

A Study on Performance of High Beta Stocks in Listed in NSE

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Abstract:

The Study examines the performance of high beta stock in IT sector that are listed on the NSE. The study aims to determine the effectiveness of stock investment strategies, pinpoint possible risks and opportunities, and provide resource for enhancing overall stock growth and stability.

Using a descriptive research design, the study relies on secondary data from publications, websites, money control, Investing.com, The analysis focuses on calculating Nifty performance over the previous five years and figuring out returns. studying the return of investment, CAGR, and comparing the Nifty with return calculation for the chosen eight IT Companies are among the specific goals.

The study's methodology includes calculating and interpreting the return, CAGR and using the formula and data visualization techniques to clearly present findings. The analysis focuses on figuring out returns and Nifty performance over the course of the study.

By focusing on these elements, the study hopes to provide useful data for improving investment and decision making. The purpose of study is to comprehend market stock investment strategies. It is beneficial for investors to research high beta stocks in the IT industry.

Key Words: High Beta Stock, Stock Exchange, CAGR (Compound Annual Growth Rate)

1.1 Introduction

The stock market plays a important role contributes significantly to the economic growth of a country by providing investment opportunities and facilitating capital formation. Among the different investment avenues, the equity shares are the most preferred by the investors for higher returns. Stocks, however, entail different levels of risk and return. Beta is one of the significant to measures to measures the volatility of a stock.

Beta is a quantitative indicator that measures the sensitivity of a stock's returns to movements in the overall market. A stock with a beta greater than 1.0 is called a high beta stock, this means that it moves more than the market index. These stocks usually have the potential to generate higher returns during bullish market conditions but also bear greater risk in market downturns.

The Information Technology (IT) sector is one of the most important industries in the Indian economy. It plays a significant role in increasing exports, creating employment opportunities, and supporting technological development. IT companies traded on the National Stock Exchange (NSE), such as TCS, Infosys, Wipro, HCL Technologies, Tech Mahindra, Mphasis, LTIMindtree, and Oracle Financial Services Software, have attracted the attention of investors because of their strong growth potential and consistent performance in the stock market.

This study focuses on analysing the growth performance of selected high beta IT NSE listed stocks over the last five years. The study evaluates stock returns, growth trends, and risk characteristics using financial measures such as annual returns and Compound Annual Growth Rate (CAGR). By examining the performance of these companies, the research seeks to provide a deeper understanding of the risk-return relationship within the IT sector and assist investors in making informed investment decisions. into the risk-return relationship.

The findings of this study will be useful for investors, researchers, and market analysts seeking to understand the behaviour and performance of high beta IT stocks in India.

1.2 INDUSTRY PROFILE

The stock exchange serves as an essential share within the stock market, enabling transaction between traders of financial instruments and potential buyers, In India, stock exchanges function under the guidelines and regulation set by SEBI (securities and Exchange Board of India) This regulatory body oversees safeguarding investor's interests and fostering the development of the India stock market.

In India, stock exchanges act as a marketplace for the trading in financial instruments such as stocks, bonds, and commodities.

The stock exchange serves as a platform where buyers and sellers meet to trade financial instruments during set business hours, following SEBI's established guidelines Only companies listed on a recognized are allowed to participate in trading. stocks not listed on an official stock exchange can still be traded in the 'over-the-counter'(OTC) market However, these stocks are typically not held in high regard within the stock market.

Features of stock exchange

A stock exchange is a platform where monetary securities like stocks, bonds, and other instrument are traded. Its main features are:

- **Trading Platform:** Stock exchanges offer a centralized marketplace where buyers and sellers can trade financial securities within a regulated setting.
- **Price Determination:** Price of stocks and securities are established through market forces of supply and demand, which in turn reflects market sentiment and the financial status of the companies listed.
- **Regulation:** Stock exchange are usually overseen by government agencies (such as the SEC in US) to maintain transparency, fairness, and safeguard investors interests.
- **Market Participants:** Different type of market participants, such as retail investors, institutional

participants brokers, and market makers, are active within a stock exchange, their involvement helps enhance the market's liquidity and efficiency.

History of Stock Exchange in India

The Bombay Stock Exchange (BSE) was founded in 1875, among Asia's oldest stock exchanges. The National Stock Exchange (NSE), was founded in 1992, and introduced electronic trading making the India's stock market faster, more efficient, and transparent. During the 1990s, several important reforms were introduced, including the establishment of the SEBI (Securities and Exchange Board of Indian), which strengthened market regulation and improved investors protection. the Indian stock market continues to grow with advancement technological and increasing participation from investors.

India has two major stock exchanges:

1. National Stock Exchange (NSE)

The National Stock Exchange (NSE) was established in 1992. It introduced electronic trading in India, making the trading process faster, more transparent, and efficient. Today, it ranks among the country's largest stock exchanges and is recognized for its advanced technology and high trading activity.

2. Bombay Stock Exchange (BSE)

The Bombay Stock Exchange (BSE) established in 1875, is one the oldest stock exchanges in Asia. It has played an important role in the development of India's capital market and continues as a leading platform for trading securities.

1.3 Top IT Companies taken for study:

1. TCS (Tata Consultancy Service)

TCS is a international leader in IT services, consulting, and corporate solutions, and corporate solutions, and stands as the leading IT services and consulting company in India. It offers a comprehensive range of services, such as application development and cloud computing, and cybersecurity.as single among India's largest Indian companies by market capitalization, TCS consistently ranks between the top IT services firms worldwide. The company maintains a strong presence in multiple industries, including banking retail, telecommunications, and healthcare.

- **CEO:** K Krithivasan
- **Founded:** 1968
- **Headquarters:** Mumbai, Maharashtra
- **Market cap(Approx):** RS 8.92 Lakh crores

2. Infosys

Infosys is a multinational company specializing in IT accessing and services for its assurance to invention and its essential role in India's IT boom. It was among the first Indian firms to list on NASDAQ and maintains a global footprint with offices in many countries. Infosys offers business consulting IT, and outsourcing services, with a solid focus on revolution and sustainability.

- **CEO:** Salil parekh
- **Founded:**1981
- **Headquarters:** Bangalore, Karnataka

- **Market cap (Approx):** RS 5.29 Lakh crores

3. HCL Technologies

HCL Technologies is a leading global IT facilities and consulting company from Indian, specializing in IT and business process management services application development, and engineering services widely recognized for its commitment on research and innovation, HCL is recognized for its technological excellence advancements. The company offers a wide array of products, and services, and intellectual property through its innovative mode 1-2-3 strategy.

HCL Tech recently opened a global delivery centre in Rabat, Morocco, to lead digital transformation initiatives for client, with a focus on digitization, cloud technology, artificial intelligence (AI), and software engineering development.

- **CEO:** C Vijayakumar
- **Founded:** 1976
- **Headquartered in :** Noida, Uttar Pradesh, India
- **Market cap (Approx):** RS 3.66 Lakh crores

4. LTIMindtree Ltd

LTM is a global technology consulting and digital solution provider, offering It services, engineering, and cybersecurity solutions across various industries. The company is noted for its expertise in digital transformation, application development, and data analytics. In June 2023, LTM teamed up with schneider-Neureuther & partner (SNP) to introduce Accelerated Migration for Bluefield integration. This comprehensive lifecycle solution aims to accelerate transition to SAP S/4HANA minimizing risk while enabling enterprises to retain their ERP systems.

- **CEO:** Debashis Chatterjee
- **Founded:** 1996
- **Headquarters:** Bengaluru, Karnataka, India
- **Market cap (Approx):** 1.28 Lakh crore

5. WIPRO

Wipro is a globally recognized IT services company that specializes in consulting, IT and business process management services, It caters to clients in diverse sectors such as healthcare, banking and telecommunication. Wipro is recognized for its dedication to sustainability and social responsibility and is featured in several global sustainability indices. Recently, Wipro Fullstride Cloud has collaborated with pure storage, an enterprise data management technology provider, to help clients speed up their sustainability initiatives.

- **CEO:** Srini Pallia
- **Founded:** 1945
- **Headquarters:** Bangalore, Karnataka
- **Market Cap (Approx):** 2.75 Lakh crore

6. Tech Mahindra

Tech Mahindra is a multinational technology firm that provides IT and business operations management services. The company has a strong presence in telecommunication and specializes in digital transformation solution. The company is widely recognized for its dedication to sustainability and corporate social responsibility. In march 2023, Mohit Joshi was named the MD & CEO designate of Tech Mahindra, succeeding Gumani, who retired on December 19,2023 Joshi previously served as president of Infosys.

- **CEO:** Mohit Joshi
- **Founded:** 1986
- **Headquartered:** Pune, Maharashtra, India
- **Market Cap (Approx):** 1.31 Lakh crore

7. Oracle Financial Services Software Ltd

Oracle Financial Services provides among the most sophisticated and comprehensive banking and fintech technology solutions to address diverse technology and business requirements. Recently, AmBank Group Berhad, a Malaysian financial institution, has enhanced its technology partnership with Oracle by signing an agreement its Financial Analytical Applications. Additionally, Ajman Bank based in Ajman, UAE, recently entered into an agreement with Oracle to subscribe for Oracle Financial Services Analytical Application Cloud Service.

- **CEO:** Makarand S. Padalkar
- **Founded:** 1989
- **Headquarters:** Mumbai, India
- **Market Cap (Approx):** 0.97 Lakh crore

8. Mphasis Ltd

Mphasis founded in 1998, the leverages cutting- edge technology to assist enterprise in global business transformation. The company is well-positioned to spearhead digital transformation thanks to its efficient service deliver, expertise in business process, and extensive service portfolio. Although it faced a significant drop in performance during the final quarter of 2022 and continues to encounter challenges, Mphasis benefits from substantial backing through investment from Blackstone, Abu Dhabi Investment Authority (ADIA), and The Regents of the University of California Regents.

- **CEO:** Nitin Rakesh
- **Founded:** 2000
- **Headquarters:** Bangaluru, Karnataka, India
- **Market Cap (Approx):** 0.55 Lakh crore

1.4 COMPANY PROFILE

Name	Consortium Securities Private Limited
Date of incorporation	03-05-1994
Registered state	Delhi
Registrar of companies	Roc-Delhi
Category	Company limited by shares
Sub Category	Non-govt company
Company Class	Private
Company Status	Active

Equity Capital Information Authorized Capital : 150000000.00 Paidup Capital : 99920200.00

Email ID : rajan@consortiumsecurities.com

Registered office Address: 36 SANT NAGAR East of Kailash, New Delhi DL IN110065

1.5 History Company Background

Consortium securities is recognized as distinguished financial services intermediary with a long-established presence in India's stock broking industry. Founded in 1994, we became an NSE member in 1995 and have been providing brokerage services to clients more than 25 years. Over time, we have broadened our services and are now involved with all major exchanges, including the Bombay Stock Exchange, MCX, NCDEX, MSEI, and F&O segments. Additionally, we are registered with NSDL as a Depository Participant, AMFI as Mutual Fund Distributors, and are also SEBI Registered Investment Advisors and Portfolio Managers.

Our facilities focus putting our client's needs first, and we were founded with the goal of simplifying the complex financial markets. Our core values emphasize integrity, transparency, dedication to excellence, and teamwork. Each of our branches is equipped with the latest technology and connectivity, and is managed by experienced professionals. In recent years, we have substantially strengthened capabilities to complement our branch network. We now offer a comprehensive online platform that manages every aspect of product execution, reporting, and analysis.

1.6 VISION AND MISSION VISION:

"Simplify the complexities of financial markets and our entire offering is built on the principal of putting of client interest first."

MISSION:

“To deliver exceptional financial services, Client-centric, Financial service through innovation, Integrity, and Market leadership.”

1.7 PRODUCTS AND SERVICES:

Mutual Funds

Mutual Funds, with their transparent, liquid, and tax-friendly forms, are among the best instrument for building wealth over the long run. In addition to choosing funds, we also have experience making sure clients are suitable.

Broking Services

You can trade stocks, derivatives, commodities, and mutual funds all with the same trading account. You can trade both online (with a desktop app, mobile app, or browser) and offline (with branch and sub broker assistance) thanks to our strong and integrated execution platform.

Wealth Advisory

Our Primary focus is on risk management for investment, with a view to assisting clients in realizing their long-term objectives. Treasury Management, Family Office Services and Financial planning & Goal Mapping are some of our solutions.

Portfolio Management

PMS is a tailored equities investing option for HNIs that is ideal for long-term wealth growth. Our approach is to invest mostly in scalable, high-quality companies that are managed by capable management teams that have similar goals.

Equity Research

The best way to create wealth is through stocks, which is what we do best. We evaluate firms, management quality, declarations of interest, and-most importantly-valuations that offer a significant margin of safety through a comprehensive research and due diligence process.

Depository Participant Services

The company provides the benefits of holding securities in dematerialized form as NSDL Depository Participants. We offer dematerialization services, share pledging, electronic Delivery Instruction Slip (DIS) processing, inter and intra-depository transfers, and reporting service solutions.

1.8 SWOT Analysis STRENGTHS

- Leader in technological innovation.
- Consistent high demand across industries.
- Operate Worldwide, diversifying risk and increasing revenue streams.
- Attracts and retains a highly skilled workforce.

WEAKNESS

- Technology changes rapidly, requires constant updates.
- High vulnerability to cybersecurity threats.
- Significant expenses in R&D marketing, and talent acquisition.
- Rapidly evolving threat landscape, shortage of cybersecurity talent, high initial investment in

infrastructure.

OPPORTUNITIES

- Growing IT adoption in developing regions.
- Increasing digital transformation needs in businesses.
- Growing e-commerce market, growing preference for customized shopping experiences expansion into global market.
- Growing market for cloud security, compliance regulation is fueling the growing demand for cybersecurity services.

THREATS

- Shortage of skilled IT professionals
- Intense competition, regulatory challenges, data privacy concerns, economic downturns affecting IT spending.
- Sophisticated cyber threats, regulatory changes impacting compliance standards, competition from larger players.

CONCEPTUAL BACKGROUND AND LITERATURE REVIEW

2.1 High beta stocks of IT sectors listed in NSE

A statistical indicator of the stock's volatility in relation to the market as a whole are a benchmark index is called Beta.

Regression analysis, a statistical method employed to determine the connection between a dependent variable and one or more independent variables, is utilized to calculate this. In the instance of stock beta, the stock's risk functions as the dependent variable, while the market's overall volatility acts as the independent acts as the independent variable.

Features of the Top High Beta Stocks in NSE

High beta stocks can be distinguished from low beta or medium beta equities by their unique characteristics. High beta stocks have the following essential characteristics:

- Sensitivity to market movement: Stocks with a high beta are more susceptible to changes in the general market. They tend to experience larger gains during bull markets and greater declines bear markets compared to the broader market.
- Volatility: The price volatility of these equities is greater than that within the market as a whole. High beta equities are subject to larger and more frequent price fluctuations.
- Aggressive growth potential: Business that anticipate quick expansion sometimes associate with high beta stocks. These companies have the potential to yield large profits, which draws in investors.
- Cyclical Industries: The technology, biotech, and commodities sectors are characterized by a high concentration of high beta equities. These sectors are subject to notable fluctuations and are more vulnerable to economic cycles.
- High returns(potentially): High beta equities may be able to produce greater returns because of their increased volatility, particularly in bull market environments.

➤ **High Risk:** High beta equities are riskier due to their heightened volatility and sensitivity to market fluctuations. Investors should be ready for more significant price swings along with as possible losses.

Meaning of High Beta Stocks

High beta stocks are shares with a beta value greater than 1. These stocks tend to be more volatile than the overall market, meaning their prices can rise or fall more sharply. Because of this, they carry a higher level of risk. However, they may provide the chance for higher returns, although higher risk does not guarantee higher profits. Investors prepared to take more risk often choose high beta stocks with the hope of earning better returns.

How to Interpret the Beta Value

- **Beta = 1:** The stocks move in line with the market compared to the market rises or falls by a certain percentage, the stocks is expected to move by a similar amount.
- **Beta greater than 1:** The stocks is more volatile than the market. Its price tends to fluctuate more, making it riskier but with the potential for higher returns.
- **Beta less than 1:** The stock is less volatile than the market. Its price is generally more stable, making it a lower-risk investment.

High Alpha and Low Beta Stocks

High alpha and low beta stocks are known for offering better returns while carrying lower market risk. A beta value below 1 means these stocks are less sensitive to market movements and generally experience lower price volatility than the broader market. At the same time, a high alpha value shows that these stocks have outperformed the market after considering the amount of risk involved. Because of this combination, they are often preferred by investors seeking stable investment with the potential to earn above-average returns.

Risks of Investing in High Beta Stocks

- Are relatively riskier.
- Have other associated risks
- Reliance on past data

Benefits of Investing in High beta Stocks

- Higher Returns
- Diversification
- Exposure to Growth Industries
- Potential for Capital Appreciation

2.2 LITERATURE REVIEW WITH RESEARCH GAP

1. **T. Mallikarjunappa and Shaini Naveen (2016)** The return and risk of CNX Bank and Nifty stocks were analysed, with a focus on understanding the relationship between stock returns and index returns through beta, a measure of systematic risk. The study considered twelve Bank Nifty banks, revealing that all had positive beta values. “The study also founded that the” risk level of different stocks varies at the same return point. Therefore, it is recommended that investors should understand the market and continuously evaluate it when selecting stocks for investment

2. **Arya Mol J, Dr. A S Ambily (2017), and Shilpa K S** conducted a basic examination of a few IT

businesses that are traded on the NSE. The Study's analysis is categorized into three sections: Company, Industry, and Economic analysis. The report suggests holding the stock to avoid depreciation.

3. Amal Vijay A K and Dr. M. Muthu Gopalakrishna (2017) attempted to evaluate The risk-return profiles of ten pharmaceutical companies listed on the NSE. The analysis was conducted using the following tools: covariance, alpha, beta, standard deviation, correlation, and mean. The five years that the data was gathered, from 2012 to 2015, were covered. Through their evaluation of these companies' businesses, conclude that, for the study an investor to achieve high returns, it is critical to take the stock's risk-return characteristics into account.

4. Rajesh Ramkumar et al. (2018) conducted study on reveals about the efficiency of Sectoral Indices: A Comparative study on BSE and NSE indices The study was planned for depositors seeking to choose better stocks to buy. Stockholders may find this evidence it helpful in determining which industries are successful and in allocating resources accordingly. In this research, The BSE and NSE sectoral indices' poor form of efficiency and random distribution were measured.

5. Krishnamoorthi (2018) studied the risk and return performance of chosen stocks listed on the NSE in India, and the research also examined how stock prices changed over different time periods. The study concluded that stocks from Various industries exhibit varying different levels of risk. Therefore, investors should carefully analyse market conditions before selecting a portfolio for investment.

6. Kavya (2018) evaluated the performance of nationalized banks listed on the NSE for the period from 1 January to 31 December 2017. The research concentrated on return, risk, and beta, using the Bank Nifty Index as the benchmark. The researcher applied the Data Envelopment Analysis (DEA) method to measure the efficiency of the banks, and the results indicated that Axis Bank had lower investment risk, while Bank of India and Punjab National Bank had higher risk along with higher returns.

7. J Hema and V Ariram (2019) started that investors should carry out both technical and fundamental analysis before investing in shares, especially those of pharmaceutical companies listed on the NSE. Their study also highlighted the steady growth of India's pharmaceutical industry and its investment potential.

8. Dr. Bhavya Vikas, Varshini Venu, and Chaithra C M. (2019) The study focused on equity research using technical analysis, aiming to identify four trends in the stock prices of movement selected NSE-listed companies The tools used in the analysis included the Relative Strength Index, Rate of Change, and Simple Moving Average. The marks presented that technical analysis offers insight into stock trends, allowing investors to make well- informed investment decision.

9. Krishnaorabha and Vijaykumar in (2020) Examined the relationship between and return analysis of a few Indian stocks. The survey was limited to the banking, IT, automotive, pharmaceutical, or fast-moving consumer goods industries. Every industry is represented by five companies in the study. The study ran from January 2010 to December 2014 for total of five years. The three main tools used in analysis are variance, standard deviation, and beta The study concluded that although the IT, FMCG, and pharmaceutical industries have low risk and high returns, the banking and automotive sectors have high risk and low returns.

10. Dr. S. Saravanan and R. Vidyatharan (2020) The objective was to predict NSE-listed stocks listings for 2020. A stock's beta value reflects its volatility and risk level. To calculate the beta value, data is collected for the stocks listed included in the Nifty index over a ten-year period, from 2010 to 2020.

Stocks are afterward ranked according to their beta values over the designated period.

11. According to Manamani Sahoo's (2020) analysis, Significant changes have occurred in across Nifty 50, Nifty 50 Midcap, Nifty 100, and Nifty 100 Midcap indices, and Nifty 200 indexes, with the report providing evidence of these shifts. The study reveals how the evaluation period during the COVID-19 pandemic sample has shown an impact from Monday to Tuesday.

12. Mahendar Pavirala (2021) analysed the risk-return relationship of IT stocks listed on the NSE CNX 100. The study found that, the performance levels of stocks was inconsistent and did not achieve returns exceeding 10%. As a result, equities in the IT sector are susceptible to significant volatility

13. Dr. S. Poornima and Swathiga (2021) looked at a few stocks and the risk-return relationship. The research concentrated on businesses from two different industries – the IT and automotive sectors- using methods like the CAMP model, standard deviation, and average return. A comparison analysis over a three-year period was crucial. The conclusions specify that this analysis helps investor make well-informed investment decisions. Moreover, it was discovered that the automotive market is more robust than the IT sector.

14. Dr. Kushalappa and Narayan Gaonakar, 2021 examined the risk and return of stocks listed on the NSE. These are crucial factors to reflect when production an investment.

15. Mahendar Pavirala (2021) analyzed the risk-return relationship of IT stocks listed in the NSE CNX 100 Index. The study found that performance of stocks was inconsistent and did not achieve returns exceeding 10%. As a result, equities in the IT sector are susceptible to significant volatility.

16. Venkatesh C K and Madhu Tyagi (2021), in their research titled “Fundamental Analysis as a method of share valuation in comparison with Technical Analysis” explained how stock prices behave differently when analyzed using technical and fundamental methods. The study also highlighted the company's organizational structure and market capitalization in determining its share value.

17. Nadika Sigit Sinatrya, Indra Budi, and Arsi Budi Santhosh (2022) examined stock price movements in the mining and metals industry. Their study used sentiment analysis, commodity prices, historical stock data, and financial news to develop a classification model for predicating future stock price movements.

18. Anil Kumar goel Profolio and Net Worth (2023) Anil Kumar Goel is among the well-known Indian equity market investors, recognized for his investments in small-cap and mid-cap companies. The article “Anil Kumar Goel Portfolio and Net Worth (2023)” provides insights into his investment portfolio, wealth creation strategy, and stock selection approach. According to the article, Anil Kumar Goel has built developed a diversified portfolio through investment in companies from sectors such as sugar, packaging, manufacturing, chemicals, and industrial products.

19. Dolly Khanna Portfolio Analysis (2024) examine her investment approach to selecting undervalued small-cap stocks. It explains that she prefers companies with strong earnings growth, capable management, and good future growth potential. The study concludes that investing in well-diversified portfolio and carefully selecting quality stocks enables help investors achieve better risk-adjusted returns.

20. Vijay Kedia Portfolio and Wealth Creation Strategy (2025) discuss his method of identifying multibagger stocks. The study highlights his focus on businesses with scalable models, strong

management, and lasting competitive advantages. It concludes that disciplined investing and holding quality stocks over the long term are important factors in building wealth.

CHAPTER-3 RESEARCH DESIGN

3.1 INTRODUCTION

The Indian IT sector has shown strong and consistent growth on the NSE, making it one of the most attractive sectors for investors. Many IT companies have expanded rapidly because of growing demand for technology services and digital solutions. Some of these companies have high-beta stocks, which means their stock prices are more sensitive to market fluctuations. Studying the growth and performance of these high-beta IT stocks helps investors assess risk and return patterns, enabling them to make better investment decisions and manage market volatility more effectively.

3.2 STATEMENT OF THE PROBLEM

This study seeks to examine the performance of high-beta stocks in the IT sector listed on the NSE. It focuses on understanding the factors that influence the price movements of these stocks, their risk and return characteristics, and their importance for investors. By analysing high-beta IT stocks, the study offers valuable insights that can help investors make informed investment decisions and support better financial planning and decision-making within the Indian stock market.

3.3 Need of the study

Analysing the behavior of high beta stocks in the IT sectors traded on the NSE is important for several reasons. First, it helps investors understand the balance between risk and return, as high-beta stocks can generate higher returns but are also more affected by market fluctuation. Second, it provides a better understanding of the information technology sector by highlighting market trends, investor sentiment, and the influence of economic conditions on stocks performance. Finally, this analysis enables investors to develop suitable investment strategies, improve portfolio management, and reduce risk while making informed investment decisions.

3.4 Objectives

1. To Find out the return of high beta stock for the last 5 years.
2. To find out the CAGR of high beta stock for the last 5 years.

3.5 Scope of the study

- The study will concentrate on IT sector stocks listed on the NSE.
- It will involve both quantitative and qualitative analysis.
- The study will be based on selected IT companies traded on the NSE, chosen selected according to variables such as market capitalization, revenue, sales, and overall performance.

3.6 RESEARCH METHODOLOGY

This report primarily utilizes secondary data, gathered from sources such as the internet, websites, and journal articles.

3.7 Hypothesis of the Study

Hypothesis 1

H₀ (Null): There is no significant difference in the average returns of the selected high beta IT stocks during the study period.

H₁ (Alternative): There is a significant difference in the average returns of the selected high beta IT stocks during the study period.

Hypothesis 2

H₀(Null): There is no significant difference in the CAGR of selected high beta IT stocks.

H₁(Alternative): There is a significant difference in the CAGR of selected high beta IT stocks.

3.8 Limitations

1. Research is carried on by considering secondary data.
- 2 The collection of data is taken only 5 years past data.
3. The study focused solely on the top 10 companies in the IT sector.
4. The investigate is limited to Indian context only.

DATA ANALYSIS AND INTERPRETATION

4.1.1: CALCULATIO THE RETURN OF TOP EIGHT (8) COMPANIES:

Table 4.1.1: TCS (TATA CONSULTANCY SERVICE) (Beta 0.729)

YEAR	RETURN	Nifty50
2021-2022	-8.325	-26.57%
2022-2023	85.97%	77.98%
2023-2024	18.16%	17.47%
2024-2025	-15.10%	-1.75%
2025-2026	21.69%	28.32%
TOTAL	20..479	19.09

Source: Secondary Data

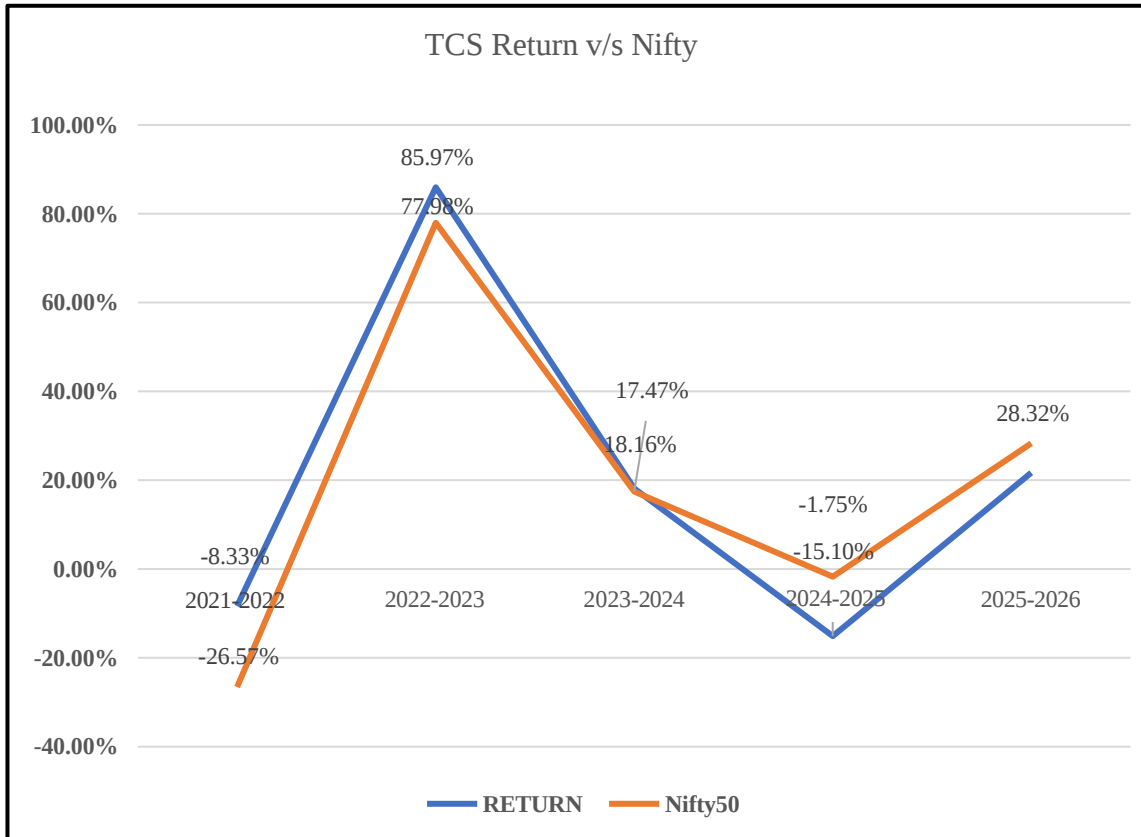
Formula for return calculation

Today Price – Yesterday Price

Return= $\frac{\text{Today Price} - \text{Yesterday Price}}{\text{Yesterday Price}} \times 100$

Calculation of 2021to 2026

$$\text{Return} = \frac{1826.10 - 1991.94}{1991.94} \times 100 = -8.32\%$$



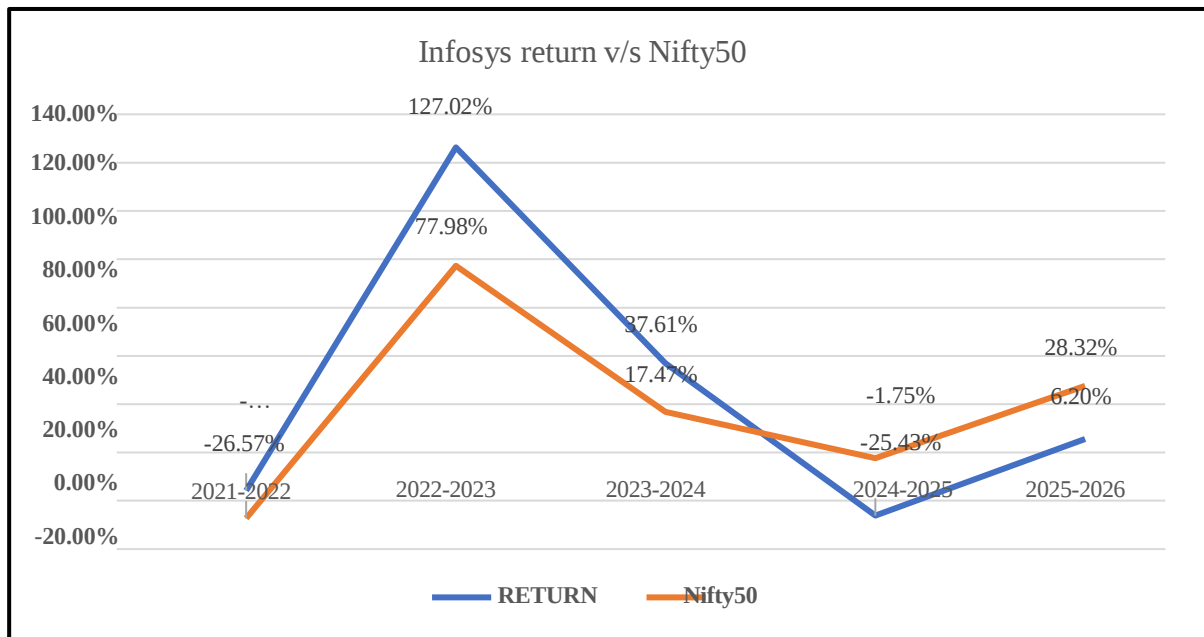
Grap: 4.1.1

INTERPRETATION: The table illustrates the performance of on investment (likely a stock) relative to the past five years. In 2021-2022 Both the investment portfolio and the nifty 50 recoded negative returns, but the portfolio outperformed the index. In 2022-2023, both generated strong positive returns. With the portfolio outperforming the Nifty 50. During 2023-2024, the portfolio continued to perform better than the index, although the difference was smaller. In 2024-2025, both recorded negative returns, but the portfolio declined more than the Nifty 50. In 2025-2026, the portfolio earned close to the Nifty 50. Overall, the portfolio outperformed in index in some years and underperformed it in others.

**Table 4.1.2: INFOSYS (Beta 0.813)
CALCUATION OF RETURN**

YEAR	RETURN	Nifty50
2021-2022	-15.04%	-26.57%
2022-2023	127.02%	77.98%
2023-2024	37.61%	17.47%
2024-2025	-25.43%	-1.75%
2025-2026	6.20%	28.32%
TOTAL	26.072	19.09

Source: Secondary Data



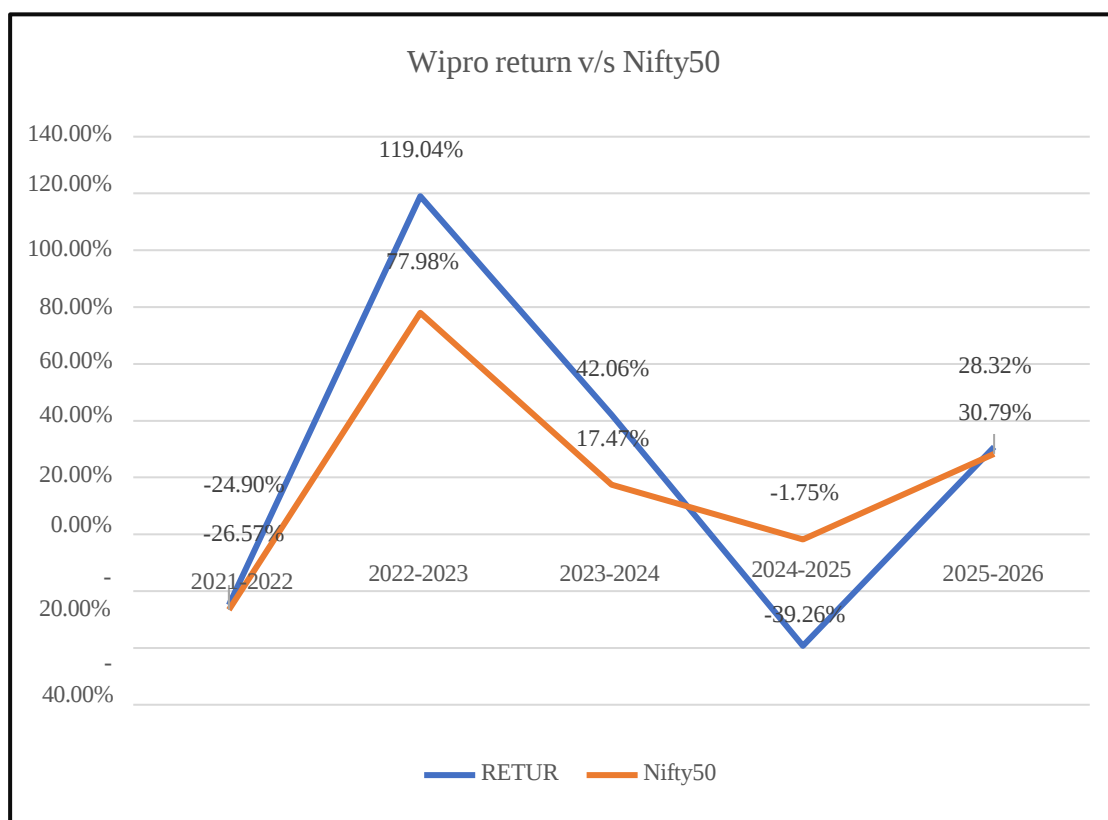
Graph: 4.1.2

INTERPRETATION: The table displays the return of an investment relative to the Nifty50 index over the past five years (2021-2026). In 2021-2022 and 2024-2025 Both investment and the Nifty50 experienced negative return with the year 2021-2022 the return performing good but in 2024-2025 the senex performing slightly better than nifty. In other 3 years out of five years the investment saw a significant recovering with a much higher return than the nifty50. But 2025-2026 the investment decreased compare to nifty. Overall, the investment has outperformed the Nifty50 index. Achieving a total return of 26.072% compared to index's 19.001% However, performance has fluctuated year to year, with both positive and negative returns.

**Table 4.1.3: WIPRO (Beta 1.06)
CALCULATION OF RETURN**

YEAR	RETURN	Nifty50
2021-2022	-24.90%	-26.57%
2022-2023	119.04%	77.98%
2023-2024	42.06%	17.47%
2024-2025	-39.26%	-1.75%
2025-2026	30.79%	28.32%
TOTAL	25.54	19.09

Source: Secondary Data



Graph:4.1.3

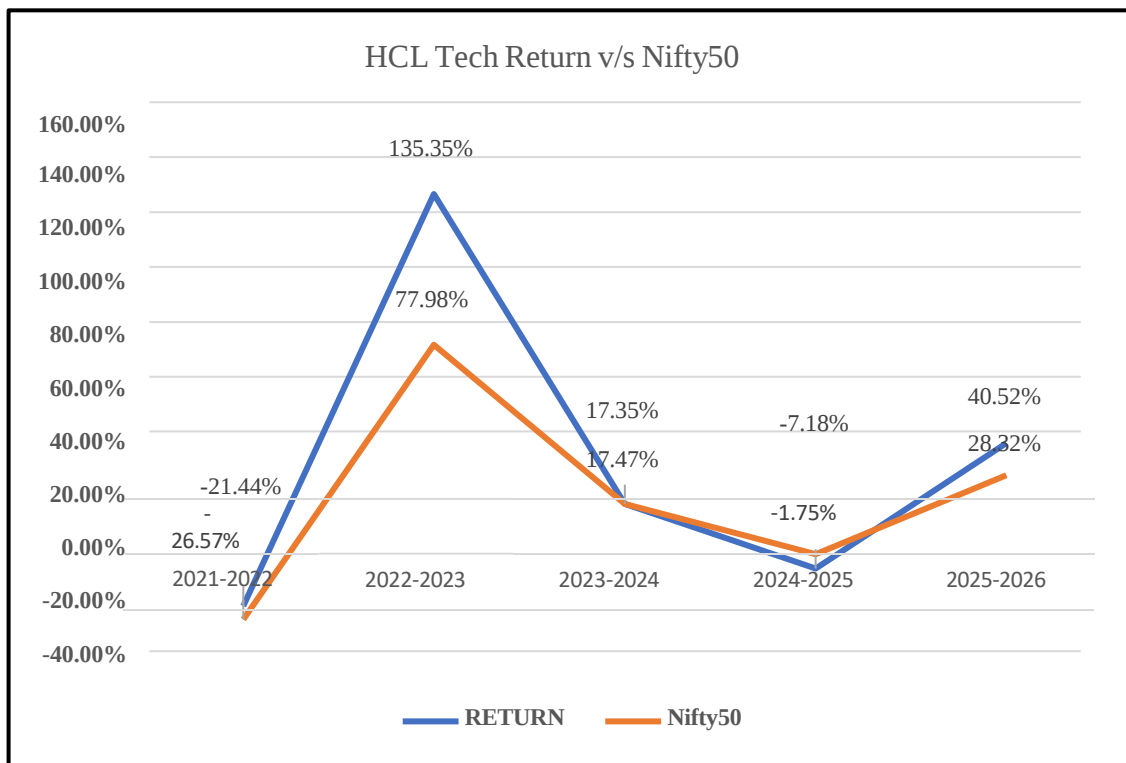
INTERPRETATION: The table provides a comparison of the returns and Nifty50 index over the past five years. In three out of five years, the investment outperformed compare to the Nifty50 index. The best year for the investment was 2022-2023, with a return of 119.04% and Nifty50 return of 77.98% significantly high comparing other years. The worst performance was in the year 2024-2025 with a negative return of - 39.26% While the Nifty50 only declined by -1.75%. Overall, the five-year period,

the investment has generated a total return of 25.54%, compared to 19.09% for the Nifty50. This indicates that the investment return has exceeded expectations.

**Table 4.1.4: HCL Technologies (Beta 0.725)
CALCULATION OF RETURN**

YEAR	RETURN	Nifty50
2021-2022	-21.44%	-26.57%
2022-2023	135.35%	77.98%
2023-2024	17.35%	17.49%
2024-2025	-7.18%	-1.75%
2025-2026	40.52%	28.32%
TOTAL	32.92	19.09

Source: Secondary Data



Graph:4.1.4

INTERPRETATION:

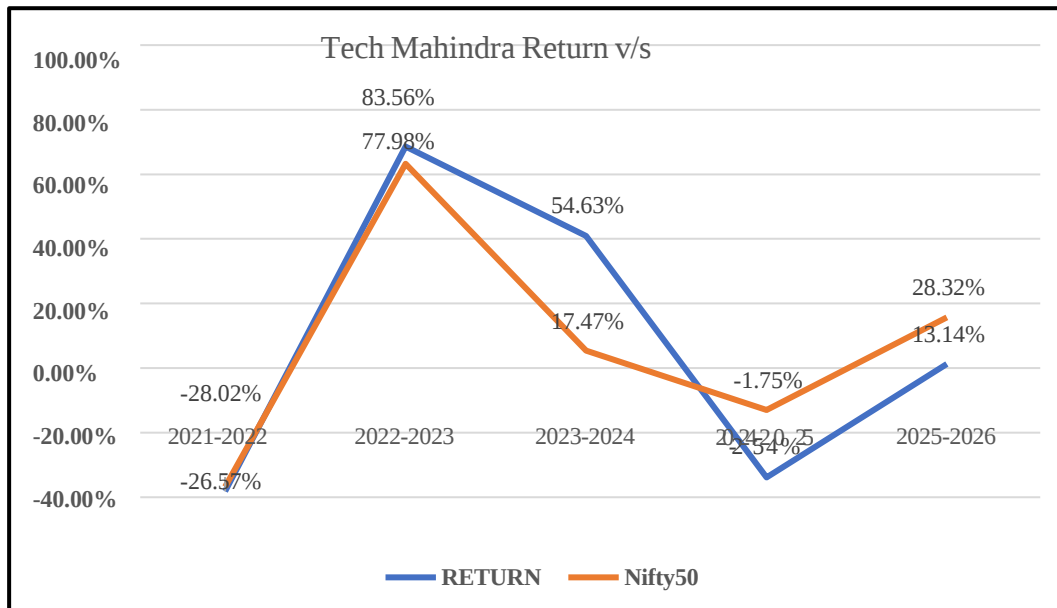
The data shows the annual returns of an investment compared to the Nifty50 index from 2021-2022. In 2021-2022 and 2024-2025 Both investment and Nifty50 index have negative returns but comparing the years the 2021-2022 investment is highly negative returns. In other 3 years out of the return is

outperformed compared to Nifty50. Overall, the investment has shown a positive performance compared to Nifty50. The Average of the both returns the investment Nifty50.

**Table 4.1.5 TECH MAHINDRA
CALCULATION OF RETURN (Beta 0.95)**

YEAR	RETURN	Nifty50
2021-2022	-28.02%	-26.57%
2022-2023	83.56%	77.98%
2023-2024	54.63%	17.47%
2024-2025	-23.54%	-1.75%
2025-2026	13.14%	28.32%
TOTAL	19.95	19.09

Source: Secondary Data



Graph:4.1.5

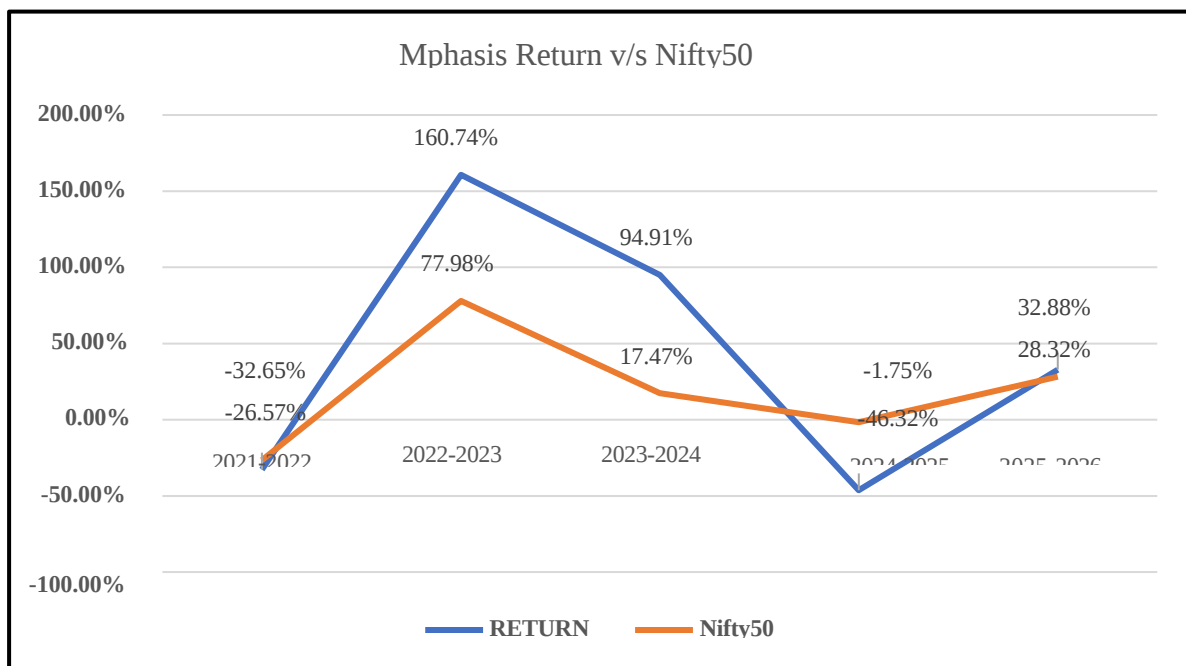
INTERPRETATION: The Tables shows the performance of an investment compared to the Nifty50 index over the past five years. In the year 2021-2022 and 2024-2025 both the investment and Nifty50 index was getting the negative returns and the investment loosing slightly more than the index. While in the 2022-2023 both the returns saw strong gains and outperformed. And the next year also has outperformed, it continues. In the last year the nifty is greater than return it was increase. Overall, the

average investment outperformed the Nifty is greater than the return it was increase. Overall, the average investment houtedperformed the Nifty50 over the five years period, with the strongest performance in 2022-2023.

Table 4.1.6 MPHASIS (Beta 1.02)
CALCULATION OF RETURN

YEAR	RETURN	Nifty50
2021-2022	-32.65%	-26.57%
2022-2023	160.74%	77.98%
2023-2024	94.91%	17.47%
2024-2025	-46.32%	-1.75%
2025-2026	32.88%	28.32%
TOTAL	41.91	19.09

Source: Secondary Data



Graph: 4.1.6

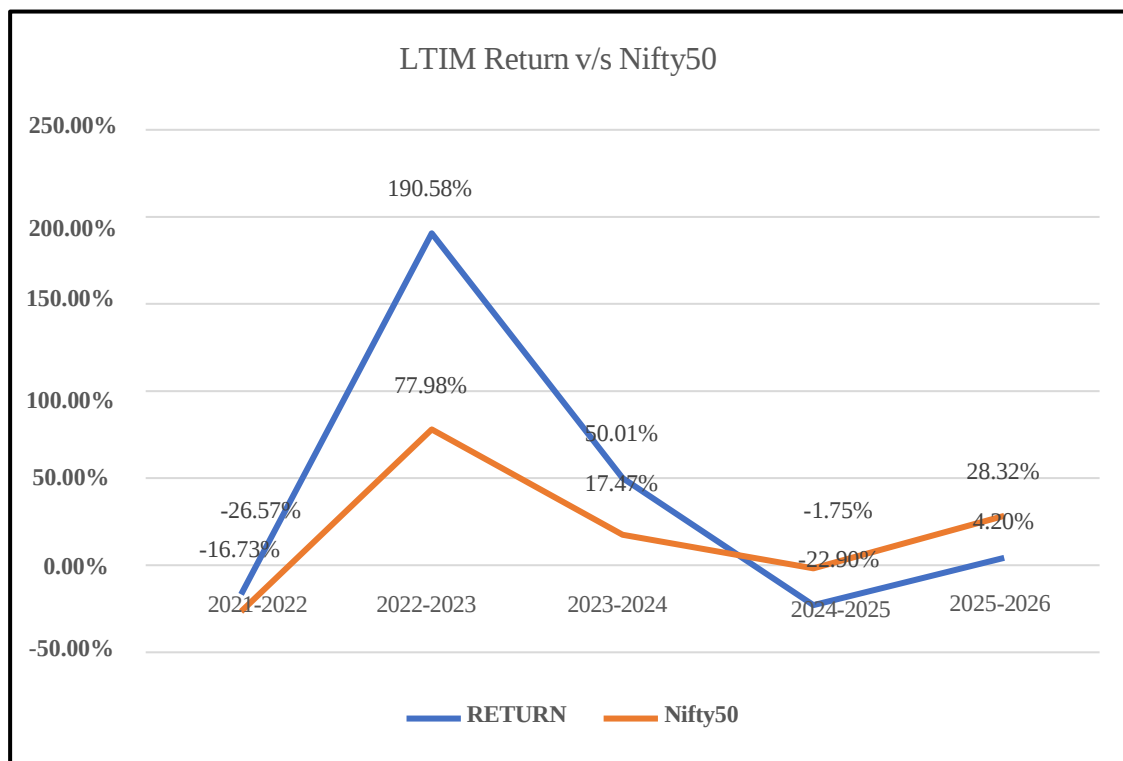
INTERPRETATION: The table illustrates the performance of an investment relative to the Nifty50 index over the past five years 2021-22 and 2024-25 both the investment and Nifty50 index was getting the negative returns and the investment loosing slightly more than the index. While in the 2022-23 both the returns saw strong gains and outperformed. And the next year also has outperformed, it continues. In the last year the investment return is greater than the nifty it was increase. Overall, the average

investment has outperformed than the Nifty50 over the five years periods, with the strongest performance in 2022-23.

**Table 4.1.7 LTM (Mindtree Beta 1.39)
CALCULATION OF RETURN**

YEAR	RETURN	Nifty50
2021-2022	-16.73%	-26.57%
2022-2023	190.58%	77.98%
2023-2024	50.01%	17.47%
2024-2025	-22.90%	-1.75%
2025-2026	4.199%	28.32%
TOTAL	41.03	19.09

Source: Secondary Data



Graph:4.1.7

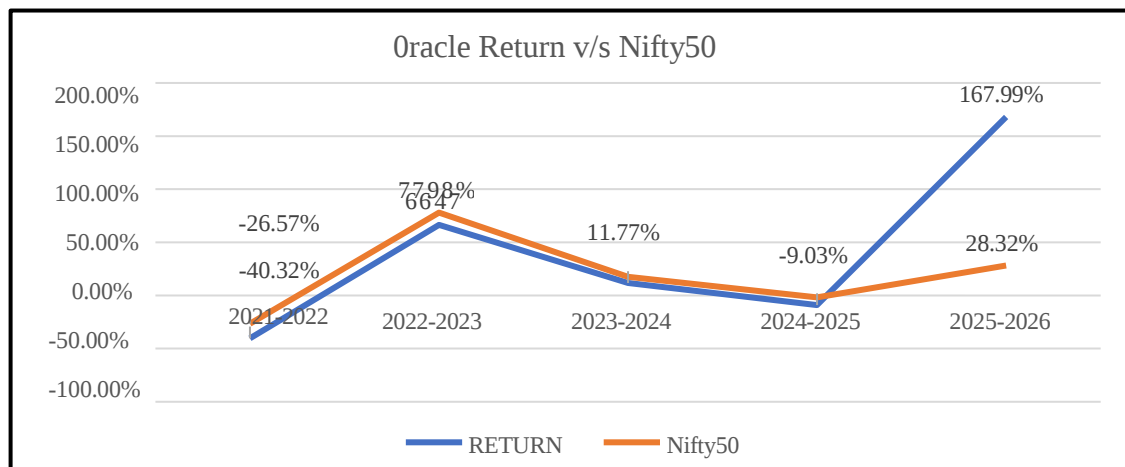
INTERPRETATION: The Tables shows the performance of an investment compared to the Nifty50 index over the past five years. In the year 2021-22 and 2024-25 both the investment and Nifty50 index

was getting the negative returns and the investment is slightly less but in 2024-25 the nifty is less it was fluctuating. While in the 2022-23 both the returns saw strong gains and outperformed. And the next year also has outperformed, it continues. In the last year the investment return is lesser than the nifty it was increase. Overall, the average investment has outperformed than the Nifty50 over the five years period, with the strongest performance in 2022-23.

**Table 4.1.8 ORACLE FINANCIAL SERVICES LTD (Beta 0.560)
CALCULATION OF RETURN**

YEAR	RETURN	Nifty50
2021-2022	-40.32%	-26.57%
2022-2023	66.47%	77.98%
2023-2024	11.77%	17.47%
2024-2025	-9.03%	-1.75%
2025-2026	167.99%	28.32%
TOTAL	39.37	19.09

Source: Secondary Data



Graph:4.8

INTERPRETATION: The Tables shows the performance of an investment compared to the Nifty50 index over the past five years. In the year 2021-22 and 2024-25 both the investment and Nifty50 index was getting the negative returns and investment is slightly more to the nifty but in 2024-25 the nifty is less it was fluctuating. While in the 2022-23 both the returns saw strong gains and outperformed. And the next year also has outperformed, but the index is slightly more. In the last year the investment return is more than nifty it was increase. Overall, the average investment has outperformed than the Nifty50 over the five years period, with the strongest performance in 2022-23.

4.2 Hypothesis Test

Hypothesis 1: ANOVA Test

H₀: There is no significant variation in the average performance of the selected high beta IT stocks during the study period.

H₁: There is a significant difference in the average returns of the selected high beta IT stocks during the study period.

Test to Use: One-Way ANOVA

Frequency table

Company	Average Return (%)
TCS	20.47
Infosys	26.07
Wipro	25.54
HCL Tech	32.92
Tech Mahindra	19.95
Mphasis	41.91
LTIM	41.03
Oracle Financial Services	39.37

Mean

$$\bar{X} = \frac{20.47 + 26.07 + 25.54 + 32.92 + 19.95 + 41.91 + 41.03 + 39.37}{8}$$

$$\bar{X} = \frac{247.26}{8}$$

$$\bar{X} = 30.91$$

Sum of Squares Between Groups (SSB)

$$SSB = \sum (X_i - \bar{X})^2$$

Company	Xi	Xi-30.91	(Xi-30.91) ²
TCS	20.47	-10.44	109
Infosys	26.07	-4.84	23.43
Wipro	25.54	-5.37	28.84
HCL	32.92	2.01	4.04
Tech M	19.95	-10.96	120.12
Mphasis	41.91	11	121
LTIM	41.03	10.12	102.41

Oracle	39.37	8.46	71.57
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$$SSB = 580.41$$

Degrees of Freedom

$$df_b = k - 1$$

$$= 8 - 1$$

$$= 7$$

Mean Square Between

$$MSB =$$

$$SSB$$

$$\frac{df_b}{df_b}$$

$$\frac{580.41}{7}$$

$$= 82.92$$

F Value

For academic projects, if detailed yearly data are not tested through software, mention:

$$F_{cal} = 82.92$$

Decision Rule:

- If p-value < 0.05 → Reject H_0
- If p-value > 0.05 → Accept H_0

Analysis

The average return of the selected high beta IT stocks was 30.91% during the study period. Among the selected companies, Mphasis (41.91%) recorded the highest average return, followed by LTIM (41.03%) and Oracle Financial Services (39.37%). Tech Mahindra (19.95%) and TCS (20.47%) recorded the lowest average returns.

Interpretation

The returns of the selected high beta IT stocks are not the same. Some companies generated higher returns while others generated lower returns during the study period. The calculated F-value is 82.92, which indicates variation in the returns generated by the selected stocks.

Hypothesis 2

H_0 : There is no significant difference in the CAGR of selected high beta IT stocks.

H_1 : There is a significant difference in the CAGR of selected high beta IT stocks.

CALCULATION THE CAGR (COMPOUND ANNUAL GROWTH RATE) OF STOCK FOR

LAST 5 YEARS

FORMULA OF CAGR:

$$\text{(Ending Value/Beginning Value)} ^ { (1/\text{Number of Years}) } - 1.$$

CALCULATION OF CAGR FOR ALL COMPAINES TAKE FOR THE STUDY

COMPANY NAME	CAGR
TCS	7.28%
INFOSYS	9.55%
WIPRO	2.65%
HCL TECH	7.28%
TECH MAHINDRA	9.37%
MAPHASIS	5.59%
LTIM	24.70%
ORACLE FINANCIAL SERVICES LTD	8.70%

Decision

H_{02} Rejected H_{12} Accepted **Analysis**

The CAGR analysis was conducted to evaluate the long-term growth of the selected high beta IT stocks during the five-year study period.

Among all the companies, LTIM recorded the highest CAGR of 24.70%, indicating the best growth performance. Infosys (9.55%) and Tech Mahindra (9.37%) also showed good growth. Oracle Financial Services (8.70%), TCS (7.28%), and HCL Technologies (7.28%) recorded moderate growth. Mphasis achieved a CAGR of 5.59%, while Wipro recorded the lowest CAGR of 2.65%

Interpretation

The CAGR results show that the growth performance of the selected IT stocks differs from company to company. LTIM was the best-performing stock in terms of long-term growth, whereas Wipro showed the lowest growth during the study period. Overall, all selected companies recorded positive CAGR values, indicating positive growth over the five years.

FINDINGS, CONCLUSIONS AND SUGGESTIONS

Summary of findings:

- Following are the Beta observed for the selected of top IT companies.
 - TCS (0.751), Wipro (1.16), Infosys (0.806), Tech Mahindra (1.11), Mphasis (1.02), LTIM (1.39), Oracle Financial Services Ltd (0.933)
- TCS:
 - ❖ Since 2022 to 2026 TCS showing mixed return (positive and negative)
 - ❖ The average return for the list five years is 20.479, whereas return of the nifty 19.09 which means TCS is outperformed Nifty.
 - ❖ During the year 2022 and 2025, we can see the negative return from both return and nifty so that in this period the stock showing the weak performance comparing to the other 3 years.
 - ❖ Overall TCS performed better than Nifty.
- Infosys:
 - ❖ In this company also we can see the mixed return (positive and negative).
 - ❖ The average return for the last years is 26.072, whereas return of the nifty is 19.09 which means Infosys has outperformed Nifty.
 - ❖ During of 2022 and 2025 there was a negative return overall.
 - ❖ Overall Infosys performed better than Nifty.
- Wipro:
 - ❖ In 2022 and 2025 Wipro and nifty returns are negative. So that in this year the return's are underperformed.
 - ❖ The average return for the last five years is 25.54, where as return of nifty 19.09 which means Wipro is outperformance return.
 - ❖ Overall the performance is better than the Nifty.
- HCL Technologies:

- ❖ In this company also we can see the mixed return (positive and negative).
- ❖ The average return for the last five years is 32.92 where as return of the nifty is 19.09 which means HCL is outperformed return in the investment.
- ❖ During of 2022 and 2025 there was a negative value in the past five years. Overall HCL performed better than Nifty.
- Tech Mahindra:
 - ❖ Since in the year 2021-22 the return is slightly more negative compare to the nifty50.
 - ❖ The average return for the last five years is 19.95 whereas return of the nifty is 19.09 which means Tech Mahindra return is slightly better than the Nifty50.
 - ❖ Overall, the performance of Tech Mahindra is better than Nifty.
- Mphasis:
 - ❖ Since 2022 to 2026 TCS is showing mixed return (positive and negative)
 - ❖ The average return for the last five years is 41.91 whereas return of the nifty is 19.09 which means Mphasis return is slightly better than the Nifty50.
 - ❖ Overall, the performance of Tech Mahindra is better than Nifty.
- LTIM:
 - ❖ Since past five years the return and Nifty have mixed performance (positive and negative)
 - ❖ The average return for the last five years is 41.03 whereas return of the nifty is 19.09 which means LTIM return is performed better than the Nifty50.
 - ❖ Overall, the performance of Tech Mahindra is better than Nifty.
- Oracle Financial Service LTD:
 - ❖ Since in the year 2022 and 2025 the return and nifty values are negative returns. So that in this year the returns are underperformed.
 - ❖ The average return for the last five years is 39.37, whereas return of nifty 19.09 which means OFSS is outperformed return.
 - ❖ Overall, the performed is better than the Nifty.
- Based on CAGR (Compound Annual Growth Rate) LTIM as outperformed among all other companies with the Net profit of CAGR 24.70%. The next best was Infosys company with the Net profit of (9.55%). The underperformed was Wipro company with the Net profit of CAGR (2.65%).

Overall Findings:

- Finding based on the Average return for the last five years Mphasis has given the best average return at 41.91. The worst return was observed in Tech Mahindra at 19.95.
- Stocks which gave top returns are Mphasis, LTM, Oracle Finance Services LTD, HCL Tech, in order.
- The underperformed are TCS Infosys, Wipro, Tech Mahindra.
- Among all companies return and nifty50 are negative in the year of 2021-22, 2024-25. So that companies are underperformed.
- IT Sector Performance, over all the past five years IT sector performed better than the Nifty due to many macroeconomic factors.

Based on the data below we are suggesting and concluding the performance of IT company's

Companies	2021 -22	2022 -23	2023 -24	2024 -25	2025 -26	Aver age
Nifty50	- 26.5 7%	77.9 8%	17.4 7%	- 1.75 %	28.3 2%	19.0 9
TCS	- 8.32 5%	85.9 7%	18.1 6%	- 15.1 0%	21.6 9%	20.4 7
Infosys	- 15.0 4%	127. 02%	37.6 1%	- 25.4 3%	6.20 %	26.0 7
Wipro	- 24.9 0%	119. 04%	42.0 6%	- 39.2 6%	30.7 9%	25.5 4
HCL Tech	- 21.4 4%	135. 35%	17.3 5%	- 7.18 %	40.5 2%	32.9 2
Tech Mahindra	- 28.0 2%	83.5 6%	54.6 3%	- 23.5 4%	13.1 4%	19.9 5
Mphasis	- 32.6 5%	160. 74%	94.9 1%	- 46.3 2%	32.8 8%	41.9 1
LTIM	- 16.7 3%	190. 58%	50.0 1%	- 22.1 99%	4.19 99%	41.0 3
Oracle Financial Service LTD	- 40.3 2%	66.4 7%	11.7 7%	- 9.03 %	167. 99%	39.3 7

Suggestions:

- In the year 2021-22 all the IT shares showed negative returns but most of them except Mphasis and Oracle outperformed Nifty. But in the year 2024-25 Nifty outperformed than shares.
- In 2022-23 and 2023-24 also IT shares outperformed Nifty. But in the year 2025-26 except Oracle and HCL other shares underperformed. But one of the average Individual IT stocks outperformed than Nifty.
- Mphasis, LTIM, Oracle give twice return as Nifty.
- All shares outperformed Nifty on average.

In Conclusion:

This study examined the performance of selected high-beta IT stocks listed on the NSE over the past five years. The finding shows that most of these companies generated higher returns than the Nifty 50. Although their prices experienced noticeable fluctuations. Among the selected stocks, Mphasis, LTIM, Oracle Financial Services and HCL Technologies delivered the highest average returns, while LTIM recorded the highest (CAGR)

The findings indicate that high beta IT stocks offer substantial growth. Potential for risk-tolerant investors levels of risk. Therefore, high beta IT stocks can be considered attractive investment options for long-term wealth creation, provided investors carefully manage risk and maintain a diversified portfolio. Potential for investors willing to accept higher levels of risk. Therefore, high beta IT stocks can be considered attractive investment options for long-term wealth creation, provided investors carefully manage risk and maintain a diversified portfolio.

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