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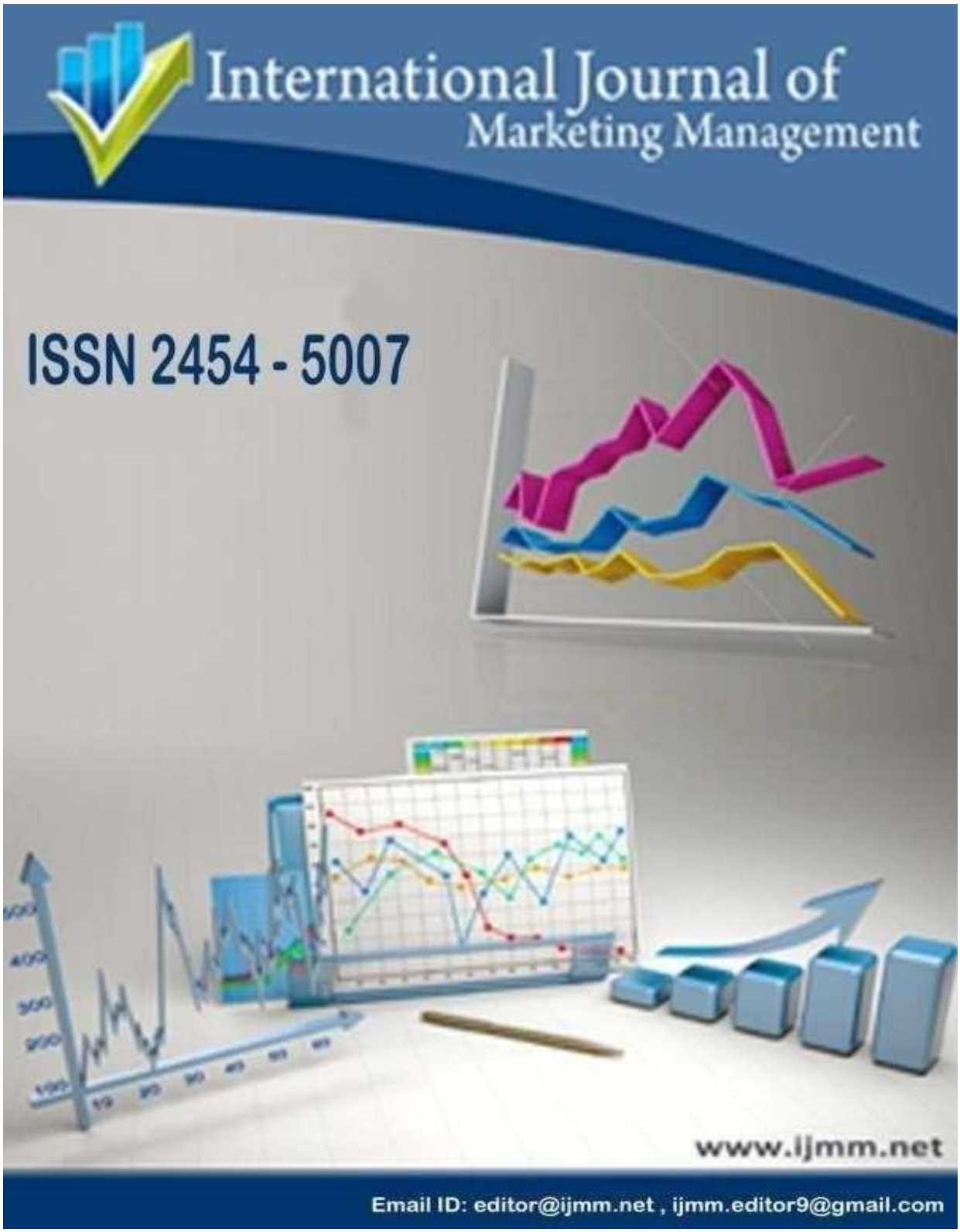

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ANALYSIS OF GROWTH AND PROFITABILITY PERFORMANCE OF SELECTED NATIONALISED BANKS IN INDIA

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ABSTRACT

The Indian banking sector is vital for fostering economic development, with nationalised banks making significant contributions to financial stability and the expansion of credit. This research examines the growth and profitability performance of two major nationalized banks, Punjab National Bank (PNB) and Bank of Baroda (BOB), over the past ten years. Growth performance is evaluated based on variables like deposits, advances, and total assets. Profitability, on the other hand, is assessed using key financial ratios such as Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM), and Cost-to-Income Ratio. The research investigates patterns and relationships in the financial performance of the chosen banks using statistical methods such as correlation, ANOVA, ratio analysis, and trend analysis. The results emphasize how the changes in interest rates, operational efficiency, and capital adequacy influence growth and profitability outcomes. The outcomes of the research contribute to a deeper understanding of the financial dynamics of nationalized banks in India and offer insights for policymakers, regulators, and stakeholders seeking to enhance banking sector performance.

Keywords: Nationalized Banks, Growth, Profitability, Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM).

INTRODUCTION

The Indian banking sector is the backbone of the economy, gathering savings and directing funds into productive investments. Nationalized banks, such as Punjab National Bank (PNB) and Bank of Baroda (BOB), are key players in the areas of credit allocation, financial inclusion, and economic advancement. After the nationalisation of banks in 1969 and the ensuing reforms, India has seen considerable expansion in the reach and financial power of public sector banks, bolstered by regulatory actions from the Reserve Bank of India (RBI). This sector provides jobs for millions and plays a major role in building capital, financing infrastructure, and fostering rural development. It is essential to analyse financial ratios in order to comprehend the growth, efficiency, and profitability of banks. Growth is gauged using indicators such as deposits, advances, and total assets, whereas profitability is evaluated through Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM), and Cost-to-Income Ratio. These factors underscore a bank's ability to leverage its resources, control expenses, and produce sustainable profits. Banks that have been nationalised, like PNB and BOB, demonstrate the dynamics of growth and profitability under different monetary and economic conditions, thanks to their extensive branch networks and robust capital foundations. The performance of nationalised banks has been reshaped by the growing demand for credit among Indian consumers, particularly in the retail, housing, and MSME segments. Changes in policy, variations in interest rates, and advances in technology have also affected their growth trajectory. Even though difficulties like the

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increase in non-performing assets (NPAs) and competitive strains from private banks continue, nationalised banks are still vital components of India's financial system. This research offers valuable insights into their financial health, resilience, and contribution to India's economic progress by examining their growth and profitability performance.

REVIEW OF LITERATURE

Research regarding banking performance emphasizes that macroeconomic conditions, regulatory strategies, and internal efficiency affect both growth and profitability. According to Girnara (2022), in India, alterations in interest rates have a direct effect on the profitability of banks, with adjustments to lending and deposit rates influencing margins. In a similar vein, Hingu (2022) conducted an analysis of certain nationalised banks and found that although asset growth has been consistent, profitability is subject to fluctuations as a result of high operating costs and concerns regarding asset quality. Research regarding banking performance emphasizes that macroeconomic conditions, regulatory strategies, and internal efficiency affect both growth and profitability. According to Girnara (2022), in India, alterations in interest rates have a direct effect on the profitability of banks, with adjustments to lending and deposit rates influencing margins. In a similar vein, Hingu (2022) conducted an analysis of certain nationalised banks and found that although asset growth has been consistent, profitability is subject to fluctuations as a result of high operating costs and concerns regarding asset quality.

RESEARCH METHODOLOGY

The aim of the research is to examine the development of growth and profitability in chosen nationalized banks in India, particularly focusing on Punjab National Bank (PNB) and Bank of Baroda (BOB). The analysis of this study is based on secondary data and focuses on important financial indicators that demonstrate banks' performance regarding expansion and profitability. Growth is gauged using variables like deposits, advances, and total assets, whereas profitability is evaluated using ratios such as Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM), and Cost-to-Income Ratio. The research sample comprises two of India's largest nationalised banks, PNB and BOB, selected due to their significant role in the Indian banking system and their contribution to economic development. The secondary data spans the past decade, providing insights into long-term performance patterns. The objectives of the study are:

1. To understand the growth of the selected nationalised banks in India.
2. To examine the profitability performance of the selected nationalised banks in India.

ANALYSIS AND INTERPRETATION

Data interpretation aims to assist researchers in obtaining significant insights from numerical data that has been collected, analysed, and presented. To confirm and investigate the correctness of the responses to the research aims, analysis and interpretation are crucial. The study "Growth and Profitability Performance of Selected Nationalised Banks in India" is analysed and interpreted using two nationalized banks: Punjab National Bank (PNB) and Bank of Baroda (BOB). The gathered data have been classified, organized into tables, and analysed with statistical methods including Descriptive Statistics, Trend Analysis, Correlation, and ANOVA using SPSS in order to effectively meet the study's objectives.

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HYPOTHESES FRAMED

- There is no significant impact between interest rate changes and profitability (Simple linear regression).

Table 1: Variables and Abbreviations

Variables	Abbreviations
Return on Assets	ROA
Return on Equity	ROE
Net Interest Margin	NIM
Net Profit Margin	NPM
Interest Income	II
Non-interest Income	NII
Cost to Income	C/I
Capital Adequacy ratio	CAR
Repo Rate	RR
Cash Reserve Rate	CRR
Statutory Liquidity Ratio	SLR

Objective 1: To understand the growth of the selected nationalized banks in India. (Descriptive Statistics)

Table no: 2 DESCRIPTIVE STATISTICS

	N	Range	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ROA	10	3.93	.1720	1.32116	1.745	-.327	.687	-1.032	1.334
ROE	10	65.80	.6440	22.27037	495.969	-.641	.687	-.806	1.334
NIM	10	1.36	4.6420	.46231	.214	.114	.687	-1.094	1.334
NPM	10	60.93	2.7680	20.35568	414.354	-.446	.687	-.990	1.334
II	10	2.79	12.7680	.84231	.709	-.496	.687	.057	1.334
NII	10	.70	1.8790	.20733	.043	-.041	.687	-.281	1.334
C/I	10	23.92	94.2700	7.46736	55.761	-1.152	.687	.877	1.334

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CAR	10	12.87	27.9070	4.33112	18.759	-.096	.687	-1.359	1.334
RR	10	6.00	11.3650	2.05859	4.238	-.747	.687	-.410	1.334
CRR	10	2.00	7.5500	.83166	.692	-1.644	.687	1.058	1.334
SLR	10	5.00	37.3000	1.97132	3.886	1.289	.687	.144	1.334
Valid N (listwise)	10								

Source: Computed data

INTERPRETATION

The analysis reveals that ROA has a low average value (0.172) coupled with high variation, suggesting that asset efficiency varies significantly from year to year. ROE demonstrates significant variability and a large standard deviation, indicating that returns for shareholders are inconsistent. While NPM shows significant fluctuations in profit generation, NIM remains relatively stable with low variability. With small standard deviations and distributions that approximate normality, Interest Income (II) and Non-Interest Income (NII) demonstrate consistency, underscoring their stable contributions to revenue. The Cost-to-Income Ratio (C/I), with a mean value of 94.27, is quite elevated, indicating efficiency challenges within the chosen banks. Banks are well-capitalised, as demonstrated by the strong Capital Adequacy Ratio (CAR) of 27.90 on average. Repo Rate (RR) and SLR show moderate variability among monetary policy indicators, whereas CRR is stable but has a left-skewed distribution. In general, the indicators for profitability display fluctuations, whereas those for capital adequacy and income stability are comparatively robust.

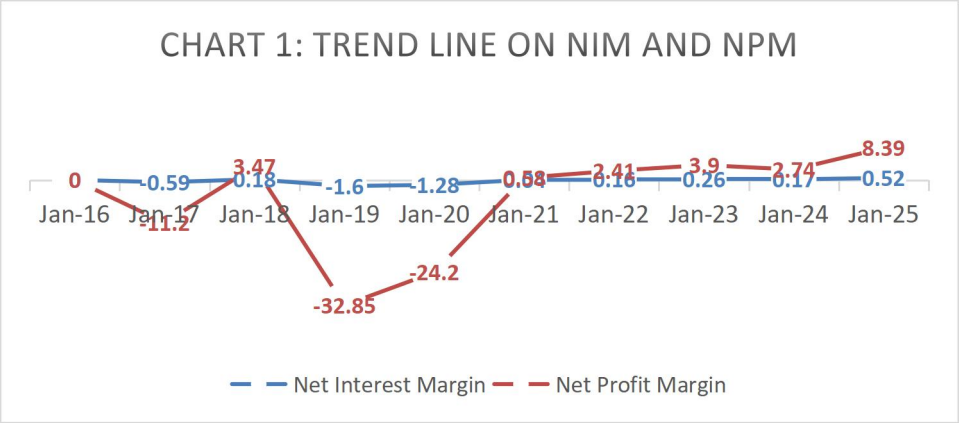

Chart no: 1 Net interest margin and Net profit margin ratio's during (2016- 2025)

Source: Computed Data

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Objective 2: To examine the profitability performance of selected nationalized banks in India (Regression)

H^0: There is no significant impact between interest rate changes and profitability

Dependent variable: Return on Assets

Table 3a: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.976[a]	.953	.788	.60833	2.750

a. Predictors: (Constant), Non-Interest Income, Interest Income, CRR, Cost to Income, Capital Adequacy Ratios, Repo Rate, SLR
b. Dependent Variable: Return on Assets
Source: Computed data

Table 3b: Anova[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.969	7	2.138	5.779	.155[b]
	Residual	.740	2	.370		
	Total	15.709	9			

a. Dependent Variable: Return on Assets
b. Predictors: (Constant), Non-Interest Income, Interest Income, CRR, Cost to Income, Capital Adequacy Ratios, Repo Rate, SLR

Dependent Variable: Return on Equity

Table 4a: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.963[a]	.928	.674	12.71430	2.718

a. Predictors: (Constant), Non-Interest Income, Interest Income, CRR, Cost to Income, Capital Adequacy Ratios, Repo Rate, SLR
b. Dependent Variable: Return on Equity

Model								ıce Interval pper ound
	Ratios							
1	Repo Rate	.102	.205	.160	.500	.666	-.495	.700
	CRR	.291	.471	.183	.617	.600	-1.084	1.666
	SLR	-.127	.242	-.189	-.522	.654	-.834	.581
	Interest Income	-.019	.301	-.012	-.062	.956	-.896	.859
	Non-Interest Income	1.637	1.566	.257	1.045	.406	-2.936	6.210

7.860
)83
530

a. Dependent Variable: Return on Assets

Table 4b: ANOVA[a]

Model	Sum of Squares	Df	Mean Square	F	Sig.

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1	Regression	4140.416	7	591.488	3.659	.231[b]
	Residual	323.307	2	161.653		
	Total	4463.723	9			

a. Dependent Variable: Return on Equity

b. Predictors: (Constant), Non-Interest Income, Interest Income, CRR, Cost to Income, Capital Adequacy Ratios, Repo Rate, SLR

Table 4c: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	-153.787	237.950		-.646	.584	-848.598	541.025
C/I	-.678	.917	-.227	-.739	.537	-3.357	2.001
CAR	5.333	1.657	1.037	3.218	.085	.494	10.173
RR	-.100	4.279	-.009	-.023	.983	-12.594	12.394
CRR	6.358	9.842	.237	.646	.585	-22.381	35.098
SLR	-.384	5.065	-.034	-.076	.946	-15.174	14.406
II	-.255	6.283	-.010	-.041	.971	-18.601	18.090
NII	21.411	32.732	.199	.654	.580	-74.166	116.988

a. Dependent Variable: Return on Equity

Dependent Variable: Net Interest Margin

Table 5a: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.995[a]	.990	.953	.10030	3.456

a. Predictors: (Constant), Non-Interest Income, Interest Income, CRR, Cost to Income, Capital Adequacy Ratio, Repo Rate, SLR

b. Dependent Variable: Net Interest Margin

Table 5b: ANOVA[a]

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Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.903	7	.272	27.028	.036[b]
	Residual	.020	2	.010		
	Total	1.924	9			

a. Dependent Variable: Net Interest Margin
b. Predictors: (Constant), Non-Interest Income, Interest Income, CRR, Cost to Income, Capital Adequacy Ratios, Repo Rate, SLR

Table 5c: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.614	1.877		2.458	.133	-.868	10.095
	C/I	.000	.007	.004	.031	.978	-.021	.021
	CAR	.057	.013	.534	4.357	.049	.019	.095
	RR	-.025	.034	-.111	-.738	.538	-.123	.074
	CRR	.270	.078	.487	3.483	.073	.044	.497
	SLR	-.136	.040	-.579	-3.398	.077	-.252	-.019
	II	.185	.050	.337	3.727	.065	.040	.329
	NII	-.339	.258	-.152	-1.312	.320	-1.093	.415

a. Dependent Variable: Net Interest Margin

Dependent Variable: Net Profit Margin

Table 6a: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.974[a]	.950	.773	9.70249	2.786

a. Predictors: (Constant), Non-Interest =Income, Interest Income, CRR, Cost to Income, Capital Adequacy Ratios, Repo Rate, SLR
b. Dependent Variable: Net Profit Margin

Table 6b: ANOVA[a]

Model	Sum of Squares	Df	Mean Square	F	Sig.

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1	Regression	3540.908	7	505.844	5.373	.166[b]
	Residual	188.276	2	94.138		
	Total	3729.185	9			

a. Dependent Variable: Net Profit Margin
b. Predictors: (Constant), Non-Interest Income, Interest Income, CRR, Cost to Income, Capital Adequacy Ratios, Repo Rate, SLR

Table 6c: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	90.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-84.751	181.584		-.467	.687	-614.973	445.471
	C/I	-.697	.700	-.256	-.996	.424	-2.741	1.347
	CAR	4.686	1.265	.997	3.705	.066	.993	8.379
	RR	.900	3.265	.091	.276	.809	-8.634	10.434
	CRR	4.781	7.511	.195	.637	.590	-17.151	26.713
	SLR	-1.156	3.865	-.112	-.299	.793	-12.442	10.131
	II	-1.312	4.795	-.054	-.274	.810	-15.311	12.688
	NII	19.152	24.978	.195	.767	.523	-53.784	92.088

a. Dependent Variable: Net Profit Margin

INTERPRETATION

Return on Assets (ROA)

The Return on Assets (ROA) for the chosen nationalised banks averages at 0.172, which suggests that the banks are producing negligible profits in relation to their total assets. The considerable fluctuations over the study period, indicated by the high standard deviation (1.32) and range (3.93), suggest that asset utilization efficiency was inconsistent. Returns are further indicated to lean towards lower values by the negative skewness (–0.327). In summary, the findings underscore that the banks have found it difficult to ensure stable and efficient returns on their assets.

Return on Equity (ROE)

With a mean of 0.644, a broad range of 65.80, and a high standard deviation (22.27), ROE indicates that shareholder returns have been unstable over time. The negative skewness (–0.641) indicates that a

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greater number of observations are focused on lower returns, whereas the kurtosis (–0.806) implies thinner tails. This shows that banks struggled to deliver consistent profits for equity investors, as their earnings were volatile.

Net Interest Margin (NIM)

With a mean of 4.642, a small range (1.36), and a low standard deviation (0.46), NIM demonstrates stability in the spread between interest earned and interest paid. The skewness value of 0.114 indicates near symmetry, whereas the kurtosis value of –1.094 suggests a flat distribution. The results imply that, notwithstanding variations in other profitability ratios, the NIM has demonstrated a degree of stability and resilience in relation to banks' core income generation.

Net Profit Margin (NPM)

Although the average NPM is 2.768, it has a broad range (60.93) and a substantial standard deviation (20.35), indicating that profit levels are highly volatile. The distribution is left-skewed, as indicated by the skewness value of –0.446. The kurtosis value of –0.990 suggests that it has thinner tails than a normal distribution. This underscores the inconsistency of banks' profitability as a proportion of total revenues, and its high sensitivity to fluctuations in financial and economic conditions.

CONCLUSION

In the last ten years, the Indian banking sector's growth and profitability performance has been varied. Indicators of growth like deposits, advances, and total assets demonstrate a consistent expansion, bolstered by government initiatives, financial inclusion efforts, and the adoption of technology in banking services. Nonetheless, the examination of profitability using ratios such as ROA, ROE, NIM, and NPM reveals considerable variations. The low values of ROA and ROE highlight an inefficiency in generating returns from assets and equity. Our results underscore the necessity for nationalised banks to implement more robust approaches to asset utilisation and shareholder value generation. The steady Net Interest Margin (NIM) reflects robust core banking operations; however, the elevated Cost-to-Income (C/I) ratio highlights a need for greater efficiency through cost optimization and digital transformation initiatives. The fluctuations in the Net Profit Margin (NPM) indicate a sensitivity to changes in economics and policy, implying that banks ought to diversify their income sources and bolster their risk management practices. This study aids in grasping the financial well-being of significant nationalized banks and offers perspectives for bank management and policymakers to improve sustainable profitability while maintaining these banks' function in fostering India’s economic growth.

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