SJIF Impact Factor (2025): 8.688| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 10 | Issue: 3 | March 2025 - Peer Reviewed Journal

RISK-RETURN RELATIONSHIP ON EQUITY SHARES OF SELECTED COMPANIES IN INDIA

Dr. P. Jayasubramanian[1], P. Srimathi[2], B. N. Sujith Kumar[3]
[1]M.Com., M.Phil., Ph.D., PGDCA., MBA., Ph.D.
Professor, Department of Commerce with Computer Applications
Dr. N.G.P. Arts and science college (Autonomous) Coimbatore, Tamil Nadu.
[2]II M. Com CA, Department of Commerce with Computer Applications
Dr. N.G.P. Arts and science college (Autonomous) Coimbatore, Tamil Nadu.
[3]II M. Com CA, Department of Commerce with Computer Applications
Dr. N.G.P. Arts and science college (Autonomous) Coimbatore, Tamil Nadu.

ABSTRACT
This study examines the risk-return relationship in equity shares of selected companies in India, a key aspect of investment decision-making. By analyzing historical stock prices and financial indicators, the research evaluates risk factors such as beta, standard deviation, and the Sharpe ratio to assess their impact on stock returns. Utilizing statistical and financial modelling techniques, the study explores whether higher risk leads to proportionally higher returns, as proposed by modern portfolio theory. The findings offer valuable insights for investors, portfolio managers, and financial analysts, aiding in informed investment decisions and risk diversification strategies. Additionally, this research contributes to a deeper understanding of market efficiency in the Indian equity market.
KEY WORDS: *Equity shares, Risk and Return, Share market, IT Companies, CAPM.*

INTRODUCTION

In the dynamic landscape of the stock market, investor decisions hinge significantly on predictions. Investments inherently involve a balance of risk and return, necessitating a nuanced understanding of both. To maximize rewards, it is crucial to comprehend and analyse risk, as it directly influences decision-making. While every investment carries some level of risk, optimal investments offer high returns with minimal associated risk Acquiring market knowledge is essential for effective risk analysis, aiding in informed decision-making and the implementation of preventive measures. The analysis of return and risk with regards to investment has an impression on the individual's decision-making process.

OBJECTIVES

1. To examine the relationship between risk and return on equity shares of selected companies in India.
2. To analyse the impact of market-related risk factors on the returns of selected companies' equity shares.
3. To calculate and analyse various risk for selected companies' equity shares.

STATEMENT OF THE PROBLEM

Relationship between risk and return is inherently connected, with risk representing the chance of and the investment meeting or falling short of expected profits. A thorough risk and return analysis aim to identify efficient portfolios, optimizing returns for a given level of risk. This analytical approach is crucial for assessing investment opportunities in a manner relevant to financial experts. In today's diverse investment landscape, investors face choices that prompt uncertainty about whether to prioritize higher returns or lower risk. These analytical tools serve as a guide for individuals in selecting assets based on their risk and return profiles. This study endeavours to equip investors with the insights necessary to make informed decisions by considering risk and return in their portfolio choices.

RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. It explains various steps that are generally adopted by a researcher in studying the research problem.

SJIF Impact Factor (2025): 8.688| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 10 | Issue: 3 | March 2025 - Peer Reviewed Journal

SOURCES OF DATA

The study utilized secondary data for its research, sourced from various outlets such as the NSE website, publications, journals, and other relevant sources.

TOOLS USED FOR ANALYSING THE DATA

This study has the objectives of ascertaining the "Risk-return relationship on equity shares of selected companies in India" for analysing the secondary data the following statistical tool was used.

1. Expected rate of return
2. Standard deviation of return
3. Coefficient of correlation
4. Beta (Systematic risk)
5. CAPM (capital asset pricing model)
6. Sharp ratio
7. Treynor ratio
8. Jensen's Alpha

LIMITATIONS OF THE STUDY

- The data used in this study are secondary in nature.
- The statement studied are historical past, that cannot be the index for future estimation.

REVIEW OF LITERATURE

Hussein Abedi Shamsabadi (2012), "Study Evaluation about Relationship Risk- Return and Performance Steps Compare Different Commercial Sectors" that shows, The Importance of dating hazards upheld in numerous tests. The varieties among the listing of costs of backpedal on unmistakable Ings recommend various degrees of threat for financial backers in the essential property. Assessing the text between benefit levels and resource chance will help broker agent choose higher and extra right opportunity judgements in making an interest in a dispersion of businesses.

Koh Xin Rui (2014) "The dating among danger and expected results in the Malaysian Stock exchange that CAPM" demonstrates, in most examinations, there should be a few areas that require to diapause all research documents. The variations are the no difference with this check out. Long phrase exploration should utilize high - repeat information that is week after seven days or constantly information longer time periods.

Ashok Bantwa and Faizan Ulhaqq Ansari (2019), "Risk Return Analysis of Equity Stocks: A Study of Selected Indian IT Companies", the present study is an attempt to diagnose the risk return profile of equity stocks of selected Indian IT companies listed on IT Index of NSE. The risk return profile of selected IT companies has been examined on various parameters including the absolute return, abnormal return, required rate of return as per CAPM model, volatility of return, systematic risk and risk adjusted return. Authors found that Tata Elxsi, Infibeam Avenues and NIIT technologies have offered highest rate of return. Except HCL Technologies, Wipro and Oracle Fin Serv, remaining seven IT companies have offered higher rate of return than the minimum required rate of return.

Vaishnavi Patil1, Priya Saware2 (2024), "Analyzing the Relationship Between Risk and Return in the Equity Stocks of Ten Selected Companies Over Five years: An In –Depth Study", this study delves into the relationship between risk and return in the equity stocks of ten selected companies over five years. Employing comprehensive data analysis and statistical methods, including beta analysis and Sharpe ratio assessments, it aims to uncover patterns and correlations. The findings offer valuable insights for investors and portfolio managers, aiding in informed decision-making and risk management strategies.

Tayaba Shirin & Ankita Bele (2024), "Risk and Return Analysis on Equity Stocks of Selected 'IT' Companies", the analysis of equity in the IT industry reveals a significant correlation between individual IT sectors and the industry overall. This understanding aids in making well-informed decisions about stock investments. Investing inherently involves assessing both risk and potential return, which directly impacts investor behaviour. The IT sector is renowned for its rapid growth, making it an attractive option for investors seeking high returns. This study seeks to compare the risk and return characteristics of different IT stocks, helping investors identify specific investment prospects within the IT sector.

SJIF Impact Factor (2025): 8.688| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 10 | Issue: 3 | March 2025 - Peer Reviewed Journal

PROFILE OF THE COMPANY

WIPRO

Wipro Limited is an Indian multinational technology company based in Bengaluru. It provides information technology, consulting and business process services. It is one of the six leading Indian Big Tech companies. Wipro's services range from cloud computing, computer security, digital transformation, artificial intelligence, robotics, data analytics, and other technologies, present in 167 countries.

HCL Technologies

HCL Technologies Limited (d/b/a HCL Tech) is an Indian multinational information technology (IT) consulting company headquartered in Noida. Founded by Shiv Nadar, it was spun out in 1991 when HCL entered into the software services business. The company has offices in 59 countries and over 220,000 employees.

INFOSYS

Infosys Limited is an Indian multinational technology company that offers business consulting, information technology, and outsourcing services. Founded in 1981, the company is headquartered in Bengaluru. On 24 August 2021, Infosys became the fourth Indian company to achieve a market capitalization of US$100 billion.

TATA CONSULTANCY SERVICES

Tata Consultancy Services (TCS) is an Indian multinational technology company specializing in information technology services and consulting. Headquartered in Mumbai, it is a part of the Tata Group and operates in 150 locations across 46 countries. It is the second-largest Indian company by market capitalization.

RAMCO SYSTEM

Ramco Systems Limited is an Indian multinational enterprise software product & platform provider. Founded in 1997, it is a part of the Ramco Group, and is headquartered in Chennai, Tamil Nadu, India.

ANALYSIS AND INTERPRETATION

A. COMPARISON OF RISK AND RETURN

S. No	Company name	Standard Deviation	Expected rate of return
1	WIPRO LTD	6.36%	2.50%
2	HCL TECHNOLOGIES LTD	5.60%	3.49%
3	INFOSYS	6.75%	0.84%
4	TATA CONSULTANCY SERVICES	4.42%	1.83%
5	RAMCO SYSTEMS	13.2%	3.58%

Source: Secondary data

Interpretation

Thus, the table indicates the comparison of risk and return. RAMCO SYSTEMS (3.58% return, 13.2% SD) → High return, high risk and TATA CONSULTANCY SERVICES (1.83% return, 4.42% SD) → Low return, low risk.

As the market has a standard deviation of 3.08%, then, Companies with SD > 3.08% are riskier than the market. Companies with SD < 3.08% are more stable than the market.

B. CAPITAL ASSET PRICING MODEL (CAPM)

S. No	Company name	CAPM
1	WIPRO LTD	1.4%
2	HCL TECHNOLOGIES LTD	0.6%
3	INFOSYS	0.7%
4	TATA CONSULTANCY SERVICES	1.1%
5	RAMCO SYSTEMS	1.7%

Source: Secondary data

SJIF Impact Factor (2025): 8.688| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 10 | Issue: 3 | March 2025 - Peer Reviewed Journal

Interpretation
In this table, the Ramco Systems (1.7%) and Wipro (1.4%) have the highest expected return, suitable for aggressive investors willing to take market risks. TCS (1.1%) has a moderate risk-return profile, offers decent expected returns while not being overly volatile. HCL Tech (0.6%) and Infosys (0.7%) have the lowest expected returns, best for conservative investors seeking stability over high returns.

C. COMPARISON OF RATIOS

Company name	Sharp ratio	Treynor ratio	Jensen's Alpha
WIPRO LTD	0.31	0.015	1.12%
HCL TECHNOLOGIES LTD	0.52	0.259	2.86%
INFOSYS	0.04	0.010	0.11%
TATA CONSULTANCY SERVICES	0.29	0.014	0.71%
RAMCO SYSTEMS	0.23	1.016	1.86%

Source: Secondary data

Interpretation
The table presents the risk-adjusted performance of five companies, with HCL Technologies leading in all metrics, showing the highest Sharpe ratio (0.52), Treynor ratio (0.259), and Jensen's Alpha (2.86%), indicating it provides the best returns relative to its risk and outperforms expectations based on its risk profile. Ramco Systems stands out for its high Treynor ratio (1.016), suggesting it offers strong returns for its level of market risk, though its Sharpe ratio (0.23) is lower. On the other hand, Infosys and Tata Consultancy Services show relatively poor risk-adjusted returns, with Infosys having the lowest Sharpe ratio (0.04) and Jensen's Alpha (0.11%), while TCS shows modest performance in comparison. Overall, HCL Technologies is the most favourable in terms of both risk-adjusted returns and outperformance, while Infosys and TCS appear less attractive in comparison.

FINDINGS

- Ramco Systems has the highest expected return (3.58%) but also the highest total risk (Standard Deviation = 13.2%), making it a high-risk, high-return option.
- TCS has the lowest risk (4.42%), but its expected return (1.83%) is also low, making it a safer but less rewarding investment.
- HCL Technologies offers a balanced risk-return trade off, with a strong expected return (3.49%) and moderate risk (5.60%).
- Infosys (0.04) has the worst Sharpe Ratio, meaning its return does not justify the risk taken.
- Ramco Systems (1.012) has the best Treynor Ratio, meaning it provides high returns per unit of market risk.
- Wipro (0.015), TCS (0.014), and Infosys (0.010) have very low Treynor Ratios, indicating poor risk-adjusted returns.
- HCL Technologies (2.86%) has the highest Jensen's Alpha, meaning it strongly outperforms the market.
- Infosys (0.11%) has the lowest alpha, meaning it barely beats the expected return.
- Ramco Systems (1.7%) and Wipro (1.4%) have the highest expected return based on the Capital Asset Pricing Model (CAPM), making them attractive for aggressive investors.

SUGGESTIONS

- As the RAMCO System has the highest risk (Standard Deviation = 13.2%) and high volatility ($\beta = 1.85$). So, its risk level is significant. To make its high returns more sustainable, the company should focus on reducing risk through diversification, enhancing financial controls, improving operational efficiency, and stabilizing revenue.
- Infosys has the lowest expected return (0.84%), moderate risk (6.75%), and the worst Sharpe Ratio (0.04), along with the lowest Jensen's Alpha (0.11%). To enhance profitability, Infosys should shift focus to high-margin business segments, improve cost efficiency, and strengthen market expansion strategies.
- TCS has the low expected return (1.83%) and moderate market sensitivity ($\beta = 0.89$), resulting in a poor Treynor Ratio (0.014). To improve its return on investment, TCS should optimize capital allocation, expand into high-growth markets, strengthen partnerships, and refine its pricing strategies.
- Wipro experiences high volatility ($\beta = 1.32$) and has a poor Treynor Ratio (0.015). To enhance long-term financial stability, the company should implement risk-mitigation strategies, stabilize revenue streams, invest in R&D for innovation, and improve customer retention.

SJIF Impact Factor (2025): 8.688| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 10 | Issue: 3 | March 2025 - Peer Reviewed Journal

CONCLUSION

This report analyses the risk-return profiles of Wipro, HCL Technologies, Infosys, TCS, and Ramco Systems. Ramco Systems offers the highest returns but with high risk, while TCS is the safest with lower returns. HCL Technologies provides the best risk-adjusted returns, making it the most balanced option, whereas Infosys shows the weakest performance. Wipro's high volatility requires better risk management. To ensure sustainable growth, all companies should optimize capital allocation, enhance financial risk management, invest in digital transformation, and improve cost-control strategies. A well-planned approach to equity investment ensures better financial decision-making and long-term wealth creation.

REFERENCES

1. *Prabhu, R. N. (2018). Risk Return Analysis of Nifty Stocks in India. International Journal of Research and Analytical Reviews, 6(1), 89-95.*
2. *Lobo, S., & Bhat, G. (2021). A Study on Risk and Return Analysis of Selected Stocks in Indian Financial Sector. International Journal of Creative Research Thoughts, 9(7), 329-335.*
3. *Perikala, K., & Reddy, K. (2019). Risk and Return Analysis of Indian Equity Markets: A Study on S&P NSE Nifty and CNX Nifty. Journal of Emerging Technologies and Innovative Research, 6(5), 300-310.*
4. *Abhishek, V. (2018). A Study on Risk and Return Analysis of Selected Stocks in BSE Sensex. International Journal of Creative Research Thoughts, 6(1), 456-462.*
5. *Sen, J., & Mehtab, S. (2021). Optimum Risk Portfolio and Eigen Portfolio: A Comparative Analysis Using Selected Stocks from the Indian Stock Market. arXiv preprint arXiv:2107.11371.*

WEBSITES

1. *NSE (National Stock Exchange of India). (2023). Stock Market Reports and Historical Data. Retrieved from https://www.nseindia.com*
2. *BSE (Bombay Stock Exchange). (2023). Stock Performance Analysis Reports. Retrieved from https://www.bseindia.com*
3. *RBI (Reserve Bank of India). (2023). Handbook of Statistics on the Indian Economy. Retrieved from https://www.rbi.org.in*