

FINANCIAL PERFORMANCE EVALUATION OF INDIAN PRIVATE SECTOR BANKS THROUGH EAGLES MODEL

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Abstract

Every country's economy and growth are largely reliant on the good financial system and that financial system depends on the quality of banking system. A supervisory mechanism is needed to assess the performance of the banking system. In India, RBI regulates and supervises the all banking functions for the development of economy. Now days, Indian banking sector has a high competition among all schedule commercial banks to strive for maximum profitability and maintain sustainable liquidity, earning capacity and growth. The primary goal of this article is to assess the financial stability of HDFC, ICICI, Axis, Kotak Mahindra, and IndusInd banks in India by applying EAGLES model. These private sector banks are selected on the basis of market capitalization. The financial data was collected through annual reports and analyzed using Mean and Anova One Way Classification at a 5% Level of significance. The study found that, significant variation in means on earnings (H_{01}), asset quality (H_{02}), equity (H_{05}), and NII to NIC ($H_{06.2}$) among five private sector banks.

Key words: EAGLES Model, Financial Performance and Stability, Private Sector Banks.

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Introduction:

"A bank is a financial institution that leverages enormous quantities of uncollateralized public funds held in guarantor custody by lending loans". In simple terms, banks are involved in the activities of mobilizing savings, allocating resources to productive purposes, facilitating transactions, managing risk, and exercising corporate control. Thus, commercial banks are important to the Indian economy and are considered the heart of the financial system (Anand, K. 2015). The RBI regulates and supervises the functions of all scheduled commercial banks. Financial soundness and performance are derived from the financial reports of the banks. These financial statements are prepared from the books of accounts. Thus, it is always important to estimate the factors that affect financial stability and performance, especially for banks. Because banks collect a high amount of deposits from the public and lend to needy people. There are many tools and techniques to measure the financial stability and performance of banks, such as ratio analysis, comparative and common size, trend analysis, CAMELS, and EAGLES models. These are helpful to the management in decisionmaking and framing policies based on outcomes.

As a result of this method, each bank that underwent an on-site evaluation was graded based on five (now six) key aspects of how it operated. Capital, asset quality, management, profits, and liquidity are examples of "component factors." In January 1997, bank supervisors in the United States added the "S" component, sensitivity (market risk). The CAMELS Approach evaluates various areas of commercial banks' operations that are critical to determining financial soundness. For example, the Bank of Clark County received a CAMELS rating of 2 despite being in financial trouble in 2009. The bank uses them to demonstrate its financial stability, operational efficiency, and legal compliance. The sixth component of the CAMEL assessment now examines the company's sensitivity to market risk. The rating system is now more risk-focused as a result (Basavaraj, 2020; Beevi, 2018; Mayakkannan and Jayasankar, 2020). Global financial turmoil in 2008 prompted the search for supervisory strategies to prevent bank failures (Santhoshi Kumari & Prasad, 2017). Advanced and developing nations use this model. Except for internationally set ratios like the capital adequacy ratio, no industry benchmarks are set and agreed upon for all selected ratios used in the CAMELS Model as indicators of bank performance (CAR). Bank supervisors base other parameters on industrial average's in their countries. Under the prompt corrective action framework, CRAR, net NPAs, and RoA have trigger points. These ratios assess a bank's capital adequacy, asset quality, earnings, liquidity, supervision, and control (Nataraja, Chilale, & Ganesh, 2018).

This CAMELS model also suffers from a few limitations that led to the emergence of the EAGLES model to assess the financial stability and performance of scheduled commercial banks. The below-listed limitations of the CAMELS approach are subjective and indeterminate. Accounting statistics may not indicate a mean or average rating. The CAMELS approach is helpful in identifying "good" and "bad" indicators but ranks "inbetweens" However, financial institutions or bank inspectors must make a judgment that is subject to subjectivity. So these rankings may want to include different expectations and perspectives. То overcome this kind of subjectivity and indeterminate shortfall, international bodies and authorities are focused on emerging models. The first priority is given to the EAGLES model for the assessment of the financial performance of banks (Al-Ali, 2019).

• Emergence of the EAGLES model:

Dr. Vong (1994), founder of the EAGLES Banking Benchmark, published his views in Asian banking journals, discussed them publicly on television, and presented them in the U.S. and Europe. The acronym EAGLES stands for earning potential, asset quality, growth, liquidity, equity, and strategy. Eagles can assess and compare bank performance in a way that is more precise, impartial, and consistent. These numerical measurements eventually serve as early warning indicators.

Significance and Implementation 1.1 of **EAGLES Model in Indian Banking Sector:** There is an international discussion about separating banking supervision from traditional federal or central banking due to the failure of some large banks (Silicon Valley Bank, Signature Bank in the USA, 2023) and bank-related entities. This discussion is motivated by the conflict between monetary policy goals and banking supervision goals. In order to be effective, regulatory agencies must be "forward-looking" and not "backwardlooking." According to Parsons (2013), who claimed that the CAMELS model is ineffective, The RBI's supervision of Indian banks is governed by the Banking Regulation Act, 1949, in India. Banks, NBFCs, and other financial organizations were governed by Reserve Bank of India departments until 1994. The Board for Financial Supervision (BFS) was created in 1994 by the Reserve Bank of India (Board for Financial Supervision) Regulations to oversee financial markets and avert financial disasters. Due to the financial sector's deregulation and organizational and geographic integration, banking is under pressure to increase profits and embrace international standards. The performance and strength of modern banks cannot be primarily justified by balance sheet data. On-site and off-site supervisors and an effective early warning system are crucial to bank viability (Santhoshi Kumari and Prasad, 2017). Banking must be secure in order to maintain the public's trust. Finding the variables that can lead to bank failure in the future is therefore the main task facing regulators and bank managers. Earnings, asset quality, growth, liquidity, strategy, and managerial success are examples of financial ratios. For regulators and bank management, ratios are very helpful tools for identifying these risks, preventing them from happening, and taking preventative measures. Since regulators consider both financial and nonfinancial elements to assess a bank's performance, the EAGLES Model is crucial in this regard (Al-Ali, 2019).

2. Review of Literature:

Through the lenses of earning potential, asset quality, growth, liquidity, equity, and strategy, the EAGLES benchmark measures bank performance. It evaluates the bank's capital adequacy, asset quality and management, earnings, liquidity, and sensitivity elements; therefore, in essence, it is comparable to the CAMELS technique (Kumari & Prasad, 2017). However, three crucial differences allow for a more precise evaluation of the bank's condition. An EAGLE model is initially examining the bank's financial stability and conditions. Since ratios are used as a rating system rather than a scoring scale of 1 to 5, the EAGLES methodology is regarded as more objective than the CAMELS approach. The EAGLES evaluation makes use of financial ratios rather than arbitrary grades between 1 and 5. It goes without saying that it will be easy to predict when banks or the banking system will collapse or weaken if a trend analysis is done on these financial measurements over time. Second, the standard of bank management is impacted by the control of non-interest operational costs, the collection of fee income, and the determination of deposit and lending rates. In order to manage overhead costs, take deposits, disburse loans, and earn fee-based income, a bank must

engage in these four operations (Vong and Song, 2015). Thirdly, the strategic response quotient (SRO) evaluates the bank's four key financial metrics: interest revenue, interest cost, non-interest income, and non-interest expense. Al-Ali, M.S. (2020), applied the EAGLES model to Islamic banks and found that all sectors except liquidity grew significantly. Younger banks learned faster. The study found that conventional banks outperformed Islamic institutions except for growth. (Dang & Vong, 2020). In their study, the EAGLES framework (based on the CAMELS ranking) is used to evaluate 48 Asian Pacific banks, concentrating on the strategic response quotient (SRQ). Interest income, fee-based revenue, interest costs, and operational expenses are examined to create the SRO. The study demonstrated that chosen data elements uniquely predict and reflect bank stability and profitability.

3. Objectives

The study's main aim is to assess the financial stability and performance of five private sector banks, i.e., HDFC, ICICI, Axis, Kotak Mahindra, and IndusInd banks. The researcher framed sub-objective as:

- To analyze, evaluate, and compare the financial performance of selected private sector banks with different parameters like earnings, assets, growth, liquidity, equity, and strategic response quotient.
- 4. Methodology of the study:
- **Research Design:** The study uses a mixed research design, i.e., both qualitative and quantitative. The first stage involved analyzing the available literature on the EAGLES model, and the second stage involved gathering financial data collected from the annual reports of select private sector banks.
- Data collection and statistical methods: The study is exploratory in nature and uses secondary data. The secondary data was collected from various databases, including DBIE, the RBI's reports on trends and advances in the banking sector, annual reports and websites, news papers, journals, and articles, etc. Ratio analysis is used in accounting, and the one-way ANOVA test is used in statistics. At a 5% level of significance, we examined all financial parameters of the EAGLES model. These selected private sector banks are ranked using the EAGLES model's parameters.

EAGLES Model	Measurement Variable	Formula
Earnings	ROE	Net Profit
		Share holders Equity
Asset Quality	NPA	Non Performing Loans
		Total Loans and Advances
Growth	Loans Growth	(Total Loans at t) $-$ (Total Loans at t $-$ 1)
		(Total Loans at $t - 1$)
Liquidity	LDR	Total Loans & Advances
		Total Deposits
Equity	Capital Adequacy Ratio	Tier 1 + Tier 2 Capital
		Risk Weighted Capital
Strategic Performance	Interest Burden	Interest Margin
		Net Operating Cost

Source: Al-Ali, M. S., (2019)²

• **Time Period:** Financial reports and statements are collected for the five previous fiscal years starting from 2019 to 2023.

• **Population and Sample Size:** India has a total of 21 private sector banks at present. These are

considered populations and five private sector banks namely HDFC bank (Rs. 8,97,349), ICIC bank (Rs.6,55,639), Axis bank (Rs.3,82,622), Kotak Mahindra bank (Rs.2,82,452) and IndusInd bank (Rs.97,799) are selected on the basis of market capitalization (in Rs. in Crores).

	Table – 2: Total Popula	uons of Privat	e Sector Danks in mula
S.No	Private Sector Banks	S.No	Private Sector Banks
1.	Axis Bank	12	Jammu and Kashmir Bank
2.	Bandhan Bank	13	Karnataka Bank
3.	CSB Bank	14	Karur Vysya Bank
4.	City Union Bank	15	Kotak Mahindra Bank
5.	DCB Bank	16	IDBI Bank
6.	Dhanlaxmi Bank	17	Nainital Bank
7.	Federal Bank	18	RBL Bank
8.	HDFC Bank	19	South Indian Bank
9.	ICICI Bank	20	Tamilnad Mercantile Bank
10.	IndusInd Bank	21	YES Bank
11.	IDFC First Bank	****	****

Table – 2: Total Populations of Private Sector Banks in India

Source: https://www.moneycontrol.com/stocks/marketinfo/marketcap/bse/bank-private.html

5. Hypotheses:

H0: There is no significant variation in means on the financial stability and performance of HDFC, ICICI, Axis, Kotak Mahindra and IndusInd banks in terms of

H₀₁: **Earning ratios** – Return on Equity.

H₀₂: Asset Quality ratios – Net NPA.

 $H_{03:}$ Growth ratios – Growth of Loans and advances.

 $H_{04:}$ Liquidity ratios – Total Loans to Total Deposits.

H₀₅: **Equity ratios** – Capital Adequacy Ratio (CAR).

 $H_{06.1:}$ Strategic Performance – Interest Margin and Net Operating Cost i.e., II/IC (Interest Income to Interest Cost)

 $H_{06.2:}\, NII \ / \ NIC$ - Non - Interest Income to Non-Interest Cost

6. Data Analysis and Interpretation:

6.1 Earnings: The ability to maintain a high level of earnings over time can increase a bank's capital and improve its economic performance. A company's profitability and failure likelihood are inversely related. A bank is a for-profit enterprise, so the following ratios are used to evaluate its financial performance:

• **Return on Equity:** it is the ratio showing the company's net profit to its shareholders' equity. ROE is a measure of a company's profitability and how effectively those earnings are generated. It may be inferred that the higher the ROE, the better the company is at converting its equity financing into profits.

Return on Equity (%) =
$$\frac{\text{Net Profit}}{\text{Share holders Equity}} \times 100$$

Year	HDFC	ICICI	Axis	Kotak Mahindra	IndusInd
2019	17.87	6.81	0.46	12.55	16.50
2020	16.50	3.24	7.19	12.18	13.25
2021	16.40	7.25	2.15	13.08	14.71
2022	16.61	12.56	7.06	12.47	7.39
2023	16.67	14.99	12.03	12.68	10.20
Mean	16.81	8.97	5.78	12.59	12.41
Rank	1	4	5	2	3

 Table -3: Return on Equity (%)

The primary goal of every bank is to maximize the wealth of its shareholders; thus, return on equity (RoE) is used to assess the earning capacity of select private sector banks. High RoE signifies a higher rate of return to equity shareholders, and high RoE awards the highest rank, and vice versa. During the study period 2019–2023, HDFC Bank outperformed with a high mean ROE of 16.81% compared to other private sector banks, namely

Kotak Mahindra Bank's mean of 12.59%, IndusInd Bank's mean of 12.41%, ICICI Bank's mean of 8.97%, and Axis Bank's mean of 5.78%. As a result, Axis Bank received the lowest ranking of 5 in the research. Furthermore, the researcher calculated the mean variance across selected private-sector banks using ANOVA. Table 4 displays the results.

Fable -	4: ANO	VA test	results	on Earn	ings – I	RoE
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F	Sig.	Results
7.571	0.001	Reject H ₀₁

The computed value of F is 7.571 and the p value <0.05, resulting in the rejection of H₀₁ under the study.

6.2 Asset Quality:

The most valuable assets have the lowest risk. The tendency of banks to collect substandard assets is one of the greatest obstacles to their ability to compete effectively. A high-quality asset signifies effective credit management, which includes standard credit evaluation, prompt follow-up, and effective loan recovery. In banks with a high proportion of nonperforming assets, poor asset quality has significant effects on both current and potential income. Due to provisioning requirements for the classification of nonperforming assets, a significant amount of money is tied up in loans that have not been recouped on time, which exacerbates the situation for banks. It is anticipated that banks with effective credit risk management will experience a decline in NPAs.

Net NPA (%) =
$$\frac{\text{Non Performing Loans}}{\text{Total Loans and Advances}} \times 100$$

Year	HDFC	ICICI	Axis	Kotak Mahindra	IndusInd
2019	0.40	2.06	2.06	0.75	1.39
2020	0.32	1.41	1.56	0.71	1.54
2021	0.32	1.14	1.05	1.21	1.03
2022	0.27	0.76	0.73	0.64	1.28
2023	0.27	0.48	0.39	0.37	1.81
Mean	0.32	1.17	1.16	0.74	1.41
Rank	1	4	3	2	5

 Table - 5: Asset Quality (Net NPA %)

Net NPA (%) is a measure of asset quality. A low net NPA ratio may be interpreted as a sign of superior credit risk management and superior assets. A low Net NPA (%) is given a high score because it indicates how much of a burden the banks actually bear. When compared to other private sector banks, HDFC Bank maintains a low net NPA, according to the report. At HDFC Bank, the average net NPA (%) is 0.32, which earns it number one. With the highest mean net NPA (%) at 1.41, IndusInd Bank is ranked poorly at number five.

Table -6: ANOVA test results – Net NPA (%)

F	Sig.	Results
4.723	0.008	Reject the Null Hypothesis H ₀₂

The results on net NPA (%) are depicted in Table 6. The computed value of F = 4.723 and p < 0.05 indicates that there is a significant variation in means on net NPA (%) among private sector banks under the study.

6.3 Growth: This is the most important metric in the EAGLES model. It calculates that the growth

rates of core deposits and loans show how a bank aims to position itself in the market. Increased loan growth implies that the bank can make more money.

Growth in Loans (%)
=
$$\frac{(\text{Total Loans at t}) - (\text{Total Loans at t} - 1)}{(\text{Total Loans at t} - 1)} \times 100$$

-		Table-7: G	rowth ir	i Loans (%)	
Year	HDFC	ICICI	Axis	Kotak Mahindra	IndusInd
2019	24.47	14.49	12.54	21.20	28.59
2020	21.27	10.00	15.49	6.83	10.94
2021	14.00	13.71	9.15	1.79	2.81
2022	20.83	17.08	13.46	21.26	12.44
2023	16.93	18.70	19.44	17.92	21.28
Mean	19.50	14.80	14.02	13.80	15.21
Rank	1	3	4	5	2

(0/)

At HDFC Bank, loan growth (%) spans from 19.50% to 13.80%, whereas at Kotak Mahindra Bank, it is only 13.80%. The rise of loans has not been consistent across all institutions. IndusInd Bank's loan growth ranges from lowest 2.81% (2021) to the highest 28.59% (2019); ICICI Bank's loan growth ranges from lowest 10% (2020) to highest 18.70% (2023); Axis Bank's loan growth

ranges from lowest 9.15% (2021) to highest 19.44% (2023); Kotak Mahindra Bank's loan growth ranges from lowest 1.79% (2021) to highest 21.26% (2023). As a result, Kotak Mahindra Bank was given rank five while HDFC Bank was given rank one. The researcher also examines the variance in loan growth rates (%) among the study's private sector banks.

Table -8: Anova	test results -	- Growth in	Loans (%)
	CODE I COMICO		

F	Sig.	Results
0.612	0.659	Accept the Null Hypothesis H ₀₃

Table - 8 shows the results of Anova one way classification. The computed F-value is 0.612, and p > 0.05 suggest to accepting H₀₃. Hence, there is no significant variation in the means of growth in loans among select private sector banks.

6.4 Liquidity: It is one of the most important tasks carried out by the treasury section of banks in order to satisfy the numerous demands for money. A bank is required to maintain liquid assets at levels high enough to support deposits, withdrawals, and legitimate loan requests. The loan-to-deposit ratio reveals how much of the bank's resources were previously used to satisfy customers' credit needs. The presumption is that when the ratio increases, the bank's ability to originate new loans will

decrease. Therefore, a higher score indicates a greater degree of liquidity vulnerability. A high loan-to-deposit ratio for a bank indicates that loans account for a substantial share of its earning assets, while securities account for a lower proportion. The psychological management of the bank is impacted by the loan-deposit ratio. As the ratio increases, lending becomes more cautious and selective. The ratio helps bank management figure out how many further loans a bank can make without having the funds to make more or less constant borrowings. Every commercial bank must have a 25% SLR, which limits their capacity to make loans.

Loans to Deposit Ratio = $\frac{\text{Total Loans & Advances}}{\text{Total Deposits}} \times 100$

$- \cdots - \mathbf{r} = -\mathbf{r}$

Year	HDFC	ICICI	Axis	Kotak Mahindra	IndusInd
2019	88.76	89.85	90.21	91.06	95.65
2020	86.60	83.70	89.27	83.61	102.35
2021	84.85	78.68	88.18	79.86	82.98
2022	87.79	80.69	86.12	87.03	81.40
2023	84.98	86.35	89.27	88.09	86.17
Mean	86.60	83.85	88.61	85.93	89.71
Rank	3	5	2	4	1

Table 9 provides an illustration of the loan-todeposit ratio. Regarding liquidity, HDFC Bank's lowest LDR is 84.85% in 2021, and its highest LDR is 88.76% in 2019. The LDR average of 86.60% earns a ranking of three. Comparing ICICI Bank to the other private sector banks included in the analysis, its liquidity position is the poorest. The LDR ranges from 78.68% in 2021 to 89.85% in 2019. With an average LDR of 83.35, it is ranked fifth. Given that the LDR fluctuates between 86.12% (2022) and 90.21% (2019), Axis Bank has strong liquidity. The study's second-placed average LDR is 88.61. Liquidity position of Kotak Mahindra Bank ranges from 79.86% (2021) to 91.06% (2019). According to the survey, the average LDR is 85.93%, placing it in fourth place overall. IndusInd Bank has achieved the top ranking for its superior liquidity position when compared to all other private sector banks. The highest among all other banks, its mean LDR is 89.71%, and it varies from 81.40% (2022) to 102.35% (2020). It can be observed from the analysis that, with the exception of IndusInd Bank, all banks' LDR is high in 2019.

1 able – 10: A	nova test results – Lie	quidity (Loans to Deposits Ratio)
F	Sig.	Results
1.063	0.401	Accept the Null Hypothesis H ₀₄

Anova one-way classification is used to examine the mean differences in liquidity (loan-to-deposit ratio), and the test results are displayed in Table-10. The calculated values of F = 1.063 and p > 0.05, recommends to accept H₀₄.

6.5 Equity: The capital adequacy ratio (capital to risk-weighted assets) is the most widely used indication of a bank's soundness. It demonstrates the bank's resilience in the face of bad occurrences. The 1988 Basel Agreement greatly contributed to financial stability and competitive equality among various institutions. Nonetheless, continuous improvements have increased pressure on

commercial banks to raise capital from a variety of sources and reduce their exposure to higher-risk assets without jeopardizing their capacity to earn money. According to Basel III regulations, an eight percent CAR should be maintained by July 2022. The RBI has mandated 9% CAR for commercial banks and 12% for public sector banks. The CAR decreases the chance of bank failure, maintaining the effectiveness and stability of a country's financial system. A bank is considered secure if its capital adequacy ratio is high.

capital adequacy ratio is high. Capital Adequacy Ratio = $\frac{\text{Tier 1} + \text{Tier 2 Capital}}{\text{Risk Weighted Capital}} \times 100$

	Table -11 Equity: Capital Adequacy Rado (70)						
Year	HDFC	ICICI	Axis	Kotak Mahindra	IndusInd		
2019	17.11	16.89	17.23	17.45	13.83		
2020	18.52	16.11	17.53	17.89	12.09		
2021	18.79	19.12	15.40	22.26	15.50		
2022	18.90	19.16	18.54	22.69	15.31		
2023	19.26	18.34	17.64	21.80	15.03		
Mean	18.52	17.92	17.27	20.42	14.35		
Rank	2	3	4	1	5		

Table -11 Equity:	Capital Adequacy	v Ratio (%)
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A bank with a high capital adequacy ratio has not used up all of its lending resources and will be able to satisfy its commitments when they become due. In terms of capital adequacy ratio, select private sector banks range from 12.09% for IndusInd Bank (2020) to 22.69% for Kotak Mahindra Bank (2022). Kotak Mahindra Bank (20.42%) obtained the highest mean value ranking, while IndusInd Bank (14.35%) received the lowest. Furthermore, the researcher assumes that there are no discernible disparities in the medians of capital adequacy ratios among specific private sector banks. This assumption is tested using ANOVA (one-way classification), and the results are shown in Table 12.

 Table -12: Anova test results – Equity (Capital Adequacy Ratio)

F-value	Sig.	Results
9.886	0.000	Reject the Null Hypothesis H ₀₅

The calculated value of F, 9.886, and the significance level of 0.05 indicate that there is a *Eur. Chem. Bull.* **2023**, *12*(*Special Issue 10*), *3309–3318*

considerable variation in the means of the study's chosen private sector banks' capital adequacy 3315

ratios. Consequently, the null hypothesis H05 is rejected.

6.6 Strategic Performance: Strategic performance defines the management's actionable range for expanding income and the balance sheet. In strategy, there are two ratios: interest and non-interest. Interest earnings and interest charge hikes are passed through to clients. Non-interest income on non-interest costs indicates how much a bank pays to earn non-interest income. In an ideal world, the ratio should be greater than one. The Strategic Response Quotient (SRQ), which examines how well a bank manages its strategy, provides this information. It assesses management's ability to direct, collect deposits, generate fee-based income, and control costs. The strategy of the bank will

determine the appropriate balance between the three core banking activities. The SRQ is computed by dividing the interest margin by the net operating cost (operating cost minus free revenue). When combined with greater risk management, a higher number is preferred.

Strategic Pernance Quotient (SPA) -	Interest Margin
Strategic Response Quotient (SRQ) =	Net Operating Cost

6.6.1 Interest Income/Interest Cost: This ratio indicates that interest income has increased higher than interest costs. To reduce the maturity of assets compared to liabilities, the bank can either reduce its cost of deposits, grow its loan book faster to generate higher interest revenue, or raise its return on loans faster than its cost of advances.

Year	HDFC	ICICI	Axis	Kotak Mahindra	IndusInd		
2019	1.95	1.74	1.65	2.70	1.66		
2020	0.83	1.8	1.67	2.65	1.72		
2021	2.16	1.97	1.85	2.33	1.87		
2022	2.29	2.22	1.97	2.01	1.95		
2023	2.16	2.32	2.02	1.89	1.94		
Mean	1.88	2.01	1.83	2.32	1.83		
Rank	3	2	4	1	4		

Table -13 II/IC Ratio

The average interest income on interest costs of chosen private sector banks ranges from 1.83 to 2.32. Kotak Mahindra Bank came in first among the other banks in the survey with 2.32%, then Axis

Bank (1.83%), and IndusInd Bank (1.83%). Using Anova one-way classification, the researcher examined the mean variation of interest revenue to interest cost of selected private sector banks.

1 abic = 14. Anova test results = interest income to interest con	Table –	14: Anov	a test results –	- Interest In	icome to I	nterest cos
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F	Sig.	Results
1.754	0.178	Accept the Null Hypothesis H _{06.1}

The Anova results are shown in Table 14. F is calculated to be 1.754, and the p value is greater than 0.05. This result shows that the researcher accepts the null hypothesis (H06.1), which states that there is no significant variation in the ratio of interest revenue to interest expense of the selected commercial banks.

6.6.2 Non-Interest Income/Non-Interest Cost: It is a ratio indicating management's ability to earn the NII at a comparable cost. This ratio should ideally be greater than one, indicating that the bank can generate more NII at a lower cost. The NII to NIC ratio of selected private sector banks is less than one, indicating an increase in operational revenue and a slowing of other income sources, according to the research.

Year	HDFC	ICICI	Axis	Kotak Mahindra	IndusInd		
2019	0.67	0.80	0.83	0.53	0.88		
2020	0.76	0.76	0.90	0.57	0.84		
2021	0.77	0.88	0.81	0.64	0.78		
2022	0.79	0.69	0.64	0.61	0.77		
2023	0.66	0.60	0.60	0.61	0.72		
Mean	0.73	0.75	0.76	0.59	0.80		
Rank	4	3	2	5	1		

Table -15 NII / NIC Ratio

Table 15 shows the non-interest income on noninterest costs of the select private sector banks under the study. IndusInd Bank has a high mean value of 0.80% and is ranked at the top. Kotak Mahindra Bank ranks fifth with the lowest mean value of 0.59%. Kotak Mahindra Bank (2019) and Axis Bank (2020) have NII to NIC levels of 0.53% and 0.90%, respectively. Additionally, the researcher assumes that the mean NII to NIC ratio of selected private sector banks is the same and assesses it using Anova one-way classification.

Table -16 Anova test results on Non Interest Income to Non Income Cost					
F	Sig.	Results			
4.074	0.014	Reject the Null Hypothesis H _{06.2}			

The computed value of F is 4.074 and the p value < 0.05, resulting in the rejection of H_{06.2}.k

Baramatara	Ranks under EAGLES					
Farameters	HDFC	ICICI	Axis	Kotak Mahindra	IndusInd	
Earnings (%)	1	4	5	2	3	
Asset Quality (%)	1	4	3	2	5	
Growth in Loans (%)	1	3	4	5	2	
Liquidity (%)	3	5	2	4	1	
Equity (%)	2	3	4	1	5	
Strategic Performance II/IC	3	2	4	1	4	
NII/NIC	4	3	2	5	1	

Table – 17 Summary of Ranks under EAGLE	S approach
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Figure-1: Summary of Ranks under EAGLES approach of HDFC, ICICI, Axis, Kotak Mahindra and IndusInd Banks



Source: table -17

7. Results and Discussions:

Recent developments in the banking sector, such as mergers and acquisitions of public sector banks, help them increase market share, increase capital, and decrease operating costs. This results in more profitability for public-sector banks and creates high competition in the banking sector. In this scenario, the researcher wishes to apply the EAGLES model to evaluate the financial stability and performance of five private sector banks, i.e., HDFC, ICICI, Axis, Kotak Mahindra, and IndusInd banks. The results show that HDFC Bank has a high mean and ranks first in equity (RoE), asset quality (net NPA), and loan growth. IndusInd Bank, on the other hand, has a high mean in liquidity (total loans to total deposits), non-interest income to non-interest cost, equity (capital adequacy ratio), and interest income to interest cost. In addition, it was found that there is a considerable variance in averages on earnings (H01), asset quality (H02), equity (H05), and NII to NIC (H06.2) among the study's selected private sector banks.

Limitations: The study is based on secondary data and is limited to evaluating the financial stability and performance of private sector banks. The secondary data collected from various sources, such as annual reports,

may have some window dressing. The researcher selected only five private sector banks, i.e., HDFC bank, ICICI bank, Axis bank, Kotak Mahindra bank, and IndusInd bank, and excluded the remaining other banks in India. This may be considered another limitation of the study.

References:

- 1. Agrawal, A., Agrawal, A., Sharma, H., Mahant, N., & Tripathi, A. (2023), A Critical Analysis of Banking Structure In India. *European Journal of Molecular & Clinical Medicine (EJMCM)*, 10(01), 2023.
- Al-Ali, M. S. (2019). Evaluating the Financial Soundness of Kuwaiti Banking Sub-Sectors Using EAGLES Financial Model: A Comparison Study between Islamic and Conventional Banks. Saudi Journal of Economics and Finance, 03(10), 466–471. https://doi.org/10.36348/sjef.2019.v03i10.004
- 3. Anand. K (2015), "Financial performance of public sector banks and private sector banks in India", "Research Explorer" 4 (11), 89-96.
- 4. Basavaraj, C. S. (2020). Financial Performance of Private Sector Banks in India. Sambodhi, 43(4), 169-175.
- Biswas, S., & Bhattacharya, M. (2020). Financial Performance Analysis of New Generation Private Sector Banks": A Camel Model Approach in Indian Context. Journal of Commerce & Accounting Research, 9(4), 37-44.
- 6. Beevi, H. R. (2018). Financial Performance of Public and Private Sector Banks in India using CAMEL Model. *IJRAR-International Journal of Research and Analytical Reviews*, 5(4), 430-434.
- 7. Dang, D., & Vong, J. (2020). Revisiting bank profitability, performance and stability in Asia Pacific (2012–2018) using the EAGLES framework. International Journal of Electronic Finance, 10(5), 116-130.
- 8. Gupta, P., & Jaiswal, K. K. (2020). Analysis of financial performance of selected public and private sector banks. Indian Journal of Finance, 14(1), 45-57.
- 9. Holmström, B., & Tirole, J. (2001). LAPM: A liquidity-based asset pricing model. the Journal of Finance, 56(5), 1837-1867.
- 10. Kumari, G. S., & Prasad, M. (2017). Evaluating the Financial Performance of Select Indian Banks Using Eagles Model. The IUP Journal of Accounting Research & Audit Practices, XVI (2), 43–70.
- 11. Santhoshi Kumari, G., & Prasad, M. S. V. (2017). Evaluating the Financial Performance of Select Indian Banks Using Eagles Model. *IUP Journal of Accounting Research & Audit Practices*, *16*(2).
- 12. Mayakkannan, C. J. R., & Jayasankar, C. (2020). A study on performance evaluation of selected public and private sector banks through camel model in India. Purakala Journal, 31(25), 202-206.
- 13. Nataraja, N. S., Chilale, N. R., & Ganesh, L. (2018). Financial performance of private commercial banks in India: multiple regression analysis. Academy of Accounting and Financial Studies Journal, 22(2), 1-12.
- 14. Parsons, R. (2013). It's Time to Kill Camels, American Banker Magazine, June 3rd, 2013. https://www.americanbanker.com/opinion/its-time-to-kill-camels.
- 15. Vaidya, R. (2023). Evaluating Nepalese Commercial Banks' Performance from the Eyes of EAGLES Rating. *Khwopa Journal*, 37-45.
- 16. Vong, J., Song, I., (2015). Bank Ratings in Emerging Asia—Methodology, Information and Technology. *Emerging Technologies for Emerging Markets*, 25-34.
- 17. Vong, J. (1994). Strategic response quotient: A major indicator of bank performance. SES Journal, 8, 11–16.