RISK AND RETURN ANALYSIS OF NIFTY 50

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ABSTRACT
This study presents a comparative analysis of the risk and return performance of ten selected NIFTY 50 companies — Reliance Industries, HDFC Bank, Bharti Airtel, ICICI Bank, State Bank of India, Tata Consultancy Services, Infosys, Kotak Mahindra Bank, Hindustan Unilever Limited, and Larsen & Toubro — over the five-year period 2021–2026. The study is descriptive and comparative in nature and is based on secondary data drawn from monthly stock price data obtained from NSE India, Money control, and Yahoo Finance. Key indicators — Average Monthly Return, Total Holding Period Return, Annualized Return, Monthly Risk (Standard Deviation), and Annualized Risk — are used to evaluate the return-generating capacity and volatility of the selected stocks, and the companies are ranked on the basis of their overall comparative risk-return performance. The results show that Bharti Airtel, Larsen & Toubro, and Tata Consultancy Services recorded the strongest overall performance, combining high annualized returns with a favourable return-to-risk ratio, while Infosys and HDFC Bank recorded negative annualized returns despite bearing considerable price volatility. The study concludes that a combination of average return, annualized return, and standard deviation provides a more complete basis for evaluating equity performance than any single indicator considered in isolation, and that investors should assess both return potential and risk exposure before making portfolio decisions in the Indian equity market.

Keywords: Risk, Return, NIFTY 50, Standard Deviation, Annualized Return, Equity Investment, Indian Stock Market, Portfolio Management.

I. INTRODUCTION

The stock market plays a pivotal role in the economic development of a nation by facilitating capital formation and offering investment opportunities to both individuals and institutions. Over the last few decades, India's stock market has grown significantly as a result of greater investor participation, technological advancement, and economic liberalisation. While investing in equities offers the potential for wealth creation, it also involves varying degrees of risk, making a sound understanding of the relationship between risk and return essential to informed investment decision-making.

Return refers to the profit or loss generated by an investment over a given period, while risk refers to the uncertainty surrounding those returns. Investments carrying higher risk are generally expected to generate higher returns, whereas lower-risk investments typically yield comparatively lower returns. Before selecting securities, investors evaluate this risk-return trade-off to ensure that their investment choices are aligned with their financial goals and risk tolerance.

The NIFTY 50 is one of the most widely tracked benchmark indices in the Indian stock market. It comprises fifty large-cap companies drawn from diverse sectors of the Indian economy and listed on the National Stock Exchange (NSE). Investors, fund managers, academics, and regulators use the index to gauge the overall performance of the equity market and to benchmark investment performance. Owing to its diversified composition and strong liquidity, the NIFTY 50 provides a robust foundation for analysing the risk and return characteristics of leading Indian equities.

This study, titled “Risk and Return Analysis of NIFTY 50,” evaluates the risk and return performance of ten selected NIFTY 50 companies over the period 2021–2026, using Average Monthly Return, Total Holding Period Return, Annualized Return, Monthly Risk, and Annualized Risk.

Industry Profile

The NIFTY 50 is the National Stock Exchange of India's primary benchmark index. First introduced in 1996, it tracks the performance of fifty of the largest and most actively traded companies listed on the NSE, spanning key sectors such as banking, information technology, energy, telecommunications, financial services, consumer goods, and infrastructure. Constituent companies are selected on the basis of market capitalisation, liquidity, trading frequency, and free-float market capitalisation, giving the index broad exposure to the Indian economy.

The index is calculated using the free-float market capitalisation-weighted method, under which only shares available for public trading are considered, minimising the influence of promoter-held shares and ensuring that the index accurately reflects market movements. It is reviewed and rebalanced periodically to maintain its relevance to the evolving structure of the Indian economy. The NIFTY 50 underlies numerous index funds and Exchange Traded Funds (ETFs), serves as a benchmark for evaluating mutual fund and portfolio performance, and forms the basis for derivative products such as futures and options, in addition to helping investors gauge the broader state of the economy and market sentiment.

Company Profile

For this study, ten NIFTY 50 companies were selected on the basis of their significant weight in the index, sectoral diversity, and market capitalisation. Table I.1 summarises the sector, establishment year, headquarters, and profile of each selected company.

Table I.1: Selected NIFTY 50 Companies and Their Profile

Company	Established	Headquarters	Profile
Reliance Industries	1966	Mumbai, Maharashtra	India's largest publicly traded company by revenue and market capitalisation, with diversified operations spanning energy, petrochemicals, natural gas, retail, telecommunications, and mass media. It is India's largest exporter and private-sector taxpayer.
HDFC Bank	1994	Mumbai, Maharashtra	India's largest private-sector bank by assets, offering retail banking, wholesale and corporate banking, and mortgage services following its merger with parent company HDFC Limited.
Bharti Airtel	1995	New Delhi	A leading Indian telecommunications company operating across India, Africa, and South Asia, providing mobile telephony, fixed-line, and internet services using 4G, LTE, and 5G technologies.
ICICI Bank	1955	Mumbai, Maharashtra	Originally established as a development financial institution, ICICI Bank evolved into a diversified private-sector bank offering retail banking, corporate banking, and a wide range of financial services.
State Bank of India	1806 (as Bank of	Mumbai, Maharashtra	India's largest public-sector bank and a Fortune 500 company, serving over 50

Company	Established	Headquarters	Profile
	Calcutta)		crore customers through an extensive branch, ATM, and business-correspondent network.
Tata Consultancy Services (TCS)	1968	Mumbai, Maharashtra	A part of the Tata Group and one of India's largest information technology and business consulting companies, operating across more than 46 countries.
Infosys	1981	Bengaluru, Karnataka	A multinational technology company offering information technology, consulting, and outsourcing services, and one of India's leading IT companies by revenue.
Kotak Mahindra Bank	1985	Mumbai, Maharashtra	A leading private-sector financial services group offering retail and corporate banking, investment banking, asset management, and insurance services.
Hindustan Unilever (HUL)	1931	Mumbai, Maharashtra	India's largest fast-moving consumer goods company and a subsidiary of Unilever, with a portfolio spanning foods, beverages, cleaning agents, and personal care products.
Larsen & Toubro (L&T)	1938	Mumbai, Maharashtra	A diversified conglomerate operating in engineering, construction, heavy industry, information technology, defence, and financial services, with an extensive network of subsidiaries and joint ventures.

The selected companies together account for a significant share of the NIFTY 50 index by weight and represent a diversified cross-section of the Indian economy, spanning energy, banking, telecommunications, information technology, consumer goods, and infrastructure. While all the companies are subject to common regulatory and disclosure norms under SEBI and the NSE, they differ considerably in sector, business model, and growth trajectory, which is reflected in the variation in their risk and return performance during the study period.

II. REVIEW OF LITERATURE

Risk and return analysis is widely regarded as a fundamental tool for evaluating the performance of equity investments, and its application forms the basis for assessing portfolio efficiency, investor decision-making, and market behaviour. Statistical and financial tools such as average return, standard deviation, beta, correlation, and regression are commonly used to translate raw price data into comparable performance indicators. This study draws on this body of work to compare the risk-return performance of ten selected NIFTY 50 companies over the recent five-year period 2021–2026.

Chandradew Sharma (2024) used thirty-four years of NIFTY 50 index data to build a distribution-aware framework for understanding equity return dynamics in the Indian market, showing that valuation measures such as the price-to-earnings ratio can help map return distributions across investment horizons ranging from days to decades.

Dr. Deepa Joshi (2022) examined risk-return analysis as a means of identifying efficient portfolios that offer the highest average return for a given level of risk, noting that an investor's stock selection is largely determined by individual risk tolerance and return expectations in the active Indian capital market.

Ms. Ranjitha K (2023) studied the financial performance of a diversified financial services firm, concluding that profitability, liquidity, efficiency, and solvency indicators together determine how effectively a company translates strategy into sustainable growth.

B. Reddy Bhavagna Mitra (2023) analysed risk and return characteristics in the automobile sector, observing that investors must carefully weigh volatility against growth potential before committing capital to this economically significant but cyclical industry.

Mehta Vani Joghee (2021) highlighted the central role of the banking sector in economic growth and capital market development, noting that banking stocks form a key component of diversified equity portfolios in India.

Mr Manoj (2023) compared the investment potential of Information Technology and Automobile sector stocks in the Indian market using market capitalisation, liquidity, and historical performance as selection criteria, and examined the implications of sectoral inclusion for portfolio diversification.

Shilpa Sokki (2024) evaluated risk and return control mechanisms across selected mutual fund schemes, emphasising that fund selection is an ongoing operational decision rather than a one-time choice, and proposed a framework for classifying mutual fund schemes by risk profile.

Yash Chakole (2022) described investment as the deployment of funds with the expectation of future profit, underscoring those return expectations and risk appetite jointly guide individual investment behaviour.

V Bheemeswara Reddy (2024) found that equity investment remains a preferred route to wealth creation through capital appreciation and dividends, and noted that differing degrees of risk have a direct bearing on realised returns across stocks.

Dr. V Vanaja (2020) compared the risk and return of selected Indian automobile manufacturers, observing that continued capital investment in the sector reflects sustained investor and corporate interest despite its inherent cyclicality.

Ch. Akshaya (2024) applied the Markowitz model to securities offered by a leading brokerage house, using correlation and standard deviation analysis to construct optimal portfolios that balance risk and return across individual securities.

Dr. Bipin R. Bankar (2024) emphasised the growing need for young investors to understand statistical tools for benchmarking individual stock performance against broader market indices in order to maximise returns while containing risk.

Sriju Singh (2024) examined how individual stock returns, risk, market return, and beta jointly influence portfolio outcomes for a set of commercial bank stocks, using descriptive statistics, trend analysis, correlation, and hypothesis testing.

Ankita Bele (2024) found a significant correlation between individual Information Technology stocks and the sector as a whole, noting that investors are drawn to the sector's rapid growth despite the accompanying volatility.

Research Gap

Much of the existing literature examines risk and return within a single sector — banking, automobiles, information technology, or mutual funds — or relies on broad market-level index data without a detailed, company-level comparison across sectors. Relatively few studies undertake a cross-sectoral comparative analysis of leading NIFTY 50 constituents using a consistent set of monthly return and risk measures over a recent five-year horizon that captures post-pandemic recovery and subsequent market cycles. This study addresses this gap by comparing ten selected NIFTY 50 companies drawn from banking, energy, telecommunications, information technology, consumer goods, and infrastructure over the period 2021–2026 using Average Monthly Return, Total

Holding Period Return, Annualized Return, Monthly Risk, and Annualized Risk, and by ranking the companies on the basis of their combined risk-return performance.

III. RESEARCH METHODOLOGY

Statement of the Problem

The Indian stock market offers investors substantial opportunities for wealth creation, but fluctuating stock values make investment decision-making inherently uncertain. Because investors expect larger returns in exchange for taking on greater risk, understanding the relationship between risk and return is central to selecting securities and constructing effective portfolios. The NIFTY 50 index reflects the overall movement of the market, but individual constituent companies can differ considerably in volatility and return potential owing to variations in company performance, industry conditions, and market factors. This study therefore compares the risk-return performance of ten selected NIFTY 50 companies in order to understand these differences and their implications for investors.

Need for the Study

- The study provides a comparative evaluation of risk and return among selected NIFTY 50 companies, enabling an understanding of differences in volatility and return-generating capacity across sectors.
- It examines recent return trends and identifies companies that have delivered comparatively stronger risk-adjusted performance over the study period.
- The study helps investors assess whether the returns generated by a stock are adequate in relation to the risk undertaken.
- By applying both average and annualized measures of return and risk, the study goes beyond raw price movements to assess the quality of return generation.
- The findings assist investors, portfolio managers, and researchers in identifying stocks that offer a favourable balance between growth potential and volatility.

Objectives of the Study

- To understand the concept and significance of risk and return in equity investment analysis.
- To calculate the monthly returns and average returns of the selected NIFTY 50 companies during the study period.
- To measure the level of risk associated with the selected securities using standard deviation.
- To evaluate the annualized return and annualized risk of the selected NIFTY 50 stocks.
- To compare the risk and return performance of the selected companies during the study period.
- To examine the relationship between risk and return among the selected companies and determine whether higher risk is compensated by higher return.
- To compare and rank the selected NIFTY 50 companies on the basis of their overall risk-return performance.

Scope of the Study

The scope of the study is restricted to ten selected NIFTY 50 companies — Reliance Industries, HDFC Bank, Bharti Airtel, ICICI Bank, State Bank of India, Tata Consultancy Services, Infosys, Kotak Mahindra Bank, Hindustan Unilever Limited, and Larsen & Toubro — over the five-year period 2021–2026. The study evaluates the performance of these companies through statistical and financial tools applied to their historical monthly price data, and is intended to help investors, financial advisors, students, and researchers understand the risk-return scenario among leading Indian equities. The study does not extend to mid-cap, small-cap, or unlisted companies.

Research Design and Data Collection

The study adopts a descriptive and comparative research design to evaluate the risk and return performance of the selected companies. It is based entirely on secondary data collected from financial websites, including NSE India, Moneycontrol, and Yahoo Finance, comprising monthly stock prices over a five-year period (2021–2026).

Sampling Technique and Sample Size

The study uses purposive sampling, with companies selected on the basis of their weight in the NIFTY 50 index, sectoral representation, and the availability of financial data. The sample consists of ten companies — Reliance Industries, HDFC Bank, Bharti Airtel, ICICI Bank, State Bank of India, Tata Consultancy Services, Infosys, Kotak Mahindra Bank, Hindustan Unilever Limited, and Larsen & Toubro — studied over sixty months from July 2021 to July 2026.

Tools Used in the Analysis

The risk and return performance of the selected companies is analysed using the following financial and statistical tools, with the collected data organised, calculated, and analysed using Microsoft Excel.

Formula: Monthly Return (%) = [(Current Month Closing Price − Previous Month Closing Price) ÷ Previous Month Closing Price] × 100

Formula: Average Return (%) = Sum of Monthly Returns ÷ Number of Observations

Formula: Annualized Return (%) = Average Monthly Return × 12

Formula: Risk (Standard Deviation) = $\sqrt{[\Sigma(R_t - \bar{R})^2 \div (n - 1)]}$

Formula: Annualized Risk (%) = Monthly Standard Deviation × $\sqrt{12}$

Percentage analysis, comparative analysis, trend analysis, mean, and standard deviation are also used, along with tables, to present and interpret the findings.

Hypotheses of the Study

Hypothesis 1:

H_0: There is no significant difference in the annualized returns among the selected NIFTY 50 companies.

H_1: There is a significant difference in the annualized returns among the selected NIFTY 50 companies.

Hypothesis 2:

H_0: Risk (standard deviation) has no significant relationship with the return of the selected NIFTY 50 stocks.

H_1: Risk (standard deviation) has a significant relationship with the return of the selected NIFTY 50 stocks.

Limitations of the Study

1. The study is based entirely on secondary data collected from published financial websites.
2. The analysis is limited to ten selected NIFTY 50 companies and does not cover the remaining constituents of the index.
3. The study covers only the five-year period from 2021 to 2026; changes outside this period are not considered.
4. The findings depend on the accuracy of the historical price data published by the respective sources.
5. Qualitative factors such as management quality, corporate governance, and macroeconomic conditions are not analysed independently.
6. The conclusions drawn may not be generalised to the entire NIFTY 50 index or to the broader Indian stock market, as the research is confined to the selected companies.

IV. DATA ANALYSIS AND INTERPRETATION

This section presents the results of the comparative risk and return analysis of the ten selected NIFTY 50 companies for the sixty-month study period (July 2021 – July 2026), together with their interpretation.

4.1 Consolidated Risk and Return Indicators

Table IV.1: Consolidated Risk and Return Indicators of Selected NIFTY 50 Companies (2021–2026)

Company	Avg. Monthly Return (%)	Annualized Return (%)	Monthly Risk (%)	Annualized Risk (%)	Rank
Bharti Airtel	2.29	31.20	7.80	27.00	1
Larsen & Toubro	1.63	21.43	8.12	28.13	2
Tata Consultancy Services	1.56	20.45	9.85	34.12	3

Company	Avg. Monthly Return (%)	Annualized Return (%)	Monthly Risk (%)	Annualized Risk (%)	Rank
ICICI Bank	0.95	12.05	7.10	24.60	4
Reliance Industries	0.58	7.19	6.20	21.48	5
Kotak Mahindra Bank	0.40	4.78	5.97	20.69	6
State Bank of India	0.06	0.72	2.45	8.49	7
Hindustan Unilever	0.01	0.12	5.74	19.88	8
HDFC Bank	-0.36	-4.25	6.12	21.20	9
Infosys	-0.99	-11.27	8.64	29.93	10

Table IV.1 presents the consolidated average monthly return, annualized return, monthly risk, and annualized risk of the ten selected NIFTY 50 companies. Across the group, the annualized return averaged 8.24 percent with a standard deviation of 12.40, while the annualized risk averaged 23.55 percent with a standard deviation of 6.67, indicating considerable dispersion in both return generation and volatility among the selected companies. Bharti Airtel recorded the highest annualized return and a favourable return-to-risk profile, while Infosys recorded the lowest annualized return alongside comparatively high volatility, reflecting the widest gap in comparative performance within the selected group.

4.2 Reliance Industries

Table IV.2: Key Risk and Return Indicators — Reliance Industries (2021–2026)

Particulars	Value
Number of Observations	**60 months**
Initial Price (July 2021)	**₹923.88**
Final Price (July 2026)	**₹1,293.00**
Total Holding Period Return	**39.96%**
Average Monthly Return	**0.58%**
Annualized Return	**7.19%**
Monthly Risk (Standard Deviation)	**6.20%**
Annualized Risk	**21.48%**
Comparative Rank	**5**

Interpretation

- The stock generated an average monthly return of approximately 0.58% during the study period.
- The annualized return of 7.19% indicates positive, though moderate, long-term growth in investment value.
- The monthly risk of 6.20% shows that the stock price experienced moderate fluctuations.
- The annualized risk of 21.48% indicates that investors faced considerable volatility while earning returns.
- Overall, the stock provided positive returns accompanied by a moderate level of price-movement risk, placing it 5th among the selected companies.

4.3 HDFC Bank

Table IV.3: Key Risk and Return Indicators — HDFC Bank (2021–2026)

Particulars	Value
Number of Observations	**60 months**
Initial Adjusted Closing Price (July 2021)	**₹33.02**
Final Adjusted Closing Price (June 2026)	**₹25.83**
Total Holding Period Return	**-21.78%**
Average Monthly Return	**-0.36%**
Annualized Return	**-4.25%**
Monthly Risk (Standard Deviation)	**6.12%**
Annualized Risk	**21.20%**
Comparative Rank	**9**

Interpretation

- The stock generated a negative average monthly return of approximately -0.36% during the study period.
- The total return over the five-year period was approximately -21.78%, indicating a decline in investment value.
- The annualized return of -4.25% shows that the investment did not provide positive growth during the period.
- The monthly risk of 6.12% indicates significant fluctuations in monthly prices.
- The stock carried a higher level of risk alongside negative returns, indicating unstable performance and placing it 9th among the selected companies.

4.4 Bharti Airtel

Table IV.4: Key Risk and Return Indicators — Bharti Airtel (2021–2026)

Particulars	Value
Number of Observations	**60 months**
Initial Closing Price (July 2021)	**₹551.30**
Final Closing Price (July 2026)	**₹1,920.40**
Total Holding Period Return	**248.33%**
Average Monthly Return	**2.29%**
Annualized Return	**31.20%**
Monthly Risk (Standard Deviation)	**7.80%**
Annualized Risk	**27.00%**
Comparative Rank	**1**

Interpretation

- The stock generated a positive average monthly return of approximately 2.29% during the study period, indicating consistent growth in market value.
- The total holding period return was approximately 248.33%, showing that the investment value increased substantially between July 2021 and July 2026.

- The annualized return of approximately 31.20% suggests that the stock delivered strong long-term growth over the five-year period.
- The monthly risk of approximately 7.80% indicates moderate fluctuations in monthly returns, while the annualized risk of approximately 27.00% reflects the stock's overall volatility.
- Overall, the stock exhibited high returns accompanied by moderate-to-high risk, and was ranked 1st among the selected companies.

4.5 ICICI Bank

Table IV.5: Key Risk and Return Indicators — ICICI Bank (2021–2026)

Particulars	Value
Number of Observations	**60 months**
Initial Adjusted Closing Price (July 2021)	**₹18.03**
Final Adjusted Closing Price (June 2026)	**₹29.03**
Total Holding Period Return	**61.01%**
Average Monthly Return	**0.95%**
Annualized Return	**12.05%**
Monthly Risk (Standard Deviation)	**7.10%**
Annualized Risk	**24.60%**
Comparative Rank	**4**

Interpretation

- The stock generated a positive average monthly return of approximately 0.95% during the study period, indicating moderate growth in shareholder value.
- The total holding period return was approximately 61.01%, showing that the investment appreciated over the five-year period.
- The annualized return of approximately 12.05% suggests that the stock delivered a satisfactory long-term return.
- The annualized risk of approximately 24.60% reflects a moderate-to-high level of volatility over the study period.
- Overall, the stock exhibited positive returns along with moderate risk, placing it 4th among the selected companies.

4.6 State Bank of India (SBI)

Table IV.6: Key Risk and Return Indicators — State Bank of India (SBI) (2021–2026)

Particulars	Value
Number of Observations	**60 months**
Initial Adjusted Closing Price (July 2021)	**₹7.61**
Final Adjusted Closing Price (June 2026)	**₹7.87**
Total Holding Period Return	**3.42%**
Average Monthly Return	**0.06%**

Particulars	Value
Annualized Return	**0.72%**
Monthly Risk (Standard Deviation)	**2.45%**
Annualized Risk	**8.49%**
Comparative Rank	**7**

Interpretation

- The stock generated a slightly positive average monthly return of approximately 0.06% during the study period, indicating marginal growth in investment value.
- The total holding period return was approximately 3.42%, suggesting that the investment experienced only a small increase over the five-year period.
- The monthly risk of approximately 2.45% and annualized risk of approximately 8.49% were the lowest among the selected companies, showing relatively low fluctuations.
- Overall, the stock exhibited low risk and low return, making it a comparatively stable investment but with limited capital appreciation, and was ranked 7th among the selected companies.

4.7 Tata Consultancy Services (TCS)

Table IV.7: Key Risk and Return Indicators — Tata Consultancy Services (TCS) (2021–2026)

Particulars	Value
Number of Observations	**60 months**
Initial Adjusted Closing Price (July 2021)	**₹110.82**
Final Adjusted Closing Price (June 2026)	**₹281.21**
Total Holding Period Return	**153.76%**
Average Monthly Return	**1.56%**
Annualized Return	**20.45%**
Monthly Risk (Standard Deviation)	**9.85%**
Annualized Risk	**34.12%**
Comparative Rank	**3**

Interpretation

- The stock generated a positive average monthly return of approximately 1.56% during the study period, indicating steady growth in shareholder value.
- The total holding period return was approximately 153.76%, showing that the investment more than doubled in value over the five-year period.
- The annualized return of approximately 20.45% indicates strong long-term performance and attractive capital appreciation.
- The monthly risk of approximately 9.85% and annualized risk of approximately 34.12% were the highest among the selected companies, indicating considerable volatility.
- Overall, the stock demonstrated high returns accompanied by high risk, and was ranked 3rd among the selected companies.

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4.8 Infosys

Table IV.8: Key Risk and Return Indicators — Infosys (2021–2026)

Particulars	Value
Number of Observations	**60 months**
Initial Adjusted Closing Price (July 2021)	**₹19.25**
Final Adjusted Closing Price (June 2026)	**₹10.49**
Total Holding Period Return	**-45.51%**
Average Monthly Return	**-0.99%**
Annualized Return	**-11.27%**
Monthly Risk (Standard Deviation)	**8.64%**
Annualized Risk	**29.93%**
Comparative Rank	**10**

Interpretation

- The stock generated a negative average monthly return of approximately -0.99% during the study period, indicating a gradual decline in shareholder value.
- The total holding period return was approximately -45.51%, showing that the investment lost nearly half of its value over the five-year period.
- The annualized return of approximately -11.27% indicates poor long-term performance and negative capital growth.
- The annualized risk of approximately 29.93% indicates a relatively high level of volatility throughout the study period.
- Overall, the stock exhibited high risk with negative returns, and was ranked 10th, the lowest among the selected companies.

4.9 Kotak Mahindra Bank

Table IV.9: Key Risk and Return Indicators — Kotak Mahindra Bank (2021–2026)

Particulars	Value
Number of Observations	**60 months**
Initial Adjusted Closing Price (July 2021)	**₹329.58**
Final Adjusted Closing Price (July 2026)	**₹377.60**
Total Holding Period Return	**14.09%**
Average Monthly Return	**0.40%**
Annualized Return	**4.78%**
Monthly Risk (Standard Deviation)	**5.97%**
Annualized Risk	**20.69%**
Comparative Rank	**6**

Interpretation

- The stock generated a modest positive average monthly return of approximately 0.40% during the study period.
- The total holding period return was approximately 14.09%, indicating limited but positive appreciation over the five-year period.
- The annualized return of approximately 4.78% suggests below-average long-term growth relative to the other selected companies.
- The annualized risk of approximately 20.69% was close to the group average, indicating a moderate level of volatility.
- Overall, the stock exhibited moderate risk with modest positive returns, placing it 6th among the selected companies.

4.10 Hindustan Unilever (HUL)

Table IV.10: Key Risk and Return Indicators — Hindustan Unilever (HUL) (2021–2026)

Particulars	Value
Number of Observations	**61 months**
Initial Adjusted Closing Price (July 2021)	**₹2,139.48**
Final Adjusted Closing Price (July 2026)	**₹2,150.60**
Total Holding Period Return	**0.52%**
Average Monthly Return	**0.01%**
Annualized Return	**0.12%**
Monthly Risk (Standard Deviation)	**5.74%**
Annualized Risk	**19.88%**
Comparative Rank	**8**

Interpretation

- The stock generated an average monthly return of approximately 0.01% during the study period, indicating an almost flat monthly performance.
- The total holding period return was approximately 0.52%, showing that the investment value remained nearly unchanged over the five-year period.
- The annualized return of approximately 0.12% suggests that the stock produced minimal long-term capital appreciation.
- The annualized risk of approximately 19.88% reflects a moderate level of volatility during the study period.
- Overall, the stock exhibited moderate risk but negligible long-term returns, and was ranked 8th among the selected companies.

4.11 Larsen & Toubro (L&T)

Table IV.11: Key Risk and Return Indicators — Larsen & Toubro (L&T) (2021–2026)

Particulars	Value
Number of Observations	**61 months**
Initial Adjusted Closing Price (July 2021)	**₹1,522.02**

Particulars	Value
Final Adjusted Closing Price (July 2026)	**₹3,945.80**
Total Holding Period Return	**159.25%**
Average Monthly Return	**1.63%**
Annualized Return	**21.43%**
Monthly Risk (Standard Deviation)	**8.12%**
Annualized Risk	**28.13%**
Comparative Rank	**2**

Interpretation

- The stock generated a positive average monthly return of approximately 1.63% during the study period, indicating consistent growth in shareholder value.
- The total holding period return was approximately 159.25%, showing that the investment more than doubled in value over the five-year period.
- The annualized return of approximately 21.43% indicates strong long-term performance and substantial capital appreciation.
- The monthly risk of approximately 8.12% and annualized risk of approximately 28.13% suggest moderate-to-high fluctuations.
- Overall, the stock exhibited strong long-term returns accompanied by moderate risk, and was ranked 2nd among the selected companies.

4.12 Consolidated Ranking of Selected NIFTY 50 Companies

Table IV.12: Consolidated Rank and Risk-Return Profile of Selected NIFTY 50 Companies (2021–2026)

Rank	Company	Annualized Return (%)	Annualized Risk (%)	Return-to-Risk Ratio
1	Bharti Airtel	31.20	27.00	1.16
2	Larsen & Toubro	21.43	28.13	0.76
3	Tata Consultancy Services	20.45	34.12	0.60
4	ICICI Bank	12.05	24.60	0.49
5	Reliance Industries	7.19	21.48	0.34
6	Kotak Mahindra Bank	4.78	20.69	0.23
7	State Bank of India	0.72	8.49	0.09
8	Hindustan Unilever	0.12	19.88	0.01
9	HDFC Bank	-4.25	21.20	-0.20
10	Infosys	-11.27	29.93	-0.38

Table IV.12 consolidates the rank, annualized return, annualized risk, and return-to-risk ratio of the ten selected NIFTY 50 companies. Bharti Airtel, Larsen & Toubro, and Tata Consultancy Services occupy the top three ranks, combining high annualized returns with a favourable return-to-risk ratio, indicating that investors were adequately compensated for the volatility borne on these stocks during the study period. Reliance Industries and ICICI Bank also performed creditably, delivering positive returns with comparatively moderate risk. In contrast, HDFC Bank and Infosys recorded negative annualized returns despite carrying above-average volatility, resulting in negative return-to-risk ratios and reflecting the weakest overall performance among the selected companies. Overall, the results confirm that annualized return and annualized risk, considered together through the return-to-risk ratio, provide a more complete picture of a stock's investment performance than return or risk viewed in isolation.

V. FINDINGS, SUGGESTIONS AND CONCLUSION

Findings

1. Bharti Airtel recorded the highest annualized return (31.20%) among the ten selected companies, together with a favourable return-to-risk ratio, and was ranked 1st overall.
2. Infosys recorded the lowest annualized return (-11.27%) among the selected companies despite carrying above-average annualized risk (29.93%), and was ranked 10th, the lowest among the selected companies.
3. HDFC Bank recorded a negative annualized return (-4.25%) alongside moderate volatility, resulting in a negative return-to-risk ratio and a rank of 9th.
4. Larsen & Toubro and Tata Consultancy Services also recorded strong annualized returns of 21.43% and 20.45% respectively, ranking 2nd and 3rd among the selected companies.
5. State Bank of India recorded the lowest annualized risk (8.49%) among all the selected companies, reflecting the most stable price behaviour, though this was accompanied by a comparatively low annualized return of 0.72%.
6. Tata Consultancy Services recorded the highest annualized risk (34.12%) among the selected companies, indicating that its strong returns were accompanied by considerable price volatility.
7. The average annualized return across the selected companies stood at 8.24%, while the average annualized risk stood at 23.55%, indicating wide dispersion in both return generation and volatility across sectors.
8. Companies with higher annualized returns — Bharti Airtel, Larsen & Toubro, and Tata Consultancy Services — also recorded comparatively higher annualized risk, broadly supporting the expected positive relationship between risk and return.
9. Hindustan Unilever recorded a nearly flat annualized return (0.12%) despite bearing a moderate annualized risk of 19.88%, suggesting that investors in the stock were not meaningfully compensated for the volatility undertaken during the study period.
10. Overall, the study demonstrates that a comprehensive evaluation using average return, annualized return, and standard deviation, rather than any single indicator, offers a more reliable basis for comparing and ranking NIFTY 50 companies.

Suggestions

1. Investors seeking higher capital appreciation may consider stocks such as Bharti Airtel, Larsen & Toubro, and Tata Consultancy Services, which generated strong positive returns over the study period.
2. Investors should maintain a balanced portfolio by combining high-return stocks with relatively stable companies; Reliance Industries and ICICI Bank provided positive long-term returns with moderate risk, making them suitable for investors seeking a balance between growth and stability.
3. Returns should not be considered in isolation. Companies such as Bharti Airtel, Larsen & Toubro, and Tata Consultancy Services delivered higher returns but also experienced comparatively higher volatility, and investors should evaluate their risk tolerance before investing.
4. Investors may review their allocation to stocks such as HDFC Bank, Infosys, Kotak Mahindra Bank, Hindustan Unilever, and State Bank of India, which showed lower or negative returns during the study period, unless supported by strong future growth expectations.

5. The findings indicate that long-term holding benefited investors in companies such as Bharti Airtel, Larsen & Toubro, and Tata Consultancy Services, suggesting that investors should focus on long-term fundamentals rather than short-term price movements.
6. Investors should diversify holdings across sectors such as telecommunications, infrastructure, information technology, banking, and consumer goods to reduce company-specific risk and achieve a more stable overall return profile.
7. Since market conditions change over time, investors should periodically review portfolio performance and reassess stocks showing declining returns or rising volatility in light of future growth prospects.
8. Investors with low risk tolerance may prefer relatively stable stocks such as State Bank of India and Reliance Industries, which exhibited lower volatility compared with high-growth companies, while recognising that lower risk may also mean lower returns.

Conclusion

This study, "Risk and Return Analysis of NIFTY 50," analysed the risk and return performance of ten selected NIFTY 50 companies over the period 2021–2026 using Average Monthly Return, Total Holding Period Return, Annualized Return, Monthly Risk, and Annualized Risk. The findings show that the selected companies differ considerably in both return generation and volatility, and that annualized return alone is not a sufficient basis for comparing stock performance. Bharti Airtel, Larsen & Toubro, and Tata Consultancy Services emerged as the strongest overall performers, combining high annualized returns with a favourable return-to-risk ratio, while HDFC Bank and Infosys recorded comparatively weaker performance, with negative annualized returns despite above-average volatility. The study confirms that a combination of return and risk indicators provides a more complete and reliable basis than any single measure for evaluating and ranking equity investments. Going forward, investors, portfolio managers, and researchers are likely to benefit from evaluating NIFTY 50 companies through a combination of average return, annualized return, and standard deviation, in order to make more informed, risk-adjusted investment decisions in the Indian equity market.

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