



## A Comprehensive Analysis of Axis Bank's Financial Stability Using the Camel Model

**Praveen.M<sup>a</sup>, Dr.R.Tamil Selvi<sup>b</sup>, Yasmeen.S<sup>c</sup>, R.Ranjitha<sup>d</sup>.**

<sup>a</sup> Head Department of Commerce , Kaypeeyes college of arts and science

<sup>b</sup> M.Com (CA),M.Phil.,Ph.D.

<sup>c</sup> UG III rd. B.Com Kaypeeyes college of arts and science

<sup>d</sup> Kovaikalaimagal College of Arts and Science College, Full time Ph.D. Scholar Department of Commerce

### ABSTRACT:

This study evaluates the financial performance of Axis Bank over a five-year period (2020–2024) using the CAMEL model, which assesses five key parameters: Capital Adequacy, Asset Quality, Management Efficiency, Earnings, and Liquidity. The research uses a quantitative approach and relies on secondary data sourced from Axis Bank's annual reports, official website, and financial journals. The study analyzes various financial ratios, including the Debt-Equity Ratio, Return on Equity, Liquid Assets to Total Assets Ratio, Credit to Deposit Ratio, and Net NPA to Total Assets Ratio. Correlation analysis is applied to explore the relationships between these financial indicators, providing insights into the bank's financial stability and risk management practices. The findings indicate that higher debt levels negatively impact ROE and equity positions, while improved liquidity and investment levels contribute positively to asset quality and profitability. However, the correlations are not consistently significant, suggesting that external factors such as market conditions and regulatory policies may influence these relationships. The study highlights that Axis Bank maintains a strong equity base and liquidity position, allowing for better investment management and operational efficiency. Despite its limitations, this research provides valuable insights for investors, policymakers, and banking professionals, aiding in decision-making and strategic planning. The results contribute to financial literature by offering a data-driven assessment of Axis Bank's performance and identifying areas for improvement.

**Keywords:** Axis Bank, CAMEL Model, Financial Stability, Capital Adequacy, Asset Quality.

### 1. INTRODUCTION

The banking sector in India is a fundamental pillar of economic development, playing a crucial role in financial stability, investment facilitation, and credit distribution. Among its various segments, small finance banks have emerged as key drivers of financial inclusion, providing essential banking services to underserved populations. By extending credit and financial products to individuals and businesses in rural and semi-urban areas, these banks contribute significantly to economic growth and stability. As they continue to expand and innovate, small finance banks have the potential to transform India's financial landscape and empower millions with access to formal banking services.

Axis Bank, one of India's leading private sector banks, was established in 1993 as UTI Bank and officially opened its first branch in Ahmedabad in 1994. Initially promoted by the Unit Trust of India (UTI), Life Insurance Corporation of India (LIC), and other public sector entities, the bank rebranded as Axis Bank in 2007 to establish a modern and independent identity. Over the years, Axis Bank has expanded its presence both domestically and internationally, offering a comprehensive range of financial services, including retail and corporate banking, wealth management, and digital banking solutions. With a strong focus on innovation and customer-centric services, Axis Bank has emerged as a trusted financial institution, catering to millions of customers across India and beyond.

The Indian banking sector has experienced significant growth, driven by economic reforms and technological advancements. According to Gadan Singh Jaggi, (2023) banking remains one of India's fastest-growing industries, serving as the backbone of the nation's financial system. The introduction of economic and financial sector reforms in 1991 led to the emergence of several private sector banks, fostering competition and innovation in banking services. Furthermore, Chaitanya A Sakhare, Chanchal D. Ganvir, & Nidhi N Somani, (2024) highlight the sector's role in ensuring financial stability and economic growth through efficient credit allocation, monetary policy implementation, and financial intermediation. The Reserve Bank of India (RBI) adopted the CAMEL model in 1996, following the Padmanabhan Committee's recommendations, to assess banks' financial health based on capital adequacy, asset quality, management efficiency, earnings capacity, and liquidity.

As noted by Kanchan & Rakesh Chowdary, (2023) the banking sector continues to witness rapid expansion, actively engaging with capital markets to raise funds and enhance financial services. Given its integral role in economic activities, banking is often regarded as a barometer of economic health,

reflecting key macroeconomic indicators such as inflation, growth rate, and financial stability. With continuous advancements in financial technology, regulatory frameworks, and customer-focused innovations, the Indian banking sector remains a vital component of the country's economic progress.

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## 2. LITERATURE REVIEW

The CAMEL model, which assesses bank performance through Capital Adequacy, Asset Quality, Management Quality, Earnings, and Liquidity, has been widely used in banking sector studies. Lavanya & Srinivas (2018) analyzed ICICI, HDFC, Axis, Kotak, and Yes Bank from 2012 to 2017, concluding that ICICI excelled in management quality, HDFC and Yes Bank performed well in asset quality and liquidity, while capital adequacy remained a key financial strength indicator. Sarvamangala & Sudarsana reddy (2024) highlighted CAMEL as a regulatory tool, showing that ICICI and Axis Bank performed well in asset quality, while SBI maintained strong liquidity.

Gagan singh jaggi & Atal Bihari vajpayee, (2023) studied Axis Bank from 2014-15 to 2020-21, evaluating financial metrics such as capital adequacy, debt-equity ratio, and liquidity, with Axis Bank maintaining a CAR above RBI requirements. Chaitanya Sakhara & chaanchal Ganvir (2024) analyzed CAMEL parameters from 2019 to 2023, emphasizing capital adequacy and management efficiency in Axis Bank. Kanchan, Rakesh choudhary (2023) examined small finance banks and found that capital adequacy was crucial for investor confidence, with management quality and earnings playing a vital role in financial stability. Vinod & Bhawna (2017) compared private sector banks, identifying Axis Bank as the strongest based on CAMEL parameters. Aman (2024) contrasted Axis and HDFC Banks over five years, revealing that HDFC outperformed Axis in earnings capacity, though Axis focused more on asset creation. Jigyasa & Aravind (2023) explored Indian banks' financial viability, linking CAMEL components to overall performance and highlighting the importance of capital adequacy, liquidity, and earnings sustainability. Collectively, these studies reinforce the CAMEL model's effectiveness in evaluating bank stability, risk management, and financial health. The Indian banking sector serves as the backbone of the nation's financial system, playing a crucial role in economic stability and growth. It not only mobilizes public funds but also provides credit to businesses, industries, and individuals, ensuring smooth financial operations. Despite its rapid expansion and increasing investments, an effective performance evaluation system is still needed to assess banking operations comprehensively, identify strengths and weaknesses, and drive continuous improvement (Lavanya & Srinivas, 2018). With the emergence of numerous private sector banks, a diverse range of products and services has been introduced, enhancing financial accessibility (Gagan Singh Jaggi & Atal Bihari Vajpayee, 2023). Additionally, banks facilitate essential functions such as payment processing, monetary policy implementation, and credit intermediation, further strengthening economic development (Chaitanya Sakhara & Chaanchal Ganvir, 2024).

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## 3. RESEARCH METHODOLOGY

This study employs a quantitative research approach to evaluate the financial performance and efficiency of Axis Bank over a five-year period (2020–2024) using the CAMEL model. The research relies exclusively on secondary data collected from credible sources, including Axis Bank's annual reports, official website, and financial journals. The CAMEL model serves as the primary framework for assessing the bank's financial stability, focusing on five key parameters: Capital Adequacy, Asset Quality, Management Efficiency, Earnings, and Liquidity (Siva & Vasanthi, 2021).

The study examines various financial ratios to assess Axis Bank's performance, including the Debt-Equity Ratio, Return on Equity, Liquid Assets to Total Assets Ratio, Assets Turnover Ratio, Liquid Assets to Total Deposit Ratio, Credit to Deposit Ratio, and Net NPA to Total Asset Ratio, among others (Kaur & Gupta, 2022). These ratios provide insights into the bank's financial health, risk management capabilities, and overall operational efficiency. Correlation analysis is applied to identify relationships between financial indicators and bank performance, offering a statistical measure of association between different variables (Kothari, 2004).

Since this research is based solely on Axis Bank, the findings cannot be generalized to the entire private banking sector in India. Additionally, the reliance on secondary data means that any discrepancies or missing information in financial reports may affect result accuracy. Furthermore, external macroeconomic factors such as inflation, interest rate fluctuations, and government policy changes are not considered, which may influence Axis Bank's financial performance (Mishra & Singh, 2020)

Despite these limitations, this study provides a detailed, data-driven analysis of Axis Bank's financial performance using the CAMEL model, offering valuable insights for investors, policymakers, and banking professionals. The research findings contribute to financial literature and aid stakeholders in decision-making regarding Axis Bank's operational strengths and areas for improvement.

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## 4. RESULTS AND DISCUSSION

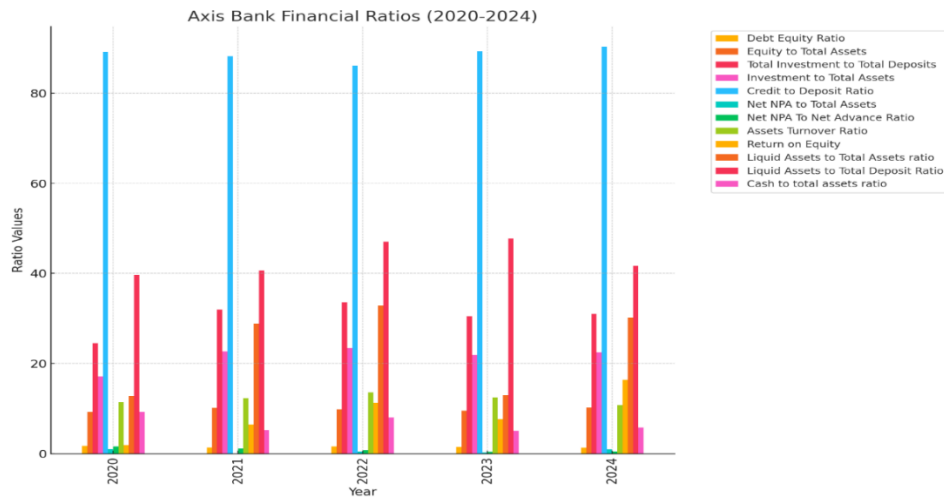
The results and discussion section of this study presents a detailed analysis of Axis Bank's financial performance over a five-year period (2020–2024) using the CAMEL model. This section interprets the findings derived from key financial ratios and evaluates their implications on the bank's capital adequacy, asset quality, management efficiency, earnings, and liquidity. By analyzing the trends in financial performance, this study provides insights into Axis Bank's stability, profitability, and risk management capabilities in the competitive Indian banking sector.

The discussion further examines the correlation between financial ratios, identifying relationships that influence the bank's overall efficiency. The findings are compared with industry benchmarks and previous studies to assess Axis Bank's strengths and weaknesses. Additionally, external factors such as macroeconomic conditions, regulatory changes, and market trends are considered to contextualize the results. By evaluating these financial indicators, this section aims to provide data-driven insights that can guide investors, policymakers, and banking professionals in decision-making. The

interpretation of results contributes to understanding Axis Bank's financial health, highlighting areas for improvement and potential growth opportunities.

**Table 1**  
**CAMEL Ratio**

| Ratio's                              | 2020  | 2021  | 2022  | 2023  | 2024  |
|--------------------------------------|-------|-------|-------|-------|-------|
| <b>Capital Adequacy</b>              |       |       |       |       |       |
| Debt Equity Ratio                    | 1.74  | 1.40  | 1.60  | 1.48  | 1.30  |
| Equity to Total Assets               | 9.28  | 10.19 | 9.80  | 9.52  | 10.23 |
| Total Investment to Total Deposits   | 24.48 | 31.96 | 33.53 | 30.49 | 31.03 |
| <b>Asset Quality</b>                 |       |       |       |       |       |
| Investment to Total Assets           | 17.12 | 22.70 | 23.45 | 21.92 | 22.44 |
| Credit to Deposit Ratio              | 89.2  | 88.18 | 86.12 | 89.26 | 90.32 |
| Net NPA to Total Assets              | 1.02  | 0.07  | 0.46  | 0.27  | 0.97  |
| Net NPA To Net Advance Ratio         | 1.63  | 1.12  | 0.77  | 0.42  | 0.49  |
| <b>Management Quality</b>            |       |       |       |       |       |
| Assets Turnover Ratio                | 11.43 | 12.32 | 13.64 | 12.40 | 10.70 |
| <b>Earning Ability</b>               |       |       |       |       |       |
| Return on Equity                     | 1.91  | 6.48  | 11.30 | 7.63  | 16.45 |
| <b>Liquidity</b>                     |       |       |       |       |       |
| Liquid Assets to Total Assets ratio  | 12.75 | 28.89 | 32.89 | 13.00 | 30.19 |
| Liquid Assets to Total Deposit Ratio | 39.68 | 40.69 | 47.04 | 47.73 | 41.73 |
| Cash to total assets ratio           | 9.28  | 5.20  | 8.00  | 5.01  | 5.83  |



The financial ratios from 2020 to 2024 indicate significant changes in capital adequacy, asset quality, management efficiency, earnings, and liquidity. The Debt-Equity Ratio shows a steady decline from 1.74 in 2020 to 1.30 in 2024, reflecting reduced reliance on debt and improved financial stability (Pandey, 2015). Similarly, the Equity to Total Assets Ratio increases from 9.28% to 10.23%, suggesting a stronger capital base. However, the Total Investment to Total Deposits Ratio fluctuates, peaking at 33.53% in 2022 before slightly declining to 31.03% in 2024, indicating changes in investment allocation strategies (Ross, Westerfield, & Jaffe, 2019).

In terms of asset quality, the Investment to Total Assets Ratio follows an upward trend, growing from 17.12% in 2020 to 22.44% in 2024, implying an increased focus on investments. The Credit to Deposit Ratio, after a slight dip in 2022, recovers to 90.32% in 2024, reflecting growth in lending activities (Pandey, 2015). Meanwhile, the Net NPA to Total Assets Ratio and Net NPA to Net Advances Ratio show an overall decline until 2023, indicating better credit risk management, but a slight increase in 2024 suggests a need for continued vigilance in managing non-performing assets (Ross, Westerfield, & Jaffe, 2019).

Regarding management quality, the Assets Turnover Ratio increases from 11.43 in 2020 to 13.64 in 2022, showcasing efficiency in asset utilization. However, the subsequent decline to 10.70 in 2024 raises concerns about operational efficiency (Pandey, 2015). The Return on Equity (ROE) demonstrates a remarkable rise from 1.91% in 2020 to 16.45% in 2024, indicating strong profitability and effective financial management (Ross, Westerfield, & Jaffe, 2019).

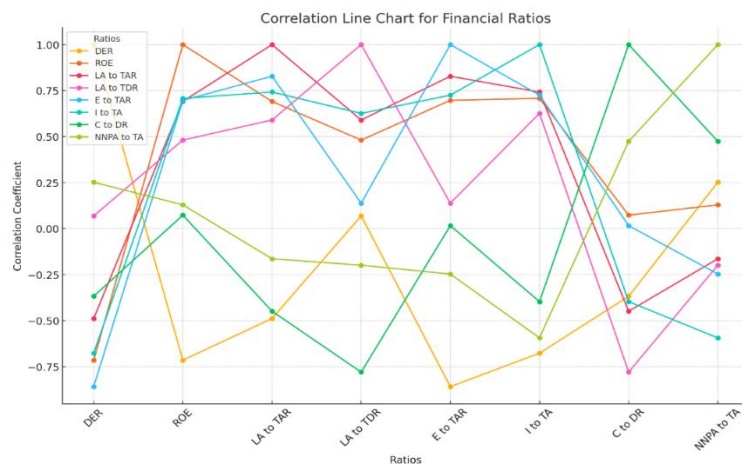
The liquidity position exhibits fluctuations, with the Liquid Assets to Total Assets Ratio reaching a peak of 32.89% in 2022 before dropping to 13.00% in 2023 and recovering to 30.19% in 2024. Similarly, the Liquid Assets to Total Deposit Ratio remains relatively stable but declines from 47.73% in 2023 to 41.73% in 2024 (Pandey, 2015). The Cash to Total Assets Ratio, which dropped from 9.28% in 2020 to 5.01% in 2023, shows a slight recovery to 5.83% in 2024, indicating a possible shift in liquidity management strategies (Ross, Westerfield, & Jaffe, 2019).

Overall, the financial performance reflects improvements in capital adequacy, profitability, and asset quality. However, fluctuations in liquidity and management efficiency highlight the need for careful monitoring and strategic financial planning to ensure long-term stability and growth (Pandey, 2015; Ross et al., 2019).

**Table 2**  
**Correlation analysis**

**DER:** Debt Equity Ratio, **ROE:** Return on Equity, **LA to TAR:** Liquid asset to total assets, **LA to TDR:** Total assets to total deposit ratio, **E to TAR:** Equity to total assets ratio, **ITA:** Investment to total assets, **C to DR:** Credit to deposit ratio, **NNPA to TA:** Net NPA to total assets.

| Correlations      |                     | DER   | ROE   | LA to TAR | LA to TDR | E to TAR | I to TA | C to DR | NNPA to TA |
|-------------------|---------------------|-------|-------|-----------|-----------|----------|---------|---------|------------|
| <b>DER</b>        | Pearson Correlation | 1     | -.715 | -.489     | .069      | -.859    | -.677   | -.368   | .252       |
|                   | Sig. (2-tailed)     |       | .175  | .403      | .913      | .062     | .210    | .542    | .682       |
|                   | N                   | 5     | 5     | 5         | 5         | 5        | 5       | 5       | 5          |
| <b>ROE</b>        | Pearson Correlation | -.715 | 1     | .691      | .481      | .697     | .708    | .073    | .129       |
|                   | Sig. (2-tailed)     | .175  |       | .196      | .412      | .191     | .181    | .907    | .836       |
|                   | N                   | 5     | 5     | 5         | 5         | 5        | 5       | 5       | 5          |
| <b>LA to TAR</b>  | Pearson Correlation | -.489 | .691  | 1         | .590      | .828     | .742    | -.449   | -.164      |
|                   | Sig. (2-tailed)     | .403  | .196  |           | .295      | .083     | .151    | .448    | .792       |
|                   | N                   | 5     | 5     | 5         | 5         | 5        | 5       | 5       | 5          |
| <b>LA to TDR</b>  | Pearson Correlation | .069  | .481  | .590      | 1         | .138     | .626    | -.780   | -.199      |
|                   | Sig. (2-tailed)     | .913  | .412  | .295      |           | .825     | .258    | .120    | .748       |
|                   | N                   | 5     | 5     | 5         | 5         | 5        | 5       | 5       | 5          |
| <b>E to TAR</b>   | Pearson Correlation | -.859 | .697  | .828      | .138      | 1        | .725    | .016    | -.247      |
|                   | Sig. (2-tailed)     | .062  | .191  | .083      | .825      |          | .166    | .980    | .689       |
|                   | N                   | 5     | 5     | 5         | 5         | 5        | 5       | 5       | 5          |
| <b>I to TA</b>    | Pearson Correlation | -.677 | .708  | .742      | .626      | .725     | 1       | -.397   | -.594      |
|                   | Sig. (2-tailed)     | .210  | .181  | .151      | .258      | .166     |         | .509    | .291       |
|                   | N                   | 5     | 5     | 5         | 5         | 5        | 5       | 5       | 5          |
| <b>C to DR</b>    | Pearson Correlation | -.368 | .073  | -.449     | -.780     | .016     | -.397   | 1       | .474       |
|                   | Sig. (2-tailed)     | .542  | .907  | .448      | .120      | .980     | .509    |         | .420       |
|                   | N                   | 5     | 5     | 5         | 5         | 5        | 5       | 5       | 5          |
| <b>NNPA to TA</b> | Pearson Correlation | .252  | .129  | -.164     | -.199     | -.247    | -.594   | .474    | 1          |
|                   | Sig. (2-tailed)     | .682  | .836  | .792      | .748      | .689     | .291    | .420    |            |
|                   | N                   | 5     | 5     | 5         | 5         | 5        | 5       | 5       | 5          |



The correlation analysis provides key insights into Axis Bank's financial performance by evaluating the relationships between various financial ratios. The Debt-Equity Ratio shows a strong negative correlation with Return on Equity (ROE) (-0.715), indicating that higher debt reduces shareholder returns due to increased interest costs, but the p-value (0.175) suggests this relationship is not statistically significant. Similarly, the Debt-Equity Ratio negatively correlates with Equity to Total Assets (-0.859), implying that higher debt reduces equity. This relationship is borderline significant with a p-value of 0.062. Moderate negative correlations exist between the Debt-Equity Ratio and both Liquid Assets to Total Assets (-0.489) and Investment to Total Assets (-0.677), suggesting that increased debt reduces liquidity and investments, though these relationships are statistically insignificant with p-values of 0.403 and 0.210, respectively.

The analysis of ROE shows strong positive correlations with Liquid Assets to Total Assets (0.691) and Investment to Total Assets (0.708), suggesting that increased liquidity and investments improve ROE, but the p-values (0.196 and 0.181) indicate these relationships are not statistically significant. Weak positive correlations are observed between ROE and both the Credit to Deposit Ratio (0.073) and Net NPA to Total Assets (0.129), indicating minimal impact of credit allocation and NPAs on profitability, with p-values (0.907 and 0.836) confirming no statistical significance.

The Liquid Assets to Total Assets Ratio has a strong positive correlation with Equity to Total Assets (0.828) and Investment to Total Assets (0.742), suggesting that higher liquidity improves equity and investment levels. However, the p-values (0.083 and 0.151) indicate only moderate relevance. A moderate negative correlation is observed between Liquid Assets to Total Assets and the Credit to Deposit Ratio (-0.449), implying that higher liquidity reduces lending, but the p-value (0.448) suggests this relationship is not statistically significant.

The correlation between Liquid Assets to Total Deposit Ratio and other ratios shows a moderate positive correlation with Investment to Total Assets (0.626), suggesting that banks with higher liquid deposits allocate more to investments, though the p-value (0.258) indicates no statistical significance. A strong negative correlation is seen between Liquid Assets to Total Deposit Ratio and the Credit to Deposit Ratio (-0.780), indicating that higher liquidity reduces loan issuance, though the p-value (0.120) does not establish significance.

The Equity to Total Assets Ratio shows a strong negative correlation with the Debt-Equity Ratio (-0.859), confirming that as equity increases, debt decreases. The p-value (0.062) suggests this relationship is borderline significant. Strong positive correlations exist between Equity to Total Assets and both Liquid Assets to Total Assets (0.828) and Investment to Total Assets (0.725), suggesting that higher equity improves liquidity and investments. However, the p-values (0.083 and 0.166) indicate moderate significance.

The Investment to Total Assets Ratio shows a strong positive correlation with Liquid Assets to Total Assets (0.742), suggesting that banks invest more when liquidity is high. A moderate negative correlation is observed between Investment to Total Assets and Net NPA to Total Assets (-0.594), indicating that higher investments reduce NPAs, but the p-value (0.291) suggests no statistical significance.

The Credit to Deposit Ratio shows a strong negative correlation with Liquid Assets to Total Deposit Ratio (-0.780), suggesting that higher liquid deposits reduce lending. Though this trend is evident, the p-value (0.120) indicates insignificance. A moderate positive correlation exists between Credit to Deposit Ratio and Net NPA to Total Assets (0.474), suggesting that higher credit allocation increases NPAs, but the p-value (0.420) confirms that this relationship is not statistically significant.

Finally, Net NPA to Total Assets shows a moderate negative correlation with Investment to Total Assets (-0.594), implying that banks with higher investments experience lower NPAs, but the p-value (0.291) suggests insignificance. A moderate positive correlation is observed between Net NPA to Total Assets and the Credit to Deposit Ratio (0.474), suggesting that higher credit allocation may lead to more NPAs, though the p-value (0.420) indicates that this relationship lacks statistical significance.

### **Suggestions for Axis Bank, Users, and Investors:**

Axis Bank should focus on maintaining an optimal Debt-Equity Ratio by reducing debt reliance and strengthening its equity base. Enhancing asset quality through better credit risk management will help minimize NPAs and improve profitability. The bank should also optimize liquidity management to balance liquid assets and loan disbursement, ensuring stability in adverse conditions. Leveraging digital innovations can further enhance operational efficiency. For users and investors, monitoring Return on Equity (ROE) and Net NPA to Total Assets Ratio will provide insights into profitability and credit risk. Evaluating the bank's liquidity ratios and capital adequacy is essential for assessing financial stability. A long-term investment strategy is recommended to navigate market fluctuations effectively.

### **Suggestions for Future Research:**

**Comparative Study:** Future research can compare Axis Bank's financial performance with other leading private sector banks in India using the CAMEL model to identify industry benchmarks and best practices.

**Inclusion of Macroeconomic Variables:** Incorporating external macroeconomic factors such as inflation, interest rates, and government policies could provide a more holistic analysis of banks' financial stability.

**Extended Study Period:** A longer period of analysis beyond 2024 would capture the long-term financial trends and stability of Axis Bank, allowing for a more comprehensive evaluation.

**Incorporation of Qualitative Factors:** Future studies can incorporate qualitative factors such as customer satisfaction, operational efficiency, and digital banking adoption to assess their impact on bank performance.

Stress Testing and Scenario Analysis: Performing stress tests and scenario analysis can offer insights into how Axis Bank's financial health may respond to adverse economic conditions or market fluctuations.

## 5. CONCLUSION:

This study provides a comprehensive analysis of Axis Bank's financial stability using the CAMEL model over a five-year period (2020–2024). The findings reveal that Axis Bank maintains strong capital adequacy and liquidity, enhancing its financial stability and resilience. While improvements in Return on Equity (ROE) and asset quality highlight operational efficiency and profitability, fluctuations in liquidity ratios and management efficiency call for continuous monitoring. Correlation analysis indicates that increased debt levels negatively impact equity positions and profitability, while enhanced liquidity and investment levels contribute positively to asset quality. Despite these insights, the statistical insignificance of many correlations suggests that external factors, including macroeconomic conditions and regulatory changes, may influence the bank's performance. This study offers valuable insights for investors, policymakers, and banking professionals, contributing to the existing financial literature on private sector banking in India.

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