



सिद्धिमूलं प्रबन्धनम्  
भा. प्र. सं. इन्दौर  
IIM INDORE

## **Title**

Portfolio Selection

## **Subject**

Investment Analysis and Portfolio Management

## **Date of Submission**

30/11/2023

Submitted:

Professor Debasish Maitra

By:

Deep Shah (2204107015)

DEO SHANKAR (2204107016)

KATEGARU SRI SAI KRISHNA (2204107027)

SIVASHANKAR SELVARAJAN (2204107046)

## **Introduction:**

Navigating the ever-evolving financial markets demands the construction and management of investment portfolios that strike a balance between high returns and managed risk. This report on portfolio analysis encompasses a detailed journey through the process of selecting stocks, optimizing portfolios, and evaluating performance, executed by our Group.. Our role as financial analysts was to dissect the stock market's complexity, applying advanced tools and methodologies to forge a portfolio that optimizes returns for the level of risk taken.

## **Objective**

The central aim was to transcend the basics of stock selection and venture into the optimization of the portfolio. Utilizing cutting-edge financial modelling techniques, our ambition was to create a portfolio that not only includes a prudent choice of stocks but also maintains a harmonious balance between risk and reward. We have set our benchmark to attain the pinnacle of risk-adjusted returns, informed by critical performance indicators like the Sharpe ratio, Treynor ratio, and Jensen's alpha.

## **Methodology:**

Our approach to stock selection was both exhaustive and meticulous, starting with a comprehensive survey of the market landscape. For this purpose, we consulted a wide array of resources, including highly regarded financial websites such as [Money control](#). Our focus was on the top-performing stocks within each sector, allowing us to analyse the cream of the crop in each category.

From an initial universe of approximately 190 stocks listed in the master sheet, we applied rigorous analytical criteria to distil our selection down to 94 premier stocks. This process was not arbitrary; rather, it was guided by a strategic framework that considered various factors such as market capitalization, liquidity, historical performance, and growth potential.

In each market segment, we delved into the top 3 stocks, subjecting them to a thorough analysis that encompassed financial health, competitive positioning, and future outlook. This intensive examination was pivotal in ensuring that our portfolio was not just a collection of stocks, but a refined ensemble of high-potential investments.

The result of this selective process is a robust portfolio constructed with precision and strategic foresight, designed to withstand market fluctuations and capitalize on growth opportunities. Through this document, we share the insights gained and the methodologies applied, providing a transparent account of our journey from a broad market overview to a sharply focused portfolio

## **Stock Selection and Portfolio Allocation:**

We have meticulously selected a variety of companies for our portfolio, reflecting a balanced cross-section of the market's diverse sectors:

1. TATA Consumer Products
2. Patanjali Foods
3. United Spirits
4. United Breweries
5. Radico Khaitan
6. Hindustan Aeronautics
7. Interglobe Aviation
8. Bharat Electronics
9. HDFC Bank
10. ICICI Bank
11. State Bank of India (SBI)
12. Siemens
13. Havells India
14. CG Power and Industrial Solutions
15. Asian Paints
16. Pidilite Industries
17. Berger Paints
18. UltraTech Cement
19. Shree Cements
20. Ambuja Cements
21. Honeywell Automation
22. Dixon Technologies
23. Voltas
24. AGI Greenpac
25. Uflex
26. Jindal Poly Films
27. Titan Company
28. Rajesh Exports
29. ITC Limited
30. Grasim Industries
31. SRF Limited
32. Polycab India
33. KEI Industries
34. Bajaj Finance
35. Bajaj Finserv
36. Hindustan Unilever (HUL)
37. Nestle India
38. Varun Beverages
39. Relaxo Footwears
40. Sun Pharmaceutical Industries
41. Divi's Laboratories
42. Cipla
43. Indian Hotels Company
44. EIH Limited

45. Westlife Development GAIL (India) Limited
46. GAIL
47. Gujarat Gas
48. Indraprastha Gas Limited (IGL)
49. Larsen & Toubro (L&T)
50. Adani Ports and Special Economic Zone
51. GMR Infrastructure (GMR Airports)
52. HDFC Life Insurance Company
53. SBI Life Insurance
54. Container Corporation of India
55. Blue Dart Express
56. Grindwell Norton
57. Titagarh Wagons
58. Sun TV Network
59. Zee Entertainment Enterprises
60. PVR Limited
61. INOX Leisure Limited
62. Coal India
63. JSW Steel
64. Tata Steel
65. Adani Green Energy
66. Info Edge (India)
67. JSW Infrastructure
68. Reliance Industries
69. Oil and Natural Gas Corporation (ONGC)
70. Indian Oil Corporation (IOC)
71. JK Paper
72. West Coast Paper Mills
73. Andhra Paper
74. Supreme Industries
75. Astral Limited
76. Finolex Industries
77. National Thermal Power Corporation (NTPC)
78. Power Grid Corporation of India
79. Adani Transmission
80. DLF Limited
81. Godrej Properties
82. Avenue Supermarts (DMart)
83. Trent Limited
84. Garden Reach Shipbuilders & Engineers
85. Mazagon Dock Shipbuilders
86. Tata Consultancy Services (TCS)
87. Infosys
88. HCL Technologies
89. Bharti Airtel
90. Vodafone Idea
91. Indus Towers
92. Page Industries
93. KPR Mill
94. Trident Group

Allocation within the portfolio has been strategically determined to leverage growth potential while managing exposure to risk. The weighting assigned to each stock reflects a strategic consideration of the company's market performance and growth prospects:

## Performance Metrics:

- Portfolio Return (Monthly): 40.33%, representing the aggregated gain of the portfolio over the month.
- Portfolio Variance: 0.033011588, measuring the spread of returns and reflecting the portfolio's inherent volatility and systemic risk.
- Portfolio Risk (Standard Deviation): 18.17%, gauging the total risk of the portfolio by assessing the volatility of returns.
- Sharpe Ratio: 2.219817007, expressing the excess return earned per unit of risk taken, after adjusting for the risk-free rate. It is calculated as follows:

$$\text{Sharpe Ratio} = \frac{\text{Portfolio Return} - \text{Risk-Free Rate}}{\text{Portfolio Risk}}$$

Where the risk-free rate is 7%.

- Beta (Portfolio): 0.971477, which indicates the portfolio's volatility relative to the market.
- Risk-Free Rate: 7%, utilized as a benchmark for the risk-free return in our calculations.
- Treynor Ratio: 0.343107156, illustrating the return earned over the risk-free rate per unit of market risk taken. It is defined by:

$$\text{Treynor Ratio} = \frac{\text{Portfolio Return} - \text{Risk-Free Rate}}{\text{Beta (Portfolio)}}$$

- Market Return: 1.51%, signifying the overall market's return within the same period as the portfolio return.
- Jensen's Alpha Ratio: 0.00950743, representing the portfolio's abnormal return over the expected return as forecasted by the Capital Asset Pricing Model (CAPM). This ratio reveals the portfolio manager's performance in selecting stocks.

These figures collectively represent our portfolio's performance and are a testament to our strategic allocation and selection methodology.

## **Conclusion:**

The analytical findings underscore the importance of a well-constructed portfolio, emphasizing that a blend of rigorous research and balanced stock selection can lead to substantial risk-adjusted returns. The portfolio's success is rooted in in-depth market analysis and strategic investment practices.