

An Analytical Study on Capital Adequacy, Risk Management and Profitability of HDFC Bank Under Basel Iii

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ABSTRACT

Basil III framework implementation have strengthened the capital regulation, liquidity standard and risk coverage management. This study analysis the capital adequacy, risk exposure and then studies it's impact on profitability and investment of HDFC bank over the period of 2021-2025. Using analytical tools like capital adequacy and profitability analysis, capital growth sustainability analysis and buffer analysis the relationship between capital level, risk management and return performance is examined. Findings shows that HDFC maintains well above RBI's required Basil III capital adequacy ratio reflecting strong financial resilience. At the same time the results show that there is a gradual decline in Return of Equity even though HDFC maintains high capital levels, so capital efficiency may not be fully utilized. Based on these findings, the study highlights the need to balance capital adequacy with capital deployment in order to achieve balanced growth.

Keywords: Basel III, capital adequacy, sustainability ratio, financial resistance, capital deployment, buffer analysis, Return on Equity, banking stability

INTRODUCTION

Financial stability and risk management had become a major concern in global financial system in banks. Basel III framework is a comprehensive regulatory framework aimed to strength bank capital requirement, increase liquidity standard, leverage limits and risk management to withstand financial stress. Banks are required to adopt Basil III norms and maintain levels higher than RBI's prescribed limit.

Studying an individual private bank sector like HDFC Bank on how well it adopted Basel III norms, its implication on risk exposure, return on equity, growth rate and profitability need to be analysed to understand the efficiency and the levels required to maintain capital adequacy ratio. Study shows that HDFC maintains well above the prescribed limit, which strengthens the financial stability, but also raises an important concern on its declined effect on equity and profitability. Comprehending the relationship between capital adequacy, return on equity and return on asset offers valuable insight on bank's capital stability position and how it in turns affects equity and profitability. Capital growth sustainability analyses the capital growth, risk weighted assets growth and indicates financial health of the bank.

This study attempts to examine the relationship between capital adequacy and profitability and to understand whether higher capital levels lead to improved financial performance or result in reduced efficiency.

REVIEW OF LITERATURE

Recent academic work has explored the impact of Basel III regulations on the capital strength, risk profile, and profitability of banks. The literature generally indicates that stricter requirements relating to capital adequacy, liquidity buffers, and regulatory reserves have improved the overall stability of the banking system. However, these enhanced norms have also placed additional pressure on banks' earnings and their ability to expand credit, particularly within the Indian banking sector. Evidence suggests that although many banks continue to maintain capital levels above the prescribed minimum, public sector banks often face constraints arising from weaker asset quality and limited internal capital generation. Prior research also points to a close interaction between capital levels and risk-taking behavior, highlighting how regulatory frameworks shape financial decision-making within banks. At the same time, scholars argue that capital adequacy measures alone do not provide a complete picture of performance, and should be evaluated alongside profitability indicators such as Return on Equity and Return on Assets. Taken together, existing studies suggest that while Basel III contributes to long-term financial resilience, it may create short-term trade-offs in terms of profitability, thereby underscoring the need for an integrated assessment of capital adequacy and financial performance.

METHODOLOGY

The present study uses quantitative analysis of secondary data collected from the annual reports and Basel III Pillar III disclosures of HDFC Bank. The study covers a period of five years from 2021 to 2025. Capital Growth Sustainability Analysis, Capital Buffer, Capital Adequacy and Profitability Indicator are the financial analytical tools used to examine the relationship between capital adequacy and profitability over the study period.

DATA ANALYSIS AND RESULTS

Table 1: Capital Adequacy and Profitability Indicators (2021–2025)

Year	CAR (%)	ROE (%)	ROA (%)
2021	18.51	20.31	1.77
2022	18.66	19.19	1.74
2023	19.02	15.89	1.82
2024	18.52	14.67	1.59
2025	19.34	14.25	1.61

The capital adequacy ratio remains consistently high throughout the study period, indicating a strong capital base and strict adherence to regulatory requirements. However, it can be seen there is a study decline in return on equity, suggesting that increased capital adequacy ratio have not resulted in proportional growth in equity returns. On the other hand, return on assets have remained relatively stable, reflecting consistent operational efficiency and effective asset utilization.

Table 2: Capital Growth and Risk-Weighted Assets Growth (2021–2025)

Year	Capital Growth (%)	RWA Growth (%)
2021	14.99	13.44
2022	19.93	18.93
2023	19.41	17.19
2024	51.60	55.67
2025	12.52	7.76

By comparing capital growth and risk-weighted asset growth it shows the bank’s approach towards managing risk exposure. During 2021-2023, capital growth is slightly higher than RWA growth, which indicates there was balanced expansion. However, in 2024 RWA growth exceeds capital growth, which reflects increase in risk exposure. This is corrected in 2025, wherein the capital growth exceeds RWA growth, indicating improved capital stability and better risk management.

Table 3: Capital Buffer Position (2021–2025)

Year	CAR (%)	Minimum Required (%)	Buffer (%)
2021	18.51	11.50	7.01
2022	18.66	11.50	7.16
2023	19.02	11.50	7.52
2024	18.52	11.50	7.02
2025	19.34	11.50	7.84

The capital buffer remained consistently high across all years, indicating that the bank maintains a significant cushion above the minimum requirement. This strong buffer enhances the bank’s ability to absorb unexpected losses and strengthens its financial resilience during periods of economic stress. At the same time, the persistent presence of excess capital suggests that a portion of available funds may not be fully deployed in income-generating activities.

Integrated Analysis:

The evaluation of all the three tables reveals a consistent pattern. The bank demonstrates strong capital adequacy and maintains substantial buffers, ensuring financial stability. At the same time, the decline in return on equity indicates that increased capitalization has diluted return efficiency. The temporary mismatch between capital growth and risk-weighted asset growth further highlights periods of imbalance in capital allocation.

Overall, the findings suggest that while higher capital enhances resilience, it does not automatically lead to improved profitability. Effective alignment between capital expansion and productive deployment is essential to maintain both stability and return efficiency.

FINDINGS

The study identifies several key outcomes regarding the capital adequacy and financial performance of HDFC Bank under the Basel III framework. The Capital Adequacy Ratio remained consistently above 18 percent throughout the study period, indicating strong compliance with regulatory requirements and a robust capital base. The capital buffer was also significantly higher than the prescribed minimum, ranging between 7.01 percent and 7.84 percent, reflecting a high level of financial resilience and the ability to absorb potential losses.

At the same time, the analysis reveals a declining trend in Return on Equity, which decreased from 20.31 percent in 2021 to 14.25 percent in 2025. This indicates that the increase in capital levels has not resulted in proportional growth in shareholder returns. Return on Assets remained relatively stable over the period, suggesting consistent efficiency in asset utilization despite variations in capital structure.

The findings also indicate an inverse relationship between capital adequacy and return on equity, where higher capital levels are associated with lower return efficiency. This suggests that maintaining excess capital beyond regulatory requirements may lead to underutilization of financial resources.

CONCLUSION

The study concludes that HDFC Bank maintains a strong and stable capital position in line with the requirements of the Basel III. The bank demonstrates high financial resilience through a consistently strong capital adequacy ratio and substantial capital buffers, ensuring its ability to withstand financial stress and economic uncertainties.

However, the analysis also highlights a critical trade-off between regulatory compliance and profitability. While higher capital levels enhance stability and reduce risk exposure, they may simultaneously lead to a decline in return efficiency, as reflected in the downward trend of Return on Equity. This indicates that excess capital, if not effectively deployed, can limit the bank's ability to maximize shareholder value.

Therefore, the study emphasizes the need for an optimal balance between maintaining adequate regulatory capital and ensuring efficient capital utilization. A well-calibrated capital strategy would enable the bank to sustain financial stability while also improving profitability and investment efficiency.

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adequacy and risk exposure.