colgate Palmolive (India) Ltd.	<b>3.32%</b>
United Spirits Ltd.	<b>3.25%</b>
Dabur India Ltd.	<b>3.08%</b>



## **NIFTY IT:**



The Nifty IT Index is a benchmark index maintained by the National Stock Exchange of India (NSE), specifically designed to track the performance of the Information Technology (IT) sector. It includes companies engaged in software development, IT consulting, IT infrastructure services, and related activities, making it a key indicator of the Indian IT industry's health and trends.

### **Composition and Selection:**

The Nifty IT Index comprises leading IT companies listed on the NSE, selected based on stringent eligibility criteria such as market capitalization, liquidity, and sector representation. Prominent constituents typically include Tata Consultancy Services (TCS), Infosys, HCL Technologies, Wipro, Tech Mahindra, and other significant players in the Indian IT services domain.

### **Weighting Methodology:**

The index is weighted predominantly by market capitalization, where companies with higher market capitalization have a greater impact on the index's movements. The weighting is adjusted for free-float market capitalization, which excludes shares held by promoters and other strategic entities not readily available for trading. This ensures that the index accurately reflects the influence of publicly traded shares on the market.

### **Market Dynamics:**

The performance of the Nifty IT Index is influenced by several factors:

- **Global Demand:** Indian IT companies derive a substantial portion of their revenue from international markets, particularly the United States and Europe. The index's

performance is thus sensitive to global economic conditions, technological trends, and client spending on IT services.

- **Technological Innovation:** Companies within the index continuously innovate to stay competitive, focusing on emerging technologies such as artificial intelligence, cloud computing, cybersecurity, and digital transformation solutions. Investments in research and development drive product differentiation and market leadership.
- **Regulatory Environment:** Changes in global trade policies, data protection regulations, and visa norms (such as H-1B visa regulations affecting Indian IT firms) can impact operational strategies and profitability for companies in the index.

### Uses of Nifty IT

The Nifty IT index serves various purposes for investors and market participants:

- **Benchmarking performance:** Investors can use the Nifty IT index to assess the performance of their IT sector holdings and compare them to the overall performance of the IT industry.
- **Launching investment products:** The Nifty IT index serves as a base for launching financial products like index funds, exchange-traded funds (ETFs), and structured products. These investment products allow investors to gain exposure to the Indian IT sector without the need to pick individual stocks.
- **Understanding IT sector performance:** By tracking the Nifty IT index, investors can stay informed about the health and growth prospects of the Indian IT industry.

### PORTFOLIO CHARACTERISTICS:

<b>Methodology</b>	<b>Periodic Capped Free Float</b>
<b>No of Constituents</b>	<b>10</b>
<b>Launch Date</b>	
<b>Base Date</b>	<b>January 01, 1996</b>
<b>Base Value</b>	<b>100</b>
<b>Calculation Frequency</b>	<b>Real Time</b>
<b>Index Rebalancing</b>	<b>Semi Annually</b>

**Constituents By Weightage:**

Company's Name	Weight (%)
Infosys Ltd.	<b>27.07%</b>
Tata Consultancy Services Ltd.	<b>24.87%</b>
HCL Technologies Ltd.	<b>9.71%</b>
Tech Mahindra Ltd.	<b>9.65%</b>
Wipro Ltd.	<b>8.82%</b>
LTIMindtree Ltd.	<b>6.00%</b>
Persistent Systems Ltd.	<b>5.39%</b>
Conforge Ltd.	<b>4.37%</b>
Mphasis Ltd.	<b>2.48%</b>
L&T Technologies Services Ltd.	<b>1.64%</b>

## **CHAPTER 3: COMPANY PROFILE**

### **3.1 Zerodha Profile:**



Zerodha Broking Ltd, established in 2010, is an Indian financial services company known for its pioneering role in the discount brokerage space. Founded by Nithin Kamath and Nikhil Kamath, Zerodha began as a startup aiming to disrupt the traditional brokerage model prevalent in India. By leveraging technology and innovative business practices, Zerodha quickly positioned itself as a market leader. The company's name, derived from "Zero" and "Rodha" (which means "barrier" in Sanskrit), reflects its mission to eliminate barriers to investing.

Zerodha's importance in the financial ecosystem extends beyond its role as a brokerage firm. It has played a transformative role in reducing barriers to market access, enhancing financial literacy, driving technological advancements, and influencing industry standards. By addressing critical pain points and focusing on innovation, Zerodha has not only improved the trading experience for individual investors but has also contributed to the broader development and efficiency of the financial markets in India. Its impact is evident in the increased participation of retail investors, the evolution of trading technologies, and the ongoing discourse around financial market reforms.

### **3.2 Features of Zerodha:**

1. **Discount Brokerage Model:** Zerodha is renowned for its low-cost brokerage structure. It operates on a flat fee per trade model, which significantly reduces trading costs compared to traditional brokers who charge a percentage-based fee.
2. **User-Friendly Platforms:** The company provides a suite of trading platforms including Kite (its flagship trading app), Coin (for mutual funds), and Varsity (an educational initiative). Kite is highly acclaimed for its intuitive interface and robust performance.
3. **Direct Market Access:** Zerodha offers direct market access to equities, derivatives, commodities, and currencies. This allows investors to trade directly on exchanges with minimal latency.
4. **Zero Brokerage on Equity Delivery Trades:** Zerodha does not charge brokerage fees on delivery trades, where investors buy and hold stocks for longer periods. This makes it appealing for long-term investors.
5. **Advanced Tools and Analytics:** The firm provides advanced charting tools, real-time data, and technical analysis features, helping traders make informed decisions.
6. **Innovative Products:** Zerodha has introduced several innovative products like Zerodha Streak (for algorithmic trading) and Zerodha Smallcase (a platform for thematic investing).
7. **Educational Initiatives:** Zerodha is committed to financial literacy through its Varsity platform, offering comprehensive educational resources on trading and investing.

### **3.3 Limitations of Zerodha:**

1. **Limited Research and Advisory Services:** Unlike traditional brokers, Zerodha offers limited research reports and advisory services. Investors seeking in-depth market analysis and personalized advice may find this a drawback.
2. **No Physical Presence:** Zerodha operates primarily online, with no physical branches. This may be a disadvantage for investors who prefer face-to-face interaction or need in-person support.

3. **Customer Support Challenges:** While Zerodha has made strides in improving customer service, some users have reported challenges with the responsiveness and effectiveness of support.

#### **Some of the Technological Features provided by Zerodha:**

1. **Kite:** It is a user-friendly web and mobile platform for trading in different stocks, derivatives, mutual funds and commodities. It provides many features like advanced charts, live streaming of market data, multiple chat views, advance orders, a clean and elegant user interface and can even work with lower internet bandwidth.
2. **Coin:** It is an order collection platform that lets users buy mutual funds online, with no commission pass back, directly from asset management companies.
3. **Varsity:** It is an extensive and in-depth collection of stock market and financial lessons. It is openly accessible to everyone and is one of the largest financial education resources on the web.
4. **Trading Q&A:** one can get his questions answered by India's most active trading community. One can connect with other investors and learn from the experiences.
5. **Console:** It is an online back-office platform that grants clients access to a wide range of account related information, reports, statements and analytics.
6. **KillSwitch:** This service helps you manage risk by settling limits on your trades, providing an extra layer of security for your investments.

### **3.4 Products of Zerodha:**

**Sensibull:** Sensibull, India's pioneering options trading platform, caters to both novices and experts with tools for strategy building, real-time tracking, and identifying trading opportunities through various market indicators.

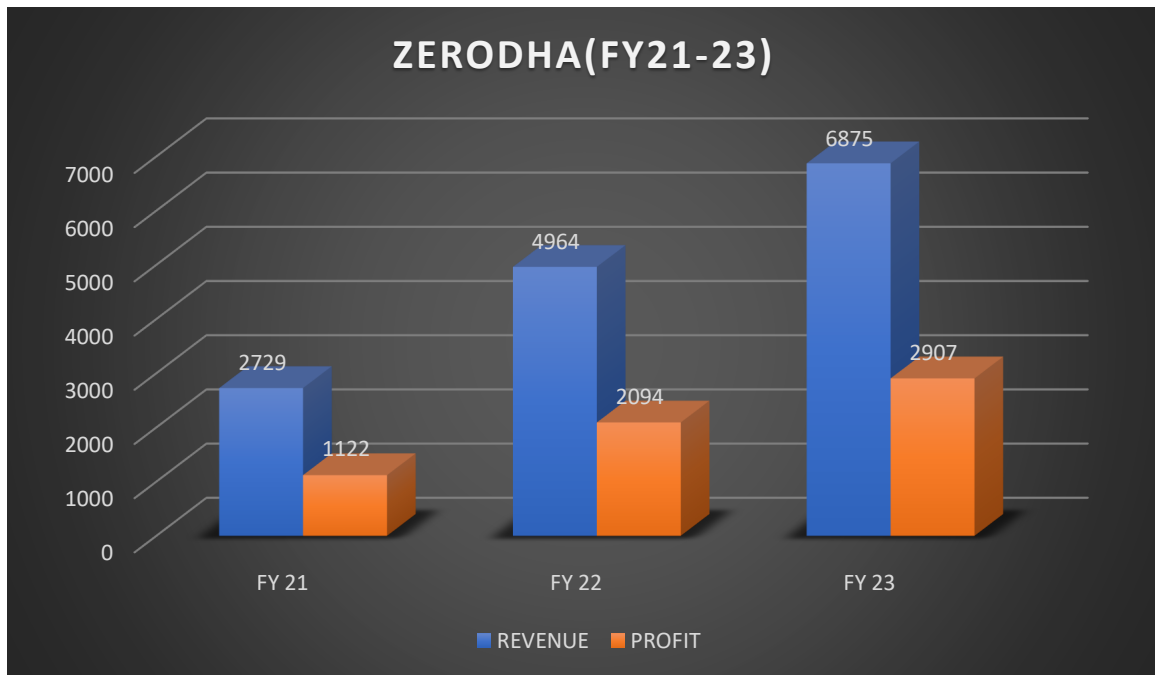
**Streak:** Streak is an algorithmic trading platform that allows users to create, back test, and deploy trading algorithms without needing to code, using a user-friendly strategy builder.

**Smallcase:** Smallcase is a platform for thematic investing, offering low-cost, intelligently weighted portfolios of up to 20 stocks, each crafted to leverage specific themes or trends.

**Tijori:** In-depth data such as market share, revenue break-up, location exposure, operational metrics shareholding & financial on companies.

**LearnApp:** LearnApp offers top-tier financial education through meticulously crafted courses led by industry experts like S Naren, Archit Gupta, and Gautam Magoo, making finance knowledge accessible to everyone.

### **3.5 Financial Results of Zerodha:**



Zerodha on September 26 reported a 38.5 percent growth in revenue for the financial year 2022-23 at Rs 6,875 crore compared with the previous financial year. It also reported a 39 percent growth in profits, which stood at Rs 2,907 crore in FY23. The Bengaluru-based online stock trading platform reported a revenue of Rs 4,964 crore and a profit of Rs 2,094 crore in FY22.

## **CHAPTER 4: DATA ANALYSIS AND INTERPRETATION**

### **Broad Market Indices Chart & Analysis:**

#### **BSE SENSEX:**

#### **CAGR (Compounded Annual Growth Rate):**

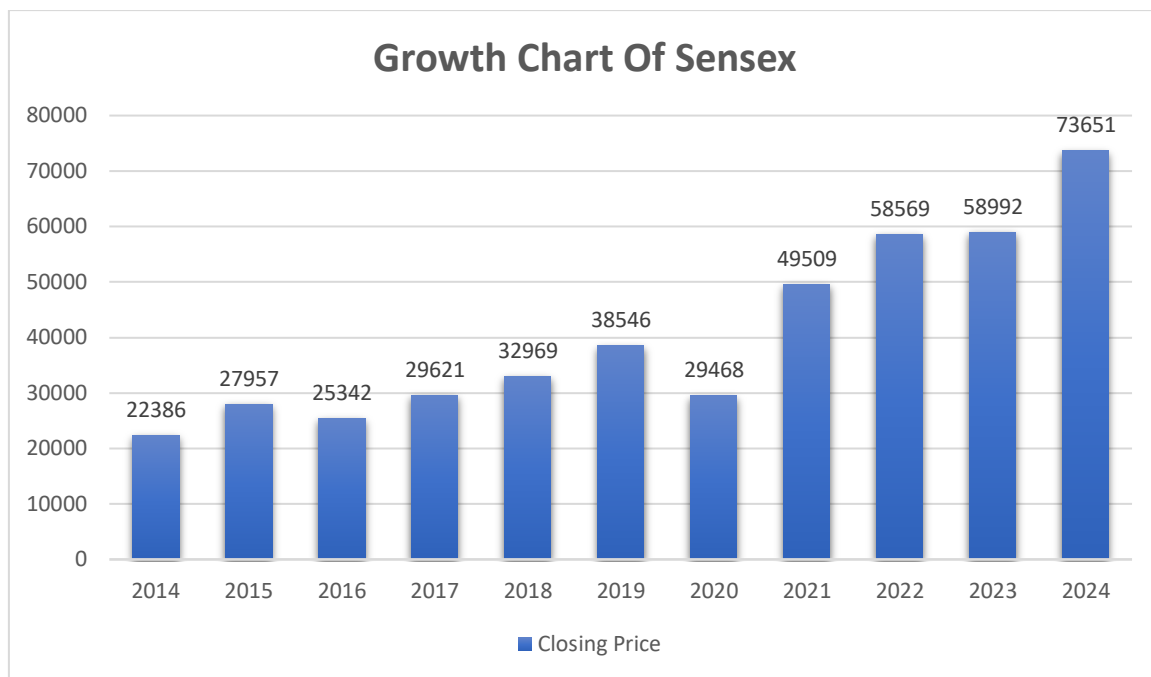
Year	Sensex 20 years CAGR
2000-2020	9.27%
2001-2021	14.00%
2002-2022	15.18%
2003-2023	15.97%
2004-2024	13.76%

$$\text{CAGR} = (\text{Ending value} / \text{Beginning value})^{1/n} - 1$$

- **Ending Value:** The value of the investment at the end of period
- **Beginning Value:** The value of the investment at the beginning of the period
- **n =** The number of years in the period

Over the five consecutive 20-year periods analysed, the Compound Annual Growth Rate (CAGR) shows an overall upward trend from 2000 to 2023, peaking in the period from 2003 to 2023 at 15.97%. The CAGR increases consistently from 9.27% in the 2000-2020 period to 15.97% in the 2003-2023 period, before slightly decreasing to 13.76% in the 2004-2024 period. This suggests that the strongest growth occurred during the middle of the analyzed periods, with some slight decline in the most recent period.





The BSE Sensex, a benchmark index of the Bombay Stock Exchange, reflects the overall performance of the Indian stock market. Over the decade from 2014 to 2024, the Sensex experienced substantial growth driven by a mix of domestic economic reforms, global market trends, and significant policy changes. Here's a comprehensive analysis of its performance over this period:

#### 1. Period: 2014-2016

- **Growth Drivers:** The election of a stable government in 2014 led to positive market sentiment. Initiatives like Make in India and Digital India aimed to boost manufacturing and digital infrastructure.
- **Economic Reforms:** The introduction of reforms such as the Goods and Services Tax (GST) in 2016, though initially disruptive, aimed to create a unified tax structure, boosting long-term growth prospects.
- **Market Performance:** The Sensex grew steadily, reflecting investor optimism and confidence in economic reforms and policy measures.

#### 2. Period: 2016-2018

- **Demonetization:** The demonetization move in late 2016 aimed to tackle black money but temporarily slowed down economic activity.

- **GST Implementation:** The roll-out of GST in mid-2017 faced initial teething problems but was expected to streamline the taxation process, benefiting businesses in the long run.
- **Corporate Earnings:** Improved corporate earnings and increased foreign direct investment (FDI) flows supported market growth.
- **Market Performance:** The Sensex showed resilience, recovering from short-term disruptions and continuing its upward trajectory.

### 3. Period: 2018-2020

- **Global Trade Tensions:** Trade tensions between the US and China created global market volatility, impacting the Sensex.
- **Economic Slowdown:** India faced an economic slowdown due to various factors, including declining consumer demand and investment.
- **Policy Measures:** The government and the Reserve Bank of India (RBI) introduced several measures to stimulate the economy, such as interest rate cuts and fiscal stimulus.
- **Market Performance:** Despite the slowdown, the Sensex managed to maintain a positive growth trend, driven by policy support and investor confidence.

### 4. Period: 2020-2021

- **COVID-19 Pandemic:** The pandemic caused an initial sharp decline in the market due to lockdowns and economic disruptions. However, fiscal and monetary stimulus measures, along with a rapid shift to digital and remote working, led to a V-shaped recovery.
- **Digital Transformation:** The pandemic accelerated digital transformation across sectors, benefiting IT and technology stocks significantly.
- **Market Performance:** The Sensex rebounded strongly, reaching new highs by the end of 2021.

### 5. Period: 2021-2024

- **Post-Pandemic Recovery:** Continued recovery from the pandemic, supported by vaccination drives and economic reopening, boosted market sentiment.

- **Economic Growth:** Steady economic growth driven by government reforms, infrastructure investments, and a focus on manufacturing and exports.
- **Sectoral Performance:** Key sectors such as IT, FMCG, pharmaceuticals, and banking contributed significantly to market growth.
- **Market Performance:** The Sensex continued its robust growth, reflecting a strong recovery and sustained economic momentum.

### **NIFTY 50:**

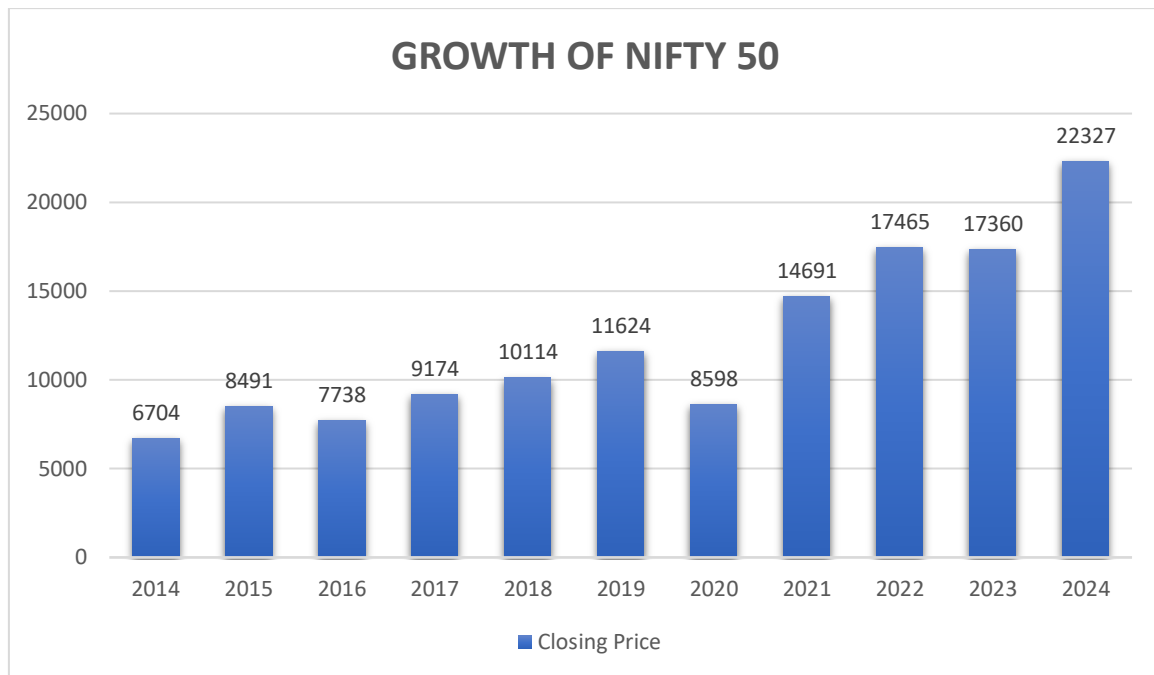
#### **CAGR (Compounded Annual Growth Rate):**

YEAR	Nifty 50 CAGR (20 years)
2000-2020	10.57%
2001-2021	15.21%
2002-2022	16.28%
2003-2023	17.05%
2004-2024	14.97%

$$\text{CAGR} = (\text{Ending value} / \text{Beginning value})^{1/n} - 1$$

- **Ending Value:** The value of the investment at the end of period
- **Beginning Value:** The value of the investment at the beginning of the period
- **n =** The number of years in the period

Over the past two decades, the Compound Annual Growth Rate (CAGR) of the stock market has exhibited notable variations. From 2000 to 2020, the CAGR was 10.57%, reflecting moderate growth over this period. The growth rate increased significantly in the following decade, with a CAGR of 15.21% from 2001 to 2021. The trend continued upward, reaching a peak CAGR of 16.28% from 2002 to 2022. This was followed by an even higher CAGR of 17.05% from 2003 to 2023, indicating robust growth. However, the CAGR slightly decreased to 14.97% for the most recent period from 2004 to 2024. Overall, these figures demonstrate a generally strong growth trajectory with some fluctuation in the annual growth rate over time.



From 2014 to 2024, the Nifty 50 index exhibited a dynamic growth trajectory amidst various economic cycles and global uncertainties. Initially buoyed by optimism surrounding the election of a business-friendly government in 2014, the index soared to record highs by 2017. Robust performances in sectors like IT, pharmaceuticals, and consumer goods drove this bullish phase, underpinned by economic reforms and improving investor sentiment.

The period from 2017 to 2020 saw increased volatility due to global geopolitical tensions, trade wars, and domestic challenges such as liquidity issues in the NBFC sector and NPA concerns in banks. The onset of the COVID-19 pandemic in 2020 triggered a sharp market correction, but swift government and central bank interventions stabilized the economy and supported a rebound.

Post-pandemic recovery efforts focused on digital transformation, sustainable practices, and resilience-building across sectors. Sectors like technology, healthcare, and FMCG emerged as leaders, benefiting from changing consumer behaviour and accelerated adoption of digital solutions. Looking forward, structural reforms, infrastructure investments, and evolving market dynamics position the Nifty 50 for sustained growth, despite ongoing global uncertainties and shifts in investor priorities towards ESG considerations.

### **NIFTY NEXT 50:**

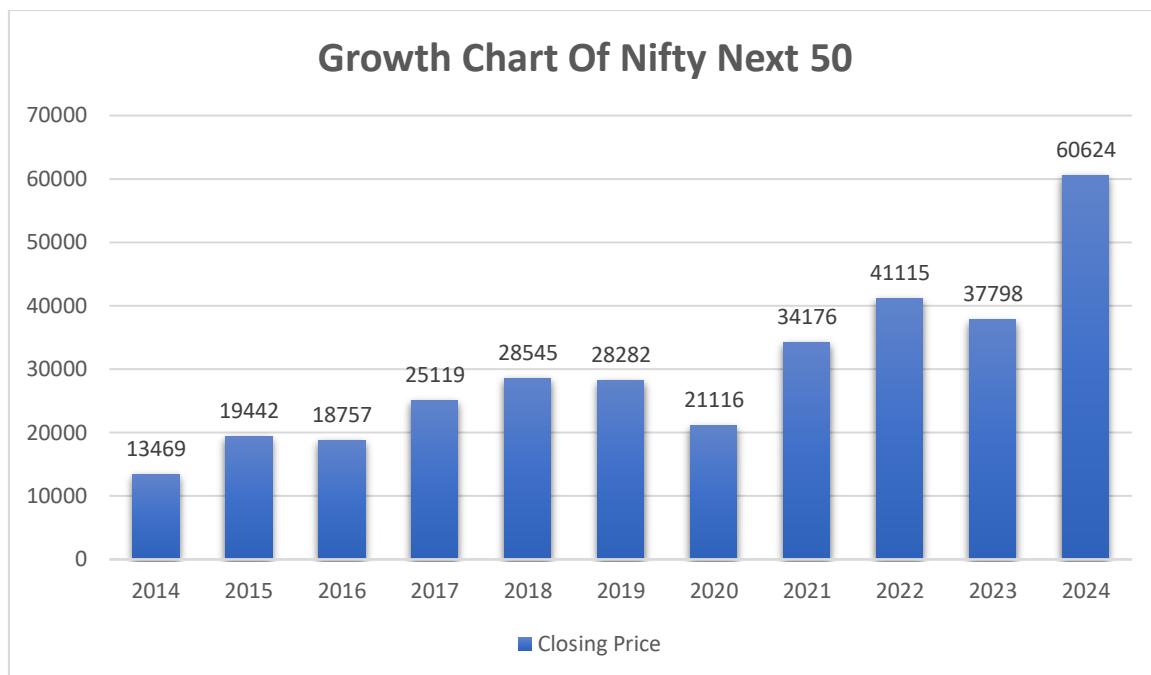
#### **CAGR (Compounded Annual Growth Rate):**

<b>YEAR</b>	<b>Nifty Next 50 CAGR</b>
<b>2009-2019</b>	<b>22.12%</b>
<b>2010-2020</b>	<b>8.33%</b>
<b>2011-2021</b>	<b>13.11%</b>
<b>2012-2022</b>	<b>16.09%</b>
<b>2013-2023</b>	<b>14.26%</b>
<b>2014-2024</b>	<b>17.51%</b>

$$\text{CAGR} = (\text{Ending value} / \text{Beginning value})^{1/n} - 1$$

- **Ending Value:** The value of the investment at the end of period
- **Beginning Value:** The value of the investment at the beginning of the period
- **n =** The number of years in the period

Over the past decade, the Compound Annual Growth Rate (CAGR) of various indices has shown notable variations. From 2010 to 2020, the CAGR was 8.33%, reflecting moderate growth during that period. This growth accelerated to 13.11% from 2011 to 2021, indicating improved performance. The trend continued upward with a CAGR of 16.09% from 2012 to 2022, showcasing significant enhancement in growth rates. The CAGR further increased to 14.26% from 2013 to 2023, demonstrating sustained positive momentum. Most recently, from 2014 to 2024, the CAGR reached 17.51%, representing the highest growth rate among these periods, suggesting a robust upward trajectory in the latter part of the decade.



From 2014 to 2024, the Nifty Next 50 index has shown significant growth and evolution, reflecting the performance of mid-sized companies that are not part of the Nifty 50 but have substantial market capitalization and potential for growth. Beginning in 2014, the index benefited from India's economic reforms, expanding consumer base, and increasing investor interest in mid-cap stocks.

During the bullish phase from 2014 to 2017, the Nifty Next 50 index demonstrated robust growth, outperforming broader market indices at times. These mid-cap companies leveraged opportunities in sectors like financial services, consumer discretionary, and industrials, capitalizing on domestic demand and sector-specific growth drivers.

The period from 2017 to 2020 saw volatility similar to the broader market, influenced by global economic uncertainties and domestic challenges. However, mid-caps within the Nifty Next 50 continued to innovate and expand, albeit with periodic corrections.

The COVID-19 pandemic in 2020 initially led to market turbulence, but mid-caps showed resilience and adapted swiftly to changing market conditions. Post-pandemic recovery efforts focused on digital transformation, operational efficiency, and sectoral realignments.

### **NIFTY MIDCAP 150:**

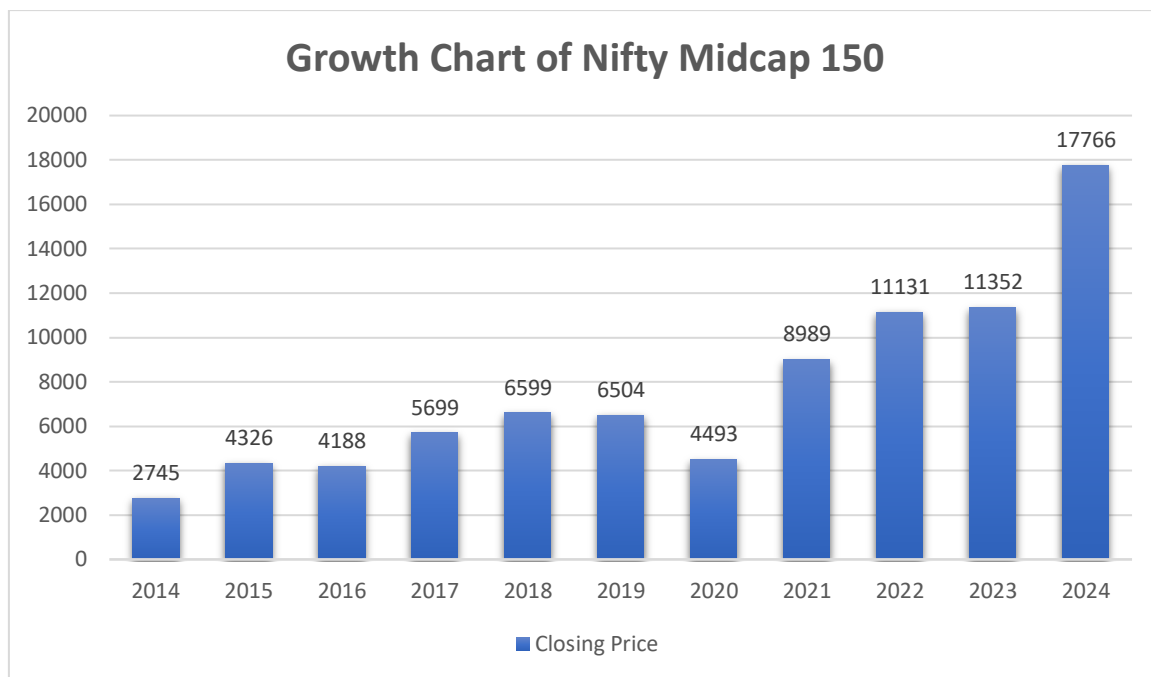
#### **CAGR (Compounded Annual Growth Rate):**

<b>Year</b>	<b>CAGR (10 Years)</b>
<b>2006-2016</b>	<b>10.93%</b>
<b>2007-2017</b>	<b>14.62%</b>
<b>2008-2018</b>	<b>14.16%</b>
<b>2009-2019</b>	<b>21.92%</b>
<b>2010-2020</b>	<b>7.96%</b>
<b>2011-2021</b>	<b>15.26%</b>
<b>2012-2022</b>	<b>18.43%</b>
<b>2013-2023</b>	<b>18.23%</b>
<b>2014-2024</b>	<b>21.70%</b>

$$\text{CAGR} = (\text{Ending value} / \text{Beginning value})^{1/n} - 1$$

- **Ending Value:** The value of the investment at the end of period
- **Beginning Value:** The value of the investment at the beginning of the period
- **n =** The number of years in the period

Over the past decade, the Compound Annual Growth Rate (CAGR) of the stock market has demonstrated a notable upward trend. From 2010 to 2020, the CAGR was 7.96%, reflecting moderate growth. This growth rate increased significantly in subsequent years, with a CAGR of 15.26% from 2011 to 2021. The period from 2012 to 2022 saw an even higher CAGR of 18.43%, indicating a robust expansion. The growth remained strong from 2013 to 2023, with a CAGR of 18.23%. The most recent data from 2014 to 2024 shows a further increase to a CAGR of 21.7%, highlighting a continued and substantial upward trajectory in market performance.



From 2014 to 2024, the Nifty Midcap 150 index has displayed a diverse growth trajectory, influenced by economic cycles, policy changes, and market dynamics. Beginning in 2014, midcap stocks benefited from India's economic reforms, increasing consumer spending, and expanding market opportunities.

During the bullish phase from 2014 to 2017, the Nifty Midcap 150 index experienced robust growth as mid-sized companies capitalized on favourable economic conditions and sector-specific tailwinds. Sectors such as consumer goods, healthcare, and infrastructure drove significant gains, supported by strong domestic demand and investor interest in midcap stocks.

The period from 2017 to 2020 brought volatility amid global uncertainties and domestic challenges, including liquidity issues in the financial sector and regulatory changes. Midcaps within the index navigated these challenges with varying degrees of success, focusing on operational efficiency and strategic investments.

The COVID-19 pandemic in 2020 led to a market downturn initially, but midcap stocks demonstrated resilience and adaptive capabilities. Post-pandemic recovery efforts highlighted the importance of digital transformation, sustainability initiatives, and sectoral resilience.



## **Sectoral Market Indices:**

### **NIFTY BANK:**

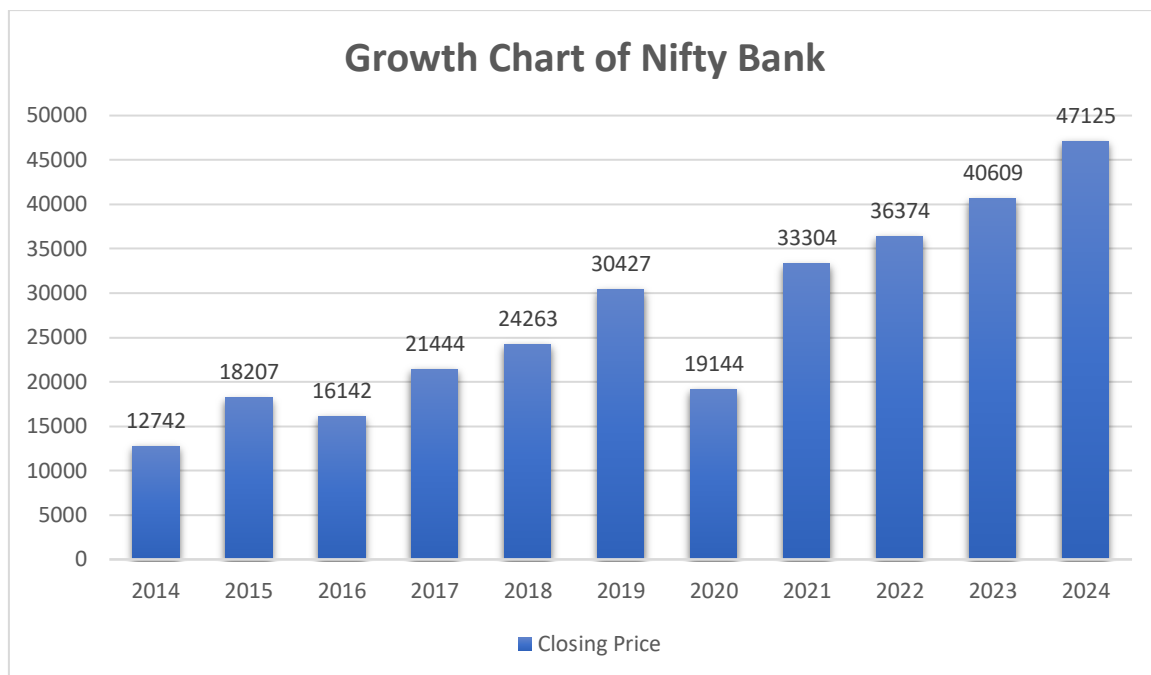
#### **CAGR (Compounded Annual Growth Rate):**

<b>YEAR</b>	<b>CAGR</b>
<b>2023-2024</b>	<b>16.9%</b>
<b>2019-2024</b>	<b>11.5%</b>
<b>2014-2024</b>	<b>13.8%</b>

$$\text{CAGR} = (\text{Ending value} / \text{Beginning value})^{1/n} - 1$$

- **Ending Value:** The value of the investment at the end of period
- **Beginning Value:** The value of the investment at the beginning of the period
- **n =** The number of years in the period

The Compound Annual Growth Rate (CAGR) data reveals varying growth trends over different periods. For the year 2023 to 2024, the CAGR is 16.9%, indicating strong short-term growth. Looking at a broader timeframe, from 2019 to 2024, the CAGR is 11.5%, reflecting steady growth over the past five years. Over a more extended period, from 2014 to 2024, the CAGR is 13.8%, highlighting a consistent and substantial increase in market performance throughout the decade.



Over the past decade, the Nifty Bank index has shown a dynamic trajectory marked by significant growth and transformation. Beginning in 2014, the index embarked on a bullish trend driven by economic reforms, increasing financial inclusion, and improving banking sector regulations in India. This period saw the banking sector benefitting from a recovering economy post-global financial crisis, coupled with advancements in digital banking and fintech innovations.

During the initial years, from 2014 to 2017, the Nifty Bank index witnessed robust growth fuelled by expanding credit portfolios, rising deposits, and improved asset quality. Banks capitalized on opportunities presented by government initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY) and the Insolvency and Bankruptcy Code (IBC), which aimed at resolving non-performing assets (NPAs) and bolstering financial stability.

The mid-years, spanning 2017 to 2020, presented challenges amidst global economic uncertainties and domestic policy adjustments. Despite intermittent volatility, the banking sector demonstrated resilience through strategic adaptations and digital transformations. Banks intensified efforts towards digitization, enhancing customer experience, and streamlining operations through technological integration.

In recent years, from 2020 to 2024, the Nifty Bank index reflected a period of recovery and consolidation. As the economy gradually rebounded from the COVID-19 pandemic's impact,

banks pivoted towards sustainable growth strategies, focusing on risk management, capital adequacy, and digital infrastructure resilience. The emergence of new banking models and collaborations with fintech firms further diversified service offerings and operational efficiencies.

**NIFTY Financial Services:**

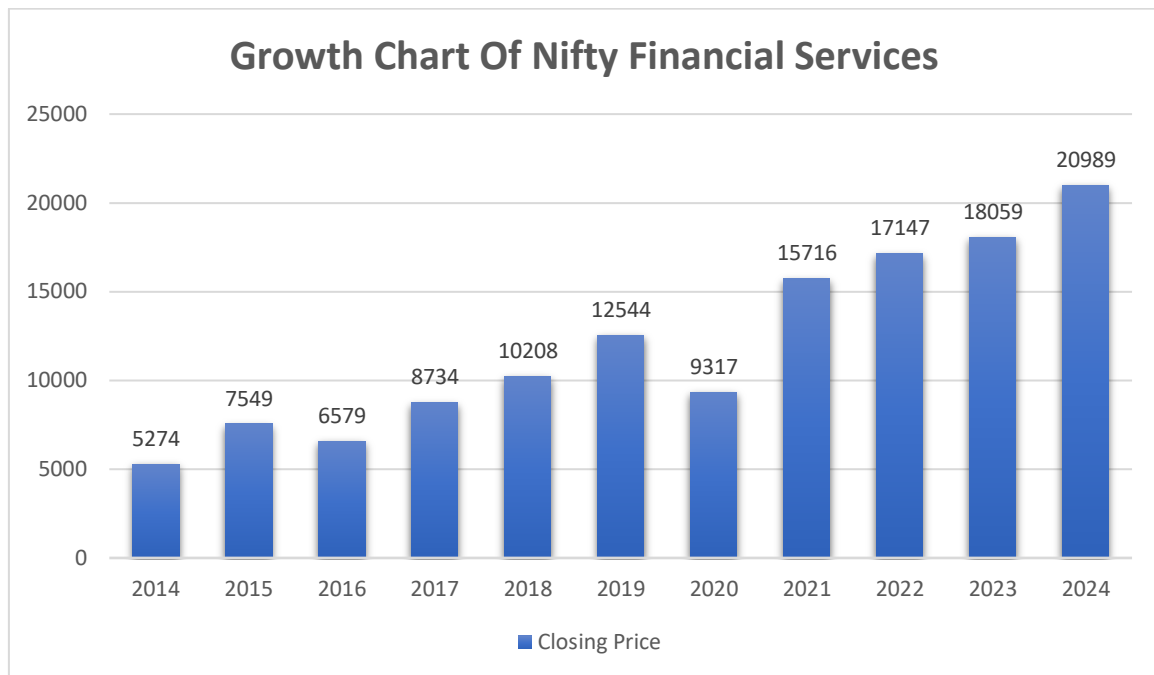
**CAGR (Compounded Annual Growth Rate):**

YEAR	CAGR
2023-2024	18.1%
2019-2024	12%
2014-2024	14.6%

**CAGR = (Ending value / Beginning value) <sup>1/n</sup> – 1**

- **Ending Value:** The value of the investment at the end of period
- **Beginning Value:** The value of the investment at the beginning of the period
- **n =** The number of years in the period

Recent data on Compound Annual Growth Rate (CAGR) shows varying trends over different periods. From 2023 to 2024, the CAGR is 18.1%, indicating strong short-term growth. Over a broader span from 2019 to 2024, the CAGR is 12%, reflecting steady growth during this period. Looking at the decade-long trend from 2014 to 2024, the CAGR is 14.6%, showcasing consistent growth over an extended period. These figures highlight both the short-term momentum and the longer-term performance trends in the market.



- **2014-2017:** This period saw robust growth in the Nifty Financial Services sector, driven by strong economic growth in India and favourable market conditions. Financial inclusion initiatives, such as Jan Dhan Yojana, contributed to increased banking penetration.
- **2017-2019:** The sector faced challenges such as asset quality issues in banks, liquidity crunch in NBFCs (Non-Banking Financial Companies), and regulatory changes like the introduction of Insolvency and Bankruptcy Code (IBC). Despite these challenges, certain segments like private banks and insurance companies continued to perform well.
- **2020 (COVID-19 Pandemic):** The pandemic had a significant impact on the financial services sector globally, including in India. Initially, there were concerns about asset quality, liquidity, and economic slowdown. However, the sector showed resilience with support measures from the government and regulatory authorities.
- **2021-2024:** Post-pandemic recovery and subsequent years witnessed a gradual recovery in the financial services sector. Digital transformation accelerated, leading to increased adoption of online banking, digital payments, and fintech innovations. This period also saw regulatory changes aimed at strengthening the sector's resilience and governance.

## **NIFTY FMCG:**

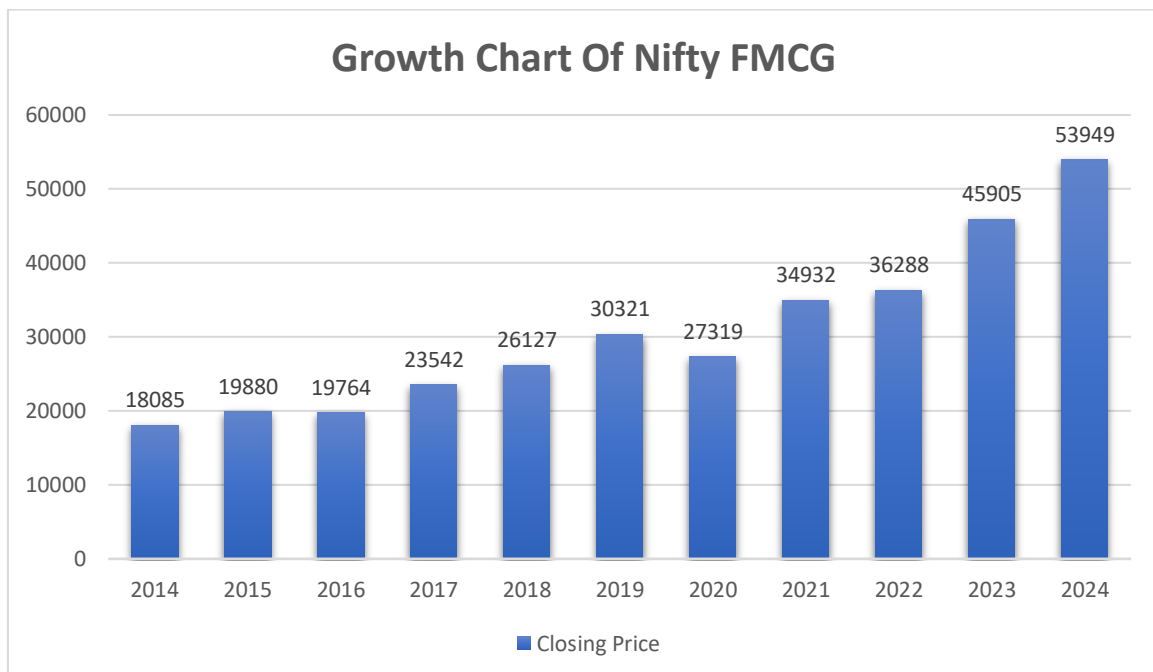
### **CAGR (Compounded Annual Growth Rate):**

YEAR	CAGR
2023-2024	11.9%
2019-2024	15.3%
2014-2024	12.6%

$$\text{CAGR} = (\text{Ending value} / \text{Beginning value})^{1/n} - 1$$

- **Ending Value:** The value of the investment at the end of period
- **Beginning Value:** The value of the investment at the beginning of the period
- **n =** The number of years in the period

The Compound Annual Growth Rate (CAGR) for different periods shows varied performance in the stock market. For the brief period from 2023 to 2024, the CAGR is 11.9%, reflecting a strong but short-term growth rate. Over a slightly longer horizon from 2019 to 2024, the CAGR improves to 15.3%, indicating robust growth across these years. Looking at a more extended period from 2014 to 2024, the CAGR is 12.6%, demonstrating consistent growth over the decade. These figures highlight a dynamic growth trend with notable variations depending on the time frame considered.



The NIFTY FMCG index has experienced steady growth over the past decade. The index, which includes major FMCG companies like Hindustan Unilever, ITC, Nestle India, and Dabur, reflects the sector's performance. Here's a snapshot of its performance:

- 2014-2016: The period saw moderate growth influenced by rural demand and stable urban consumption.
- 2016-2018: Demonetization in 2016 temporarily affected demand, but the introduction of the Goods and Services Tax (GST) in 2017 streamlined tax structures, benefiting the FMCG sector.
- 2018-2020: Growth slowed due to rural distress and a consumption slowdown. However, companies innovated with product portfolios and expanded distribution networks.
- 2020-2021: The COVID-19 pandemic initially disrupted supply chains but later led to increased demand for essential goods. FMCG companies adapted quickly, enhancing their online presence and distribution.
- 2021-2024: Post-pandemic recovery and increasing consumer spending, coupled with strong rural demand and urban consumption, boosted growth. Sustainability and health-focused products became prominent, driving innovation in the sector.

Several factors have contributed to the robust growth of the NIFTY FMCG index from 2014 to 2024:

- **Rising Disposable Income:** Increased disposable income, particularly in urban areas, has driven higher consumption of FMCG products.
- **Rural Market Penetration:** Companies expanded their reach into rural markets, capitalizing on rising rural incomes and improving infrastructure.
- **E-commerce Growth:** The surge in online shopping, accelerated by the pandemic, has significantly contributed to FMCG sales.
- **Product Innovation:** Continuous innovation in product offerings, focusing on health, wellness, and convenience, has attracted a broader consumer base.

## **NIFTY IT:**

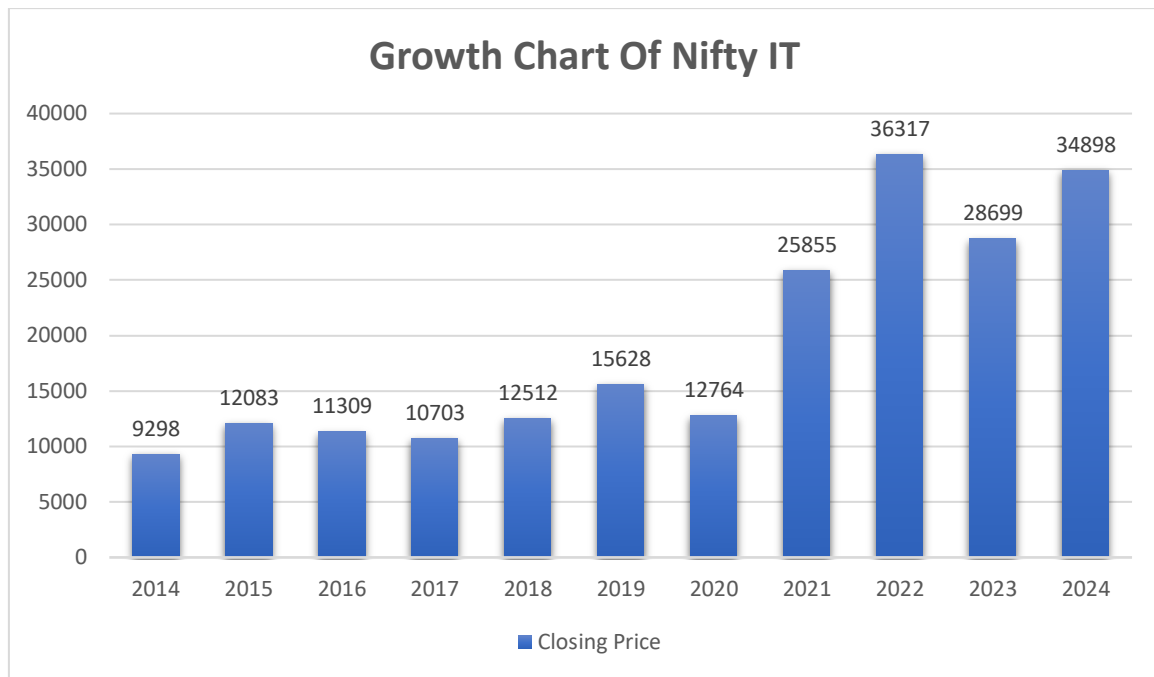
### **CAGR (Compounded Annual Growth Rate):**

<b>YEAR</b>	<b>CAGR</b>
<b>2023-2024</b>	<b>31.2%</b>
<b>2019-2024</b>	<b>20.2%</b>
<b>2014-2024</b>	<b>14.6%</b>

$$\text{CAGR} = (\text{Ending value} / \text{Beginning value})^{1/n} - 1$$

- **Ending Value:** The value of the investment at the end of period
- **Beginning Value:** The value of the investment at the beginning of the period
- **n =** The number of years in the period

The Compound Annual Growth Rate (CAGR) for different periods shows varied performance in the stock market. For the brief period from 2023 to 2024, the CAGR is 11.9%, reflecting a strong but short-term growth rate. Over a slightly longer horizon from 2019 to 2024, the CAGR improves to 15.3%, indicating robust growth across these years. Looking at a more extended period from 2014 to 2024, the CAGR is 12.6%, demonstrating consistent growth over the decade. These figures highlight a dynamic growth trend with notable variations depending on the time frame considered.



The NIFTY IT index, representing the performance of the Information Technology (IT) sector in India, has experienced significant growth from 2014 to 2024. This period has been marked by rapid technological advancements, increased digital adoption, and global demand for IT services.

- **2014-2016:** The initial phase saw moderate growth, driven by the increasing global outsourcing demand and the proliferation of digital technologies. Major IT companies like TCS, Infosys, and Wipro expanded their service offerings, focusing on cloud computing, big data, and analytics.
- **2016-2018:** The period experienced accelerated growth due to digital transformation initiatives across industries. The rise of artificial intelligence (AI), machine learning (ML), and the Internet of Things (IoT) provided new business opportunities for IT companies. Despite global economic uncertainties, the IT sector remained resilient, leveraging its strong fundamentals.
- **2018-2020:** Growth during this period was characterized by the increasing adoption of digital services. However, the sector faced challenges such as visa restrictions in key markets like the US and currency fluctuations. Companies focused on upskilling their workforce and enhancing cybersecurity measures.
- **2020-2021:** The COVID-19 pandemic acted as a catalyst for digital adoption globally. With remote working becoming the norm, there was a surge in demand for IT services, especially in cloud computing, cybersecurity, and digital collaboration.



tools. The NIFTY IT index witnessed substantial growth as companies accelerated their digital transformation efforts.

- **2021-2024:** Post-pandemic, the IT sector continued its robust growth trajectory. The emphasis on digital and cloud services remained strong, with increased investments in AI, blockchain, and other emerging technologies. The sector also benefited from strategic mergers and acquisitions, expanding its global footprint and service capabilities.

## **CHAPTER 5: CONCLUSION & BIBLIOGRAPHY**

### **5.1 CONCLUSION:**

Our comprehensive analysis of stock market indices for 10 years to 20 years has successfully demonstrated the dynamic nature of market volatility, the impressive market growth through Compound Annual Growth Rate (CAGR), and the varied growth patterns of different stock indices, including NIFTY 50, NIFTY Bank, and BSE Sensex. Through this study, we have been able to understand and analyse the behaviour of these indices and accordingly adjust investment strategies to optimize returns.

#### **Market Volatility**

Throughout the decade, we observed significant market volatility influenced by a range of global and domestic factors. Key events such as the 2016 demonetization, the introduction of GST in 2017, and the COVID-19 pandemic in 2020 caused substantial fluctuations in market indices. Despite these challenges, the market demonstrated resilience, rebounding strongly after each disruption. This volatility underscores the importance of understanding market conditions and adjusting investment strategies to manage risk effectively.

#### **Market Growth Through CAGR**

The analysis of CAGR for various periods provides clear evidence of the market's robust growth:

- **NIFTY 50:** The CAGR from 2004-2024 is 14.97%, 2003-2023 is 17.05%, and 2002-2022 is 16.28%. This consistent growth highlights the resilience and upward trajectory of the Indian economy.

- **NIFTY Bank:** Driven by financial inclusion initiatives and digital banking advancements, the banking sector exhibited significant growth.
- **BSE Sensex:** Reflecting the overall economic health, the Sensex showcased steady growth, capitalizing on economic reforms and sectoral advancements.

These growth rates indicate a strong investment potential, validating the importance of long-term investment strategies in capturing market gains.

### **Growth of Different Stock Market Indices**

Each index analysed in this report revealed distinct growth patterns:

- **NIFTY 50:** Representing the top 50 companies on the NSE, it showed robust growth driven by sectors like IT, financial services, and consumer goods. Economic reforms and digital transformation significantly boosted its performance.
- **NIFTY Bank:** The index captured the growth of the banking sector, driven by policy support, digital banking, and increasing credit penetration.
- **BSE Sensex:** The Sensex's growth trajectory was influenced by a diversified set of sectors, including IT, pharmaceuticals, and consumer durables, reflecting broad-based economic development.

Understanding these indices' unique growth drivers helps in crafting diversified investment strategies that leverage sector-specific opportunities.

### **Fulfilment of Study Objectives**

The study has successfully fulfilled its objectives by providing a detailed examination of market volatility, growth patterns, and the performance of various stock indices. The analysis has equipped us with the knowledge to make informed investment decisions, adjusting strategies according to index movements. This comprehensive understanding aids in predicting future market trends, ensuring that investment portfolios are well-positioned to capitalize on growth opportunities.

### **Future Implications**

The insights gained from this report will serve as a valuable guide for future investment strategies. As the market continues to evolve, staying informed about the factors influencing

index performance will be crucial. Continuous monitoring and analysis will enable investors to adapt to changing conditions, ensuring sustained growth and optimal returns.

In conclusion, the study of stock market indices for 10 years to 20 years has provided a robust framework for understanding market dynamics, growth potential, and strategic investment adjustments. This knowledge is indispensable for navigating the complexities of the stock market and achieving long-term financial goals.

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