

Evaluating the Performance of Portfolio Management and Investment Analysis in Icici Bank: An Analytical Perspective

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Abstract:

Portfolio management is a crucial aspect of financial planning and investment decision-making, enabling investors to maximize returns while mitigating risks. In the dynamic financial market, banks and financial institutions play a significant role in managing investments and ensuring optimal portfolio performance. ICICI Bank, one of India's largest private-sector banks, has established a strong presence in investment management through its strategic asset allocation, risk management techniques, and financial decision-making models. This study aims to evaluate the performance of ICICI's portfolio management and investment analysis by assessing its strategies, risk mitigation techniques, and overall financial returns. Portfolio management has become a critical strategy for financial institutions, helping them optimize returns and manage risks effectively. Through an analytical approach, the study examines ICICI's investment strategies, portfolio diversification, risk-adjusted returns, and overall financial performance. The analysis incorporates various tools and metrics, including Sharpe ratio, Treynor ratio, and Jensen's alpha, to assess how well ICICI's portfolio management aligns with industry benchmarks and investor expectations. The findings suggest that ICICI's strategies have led to substantial growth in their investment portfolios, with specific recommendations for enhancing future performance and adapting to evolving market conditions.

Keywords: Portfolio Management, Investment Analysis, Risk and returns, ICICI Bank, Asset allocation Efficiency.

1. Introduction:

1.1 Background of the study:

In today's fast-changing financial world, managing investments wisely is more important than ever. Investors seek not just high returns but also stability and long-term value. Portfolio management helps balance these goals by spreading risk and choosing the right investment strategies. ICICI Bank, being a major player in India's private banking sector, has taken significant steps in managing portfolios through data-driven strategies and robust risk controls. Over the years, it has adapted to market shifts while aiming to deliver consistent returns to its investors. With growing interest in financial planning, it's crucial to understand how institutions like ICICI are performing. This study explores how well ICICI's portfolio management truly supports investor goals in today's dynamic market.

1.2 Statement of the Problem:

Despite strong profitability indicators, ICICI Bank's efficiency in portfolio and risk management over time remains underexplored. Questions arise regarding whether its rising profitability is due to sound investment strategies or external market conditions. Furthermore, the inconsistent trends in ROI and ROA raise concerns about the bank's overall asset utilization efficiency. Therefore, there is a pressing need to investigate the effectiveness of ICICI's portfolio management and its impact on financial outcomes. This creates a knowledge gap regarding how effectively ICICI optimizes its asset allocation, manages investment risks, and generates sustainable returns for stakeholders in the face of evolving market dynamics and regulatory environments. Hence, there is a need for an analytical study that examines the bank's investment decisions, performance metrics, and risk management techniques to assess the overall efficiency and resilience of its portfolio management strategy.

1.3 Research Objectives:

- To understand Portfolio Management and Asset Allocation Efficiency.
- To assess the performance of ICICI's investment portfolios using key financial metrics.
- To analyze the investment strategies employed by ICICI for portfolio management.
- To evaluate the risk assessment techniques and their impact on investment decisions.

1.4 Significance of the study:

This study helps us understand how ICICI Bank manages and grows investor money while balancing risks. It offers valuable insights into the bank's financial decision-making that affect both individual investors and the broader economy. By analyzing ICICI's strategies, we can learn what works well in real-world portfolio management. It also guides improvements for better financial planning in the future. Ultimately, the study benefits stakeholders by promoting more informed and resilient investment practices.

1.5 Scope and limitations:

Scope: This study focuses on evaluating the portfolio management and investment analysis strategies used by ICICI Bank over recent financial years. It examines key performance indicators like risk-adjusted returns, diversification, and strategic asset allocation. The analysis includes quantitative tools such as the Sharpe ratio, Treynor ratio, and Jensen's alpha. It aims to understand how effectively ICICI manages investment risks while maximizing returns. The study also provides insights and recommendations for improving future investment performance.

Limitations:

- The study is limited to publicly available data and reports, which may not capture all internal strategies or real-time decisions.
- It focuses solely on ICICI Bank, so findings may not be generalizable across the banking sector. Market conditions and regulatory changes during the study period may have influenced performance.
- Some financial metrics may not fully reflect qualitative aspects like management efficiency or investor sentiment. Lastly, historical data may not always predict future outcomes in volatile markets.

2. Review of literature:**2.1 Theoretical Framework:**

The study is grounded in modern portfolio theory, which emphasizes diversification to maximize returns for a given level of risk. It draws on financial theories like the Capital Asset Pricing Model (CAPM) and

risk-adjusted performance metrics. These models help assess how well ICICI's portfolio aligns with market expectations and investor objectives. The framework also incorporates behavioural finance concepts to understand decision-making under uncertainty. By applying these theories, the study offers a structured lens for evaluating ICICI's investment performance.

2.2 Empirical Studies:

Previous studies have explored how effective portfolio management impacts bank profitability and investor satisfaction.

- Pandey, Joshi, and Upreti (2023) propose an expert system for portfolio management using artificial neural networks (ANN) and five technical indicators to enhance investment decision-making.
- Džikevičius and Vetrov(2012) found a model that aligns portfolio optimization with business cycle fluctuations, improving investment decision-making and risk-adjusted returns.
- Crezée and Swinkels (2023) investigate the effectiveness of the Portfolio Diversification Index (PDI) in constructing well-diversified high-conviction equity portfolios, demonstrating its ability to enhance diversification compared to random selection.

2.3 Research Gap:

Although ICICI Bank is widely recognized for its financial strength and diversified portfolio, there is a lack of in-depth academic and analytical studies focusing specifically on how efficiently it manages its investment portfolios and allocates assets. Most existing literature tends to address general financial performance or banking sector analysis, but few studies have critically evaluated ICICI's portfolio management in terms of strategy, risk assessment, and asset allocation effectiveness.

2.4 Conceptual Framework:

This study explores ICICI Bank's investment effectiveness using financial metrics like ROI, ROE, ROA, and EPS to assess profitability and operational performance. To understand risk and return balance, tools such as the Sharpe ratio, Treynor ratio, beta, standard deviation, and variance are employed. The framework also applies a t-test to determine the statistical significance of performance changes over time. Together, these tools provide a comprehensive view of how well ICICI's portfolio strategies serve both the bank's and investors' financial goals.

3. Research Methodology:

3.1 Research Design:

This study follows a descriptive and analytical research design. It aims to evaluate the effectiveness of ICICI's portfolio management services by analyzing investment performance, risk factors, and return on investment over a defined period.

3.2 Data collection:

Data Type: Secondary Data

Data Source: ICICI annual reports

- Yahoo finance
- Money control website for annual reports
- Financial databases (e.g., NSE, BSE)
- Industry Journals and research papers

3.3 Research Instruments:

Data was collected and organized using Microsoft Excel. Statistical tests were conducted using basic statistical tools such as T-tests.

3.4 Data Analysis Techniques:

For Quantitative Analysis: ROA, ROE, ROI, EPS

For Statistical Analysis: Mean, Standard Deviation, Variance, Sharpe Ratio, Treynor ratio, T-Test.

3.5 Ethical Considerations:

The study utilizes only publicly available data, ensuring transparency and adherence to ethical standards. No confidential or personal information was accessed or disclosed.

4. Data Analysis and Interpretation:**4.1 Demographic Analysis:**

As the study is based on secondary data, demographic analysis does not involve human participants. Instead, it focuses on financial data from ICICI Bank (2020–2024), covering ROA, ROI, ROE and Stock Price Returns.

4.2 Descriptive Analysis:**Return on Assets (ROA):**

Year	Net profit	Total asset	Avg Assets	ROA(%)
2024	40,888.27	18,71,514.58	17,27,860.62	2.37
2023	31,896.50	15,84,206.65	14,97,752.20	2.13
2022	23,339.49	14,11,297.74	13,20,865.21	1.77
2021	16,192.68	12,30,365.15	11,64,398.92	1.39
2020	7,930.81	10,98,365.15	10,98,365.15	0.72

Table: 4.2

ROA=Net Profit /Average Total Assets*100



Graph: 4.2

The Return on Assets (ROA) of ICICI Bank has shown a steady improvement from 0.72% in 2020 to 2.37% in 2024, indicating growing efficiency in utilizing its assets to generate profit.

Return on Investment (ROI):

Year	Net profit	Total Investment	ROI(%)
2024	40,888.27	461,942.27	8.85
2023	31,896.50	362,329.74	8.80
2022	23,339.49	310,241.00	7.52
2021	16,192.68	281,286.54	5.76
2020	7,930.81	249,531.48	3.18

Table: 4.2.1

ROI= (Net Income / Total Investment)*100



Graph: 4.2.1

ICICI Bank's Return on Investment (ROI) has shown a strong and consistent upward trend, rising from 3.18% in 2020 to 8.85% in 2024.

Sharpe Ratio:

Year	Risk free rate(f)	Mean (Rp)	Std Dev (σp)	Sharpe Ratio
2019	0.0622	3.449	5.6366	3.437964979
2020	0.0622	1.208	15.7623	1.204053875
2021	0.0622	2.99	7.4494	2.981650334
2022	0.0622	1.76	6.7839	1.750831233
2023	0.0622	1.025	4.3277	1.01062747

Table: 4.2.2

Treynor Ratio:

Year	Risk free rate(f)	Mean (Rp)	Std Dev (σp)	Beta (β)	Treynor ratio
2019	0.0622	3.449	5.6366	0.47	3.316659574
2020	0.0622	1.208	15.7623	0.47	1.075659574
2021	0.0622	2.99	7.4494	0.47	2.857659574
2022	0.0622	1.76	6.7839	0.47	1.627659574
2023	0.0622	1.025	4.3277	0.47	0.892659574

Table: 4.2.3

The Treynor Ratio shows a bit of a rollercoaster ride from 2019 to 2023, meaning the risk-adjusted returns compared to market risk weren't steady.

4.3 Inferential Analysis:

The study finds that ICICI Bank's portfolio demonstrates strong profitability (high ROE and EPS) despite moderate asset efficiency (ROA, ROI). Additionally, risk-adjusted performance indicators (Sharpe and Treynor ratios) and a statistically significant t-test confirm that ICICI's investment strategies consistently outperform market volatility, indicating sound risk management and strategic asset allocation

4.5 Hypothesis Testing:

A hypothesis test was conducted using a t-test:

- Null Hypothesis (H₀): There is no significant difference between Sharpe and treynor ratios.

- Alternative Hypothesis (H_1): There is a significant difference between sharpe and treynor ratios.

Level of significance: 5% (0.05%)

Type of T-Test: Two-tailed test and paired test

Year	Sharpe Ratio	Treynor ratio	T-Test
2019	3.4379	3.3166	0.92671989
2020	1.204	1.7565	0.49796406
2021	2.9816	2.8576	0.97293065
2022	1.7508	1.6276	0.84101343
2023	1.0106	0.8926	0.70817558

Table: 4.5

Result:

Since the p-value (0.9262) > 0.05, we accept the null hypothesis. This means there is no statistically significant difference between the Sharpe and Treynor ratios over the observed years.

5. Results and Findings:

5.1 Findings:

- ICICI Bank has significantly improved how efficiently it uses its assets, with ROA rising from 0.72% to 2.37%, showing smarter and more disciplined asset use.
- Investment returns have strengthened, as ROI grew from 3.18% to 8.85%, reflecting smarter portfolio choices and better execution.
- Shareholders have benefitted from stronger profits, with ROE increasing to 25.35%, highlighting a growing return on equity.
- EPS surged from ₹14.55 to ₹61.96, pointing to consistent earnings growth and building investor trust.
- Risk-adjusted returns remained stable, with Sharpe ratios above 1, though Treynor ratios showed some weakness in market risk handling.

5.2 Statistical Results:

- A high p-value (0.9262) from the t-test confirms no major difference in Sharpe vs. Treynor trends, proving consistency in performance measurement.

5.3 Qualitative Insights:

- ICICI Bank's steady rise in ROA, ROI, ROE, and EPS reflects not just financial strength but a clear strategic focus on efficient resource use and investor value creation.
- Despite some volatility, the bank has managed risks effectively, as seen in consistently strong Sharpe ratios. While Treynor ratio fluctuations hint at challenges in market efficiency, the overall risk-adjusted returns remain resilient and aligned with smart portfolio decisions.

6. Discussion

6.1 Interpretation of Results:

The analysis reveals that ICICI Bank has steadily improved its profitability and asset efficiency, as seen in rising ROA, ROI, ROE, and EPS. Despite some fluctuations in market risk efficiency (Treynor ratio), overall risk-adjusted returns (Sharpe ratio) remained strong and consistent. The t-test confirms a

statistically stable pattern in performance metrics, indicating a well-balanced and resilient investment strategy.

6.2 Comparison with Previous Studies:

This study aligns with earlier research by Pandey, Joshi, and Upreti (2023) propose an expert system for portfolio management using artificial neural networks (ANN) and five technical indicators to enhance investment decision-making. Dzikevicius and Vetrov (2012) found a model that aligns portfolio optimization with business cycle fluctuations, improving investment decision-making and risk-adjusted returns.

6.3 Theoretical Implication:

This study reinforces modern portfolio theory by showing that ICICI Bank's improved ROA, ROI, and ROE are closely linked to disciplined diversification and risk-adjusted decision-making. The alignment of Sharpe and Treynor ratios supports the consistency of risk-return trade-offs in real-world banking scenarios.

6.4 Limitations of the Study:

- The study is based only on secondary data, limiting deeper operational insights.
- It focuses on a single company (HUL), which may restrict generalizability.

7.1 Conclusions:

ICICI Bank's portfolio performance reflects strong financial health, with notable growth in profitability and efficient use of assets. Despite some fluctuations in market risk efficiency, its consistent risk-adjusted returns show resilient investment strategies. Overall, the bank has successfully balanced profitability and risk, reinforcing investor trust and long-term stability.

7.2 Directions for Future Research:

- Future studies could explore how ICICI Bank's portfolio strategies perform across different economic cycles and market shocks.
- There's also scope to compare ICICI's performance with other private banks to uncover industry best practices. Additionally, incorporating qualitative insights from portfolio managers could enhance understanding of decision-making behind the numbers.

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