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Assessing the Relationship between Asset Quality and Profitability in Public Sector Banks: Evidence from Canara Bank

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Abstract: *Asset quality is a key indicator of a bank's financial health and a critical determinant of its profitability and sustainability over the long term. The significance of Non-Performing Assets (NPAs) in the Indian banking sector has increased exponentially owing to the need for effective management of NPAs especially for public sector banks which have to preserve financial stability while encouraging economic growth. The present study is an attempt to study the relationship between Asset quality and profitability with special reference to Canara bank.*

The research is based on secondary data gathered from the published annual reports of Canara Bank for the financial years 2020–2021 to 2024–2025. To evaluate the bank's financial performance, important financial ratios such as Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin, Debt–Equity Ratio, Current Ratio, Interest Coverage Ratio and Asset Turnover Ratio were analysed. Further, regression method was used to analyze the impact of Gross Non-Performing Assets (GNPA) and Net Non-Performing Assets (NNPA) on the profitability of the bank.

The analysis finds a strong correlation between improved financial performance and better asset quality. During the study period , Canara Bank showed significant reduction in NPAs along with consistent growth in profitability and operational efficiency . The findings reveal that sound credit risk management, efficient loan recovery procedures and constant monitoring of asset quality are important for improving financial performance and boosting stakeholder confidence.

The study concludes that the high asset quality is important to profitability and sustainability of public sector banks in the long run. The findings offer valuable insights for banking professionals, policy makers, researchers and financial institutions in their efforts to improve asset quality management and achieve sustainable financial growth..

Keywords: Asset Quality, NPAs, Gross NPA, Net NPA, Profitability, Financial Performance, Return on Assets, Return on Equity, Public Sector Banks, Canara Bank

I. INTRODUCTION

The financial sector plays a key role in every economy in relation to savings mobilization, investment activities, and economic development. A well-developed banking system which is sound in terms of its financial standing becomes necessary to achieve economic development by maintaining public confidence in it. It is in this scenario that the financial performance of banks has gained the attention of researchers.

Asset quality is one of the many financial measures that help in determining the performance of a bank. The asset quality of a bank indicates the quality of its lending portfolio and its effectiveness in managing the risk associated with such lending activity. One of the ways in which asset quality is measured is in terms of Non-Performing Assets (NPAs), which indicate loans in which repayment of principal and interest has not been met by the borrower. Higher NPA results in lower interest income and higher provisioning, and hence negatively affects the performance of a bank.

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In recent times, one of the areas on which public sector banks in India have been focusing is improving the asset quality of their banks. This has been made possible owing to regulatory changes introduced by the Reserve Bank of India (RBI).

Canara Bank, one of the top Public Sector Banks of India, has performed quite well in improving asset quality along with sustainable profitability. Post the merger with Syndicate Bank in the year 2020, the bank has undertaken various strategies related to credit risk management, digitalization, and operational efficiency. These steps have helped the bank in performing well financially along with reducing the number of stressed assets.

The present research work focuses on analyzing the association between asset quality and profitability in Canara Bank with the help of secondary data gathered from the annual reports of the bank for the years 2020-2021 to 2024-2025. Performance of the bank is analyzed by calculating the various ratios of profitability, liquidity, leverage, and efficiency while regression analysis is carried out for measuring the effect of GNPA and NNPA on profitability.

The results of this research will definitely help understand how important effective asset quality management is for the enhancement of financial performance. This research can be of great use in relation to banking performance studies; it will become an interesting reference for those who study or work in the field of banking, finance, and risk management.

II. OBJECTIVES OF THE STUDY

Purpose of the Study

The current research intends to determine the correlation between asset quality and profitability of Canara Bank. The following objectives will be achieved in the course of the study:

- To measure the asset quality of Canara Bank through Gross Non-Performing Assets (GNPA) and Net Non-Performing Assets (NNPA).
- To analyse the financial performance of Canara Bank by assessing such ratios as Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin, Current Ratio, Debt–Equity Ratio, Interest Coverage Ratio, Asset Turnover Ratio, and others.
- To determine the correlation between asset quality and profitability through regression analysis.
- To examine the influence of Non-Performing Assets on the profitability and general financial performance of Canara Bank.
- To identify the trends of asset quality and financial performance during the time period of 2020-2021 – 2024-2025.
- To make recommendations for enhancing asset quality and financial performance of public sector banks.

III. REVIEW OF LITERATURE

The concept of asset quality and profitability has been extensively analyzed in the fields of banking and finance since they are intimately linked to the financial stability of banks. It has always been made clear by various researchers that proper management of Non-Performing Assets (NPAs) is an important aspect for achieving profitability and liquidity.

Kothari C. R. (2019) has stated that systematic study along with proper analysis techniques is important for understanding the financial performance and developing relationships among financial variables. His research forms an excellent methodology for financial ratio analysis studies.

Asset Quality And Profitability

A. Vasudevan (2018) investigated the association between asset quality and profitability in commercial banks of India and found out that increased Non-Performing Assets adversely affect profitability through high provisioning costs and decreased interest revenue. The research findings suggest that proper credit risk management is important for maintaining performance.

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Financial Performance Of Public Sector Banks

P. K. Mishra and S. Mohanty (2021) evaluated the financial performance of public sector banks through financial ratio analysis and found that profitability is highly dependent on asset quality, efficiency, and conservative lending practices. The research recommended consistent monitoring of loan portfolio to reduce credit risk.

The Reserve Bank of India, via its annual reports and the Report on Trend and Progress of Banking in India, has time and again underscored the significance of minimising NPAs for improving the financial position of the Indian banks. These reports stress that better asset quality results in higher profitability, higher capital adequacy, and overall financial stability.

Furthermore, several recent studies have noted that the financial performance of the public sector banks has considerably improved owing to better credit appraisal, more stringent recovery policies, monitoring via the digital mode, and other such steps taken by them. This has resulted in a reduction in the number of stressed assets.

Even though there is considerable literature available on the connection between asset quality and profitability in the Indian banking industry, very few studies have explored this connection in relation to Canara Bank, particularly by using financial data of the recent past and financial ratio analysis and regression analysis as empirical methods. This research paper aims at bridging the existing literature gap in this context by conducting an analysis of the connection between asset quality and profitability in the case of Canara Bank from 2020–2021 to 2024–2025.

IV. RESEARCH METHODOLOGY

4.1 Research Design

For the study, a descriptive and analytical research design will be employed in determining the association between asset quality and profitability in Canara Bank. The descriptive research design is employed to assess the performance of the bank in the study period. The analytical research design aids in assessing the influence of asset quality on profitability.

4.2 Data Sources

Secondary data have been used in the entire research. Information that is needed for the research has been collected from credible and genuine sources such as:

Annual reports of Canara Bank.

Canara Bank's financial statements.

Reports and publications by Reserve Bank of India (RBI).

Books, research papers, journals and web pages on banking performance.

4.3 Time Period Covered By The Study

Time period covered by the study consists of five financial years from 2020–2021 to 2024–2025.

4.4 Variables of the Study

Dependent Variable

Profitability: This will be evaluated using financial ratios like Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin.

Independent Variable

Asset Quality: This will be evaluated using Gross Non-Performing Assets (GNPA) and Net Non-Performing Assets (NNPA).

4.5 Tools and Techniques Adopted for Analysis

The following analytical techniques were used for analyzing the financial performance of Canara Bank and the relationship between asset quality and profitability:

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- Financial Ratio Analysis
- Trend Analysis
- Descriptive Statistics
- Regression Analysis
- Graphs and Tables

4.6 Scope of the Study

This study will be conducted on the grounds of Canara Bank, which is one of the major public sector banks of India. This study will analyse the asset quality and profitability of the bank with the help of its financial data published from the year 2020-2021 to 2024-2025. The results are expected to highlight the significance of proper asset quality management in improving financial performance.

4.7 Limitations of the Study

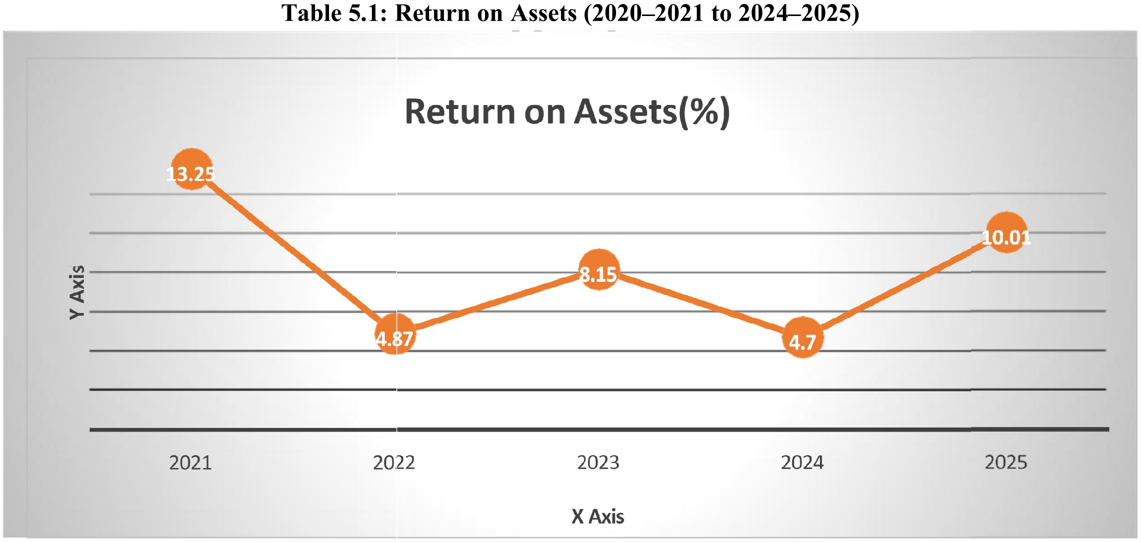
The following limitations can be observed in the study:
All the information has been gathered from the published secondary sources.
This study involves only the case of Canara Bank and no other public/private sector banks have been considered in the research.
The results have been drawn from the selected time frame only (2020-2021 to 2024-2025).

V. DATA ANALYSIS AND INTERPRETATION

In this part, the financial performance and asset quality of Canara Bank are analyzed during the period of 2020-2021 to 2024-2025. The study will be conducted using ratios and regressions to examine the association between asset quality and profitability. Tables and graphs are used to present the findings.

5.1 Return on Assets (ROA)

Table 5.1: Return on Assets (2020–2021 to 2024–2025)



Interpretation

Return on Asset Ratio is used to gauge how well a company has been making profits through its asset base. It is evident from the analysis that there has been some variation in the return on asset ratio over the study period, indicating

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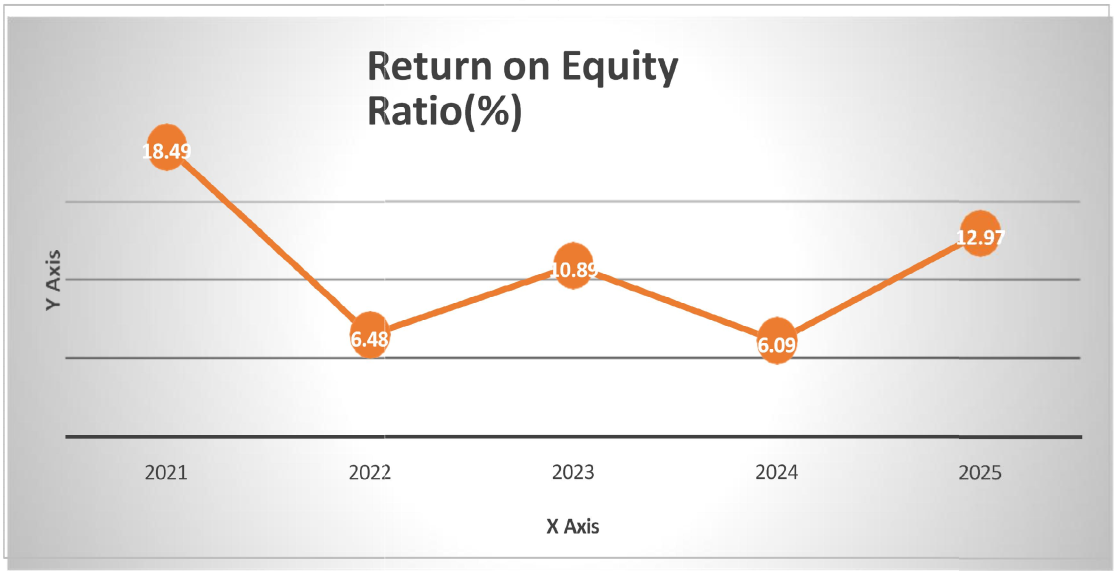
variations in profitability and effective use of assets. An increase in ROA implies better utilization of assets by the firm in order to make profits, whereas a fall implies lesser profitability from the assets.

5.2 Return on Equity (ROE)

Table 5.2: Return on Equity (2020–2021 to 2024–2025)

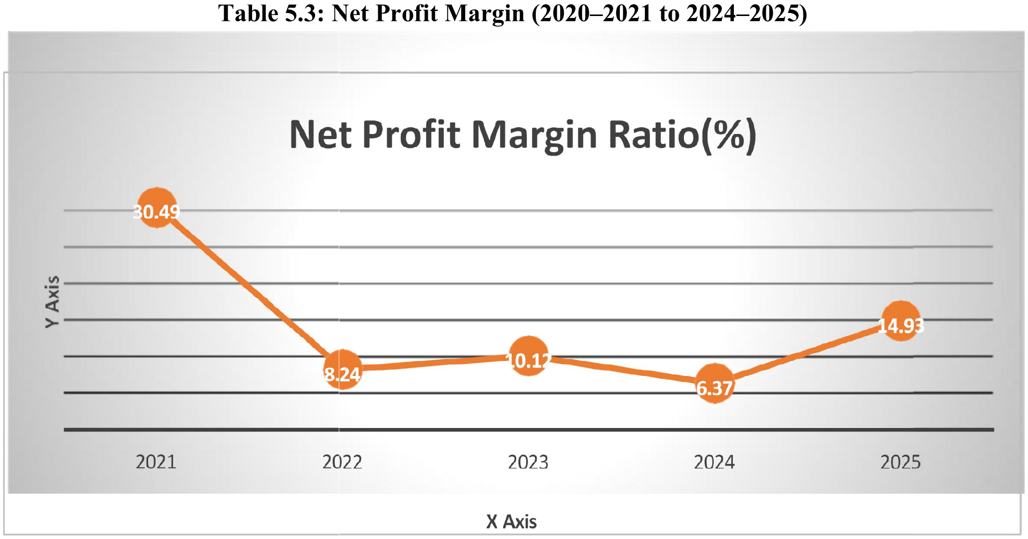


Interpretation

The Return on Equity (ROE) shows the earnings on the equity of stockholders. The findings show differences in ROE throughout the study period, as there have been fluctuations in the performance of the bank in terms of profitability and utilization of capital. High ROE shows proper utilization of money of the stockholders, while low ROE indicates poor profitability in comparison to the equity.

5.3 Net Profit Margin

Table 5.3: Net Profit Margin (2020–2021 to 2024–2025)



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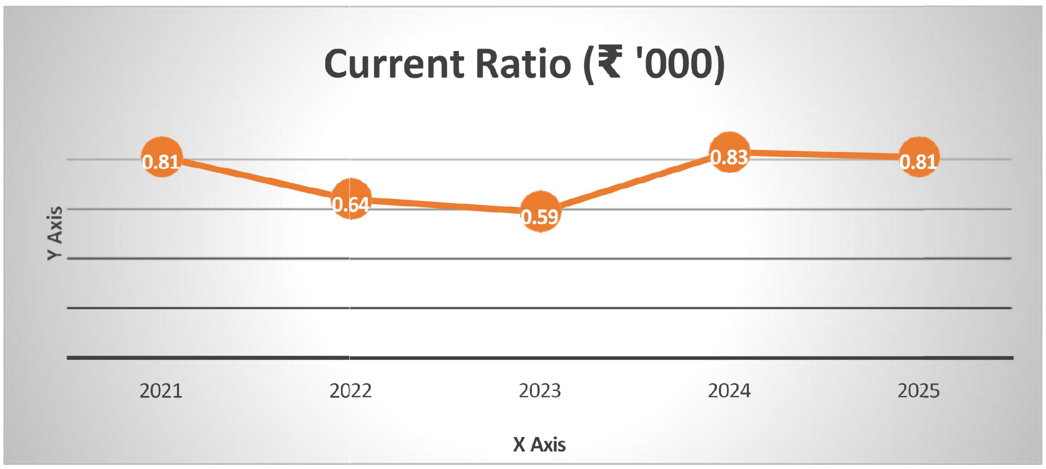
Interpretation

Net Profit Margin is an indicator of the profit made in terms of the proportion of profit to the bank's total revenue. From the analysis carried out during the whole period, there are fluctuations showing that the amount of income generated varies together with costs incurred.

5.4 Liquidity Analysis

This section evaluates the liquidity position of Canara Bank using the Current Ratio, Quick Ratio, and Cash Ratio.

- Current Ratio
- Quick Ratio
- Cash Ratio

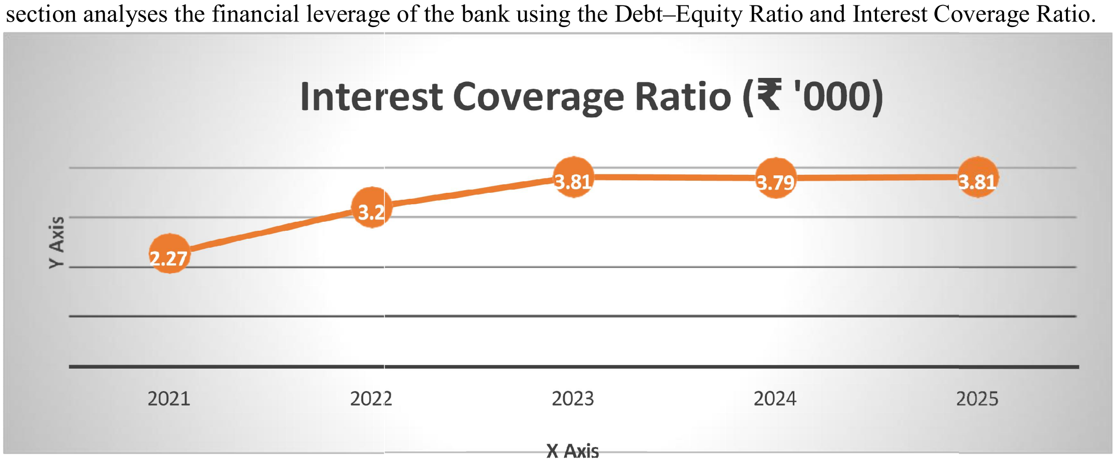


Interpretations

The liquidity ratios help to determine how well the company can fulfill its short-term financial commitments. Even though the ratios have been lower than the benchmark of one, which is considered normal for banks since liabilities and cash flows are constant, it means that Canara Bank had sufficient liquidity as well as effective utilization of resources.

5.5 Leverage Analysis

This section analyses the financial leverage of the bank using the Debt–Equity Ratio and Interest Coverage Ratio.



Interpretation

The Debt-Equity Ratio represents the proportion of external debt held by the bank, whereas the Interest Coverage Ratio is an indication of how capable the company is in meeting its interest payments through its operating income. From the analysis, Canara Bank had maintained consistent leverage with adequate profits to cover interest expenses.

VI. FINDINGS AND SUGGESTIONS

6.1 Findings of the Study

From the analysis of the financial ratio and regression analysis, it can be observed that:

There is a significant relationship between the asset quality and profitability in Canara Bank, which shows that the efficient management of NPAs enhances the financial performance of the bank.

There was a consistent increase in the profitability in Canara Bank during the entire period of analysis, which is evident from the positive trend of profitability measures such as ROA and ROE.

The bank had maintained a satisfactory level of liquidity throughout the entire study period. Although the current ratio, quick ratio, and cash ratio were below the traditional benchmark of 2, the ratios mentioned above are satisfactory for a banking organization due to the nature of operations and financing.

The debt-equity ratio showed stability in the leverage position while there was an improvement in the interest coverage ratio, which shows that the bank was becoming more capable of servicing interest payments from operating income.

The Asset Turnover Ratio and Fixed Asset Turnover Ratio suggest that Canara Bank has done a commendable job in utilizing its assets to boost revenue and enhance its operational performance.

Moreover, the regression analysis showed a positive trend: as Gross Non-Performing Assets (GNPA) and Net Non-Performing Assets (NNPA) decreased, profitability saw an improvement as well. This highlights how vital effective credit risk management is for the bank's success.

Overall, during the study period, Canara Bank made significant strides in its financial performance, thanks to better asset quality, responsible lending practices, and greater operational efficiency.

6.2 Suggestions

From the study, the following recommendations are put forward:

The bank must continue improving the process of credit appraisal and risk analysis in order to prevent any creation of Non-Performing Assets.

Efforts should be made to ensure that stressed assets are identified at the earliest stages possible and recovered.

Through the use of modern data analytics and digital surveillance technology, it will become easier to monitor loans and detect any default.

Monitoring of key financial ratios and asset quality indicators should be done for sound decision making and financial stability.

Operational efficiency of the bank must be further improved through efficient use of assets and cost-effective management practices.

Such continuous training programs among employees on credit risk management, regulatory compliance, and financial analysis may improve the capability of the bank in managing their loan portfolios.

A well-balanced strategy in maintaining credit expansion while adopting good risk management practices will result in sustainable profitability and financial resiliency.

These suggested actions may further enhance the quality of assets, profitability, and growth of Canara Bank in the highly competitive world of banking.

VII. CONCLUSION

The asset quality of the bank has been found to play a significant part in ensuring that the financial performance of the bank remains sustainable. In this regard, this study will look into the link between asset quality and profitability in

Canara Bank through the analysis of financial figures between the period 2020-2021 to 2024-2025. The analysis will be done through the use of financial ratio analysis and regression approach.

As per the findings, there have been notable advancements in the financial performance of Canara Bank within the stipulated period. The organization registered improvements in profitability metrics such as ROA and ROE, while at the same time exhibiting a satisfactory position in terms of liquidity and an appropriate leverage situation. There were also efficiency metrics which indicated appropriate asset utilization to earn revenue.

Through the regression analysis, it is evident that there is a significant correlation between asset quality and profitability. This implies that the decrease in the level of GNPA and NNPA leads to financial gain and highlights the significance of credit risk management and proper recovery strategies. Thus, the study shows that the maintenance of good asset quality plays an important role in increasing profitability and providing financial stability.

In general, the research shows that proper management of asset quality has a great impact on the financial success of public sector banks. Through better credit appraisal, effective monitoring, and risk management strategies, banks are able to minimize the risk of credits and grow sustainably. Therefore, the results of this study may be useful for all those who are interested in financial performance and asset quality management.

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