



A Study On Portfolio Management Practices at Punjab National Bank, Hyderabad

Vadthyavath Shiva¹, Dr. M. P. Suri Ganesh²

¹II MBA Department of MBA, Malla Reddy Engineering College
(Autonomous), Hyderabad, India

²Associate Professor, Department of MBA, Malla Reddy
Engineering College (Autonomous), Hyderabad, India

Abstract – The Portfolio management plays a vital role in helping financial institutions achieve an optimal balance between risk and return while ensuring efficient utilization of available funds. Punjab National Bank (PNB), one of India's leading public sector banks, adopts various portfolio management practices to maintain profitability, improve asset quality, and meet regulatory requirements. This study examines the portfolio management practices followed by Punjab National Bank, Hyderabad, with a focus on analyzing the risk and return characteristics of selected securities during the period 2021–2026. The study is based entirely on secondary data collected from Punjab National Bank annual reports, Reserve Bank of India (RBI) publications, National Stock Exchange (NSE), Bombay Stock Exchange (BSE), company annual reports, journals, books, and other financial websites. Six securities—Gujarat Ambuja Cement Ltd., Larsen & Toubro Ltd., Ranbaxy Laboratories, Cipla Ltd., Karur Vysya Bank Ltd., and ICICI Bank Ltd.—have been selected for analysis. Statistical tools such as return analysis, standard deviation, correlation, diversification analysis, and portfolio weighting have been used to evaluate portfolio performance and investment risk. The findings indicate that effective portfolio diversification helps reduce unsystematic risk while improving overall portfolio performance. The analysis also reveals that selecting securities from different sectors enhances investment stability and enables better risk-adjusted returns. Punjab National Bank follows systematic investment and risk management practices that support efficient allocation of funds and long-term financial sustainability. The study concludes that a well-diversified portfolio supported by continuous monitoring and sound investment strategies contributes significantly to improving portfolio efficiency and achieving organizational financial objectives.

Keywords – Portfolio Management, Risk and Return, Diversification, Investment Analysis, Standard Deviation, Punjab National Bank, Portfolio Performance.

I. INTRODUCTION

Portfolio management is an important component of financial management that focuses on selecting and managing a combination of investment assets to achieve maximum returns with minimum risk. It involves investing funds in different financial instruments such as equity shares, government securities, corporate bonds, mutual funds, and other marketable securities. The primary objective of portfolio management is to create a well-diversified portfolio that balances risk and return according to the investment objectives of an individual or institution. Effective portfolio management helps investors protect their capital, improve investment performance, and make informed financial decisions in a dynamic market environment.

In the banking sector, portfolio management plays a significant role in maintaining profitability, liquidity, and financial stability. Public sector banks invest in a wide range of financial assets while complying with the investment guidelines and regulatory framework prescribed by the Reserve Bank of India (RBI). Punjab National Bank (PNB), one of India's leading public sector banks, follows systematic portfolio management practices to optimize returns, manage investment risks, and maintain a balanced portfolio. The bank continuously monitors its investment portfolio and adopts diversification strategies to improve portfolio performance while ensuring long-term financial sustainability.

The present study focuses on analyzing the portfolio management practices followed by Punjab National Bank, Hyderabad, during the period 2021–2026. The study evaluates the performance of six selected securities—Gujarat Ambuja Cement Ltd., Larsen & Toubro Ltd., Ranbaxy Laboratories, Cipla Ltd., Karur Vysya Bank Ltd., and ICICI Bank Ltd.—by applying statistical tools such as return analysis, standard deviation, correlation analysis, and portfolio diversification techniques. The findings of the study provide insights into the effectiveness of portfolio management in balancing risk and return, improving investment efficiency, and supporting better financial decision-making in the Indian banking sector.

II. REVIEW OF LITERATURE

1. Jiang et al (2024) proposed a reinforcement learning approach based on representation transfer for portfolio management. Their study utilized representation learning techniques to identify hidden patterns in financial market data and improve portfolio optimization. The findings showed that the proposed model enhanced portfolio performance and investment decision-making under dynamic market conditions.

2. Wang and Ku (2022) examined risk-sensitive portfolio management strategies by analyzing the trade-off between risk and return. The study emphasized that incorporating risk-aware investment policies helps investors



achieve stable returns while reducing exposure to market volatility. The authors concluded that effective risk management is essential for improving long-term portfolio performance.

3. Dong and Zheng (2024) introduced a soft imitation reinforcement learning model with value decomposition for portfolio management. The study demonstrated that combining imitation learning with reinforcement learning improves portfolio optimization, enhances risk-adjusted returns, and reduces portfolio volatility in changing market environments.

4. Lucarelli and Borrotti (2020) developed a deep Q-learning framework for portfolio management in cryptocurrency markets. Their research showed that artificial intelligence-based investment strategies generated better portfolio performance than traditional investment methods by adapting quickly to volatile market conditions.

5. Soleymani and Paquet (2021) proposed a deep graph convolutional reinforcement learning model known as Deep Pocket for financial portfolio management. Their study highlighted that integrating graph neural networks with reinforcement learning effectively captures relationships among financial assets, leading to improved portfolio allocation and investment efficiency.

III. NEED OF THE STUDY

Portfolio management has become an essential function in the banking sector as it helps financial institutions achieve an effective balance between risk and return. With increasing market fluctuations and changing economic conditions, banks must manage their investment portfolios efficiently to ensure profitability and financial stability. Punjab National Bank (PNB) invests in various financial assets, making it important to evaluate its portfolio management practices and investment performance.

This study helps in analyzing the risk and return of selected securities and understanding the benefits of portfolio diversification. It also evaluates the application of statistical tools in measuring portfolio performance and investment efficiency. The findings provide useful insights for investors, banking professionals, researchers, and management students in understanding effective portfolio management practices and supporting better investment decisions.

IV. SCOPE OF THE STUDY

The scope of this study is limited to analyzing the portfolio management practices followed by Punjab National Bank, Hyderabad, during the period 2021–2026. It focuses on evaluating the risk and return of six selected securities using portfolio management techniques. The study also examines the importance of diversification in reducing investment risk and improving overall portfolio performance.

The study is based entirely on secondary data collected from Punjab National Bank reports, RBI publications, NSE,

BSE, company annual reports, journals, and financial websites. Statistical tools such as return analysis, standard deviation, correlation analysis, and portfolio diversification are used to assess investment performance. The findings provide insights into effective portfolio management practices in the Indian banking sector.

V. OBJECTIVES OF THE STUDY

- To study the portfolio management practices followed by Punjab National Bank.
- evaluate the risk and return of selected securities during the period 2021–2026.
- To analyze the benefits of diversification in portfolio construction.
- To assess portfolio performance using statistical tools such as return, standard deviation, and correlation analysis.
- To provide suitable suggestions for improving portfolio efficiency and investment performance.

VI. RESEARCH METHODOLOGY

Research Design: Descriptive and analytical research design was adopted for the study.

- Type of Data: The study is based on secondary data.
- Where Data Came From: Punjab National Bank Annual Reports, RBI publications, NSE and BSE websites, company annual reports, financial journals, books, and reliable financial websites.
- Time Frame: The study covers a period of five years, from 2021–2026.
- Tools and Methods: Return analysis, standard deviation, correlation analysis, portfolio diversification, and portfolio weight calculations were used to analyze the data.

VII. LIMITATIONS OF THE STUDY

- The study is based entirely on secondary data, which may have limitations in accuracy and availability.
- The analysis is limited to six selected securities and may not represent the entire investment market.
- The study covers only the 2021–2026 period and may not reflect long-term market fluctuations.
- The impact of macroeconomic factors such as inflation, interest rates, and government policies has not been considered.
- Portfolio performance may vary over time due to changes in market conditions and investor behavior.

VIII. DATA ANALYSIS AND INTERPRETATION

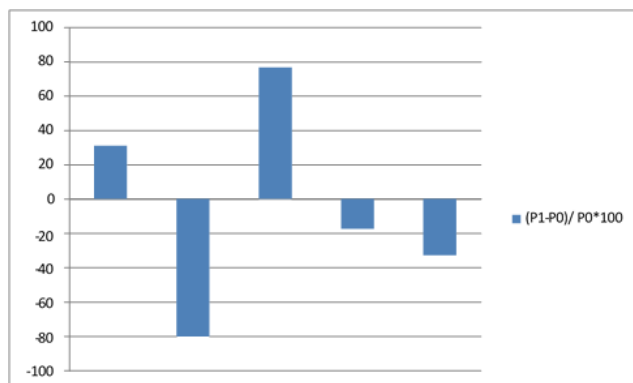
Table No 8.1 The following table shows the Calculation of Return Gujarat Ambuja Cement Ltd (GACL):

$$\text{Average return} = \sum R/N$$



Year	Opening share price (P0)	Closing share price (P1)	(P1-P0)	(P1-P0)/P0*100
2021-2022	306.10	401.55	95.45	31.18
2022-2023	405.00	79.60	-325.40	-80.35
2023-2024	80.00	141.30	61.30	76.63
2024-2025	144.80	119.35	-25.45	-17.58
2025-2026	120.00	80.60	-39.4	-32.83
TOTAL RETURN				-22.95

Average return = $-22.95/5 = -4.59$



Figures No: 8.1

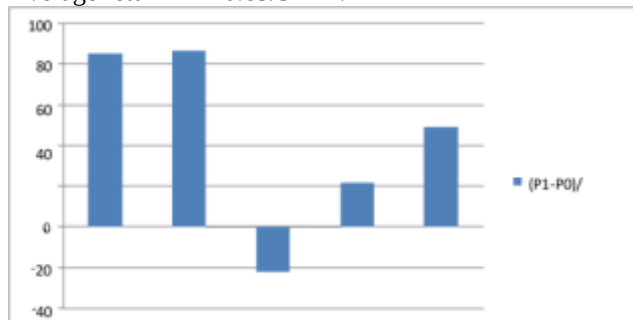
Interpretation:

From the above table the returns of Ambuja Cement Ltd in the year 2020-21 is 31.18, in the year 2022-23 is -80.35, in the year 2023-2024 is 76.03, in the year 2024-2025 is -17.58 and in the year 2025-2026 is -32.83

Table No 8.2 The following table shows the Calculation of Return Larsen and Toubro (LNT):

Year	Opening share price (P0)	Closing share price (P1)	(P1-P0)	(P1-P0)/P0*100
2021-2022	530.00	982.00	452.00	85.28
2022-2023	988.70	1844.20	855.50	86.53
2023-2024	1845.00	1442.95	-402.05	-21.79
2024-2025	1400.00	1703.20	303.20	21.66
2025-2026	1704	2539.05	835.05	49.01
TOTAL RETURN				220.69

Average return = $220.69/5 = 44.14$



Figures No: 8.2

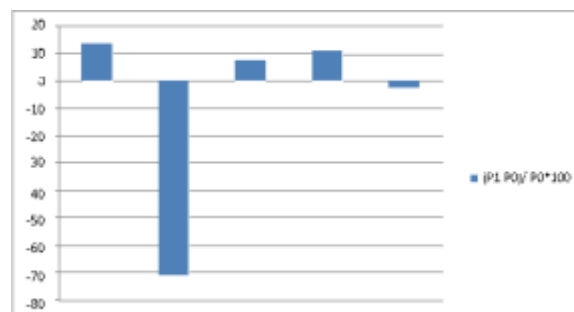
Interpretation:

From the above table the returns of Larson and turbo in the year 2021-2022 is 85.28, in the year 2022-2023 is 86.53, in the year 2022-23 is -21.79, in the year 2024-2025 is 21.66 and in the year 2025-2026 is 49.01

Table No 8.3 The following table shows the Calculation of Return Ranbaxy Laboratories:

Year	Opening share price (P0)	Closing share price (P1)	(P1-P0)	(P1-P0)/P0*100
2021-2022	1100.10	1251.40	151.30	13.75
2022-2023	1252.00	362.35	-889.65	-71.06
2023-2024	364.40	391.85	27.45	7.53
2024-2025	393.00	349.15	-43.85	-11.16
2025-2026	350.00	340.95	-9.05	-2.59
TOTAL RETURN				-41.21

Average return = $-41.21/5 = -8.242$



Figures No: 8.3 Interpretation:

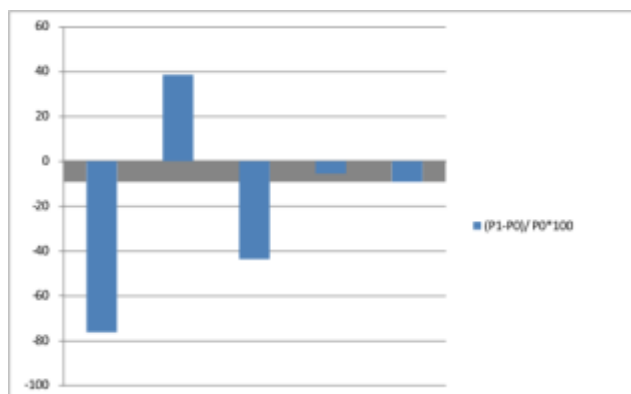
From the above table the returns of Ranbaxy Laboratories in the year 2020-21 is 13.75, in the year 2022-2023 is -71.06, in the year 2023-2024 is 7.53, in the year 2024-2025

is 11.16 and in the year 2025-2026 is -2.59.

Table No 8.4 The following table shows the Calculation of Return Cipla:

Year	Opening share price (P0)	Closing share price (P1)	(P1-P0)	(P1-P0)/P0*100
2021-2022	1339.00	317.25	-1021.75	-76.31
2022-2023	320.00	443.40	123.40	38.56
2023-2024	445.00	250.70	-194.30	-43.66
2024-2025	253.40	239.30	-14.10	-5.56
2025-2026	240.00	218.15	-21.85	-9.10
TOTAL RETURN				-96.07

Average return = $-41.21/5 = -8.242$



Figures No: 8.4

Interpretation:

From the above table the returns of Cipla, in the year 2019-2020 is -76.31, in the year 2020-2021 is 38.56, in the year 2021-2022 is -43.66, in the year 2022-2023 is -5.56 and in the year 2023-2024 is -9.10.

IX. SUMMARY OF FINDINGS

- The selected securities exhibited different levels of risk and return during the study period, reflecting changing market conditions.
- Portfolio diversification helped reduce unsystematic risk and improved the overall stability of the investment portfolio.
- Standard deviation analysis showed that some securities carried higher risk, while others provided relatively stable returns.
- Correlation analysis indicated that combining securities from different sectors enhanced portfolio diversification and reduced overall investment risk.
- Punjab National Bank follows systematic portfolio management practices that support efficient investment decisions and long-term financial stability.
- The study found that proper portfolio construction and continuous monitoring are essential for maximizing returns while minimizing investment risk.

X. SUGGESTIONS

- Punjab National Bank should regularly review and rebalance its investment portfolio to improve returns and reduce risk.
- The bank should strengthen portfolio diversification by investing in securities from different sectors and industries.
- Advanced analytical tools and risk management techniques should be adopted to support better investment decisions.
- The bank should continuously monitor market trends and economic conditions before making investment decisions.

- Investors should consider both risk and return while constructing a diversified portfolio for long-term wealth creation.
- Regular performance evaluation should be carried out to enhance portfolio efficiency and achieve sustainable financial growth.

XI. CONCLUSION

Portfolio management plays a crucial role in achieving an appropriate balance between risk and return while ensuring efficient utilization of investment resources. The study found that Punjab National Bank follows systematic portfolio management practices by adopting diversification and risk management strategies to improve investment performance. The analysis of the selected securities using statistical tools such as return analysis, standard deviation, and correlation demonstrated the importance of diversification in reducing investment risk and enhancing portfolio efficiency.

The study concludes that effective portfolio management supports better investment decisions, improves financial stability, and contributes to long-term growth. Continuous portfolio monitoring, proper asset allocation, and timely investment decisions can further strengthen portfolio performance. Overall, the study highlights the significance of scientific portfolio management practices in achieving sustainable financial performance in the banking sector.

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