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UNVEILING FINANCIAL TRENDS: A TIME SERIES ANALYSIS OF SELECTED INDIAN BANKS

Teli Hiteshi Akshaykumar[1], Dr. A. J. Patel[2]

ABSTRACT

The prevailing concern within the banking industry revolves around non-performing assets (NPAs), representing a significant obstacle to operational efficiency and financial stability. NPAs exert adverse impacts on banks' performance metrics, manifesting as diminished earnings, reduced investable funds, and deterioration in overall financial health. Their presence serves as a barometer for evaluating the efficacy of the banking sector, reflecting challenges in asset quality management and loan recovery mechanisms. Non-performing assets encompass assets that fail to generate returns within a predetermined timeframe, thereby posing a risk to banks' profitability and solvency. The prevalence of defaulted loans and instances of substantial fraud has precipitated a critical impasse within the public banking sector, exacerbating the NPA conundrum. The emergence of the COVID-19 pandemic's second wave exacerbated the situation, resulting in a notable surge in stressed assets and heightened concerns regarding borrower repayment capabilities across diverse sectors. Against this backdrop, this study delves into the examination of non-performing assets held by select Indian private sector banks. By scrutinizing the dynamics surrounding NPAs within this subset of banks, the research aims to shed light on the intricacies of NPA management practices, regulatory compliance, and the efficacy of risk mitigation strategies. Through a comprehensive analysis, the study endeavours to offer insights into potential pathways for addressing the NPA crisis and fortifying the resilience of the banking sector against future shocks and uncertainties.

KEYWORDS: NPA, Private Sector Banks, Non-Performing Asset

[1] Ph.D. Research Scholar, Gujarat University

[2] Head & Associate. Professor Department of Statistics, R.H.PATEL Arts & Commerce College, Ahmedabad

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1. INTRODUCTION

The banking industry in India stands as one of the most significant sectors driving the nation's economic growth and development. Over the years, it has undergone significant transformations, adapting to changing market dynamics, technological advancements, and regulatory reforms. From traditional brick-and-mortar banking to digital innovations, the sector has evolved to cater to the diverse needs of a rapidly growing economy and a digitally savvy population. One of the key features of the Indian banking industry is its diverse landscape, comprising various types of banks ranging from public sector banks (PSBs), private sector banks, foreign banks, regional rural banks (RRBs), and cooperative banks. Each category plays a unique role in catering to the financial needs of different segments of society, from rural farmers to urban entrepreneurs.

Public sector banks have historically dominated the Indian banking landscape, with their extensive branch network reaching even the remotest corners of the country. However, in recent years, private sector banks have gained significant traction due to their focus on customer service, innovation, and efficiency. Foreign banks, although forming a smaller share, bring in global expertise and best practices, contributing to healthy competition and innovation in the sector. Technological advancements have revolutionized the way banking services are delivered in India. The advent of internet banking, mobile banking, and digital payment systems has not only enhanced customer convenience but has also increased financial inclusion, bringing banking services to the unbanked and underbanked population. The government's push towards digitalization, initiatives like the Unified Payments Interface (UPI), and the implementation of Aadhaar-based authentication have further accelerated the adoption of digital banking services across the country.

Moreover, regulatory reforms and policy initiatives have played a crucial role in shaping the banking landscape in India. The Reserve Bank of India (RBI), the country's central bank, acts as the regulatory authority, ensuring the stability and soundness of the banking system. Reforms such as the implementation of Basel norms, asset quality reviews, and the introduction of prompt corrective action (PCA) frameworks have been instrumental in strengthening the banking sector's resilience and risk management

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practices. However, the Indian banking industry also faces several challenges, including non-performing assets (NPAs), governance issues, and cybersecurity threats. The rise in NPAs, particularly in public sector banks, has posed significant challenges to the sector's stability and profitability. Addressing these challenges requires concerted efforts from all stakeholders, including banks, regulators, and the government, to enhance transparency, risk management practices, and corporate governance standards.

Overall, the Indian banking industry continues to play a vital role in driving economic growth, fostering financial inclusion, and supporting the country's development agenda. While the sector faces challenges, it also presents immense opportunities for innovation, collaboration, and sustainable growth, positioning it as a key pillar of India's economic future.

2. LITERATURE REVIEW

Singh et al. (2018) conducted a comprehensive time series analysis of selected Indian banks, focusing on financial trends over a decade. Their study revealed a consistent growth trajectory in the banking sector, with indicators such as total assets, deposits, and loan portfolios showing significant increases over time. Additionally, they found evidence of cyclicality in credit cycles, with periods of expansion followed by contractions, highlighting the importance of understanding economic cycles in forecasting bank performance.

Sharma and Patel (2019) examined the impact of regulatory reforms on the financial trends of Indian banks. Their analysis revealed a mixed picture, with some regulations leading to improvements in asset quality and capital adequacy ratios, while others posed challenges for profitability and liquidity management. They emphasized the need for policymakers to strike a balance between regulatory stringency and flexibility to ensure the stability and growth of the banking sector.

Gupta and Khan (2020) investigated the relationship between financial inclusion initiatives and banking sector trends in India. Their findings highlighted the positive impact of initiatives such as Jan Dhan Yojana and Pradhan Mantri Mudra Yojana on expanding access to banking services and increasing deposit mobilization in rural areas. However, they also noted challenges related to the sustainability of credit growth and the quality of loans extended under these schemes, emphasizing the importance of prudent risk management practices.

Patel and Desai (2021) explored the role of technology in shaping financial trends in Indian banks. Their study revealed a significant shift towards digital banking channels, with increasing adoption of internet banking, mobile banking, and digital payment systems. They highlighted the potential of technological innovations such as blockchain and artificial intelligence in enhancing efficiency, reducing costs, and improving customer experience in the banking sector.

Chatterjee and Das (2017) examined the impact of macroeconomic factors on the financial trends of Indian banks through time series analysis. Their findings suggested a strong correlation between variables such as GDP growth, inflation rates, and interest rates with key financial indicators of banks, such as net interest margin and non-performing assets. They underscored the importance of macroeconomic stability in fostering a conducive environment for sustainable banking sector growth.

Mehta and Sharma (2016) conducted a comparative analysis of financial trends between public and private sector banks in India using time series data. Their study revealed distinct patterns in performance metrics, with private sector banks demonstrating higher profitability, efficiency, and asset quality compared to their public sector counterparts. They attributed these differences to factors such as governance structures, operational flexibility, and strategic focus on core banking activities.

Verma and Jain (2018) investigated the impact of globalization on the financial trends of Indian banks. Their analysis highlighted the challenges and opportunities arising from increased integration with global financial markets, including exposure to foreign exchange risks, capital flows, and regulatory harmonization. They emphasized the need for banks to adopt robust risk management frameworks and strategic partnerships to navigate the complexities of the globalized banking landscape.

Reddy and Kumar (2020) explored the relationship between corporate governance practices and financial trends in Indian banks. Their study revealed a positive association between measures of corporate governance, such as board independence and transparency, and indicators of bank performance, including profitability and asset quality. They advocated for strengthening governance mechanisms to enhance investor confidence and mitigate risks associated with agency problems and moral hazards.

3. RESEARCH METHODOLOGY

3.1 Research Objectives

1. To study the concept of NPA
2. To NPA of selected public sector banks of India

3.2 Sources of Data

Secondary sources of data has been utilised for this proposed research study

Secondary data has been collected from banks' Annual Reports. The data were collected from the banks' Annual Reports regarding Assets, Liabilities, Incomes and Expenses to evaluate the performance of banks. Other useful data have been collected from the website and books available on Google books as well as from library of school of commerce.

3.3 Sample of The Study

Below mentioned 5 private sector banks taken under study

1. Axis Bank Ltd
2. HDFC Bank Ltd
3. ICICI Bank Ltd
4. IndusInd Bank Ltd

5. Kotak Mahindra Bank Ltd

3.4 Period of Data Coverage

Financial data from 2011-12 to 2020-21 has been studied to analyse latest trends and performance of selected private sector banks in India

4. DATA ANALYSIS

1. Gross NPA of Private Banks

PRIVATE BANKS					
GROSS NPA					
YEAR	**Axis Bank Ltd**	**HDFC Bank Ltd**	**ICICI Bank Ltd**	**IndusInd Bank Ltd**	**Kotak Mahindra Bank Ltd**
2021-22	21822.32	16140.96	33294.92	5517.15	6469.74
2020-21	25314.84	15086.00	40841.42	5794.99	7425.51
2019-20	30233.82	12649.97	40829.09	5146.74	5026.89
2018-19	29789.00	11224.16	45676.04	3947.41	4467.94
2017-18	34248.64	8606.97	53240.18	1704.91	3825.38
2016-17	21280.48	5885.66	42159.39	1054.87	3578.61
2015-16	6087.51	4392.83	26221.25	776.82	2838.11
2014-15	4110.19	3438.38	15094.69	562.92	1237.23
2013-14	3146.41	2989.28	10505.84	620.79	1059.44
2012-13	2393.42	2334.64	9607.75	457.78	758.11

AVERAGE VALUE OF GROSS NPA		
TYPE OF BANK	**BANK NAME**	**AVERAGE VALUE**
PRIVATE BANK	Axis Bank Ltd	17842.663
	HDFC Bank Ltd	8274.885
	ICICI Bank Ltd	31747.057
	IndusInd Bank Ltd	2558.438
	Kotak Mahindra Bank Ltd	3668.696

Interpretation

Based on the above Gross NPA table it is concluded that, ICICI Bank Ltd has highest Gross NPA value while IndusInd Bank Ltd has lowest Gross NPA value amongst selected private sector banks. From the above average value of Gross NPA table no. 3 it can be concluded that in private sector banks, ICICI Bank Ltd has highest average value of Gross NPA with value 31747.057. IndusInd Bank Ltd has lowest average value of Gross NPA with value 2558.438.

Anova: Single Factor						
SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Axis Bank Ltd	10	178426.6	17842.663	158924989		
HDFC Bank Ltd	10	82748.85	8274.885	27067884		
ICICI Bank Ltd	10	317470.6	31747.057	242349812		
IndusInd Bank Ltd	10	25584.38	2558.438	5130057.9		
Kotak Mahindra Bank Ltd	10	36686.96	3668.696	5150808.2		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	5931647066	4	1482911766	16.904151	1.57715E-08	2.578739
Within Groups	3947611961	45	87724710.2			
Total	9879259027	49				

H0= There is no significant difference in Gross NPA between selected private sector banks of India.
H1= There is significant difference in Gross NPA between selected private sector banks of India.

Interpretation

From above table for 4 and 45 degree of freedom
Fcal is 16.90 and Ftab is 2.578

Thus, Fcal>Ftab and p-value is smaller than specified α of 0.05

So, null hypothesis is rejected and it is concluded that there is significant difference in Gross NPA between selected private sector banks of India.

2. Net NPA of Private Banks

PRIVATE BANKS					
NET NPA					
YEAR	**Axis Bank Ltd**	**HDFC Bank Ltd**	**ICICI Bank Ltd**	**IndusInd Bank Ltd**	**Kotak Mahindra Bank Ltd**
2021-22	5512.16	4407.68	6931.04	1529.83	1736.71
2020-21	6993.52	4554.82	9117.66	1476.57	2705.17
2019-20	9360.41	3542.36	9923.24	1886.58	1557.89
2018-19	18351.00	3214.52	13449.72	2248.28	1544.37
2017-18	16592.00	2601.02	27823.56	745.67	1665.05
2016-17	8626.60	1843.99	25216.81	438.91	1718.07
2015-16	2522.14	1320.37	12963.08	321.75	1261.96
2014-15	1316.71	896.28	6255.53	210.48	609.08
2013-14	1024.62	820.03	3297.96	184.05	573.56
2012-13	704.13	468.95	2230.56	136.76	311.41

AVERAGE VALUE OF NET NPA		
TYPE OF BANK	**BANK NAME**	**AVERAGE VALUE**
PRIVATE BANK	Axis Bank Ltd	7100.329
	HDFC Bank Ltd	2367.002
	ICICI Bank Ltd	11720.916
	IndusInd Bank Ltd	917.888
	Kotak Mahindra Bank Ltd	1368.327

Interpretation

Based on the above Net NPA table it is concluded that, ICICI Bank Ltd has highest Net NPA value while IndusInd Bank

Ltd has lowest Net NPA value amongst selected private sector banks. From the above average value of Net NPA table it can be concluded that in private sector banks, ICICI Bank Ltd has highest average value of Net NPA with value 11720.916. IndusInd Bank Ltd has lowest average value of Net NPA with value 917.888.

Anova: Single Factor						
SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Axis Bank Ltd	10	71003.29	7100.329	39875138		
HDFC Bank Ltd	10	23670.02	2367.002	2292573.2		
ICICI Bank Ltd	10	117209.2	11720.916	74422335		
IndusInd Bank Ltd	10	9178.88	917.888	628718.93		
Kotak Mahindra Bank Ltd	10	13683.27	1368.327	504071.48		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	859020062	4	214755015	9.1212131	1.74731E-05	2.578739
Within Groups	1059505527	45	23544567.3			
Total	1918525589	49				

H0= There is no significant difference in Net NPA between selected private sector banks of India.
H1= There is significant difference in Net NPA between selected private sector banks of India.

Interpretation
From above table for 4 and 45 degree of freedom
Fcal is 9.12 and Ftab is 2.578

Thus, Fcal>Ftab and p-value is smaller than specified α of 0.05

So, null hypothesis is rejected and it is concluded that there is significant difference in Net NPA between selected private sector banks of India.

5. CONCLUSION

Non-performing assets (NPAs) stand as a crucial metric for evaluating the performance of banks within the Indian financial landscape. Alongside NPAs, there exist various other lending-related indicators that contribute to a comprehensive assessment of a bank's operational efficacy. Recent studies underscore the significant role played by the banking sector in bolstering the nation's economic framework, attributing much of this success to adept management of operational activities.

The primary objectives of such investigations encompass a thorough comprehension of the underlying causes driving NPAs within Indian public sector banks, coupled with an exploration of the monitoring mechanisms deployed by banks to mitigate the proliferation of bad debts. While endeavors to curb NPAs have been multifaceted, with banks employing a diverse array of strategies, a discernible outcome has been the elevation of capital adequacy ratios. Vigilant monitoring of asset quality facilitates periodic evaluations of a bank's credit portfolio, thereby fortifying banking efficiency and mitigating associated risks.

In a bid to expedite the resolution process, the Indian government has proposed the establishment of bank-led asset management firms tasked with auctioning distressed and subprime assets—comprising approximately 15% of existing loans—under the purview of the Insolvency and Bankruptcy Code (IBC). Consequently, banks are impelled to institute dedicated committees tasked with pre-assessing the creditworthiness of potential creditors, while also conducting thorough evaluations to identify any outstanding debts prior to disbursing loans. This multifaceted approach aims not only to streamline loan disbursement processes but also to fortify the banking sector against the deleterious effects of mounting NPAs.

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