International Scientific Journal of Engineering and Management (ISJEM) ISSN: 2583-6129
Volume: 04 Issue: 07 | July – 2025 DOI: 10.55041/ISJEM04806
An International Scholarly || Multidisciplinary || Open Access || Indexing in all major Database & Metadata

A Study on Operational Performance Analysis of Public and Private Sector Banks in India

Venkata Rao Valluri
Asst. Professor
Department of management Studies
Madanapalle institute of Technology and Science
Angallu, Madanapalle-517325
Andhra Pradesh

Anantha Lalitha
Student of II MBA
Department of management Studies
Madanapalle institute of Technology and Science
Angallu, Madanapalle-517325
Andhra Pradesh

Abstract:

The Indian banking sector plays a pivotal role in driving financial stability and economic progress. This research investigates and compares the operational performance of public and private sector banks in India over the period 2016–2025. The study includes ten major banks five from each sector selected based on market capitalization and relevance.

Using secondary data from reliable sources, key operational indicators such as profitability, income generation, efficiency, and asset quality were analysed. Tools like ratio analysis and statistical techniques were applied to uncover patterns and differences. The results consistently show that private sector banks outperform public counterparts in terms of returns and operational agility, owing to better technology integration and customer service. However, public sector banks remain vital for financial inclusion and rural outreach despite challenges such as higher NPAs and operational rigidity.

This research underlines the importance of digital transformation, risk management, and policy reforms to enhance public bank efficiency. The findings contribute valuable insights to the banking industry and offer strategic direction for policymakers, investors, and researchers seeking to understand and strengthen India's dual banking system.

Keywords:

Operational Performance, Profitability, Efficiency, NPAs, Financial Ratios, Banking sector in India.

1.Introduction:

The Indian banking sector serves as the backbone of the country's financial system, acting as a vital channel for mobilizing savings and channelling them into productive investments. It plays a central role in economic development by supporting industries, promoting financial inclusion, and enabling smooth financial transactions across the economy. Over the years, the sector has witnessed significant reforms, technological advancements, and structural changes, especially after liberalization in the 1990s. Public and private sector banks form the two main pillars of India's commercial banking system. Public sector banks (PSBs), owned majorly by the government, have traditionally focused on social banking and rural outreach. In contrast, private sector banks have adopted a more profit-driven, customer-centric, and technology-oriented approach. While PSBs continue to dominate in terms of reach and scale, private banks are increasingly leading in terms of performance efficiency and innovation.

In recent years, both segments have faced unique challenges. Public banks have been under pressure due to rising non-performing assets (NPAs), bureaucratic hurdles, and slow adoption of technology. Private banks, though operationally agile, face growing competition and regulatory scrutiny. This divergence in performance raises important questions about the operational strengths and weaknesses of each group.

The study aims to evaluate and compare the operational performance of selected public and private sector banks in India from 2015 to 2025. By analysing financial ratios and operational indicators such as profitability, income generation, efficiency, and asset quality, the research seeks to provide insights into how these banks manage resources and deliver value. The findings are expected to help stakeholders' policymakers, banking professionals, investors, and academicians better understand the evolving dynamics of the Indian banking landscape and identify areas for strategic improvement.

2. Literature Reviews:

Dhanabhakyam and Kavitha (2012) examined six public sector banks in India, focusing on their financial performance and the effectiveness of their lending schemes. The study observed that these banks achieved varying degrees of success in meeting their performance goals.

Prasanth Kiran and Marry Jones (2016) Evaluated how NPAs impacted public sector banks, especially SBI and five nationalized banks. While most banks showed a negative link between NPAs and profits, SBI continued to post strong profits despite high NPA levels, indicating robust risk management.

Vani Shree Sah (2017) In their article attempted to study the NPAs of Indian Banks. NPAs have impact on bank's the profitability and the net-worth. The banks must to take initiatives to reduce the NPAs. Gross NPA reflects the quality of the bank loans and the Net NPA reflects the bank's actual burden. It was concluded that the trends of gross NPAs, inclusion, and enabling smooth financial transactions across the economy. Over the years, the sector has witnessed significant net NPAs are impact of NPAs and the recent government actions to reduce the NPAs.

Prasad and Ravinder (2011) Compared four major Indian banks SBI, PNB, ICICI, and HDFC from 2005–10. Their findings indicated that HDFC led in terms of profitability ratios, followed by PNB, SBI, and ICICI Bank. Each bank showed strengths in different operational areas.

Santhosh Kumar Venugopal (2024) Explored how different types of bank loans affect the efficiency of Indian banks. The study focused on public sector banks, old private sector banks, and new private sector banks. The main goal was to find out how the composition of loan portfolios like term loans, working capital loans, secured loans, and priority sector loans impacts overall bank efficiency.

2.1 Research Gap:

Many past studies have analysed the performance of banks in India, but most of them either focus only on public and private sector banks and cover only a few years. They often miss out on recent developments like the growing use of digital banking and challenges banks faced during and after COVID-19. Also, many of these studies don't look at multiple financial aspects together like profitability, income, efficiency, and asset quality. This study helps fill that gap by comparing five public and private sector banks using ratio analysis over a 10 years period, giving a better understanding of how these banks manage their operations and resources.

3.1 Need for the Study:

Public and private Sector banks are both important for India's economic growth, but their way of working and performance levels are often very different. Public sector banks face challenges like high costs and slow decision making, while private banks are known for using technology and offering better customer service. It is important to study and understand and how both types of banks are performing in terms of profit, income, efficiency, and asset quality. This will help identify which banks are managing their resources better and what improvements can be made. The study also helps investors, students, policymakers, and customers make better decisions by understanding the strengths and weakness of these banks.

3.2 Scope of the Study:

- Focus on Public and Private Sector banks in India
- This study compares Public and Private sector banks in India
- The time Period of the study is from 2016-2025
- It helps to know which banks are doing better and why
- Useful for students, researchers, bankers, and policy makers.

3.3 Statement of the Problem:

Public and private sector banks in India play an important role in the country's economy, but their performance is often very different. Public sector banks face problems like high costs, delays in decision-making, and more non-performing assets (NPAs). On the other hand, private banks are better in using

ISSN: 2583-6129
DOI: 10.55041/ISJEM04806

technology, offering fast services, and earning profits. Because of these differences, it is important to study how both types of banks are performing, where they are strong or weak, and how they can improve. Without such a comparison, it is difficult to know what changes are needed to improve banking services in India.

3.4 Objectives of the Study:

1. To evaluate the profitability performance of public and private sector banks in India.
2. To analyse the income generation capabilities of public and private sector banks.
3. To assess the operational efficiency of public and private sector banks.
4. To examine the asset quality and NPA management of public and private sector banks.
5. To compare the operational performance of public and private sector banks in India.

3.5 Research Methodology:

Research Design

This study uses a descriptive and comparative research design. It compares the performance of public and private sector banks in India from 2016 to 2025. The research looks at different financial indicators like profit, income, efficiency, and asset quality using ratio analysis. It helps understand how well these banks are working overtime.

Sampling Method

A purposive sampling technique is used to Select a sample of 10 major banks 5 public sector banks and 5 private sector banks based on their importance and size in the Indian banking sector.

Public Sector Banks: SBI, BOB, CNB, UNB, PNB

Private Sector Banks: HDFC, ICICI, KMB, AXIS, IDBI

These banks were chosen because they are big and play an important role in India's economy.

Period of Study

The study covers a period of 5 years, from April 2016 to March 2025.

Sources of Data

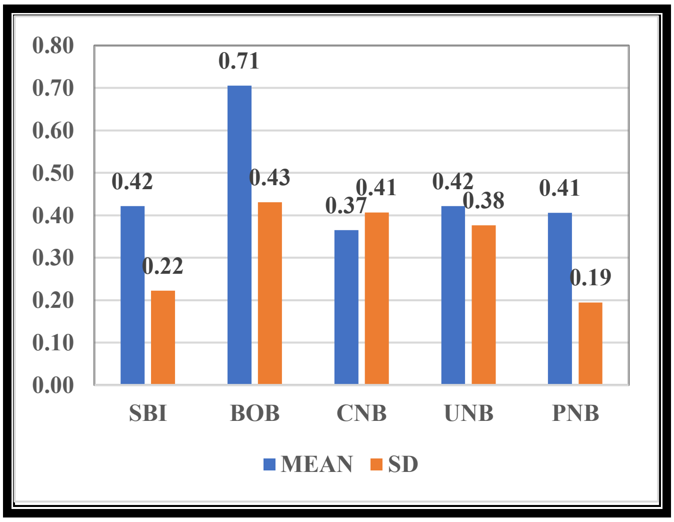
The study uses secondary data, collected from:

- Official company websites
- Financial websites like money control and economic Times
- Previous Research papers

4. DATA ANALYSIS AND INTERPRETATION

1.A Statement of Gross Profit to Total Assets of Public Sector Banks in India the Period 2016-2025

YEAR	SBI	BOB	CNB	UNB	PNB
2025	0.59	1.06	0.58	0.91	0.58
2024	0.61	1.19	0.69	0.97	0.76
2023	0.68	1.18	0.84	0.85	0.58
2022	0.43	1.01	0.73	0.67	0.34
2021	0.46	0.84	0.61	0.35	0.39
2020	0.59	0.63	0.23	0.08	0.23
2019	0.22	0.61	0.41	0.22	0.36
2018	-0.05	0.46	0.11	0.09	0.09
2017	0.28	0.11	-0.01	0.01	0.28
2016	0.41	-0.03	0.14	0.14	0.45
MEAN	0.42	0.71	0.37	0.42	0.41
S. D	0.22	0.43	0.41	0.38	0.19



Interpretation:

The above table and graph show the Gross Profit to Total Assets for 5 banks: SBI, BOB, CNB, UNB and PNB. These banks make moderate profits from their total assets. Bank of Baroda stand out with the best performance, while other banks

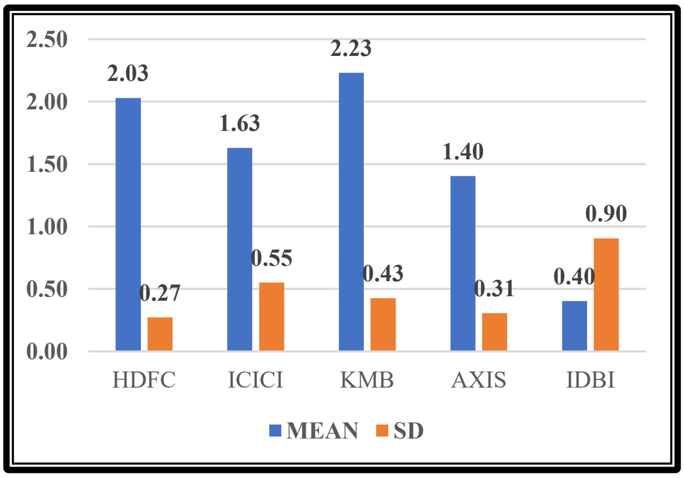
International Scientific Journal of Engineering and Management (ISJEM) ISSN: 2583-6129
Volume: 04 Issue: 07 | July – 2025 DOI: 10.55041/ISJEM04806
An International Scholarly || Multidisciplinary || Open Access || Indexing in all major Database & Metadata

YEAR	SBI	BOB	CNB	UNB	PNB
2025	1.06	1.09	1.01	1.19	0.91
2024	0.98	1.12	0.97	0.98	0.52
2023	0.91	0.96	0.78	0.65	0.17
2022	0.63	0.56	0.46	0.44	0.26
2021	0.45	0.07	0.22	0.27	0.16
2020	0.36	0.04	-0.31	-0.52	0.04
2019	0.02	0.05	0.04	-0.59	-1.28
2018	-0.18	-0.33	-0.68	-1.07	-1.61
2017	0.38	0.19	0.19	0.12	0.18
2016	0.42	-0.81	-0.58	0.33	-0.59
MEAN	0.50	0.29	0.21	0.18	-0.12
S. D	0.40	0.63	0.61	0.72	0.79

like SBI, BOB, CNB, and PNB are consistent but not very high. Improvement is visible in recent years.

2. A Statement of Gross Profit to Total Assets of Public and Private Sector Banks in India the Period 2016-2025

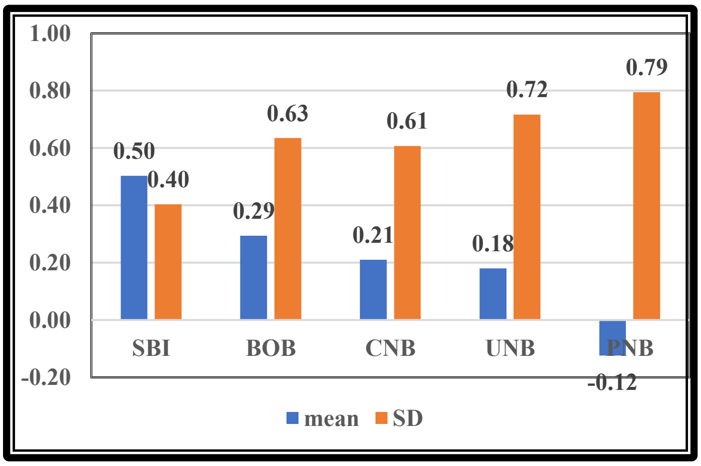
YEAR	HDFC	ICICI	KMB	AXIS	IDBI
2025	1.61	2.19	2.45	1.87	1.31
2024	1.64	2.35	2.77	1.93	1.67
2023	2.16	2.44	3.02	1.53	1.44
2022	2.19	1.87	2.31	1.43	1.18
2021	2.35	1.52	2.15	1.46	0.35
2020	2.28	1.52	2.21	1.31	-0.09
2019	2.21	1.27	1.94	1.09	-0.49
2018	2.16	1.09	1.98	1.06	-0.41
2017	1.91	0.99	1.86	1.19	-0.62
2016	1.77	1.05	1.61	1.17	-0.31
MEAN	2.03	1.63	2.23	1.40	0.40
S. D	0.27	0.55	0.43	0.31	0.90



Interpretation:

The above table and graph show the Gross Profit to Total Assets for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. The banks earn much higher profits from assets, Kotak Mahindra, ICICI and HDFC lead strongly. It reflects superior operations and better quality of loans. Profitability remained strong even during challenging periods.

3. A Statement of Net Return on Total Assets of Public Sector Banks in India during the Period 2016-2025



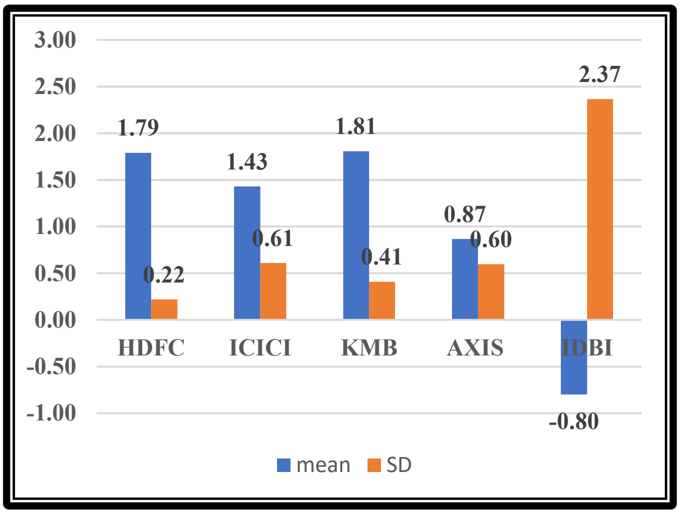
Interpretation:

The above table and graph show the net return on total assets for 5 banks: SBI, BOB, CNB. UNB and PNB. Here only SBI performs decently. Other banks shown weak or even negative returns in some years. Their ability to convert assets into net income is quite low.

4. A Statement of Net Return on Total Assets of Private Sector Banks in India During the Period 2016-2025

Year	HDFC	ICICI	KMB	AXIS	IDBI
2025	1.72	2.22	2.37	1.63	1.82
2024	1.68	2.18	2.29	1.68	1.55
2023	1.78	2.01	2.23	0.63	1.11
2022	1.78	1.65	1.99	1.11	0.81
2021	1.71	1.31	1.81	0.66	0.45
2020	2.41	0.72	1.65	0.17	-4.29
2019	1.64	0.34	1.55	0.58	-4.71
2018	1.64	1.26	1.54	0.03	-2.35
2017	1.68	1.26	1.58	0.61	-1.42
2016	1.73	1.34	1.08	1.56	-0.97
MEAN	1.79	1.43	1.81	0.87	-0.80
S. D	0.22	0.61	0.41	0.60	2.37

ISSN: 2583-6129
DOI: 10.55041/ISJEM04806



Interpretation:

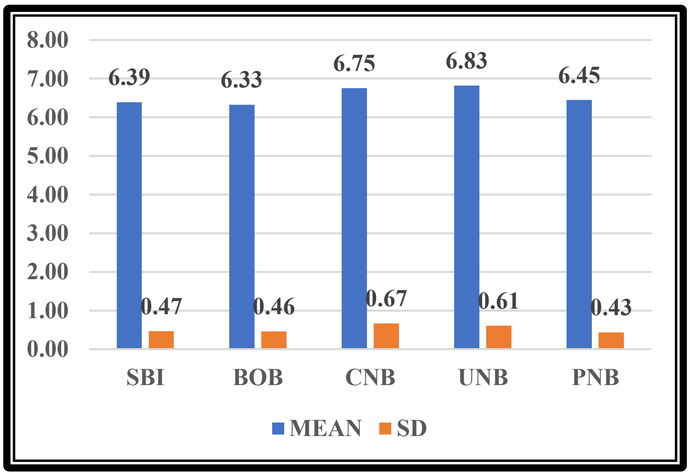
The above table and graph show the net return on total assets for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. strong and stable net returns throughout the years. HDFC and KMB led with values above 1.7% consistently. This shows that after all expenses, they still earned solid net income. Their performance during both good and bad years was reliable.

5.A Statement of Interest Income to Total Assets of Public Sector Banks in India During the Period 2016-2025

YEAR	SBI	BOB	CNB	UNB	PNB
2025	6.92	6.81	7.11	7.18	6.69
2024	6.71	7.11	7.28	7.16	6.84
2023	6.01	6.14	6.27	6.31	5.82
2022	5.52	5.46	5.65	5.72	5.69
2021	5.84	6.11	6.01	6.41	6.45
2020	6.51	6.56	6.76	6.71	6.47
2019	6.59	6.37	6.73	6.89	6.62
2018	6.38	6.06	6.68	6.71	6.26
2017	6.48	6.07	7.09	7.21	6.56
2016	6.95	6.56	7.96	7.95	7.11
MEAN	6.39	6.33	6.75	6.83	6.45
S. D	0.47	0.46	0.67	0.61	0.43

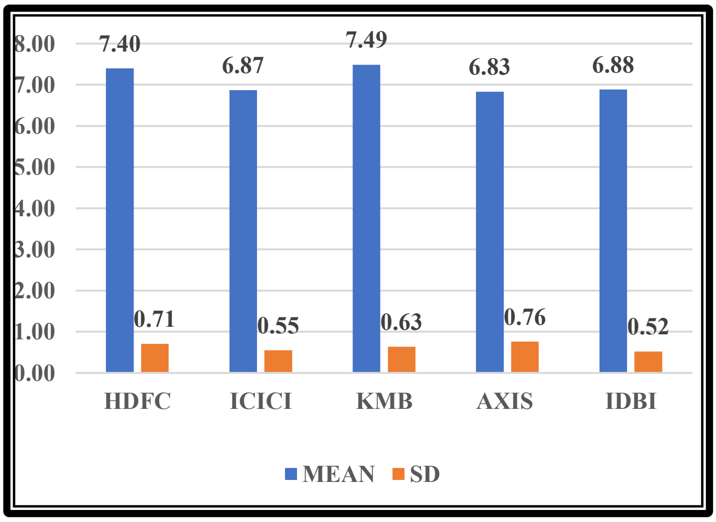
Interpretation:

The above table and graph show the interest income to total assets for 5 banks: SBI, BOB, CNB, UNB and PNB. Interest income was relatively stable. Generally, between 6% to 7%. CNB and UNB had slightly higher ratios in some years. This indicates that public banks are able to earn regular interest income. It didn't always translate into better profits due to high NPAs. The efficiency of asset utilization for income generation was decent.



6.A Statement of Interest Income to Total Assets of Private Sector Banks in India During the Period 2016-2025

YEAR	HDFC	ICICI	KMB	AXIS	IDBI
2025	7.68	7.71	7.62	7.62	7.02
2024	7.14	7.63	7.62	7.41	7.27
2023	6.55	6.89	6.99	5.61	6.22
2022	6.17	6.12	6.29	5.73	6.06
2021	6.91	6.43	6.99	6.38	6.69
2020	7.51	6.81	7.47	6.84	6.94
2019	7.95	6.57	7.66	6.86	6.89
2018	7.54	6.25	7.45	6.62	6.57
2017	8.02	7.01	8.24	7.41	7.68
2016	8.49	7.31	8.52	7.81	7.49
MEAN	7.40	6.87	7.49	6.83	6.88
S. D	0.71	0.55	0.63	0.76	0.52



Interpretation:

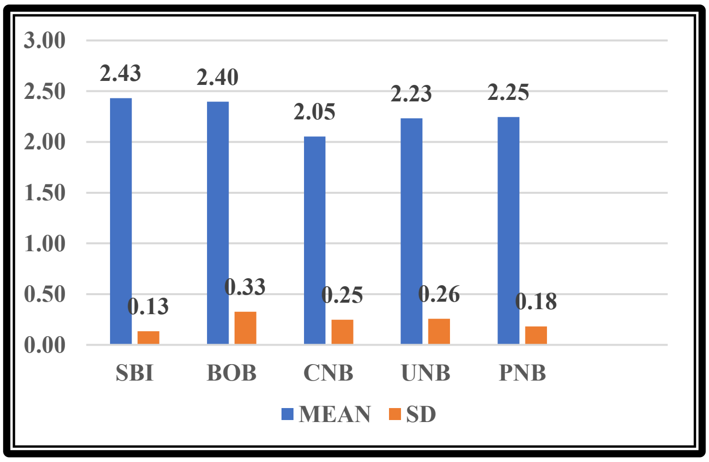
The above table and graph show the interest income to total assets for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. Earned more interest relative to assets with values ranging from 7% to 8%. KMB and HDFC performed exceptionally well in this area. Higher interest income reflects better lending practices and

ISSN: 2583-6129
DOI: 10.55041/ISJEM04806

attractive loan portfolios. They maintained strong interest earnings.

7.A Statement of Net Interest Income to Total Assets of Public Sector Banks in India During the Period 2016-2025

Year	SBI	BOB	CNB	UNB	PNB
2025	2.51	2.56	2.21	2.48	2.35
2024	2.58	2.82	2.45	2.62	2.56
2023	2.62	2.83	2.33	2.55	2.35
2022	2.42	2.55	2.15	2.33	2.18
2021	2.44	2.49	2.08	2.31	2.41
2020	2.48	2.37	1.81	2.07	2.09
2019	2.41	2.36	2.08	2.06	2.21
2018	2.16	2.15	1.97	1.91	1.94
2017	2.28	1.94	1.69	1.96	2.08
2016	2.42	1.89	1.76	2.05	2.29
MEAN	2.43	2.40	2.05	2.23	2.25
S. D	0.13	0.33	0.25	0.26	0.18

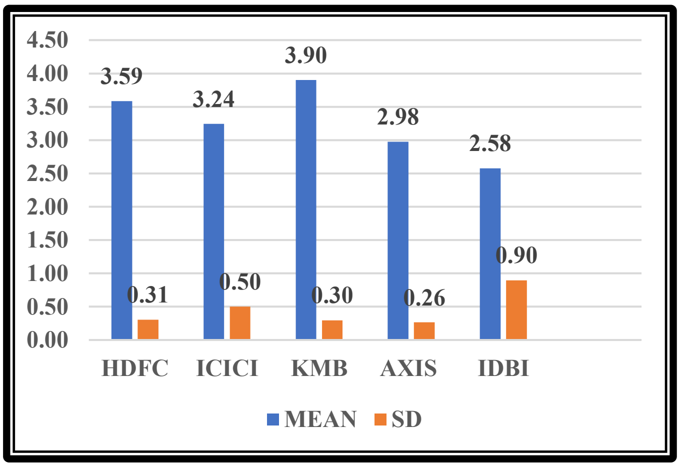


Interpretation:

The above table and graph show the net interest income to total assets for 5 banks: SBI, BOB, CNB, UNB and PNB. earned only a small profit from the difference between loan interest and deposit interest (about 2.0% to 2.5%). SBI and Bank of Baroda did a bit better than others. But their profit was still low because they had to pay more to get money or charged less on loans. The profit stayed steady.

8. A Statement of Net Interest Income to Total Assets of Private Sector Banks in India During the Period 2016-2025

YEAR	HDFC	ICICI	KMB	AXIS	IDBI
2025	3.13	3.83	4.08	3.37	3.55
2024	3.01	3.97	4.32	3.37	3.91
2023	3.52	3.92	4.39	2.83	3.45
2022	3.48	3.36	3.91	2.81	3.03
2021	3.71	3.16	4.02	2.93	2.86
2020	3.67	3.02	3.74	2.75	2.32
2019	3.87	2.81	3.61	2.71	1.84
2018	3.76	2.61	3.59	2.69	1.61
2017	3.83	2.81	3.78	3.08	1.58
2016	3.89	2.94	3.58	3.21	1.62
MEAN	3.59	3.24	3.90	2.98	2.58
S. D	0.31	0.50	0.30	0.26	0.90



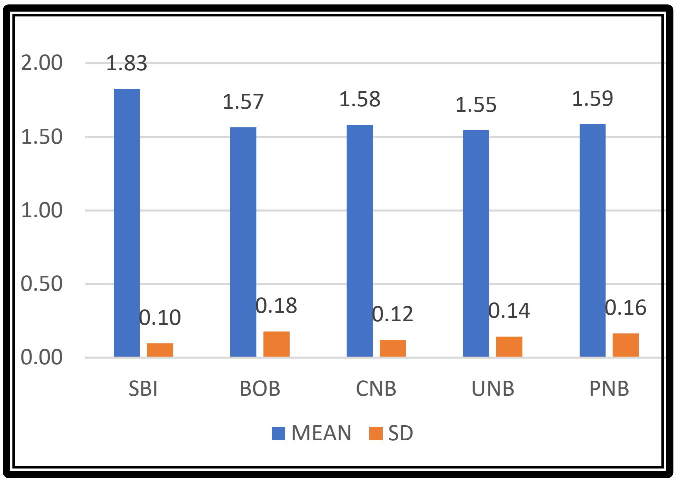
Interpretation:

The above table and graph show the interest income to total assets for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. Private banks made good profits, with net interest income around 3.5% to 4%. They earned more from loans than they paid on deposits. Even though their costs were higher, their profits stayed strong. Kotak Mahindra Bank and HDFC had the best profit margins, showing they managed costs and interest very well.

9. A Statement of Operating Expenses to Total Assets of Public Sector Banks in India During the Period 2016-2025

YEAR	SBI	BOB	CNB	UNB	PNB
2025	1.76	1.67	1.67	1.72	1.77
2024	2.02	1.78	1.75	1.75	1.82
2023	1.77	1.68	1.67	1.71	1.64
2022	1.87	1.69	1.61	1.55	1.54
2021	1.82	1.77	1.67	1.56	1.61
2020	1.91	1.56	1.59	1.36	1.44
2019	1.89	1.44	1.51	1.45	1.48
2018	1.73	1.41	1.54	1.38	1.76
2017	1.71	1.33	1.45	1.42	1.31
2016	1.77	1.32	1.35	1.55	1.49
MEAN	1.83	1.57	1.58	1.55	1.59
S. D	0.10	0.18	0.12	0.14	0.16

International Scientific Journal of Engineering and Management (ISJEM) ISSN: 2583-6129
Volume: 04 Issue: 07 | July – 2025 DOI: 10.55041/ISJEM04806
An International Scholarly || Multidisciplinary || Open Access || Indexing in all major Database & Metadata

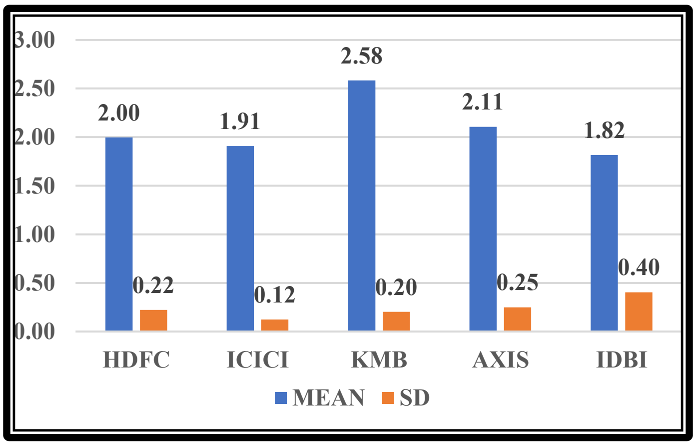


Interpretation:

The above table and graph show the operating expenses to total assets for 5 banks: SBI, BOB, CNB, UNB and PNB. Operating expenses are remained low, mostly between 1.5% to 1.8%. This means they run their operations cost-effectively. However, despite lower costs, profitability stayed low due to lower income and high bad loans. Low expenses alone did not help improve financial health.

10. A Statement of Operating Expenses to Total Assets of Private Sector Banks in India During the Period 2016-2025

Year	HDFC	ICICI	KMB	AXIS	IDBI
2025	1.74	2.01	2.71	2.32	2.05
2024	1.75	2.09	2.77	2.38	2.25
2023	1.93	2.07	2.81	2.61	2.13
2022	1.81	1.89	2.58	2.09	2.11
2021	1.87	1.75	2.23	1.84	2.03
2020	1.98	1.96	2.45	1.89	2.11
2019	2.09	1.87	2.41	1.97	1.61
2018	2.13	1.78	2.42	2.02	1.35
2017	2.28	1.91	2.61	2.02	1.42
2016	2.39	1.75	2.84	1.92	1.11
Mean	2.00	1.91	2.58	2.11	1.82
SD	0.22	0.12	0.20	0.25	0.40

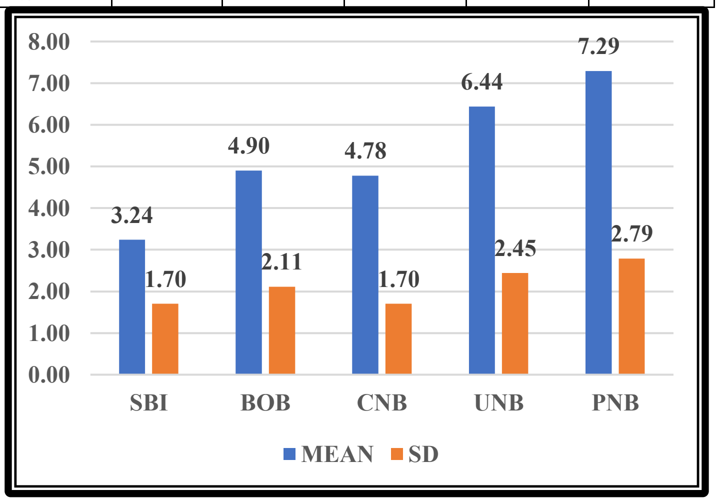


Interpretation:

The above table and graph show the operating expenses to total assets for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. The banks have slightly higher costs. Kotak Mahindra has the highest at 2.58%, and IDBI is around 1.82. HDFC is more efficient here. Though expenses are higher, they manage better returns.

11. A Statement of Gross NPA to Total Assets of Public Sector Banks in India During the Period 2016-2025

YEAR	SBI	BOB	CNB	UNB	PNB
2025	1.15	1.56	1.87	2.35	2.42
2024	1.36	2.01	2.72	3.09	3.61
2023	1.64	2.52	3.43	4.76	5.28
2022	2.24	5.01	4.53	6.7	7.03
2021	2.78	5.77	5.22	8.37	8.28
2020	3.77	5.99	5.11	8.91	8.84
2019	4.69	6.17	5.64	9.86	10.1
2018	6.46	7.84	7.69	6.91	11.31
2017	4.15	6.14	5.86	7.44	7.68
2016	4.16	6.03	5.72	5.97	8.36
MEAN	3.24	4.90	4.78	6.43	7.29
S. D	1.70	2.11	1.70	2.45	2.79



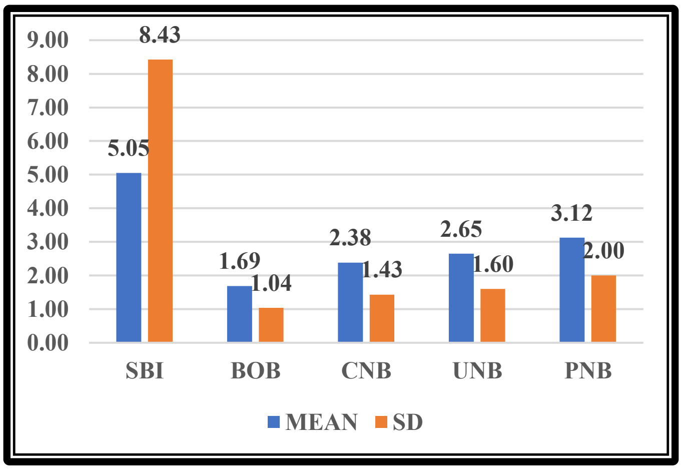
International Scientific Journal of Engineering and Management (ISJEM) ISSN: 2583-6129
Volume: 04 Issue: 07 | July – 2025 DOI: 10.55041/ISJEM04806
An International Scholarly || Multidisciplinary || Open Access || Indexing in all major Database & Metadata

Interpretation:

The above table and graph show the gross NPA to total assets for 5 banks: SBI, BOB, CNB, UNB and PNB. This measures bad loans. PNB and Union Bank have very high GNPA (~7.29, 6.43), indicating loan defaults. SBI is better (3.24), but still high. This was a major problem before 2020.

12. A Statement of Gross Npa to Total Assets of Private Sector Banks in India During the Period 2016-2025

YEAR	HDFC	ICICI	KMB	AXIS	IDBI
2025	0.91	1.14	0.88	0.91	1.62
2024	0.86	1.45	0.87	2.23	2.45
2023	0.73	18.92	1.31	2,41	3.31
2022	0.78	2.35	1.51	1.85	11.31
2021	0.86	3.31	1.93	2.54	12.16
2020	0.82	3.71	1.39	3.31	15.76
2019	0.91	4.73	1.43	3.71	15.61
2018	0.81	6.05	1.44	4.95	15.86
2017	0.68	5.46	1.66	3.53	12.37
2016	0.61	3.63	1.47	1.15	6.64
MEAN	0.80	5.08	1.39	2.66	9.71
S. D	0.10	5.12	0.32	1.24	5.71



Interpretation:

The above table and graph show the gross NPA to total assets for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. The banks have slightly higher costs. Kotak has the highest at 2.58%, and IDBI is around 1.82. HDFC is more efficient here. Though expenses are higher, they manage better returns.

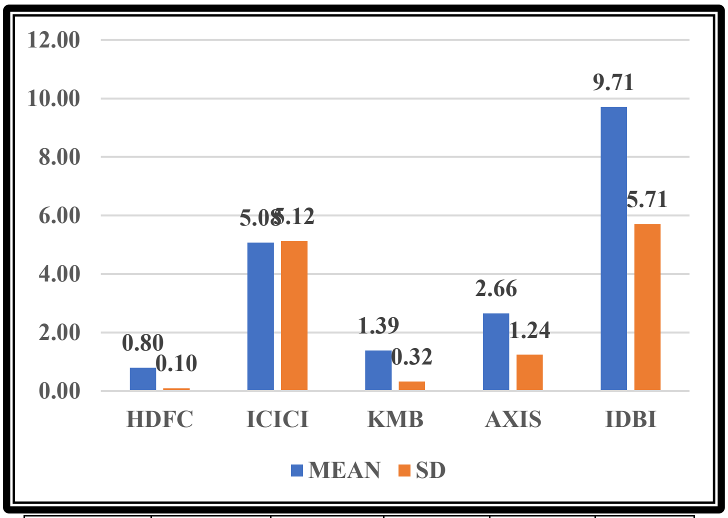
13. A Statement of Net Npa to Total Assets of Public Sector Banks in India During the Period 2016-2025

YEAR	SBI	BOB	CNB	UNB	PNB
2025	0.29	0.39	0.43	0.39	0.23
2024	0.34	0.45	0.79	0.64	0.44
2023	0.38	0.57	1.06	1.01	1.54
2022	0.56	1.04	1.52	2.06	2.65
2021	0.81	1.88	2.11	2.54	3.06
2020	1.31	1.86	2.52	3.14	3.27
2019	17.91	1.99	3.31	4.11	3.87
2018	3.21	3.26	4.62	4.99	6.35
2017	2.15	2.6	3.71	4.16	4.53
2016	23.57	2.83	3.76	3.46	5.3
MEAN	5.05	1.69	2.38	2.65	3.12
S. D	8.43	1.04	1.43	1.60	2.00

Interpretation:

The above table and graph show the Net NPA to total assets for 5 banks: SBI, BOB, CNB, UNB and PNB. Net NPAs still remain high. PNB and Union Bank average over 2.5%, while SBI has 5.05 due to past years. This ratio shows how much loss remains after writing off bad loans.

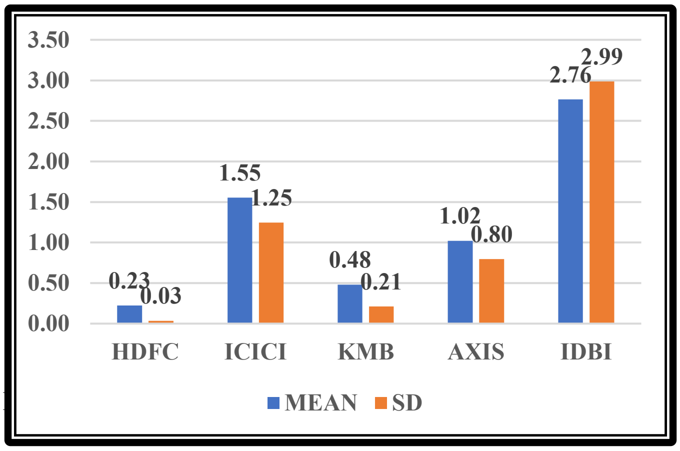
14. A Statement of Net Npa to Total Assets of Private Sector Banks in India During the Period 2016-2025



YEAR	HDFC	ICICI	KMB	AXIS	IDBI
2025	0.28	0.26	0.19	0.22	0.08
2024	0.22	0.28	0.21	0.97	0.17
2023	0.17	3.25	0.3	0.23	0.45
2022	0.21	0.49	0.41	0.46	0.61
2021	0.26	0.74	0.71	0.71	0.84
2020	0.23	0.91	0.43	1.02	1.81
2019	0.25	1.39	0.49	2.29	4.63
2018	0.24	3.16	0.62	2.41	8.18
2017	0.21	3.26	0.81	1.43	6.96
2016	0.18	1.79	0.65	0.47	3.91
MEAN	0.23	1.55	0.48	1.02	2.76

ISSN: 2583-6129
DOI: 10.55041/ISJEM04806

S. D	0.03	1.25	0.21	0.80	2.99

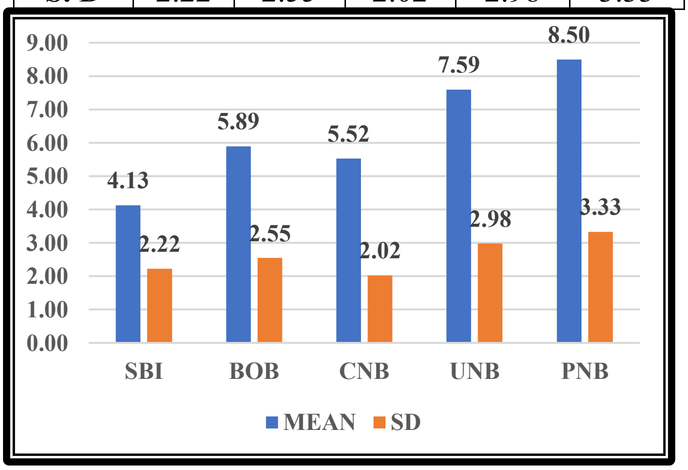


Interpretation:

The above table and graph show the net npa to total assets for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. Net Npas were very low, HDFC and KMB stayed below 0.5%, showing strong recovery and reserve strategies. IDBI had concerning values in some years, but improvements followed. Risk management was much stronger than in public sector banks. This contributed to investor confidence.

15. A Statement of Gross Npa to Deposits of Public Sector Banks in India During the Period 2016-2025

Year	SBI	BOB	CNB	UNB	PNB
2025	1.42	1.89	2.16	2.69	2.81
2024	1.71	2.39	3.09	3.52	4.11
2023	2.05	3.05	3.91	5.45	6.03
2022	2.76	6.12	5.12	7.71	8.06
2021	3.43	6.89	5.96	9.71	9.43
2020	4.59	7.33	5.92	10.89	10.43
2019	5.93	7.55	6.54	11.71	11.61
2018	8.25	9.55	9.04	8.25	13.48
2017	5.49	7.11	6.91	8.91	8.91
2016	5.67	7.05	6.59	7.05	10.09
Mean	4.13	5.89	5.52	7.59	8.50
S. D	2.22	2.55	2.02	2.98	3.33

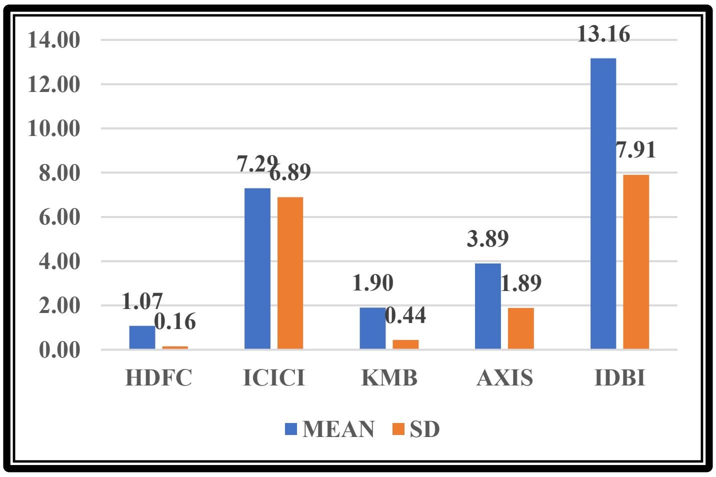


Interpretation:

The above table and graph show the gross npa to deposits for 5 banks: SBI, BOB, CNB, UNB and PNB. Shows loan quality against deposits. PNB and UNB are again high (above 7–8%), risking depositor funds. SBI is the best among PSBs at 4.13.

16. A Statement of Gross Npa to Deposits of Private Sector Banks in India During the Period 2016-2025

Year	HDFC	ICICI	KMB	AXIS	IDBI
2025	1.29	1.51	1.22	1.23	2.15
2024	1.31	1.93	1.17	3.09	3.29
2023	0.95	25.39	1.76	3.85	4.29
2022	1.03	3.12	2.07	2.65	14.63
2021	1.12	4.37	2.65	3.57	15.68
2020	1.12	5.29	1.91	4.72	21.23
2019	1.11	6.99	1.97	5.43	22.01
2018	1.09	9.49	1.98	7.55	22.42
2017	0.91	8.61	2.27	5.13	16.66
2016	0.81	6.22	2.04	1.71	9.36
Mean	1.07	7.29	1.90	3.89	13.16
S. D	0.16	6.89	0.44	1.89	7.91



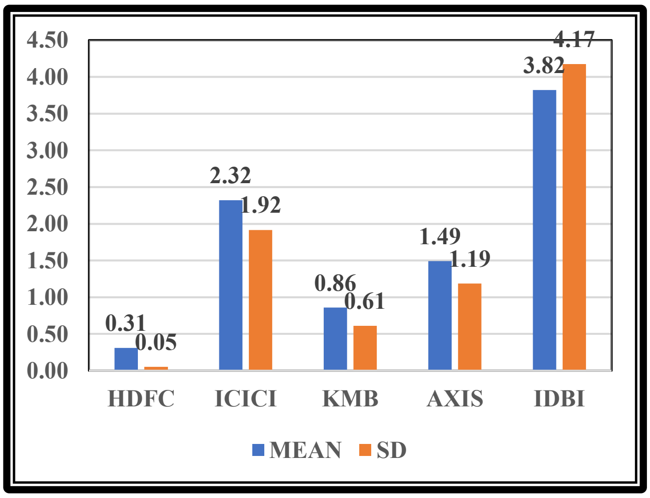
Interpretation:

The above table and graph show the gross npa to deposits for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. Private banks protected depositor funds better. GNPA to deposits ratio stayed mostly under 2% for HDFC and KMB. Even ICICI and AXIS kept it under control in most years. Only IDBI had high ratios due to earlier loan issues. Strong deposit safety is a major strength of private sector banks.

ISSN: 2583-6129
DOI: 10.55041/ISJEM04806

17. A Statement of Net NPA to Deposits of Public Sector Banks in India During the Period 2016-2025

Year	SBI	BOB	CNB	UNB	PNB
2025	0.36	0.47	0.51	0.45	0.27
2024	0.42	0.54	0.91	0.73	0.51
2023	0.48	0.69	1.21	1.15	1.76
2022	0.69	1.27	1.71	2.35	3.04
2021	0.99	2.25	2.41	2.95	3.48
2020	1.61	2.28	2.91	3.83	3.86
2019	22.63	2.44	2.83	4.88	4.44
2018	4.09	3.97	5.43	5.95	7.58
2017	2.85	3.01	4.37	4.97	5.26
2016	32.11	3.31	4.34	4.09	6.41
Mean	6.62	2.02	2.66	3.14	3.66
S. D	11.22	1.23	1.64	1.92	2.39

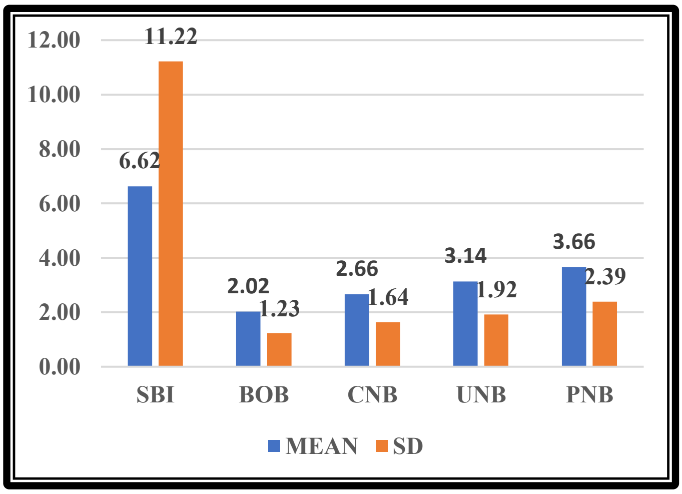


Interpretation:

The above table and graph show the net npa to deposits for 5 banks: SBI, BOB, CNB, UNB and PNB. The Net NPA to Deposits ratio tells us how much public money is stuck in bad loans. Earlier, this ratio was very high in banks like SBI. which reduced public trust. Although the situation has improved, keeping this ratio low is crucial for the bank's financial health and customer confidence.

18. Statement Of Net NPA to Deposits of Private Sector Banks in India During the Period 2016-2025

Year	HDFC	ICICI	KMB	AXIS	IDBI
2025	0.41	0.34	0.26	0.31	0.11
2024	0.34	0.38	0.28	1.34	0.23
2023	0.23	4.36	2.41	0.37	0.58
2022	0.28	0.65	0.55	0.67	0.79
2021	0.34	0.97	0.96	0.98	1.09
2020	0.31	1.28	0.59	1.46	2.44
2019	0.34	2.05	0.68	3.34	6.52
2018	0.32	4.95	0.86	3.65	11.56
2017	0.28	5.14	1.09	2.08	9.38
2016	0.24	3.07	0.91	0.71	5.51
Mean	0.31	2.32	0.86	1.49	3.82
S. D	0.05	1.92	0.61	1.19	4.17

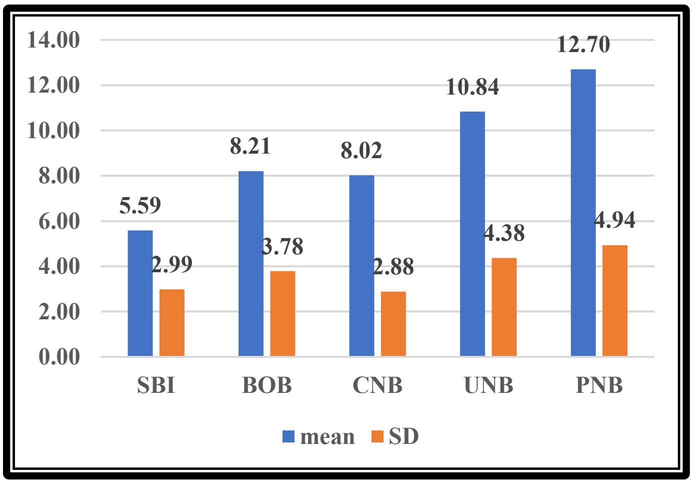


Interpretation:

The above table and graph show the net npa to deposits for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. The banks kept this ratio low, showing efficient provisioning and loan recovery. Except IDBI, most banks had less than 1% net NPAs to deposits. This gives customers confidence about the safety of their money. The trend remained stable even during economic downturns. Low risk to deposits is a big positive.

19. A Statement of Gross NPA to Loans and Advances of Public Sector Banks in India During the Period 2016-2025

YEAR	SBI	BOB	CNB	UNB	PNB
2025	1.84	2.31	3.01	3.71	4.09
2024	2.27	2.98	4.35	4.94	6.02
2023	2.84	3.91	5.55	8.01	9.31
2022	4.09	8.24	7.91	12.04	12.69
2021	5.15	9.43	9.43	15.19	15.48
2020	6.41	10.05	8.57	15.58	15.57
2019	7.91	10.28	9.17	16.41	17.12
2018	11.54	13.21	12.43	11.67	19.97
2017	7.15	11.14	10.01	11.76	12.19
2016	6.71	10.55	9.74	9.04	13.53
MEAN	5.59	8.21	8.02	10.84	12.70
S. D	2.99	3.78	2.88	4.38	4.94

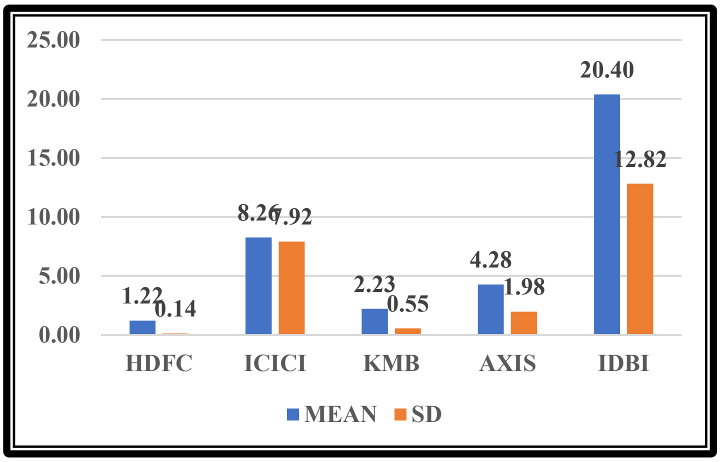


Interpretation:

The above table and graph show the gross npa to loans and advances for 5 banks: SBI, BOB, CNB, UNB and PNB. PNB, UNB, and CNB crossed GNPA levels of 10% in some years. It reflects poor credit risk management and high loan defaults. While recovery has started, historical levels were alarming. Loan screening needs major strengthening.

20. A Statement of Gross Npa to Loans and Advances of Private Sector Banks in India During the Period 2016-2025

YEAR	HDFC	ICICI	KMB	AXIS	IDBI
2025	1.34	1.81	1.43	1.39	3.06
2024	1.25	2.31	1.41	3.42	4.72
2023	1.12	29.41	2.01	4.31	6.74
2022	1.17	3.87	2.38	3.08	23.41
2021	1.33	5.56	3.31	4.05	28.25
2020	1.27	6.32	2.28	5.29	36.41
2019	1.36	7.78	2.17	6.02	34.08
2018	1.31	10.39	2.25	7.78	32.36
2017	1.06	9.08	2.62	5.71	23.45
2016	0.94	6.02	2.39	1.79	11.52
MEAN	1.22	8.26	2.23	4.28	20.40
S. D	0.14	7.92	0.55	1.98	12.82

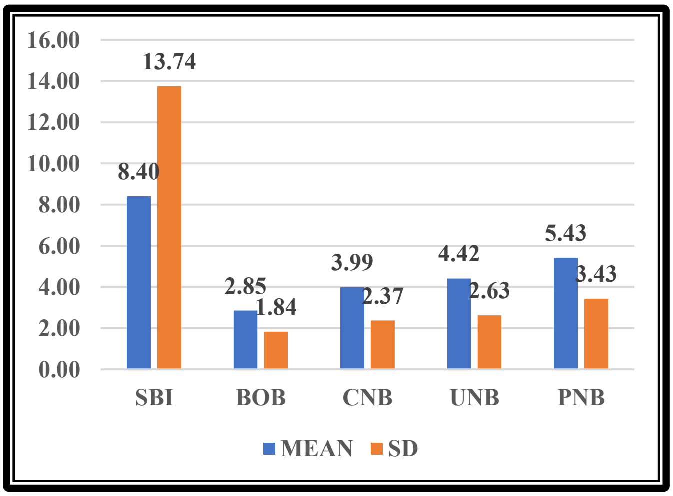


Interpretation:

The above table and graph show the gross npa to loans and advances for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. Private banks showed strong loan portfolio quality. HDFC and KMB had GNPAs of only 1–2%. ICICI spiked in 2022-23 but improved later. IDBI remained high but is on a recovery path. Compared to PSBs, private banks had much fewer problem loans.

21. A Statement of Net NPA to Loans and Advances of Public Sector Banks in India During the Period 2016-2025

YEAR	SBI	BOB	CNB	UNB	PNB
2025	0.47	0.57	0.71	0.62	0.39
2024	0.56	0.67	1.26	1.03	0.74
2023	0.67	0.89	1.72	1.69	2.71
2022	1.02	1.71	2.65	3.67	4.79
2021	1.51	3.08	3.82	4.61	5.72
2020	2.23	3.12	4.22	5.49	5.76
2019	30.14	3.32	5.36	6.84	6.55
2018	5.72	5.49	7.47	8.42	11.22
2017	3.71	4.71	6.32	6.57	7.79
2016	37.97	4.96	6.41	5.24	8.59
MEAN	8.40	2.85	3.99	4.42	5.43
S. D	13.74	1.84	2.37	2.63	3.43



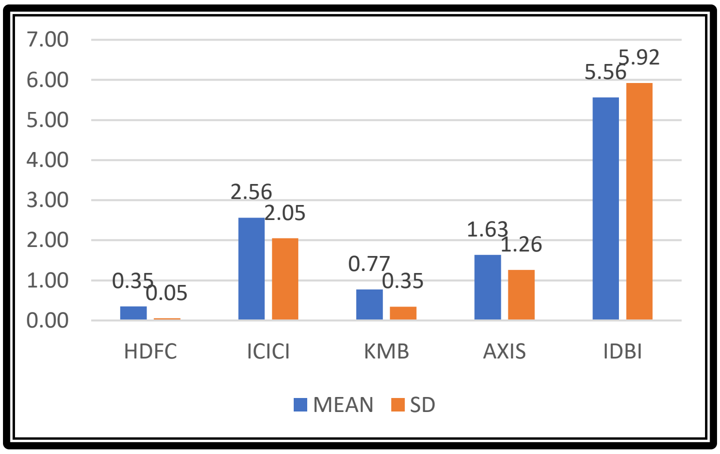
Interpretation:

The above table and graph show the net npa to loans and advances for 5 banks: SBI, BOB, CNB, UNB and PNB. net NPAs remained extremely high. SBI had a peak of nearly 38% in 2016, showing deep financial stress. Other PSBs like PNB and UNB also reported double-digit ratios. Although improvement occurred, early data indicates poor asset recovery. Stronger follow-up and legal recovery processes are crucial.

International Scientific Journal of Engineering and Management (ISJEM) ISSN: 2583-6129
Volume: 04 Issue: 07 | July – 2025 DOI: 10.55041/ISJEM04806
An International Scholarly || Multidisciplinary || Open Access || Indexing in all major Database & Metadata

22. A Statement of Net Npa to Loans and Advances of Private Sector Banks in India During the Period 2016-2025

YEAR	HDFC	ICICI	KMB	AXIS	IDBI
2025	0.43	0.41	0.31	0.35	0.15
2024	0.32	0.45	0.33	1.48	0.34
2023	0.27	5.05	0.46	0.42	0.91
2022	0.32	0.80	0.64	0.77	1.27
2021	0.40	1.24	1.20	1.12	1.96
2020	0.35	1.53	0.70	1.63	4.18
2019	0.39	2.29	0.75	3.70	10.10
2018	0.39	5.43	0.98	3.77	16.69
2017	0.33	5.43	1.26	2.31	13.20
2016	0.28	2.97	1.06	0.74	6.78
MEAN	0.35	2.56	0.77	1.63	5.56
S. D	0.05	2.05	0.35	1.26	5.92



Interpretation:

The above table and graph show the Net NPA to loans and advances for 5 banks: HDFC, ICICI, KMB, AXIS and IDBI. Net NPAs to loans were low in most private banks, with HDFC under 0.5%. ICICI and IDBI had higher levels, but trends are improving. Effective provisioning and recovery systems helped maintain healthy ratios. This shows superior credit risk and recovery practices in private banking.

5.Findings, Suggestions and Conclusion

5.1 Findings:

1. Profitability Trends: The analysis revealed that private sector banks such as Kotak Mahindra Bank, ICICI Bank, and HDFC Bank consistently outperformed public sector banks in terms of gross and net return on assets. Public sector banks demonstrated moderate improvements post-2020, but remained behind their private counterparts.

2. Operational Efficiency: Private banks reported superior net interest income and better cost-to-asset ratios, indicating higher operational efficiency. Despite slightly higher operating expenses, their ability to generate income and manage costs was more effective.

3. Income Generation: Both public and private banks earned stable interest income relative to their assets. However, private banks utilized their assets more efficiently, resulting in higher net returns.

4. Asset Quality and NPAs: Public sector banks faced significant challenges with high Gross and Net NPA ratios, particularly Punjab National Bank and Union Bank. Conversely, private banks maintained relatively lower NPAs, with strong provisioning and recovery mechanisms in place, except for IDBI Bank in earlier years.

5. Risk and Credit Management: Private banks exhibited more robust credit risk management strategies and loan recovery practices, leading to better investor confidence and overall financial health.

6. Deposit and Loan Performance: The study highlighted stronger performance among private banks in safeguarding depositor funds and managing loans with lower default rates.

Suggestions:

1. For Public Sector Banks:

- Improve credit screening and risk assessment to reduce NPAs.
- Embrace technology for better service and operational agility.
- Strengthen legal recovery and follow-up mechanisms on defaulted loans.
- Invest in employee training for faster and more responsive service delivery.

2. For Private Sector Banks:

- Maintain strong asset quality while expanding.
- Enhance transparency and ethical lending practices to sustain long-term growth.
- Monitor high-risk loan portfolios like IDBI did post-crisis years.

3. For Policymakers:

- Encourage structural reforms to support public sector modernization.
- Promote public-private partnerships for knowledge sharing.
- Ensure stricter regulation on loan disbursement and provisioning norms.

Conclusion:

The study concludes that there exists a significant gap in operational performance between public and private sector banks in India. Private banks demonstrated higher profitability, better asset utilization, and superior risk management, largely attributed to advanced technology, efficient structures, and customer-centric strategies. On the other hand, public sector banks, while crucial for inclusive banking and rural outreach, continue to face persistent challenges in managing NPAs and achieving competitive efficiency. To ensure the long-term health of the Indian banking sector, it is essential that public sector banks embrace structural reforms, digital transformation, and robust credit controls. Private banks must continue their performance momentum with a focus on sustainability and compliance. Strategic policy measures and integrated efforts are vital to strengthen India's dual banking system and enhance its contribution to national economic development.

References:

1. Dhanabhakyam, M., & Kavitha, M. (2012). Financial Performance of Selected Public Sector Banks in India. International Journal of Research in Commerce and Management, 3(1), 115–120.

2. Kiran, P., & Jones, M. (2016). A Study on Non-Performing Assets (NPAs) of Public Sector Banks in India. International Journal of Applied Research, 2(3), 489–495.

3. Sah, V. S. (2017). A Study on the Impact of Non-Performing Assets on the Profitability of Indian Banks. International Journal of Business and Administration Research Review, 1(16), 43–47.

4. Prasad, G. V., & Ravinder, G. (2011). A CAMEL Model Analysis of Select Banks in India. International Journal of Trade, Economics and Finance, 2(4), 351–353.

5. Venugopal, S. K. (2024). Loan Portfolio Composition and Efficiency of Indian Banks: A Comparative Study of Public and Private Sector Banks. Journal of Banking and Finance Review, 12(2), 88–97.