Post Merger Financial Analysis: An AI & ML tool for Banks

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Abstract

This paper models the significance of mergers and acquisitions (M&A) in reviving the growth of obsolete or low performing organizations. In line with adapting to the changing circumstances and limiting exposure to the volatility, higher level of capital backing is necessary which only consolidation can achieve (Mantravadi, 2007)**.** Banks being economic institutions are expected to be more directly involved in inclusive growth by including the whole economy in the growth and development, therefore, to support this belief, merger and acquisition as a strategic tool is studied.

M&A is considered as one of the significant tools for organizational restructuring and value addition considering the volatility prevailing in the present business environment. It enables organizations to expand their horizon of operation, mitigating risks, explore new markets and geographical locations by creating synergies thereby increasing profitability gaining through competitive advantage.

It includes the study of the factors and series of events that led the Government of India (GOI) to the merger of 10 public sector banks (PSB) into 4 merged entities, adoption of M&A as technique to achieve objectives moreover it studies acquisition of the Allahabad Bank by the Indian Bank to identify and interpret the purpose and potential of consolidation backed by a comparative analysis of pre-acquisition and post-acquisition performance of the above-mentioned banks.

Key Words**:** Mergers and Acquisitions, Public Sector Banking (PSB), Indian Bank, Allahabad Bank, NPA and Synergy.

Chapter-1 Introduction

In response to the fundamental changes in functioning and technology, the industries around the world are undergoing an unprecedented level of consolidations. Therefore, to align the mergers and acquisitions with the outcomes of such consolidations, I have attempted to determine and understand the efficiency gains of the M&As. The upright impact of the consolidation on the integration of the entities, efficacy, and profitability of the new entity.

Several theories have been advanced towards the justification and impacts of M&As. Theories of M&As can broadly be classified into two major categories, i.e., value-increasing theory and value decreasing theory. According to value increasing theory merger occurs because merger generates “synergies” between the acquirer and the target, and synergies, in turn increases the value of the firms. On the contrary, value decreasing theory advocates that a merger may fail to create synergistic value in the merged entity, and it suggested that nearly 60% - 80% merger classifies as failure.

This study was completed by using a questionnaire to collect primary data. The study also used secondary data from audited financial statements from respective banks. Financial data from statement of financial position, statements of comprehensive income statements, statements of cash flow of the respective entities for years before the acquisition to the years after the acquisition.

The paper studies the data of the entities prior to the merger on the grounds of their financial performance and an abstract study of the managerial efficiency improvement created on the knowledge of the officers in charge of the branches, employees, and customers. It concludes that the financial performance of the merged entity has improved on its numeric merits and the latest integration of the information system has made considerable additions to the efficiency of the bank during the COVID era.

Chapter-2 Review of Literature

In 2013, Arslan Ayub, Adeel Razzaq, Muhammad Salman Aslam, and Muhammad Salman Aslam undertook a study titled "A Conceptual Framework on Evaluating SWOT Analysis as the Mediator in Strategic Marketing Planning through Marketing Intelligence." This research delved into reviewing 30 studies pertaining to the utilization of SWOT analysis in pre-job evaluation, assessing its efficacy and value in strategic marketing planning. Their findings suggest that pre-job evaluation serves as a beneficial and enriching activity in evaluating SWOT analysis and enhancing the overall marketing intelligence process. Consequently, it plays a pivotal role in shaping strategic marketing planning endeavors.

In 1991, Malcolm McDonald conducted a comprehensive study titled "Strategic Marketing Planning: A State-of-the-Art Review," which examines the tools available for marketing planners. When an organization begins the process of marketing planning, it inevitably faces various complex challenges, including organizational, attitudinal, process, and cognitive hurdles that can impede progress. By anticipating and understanding these barriers, there is a greater likelihood of achieving effective marketing planning, which in turn can yield significant benefits, such as creating a competitive advantage and positively impacting the bottom line.

In 2021, W. Roselin Prabha conducted a study on the topic "An Examination of Bank Mergers within the Indian Banking System." The research delved into the banks that have merged in India. Given the global competition in the banking sector, there is a pressing need for transformation and technological advancement. Merging banks is one strategy aimed at enhancing and supporting long-term development initiatives. Bank mergers serve as a mechanism to reduce Non-Performing Assets (NPAs) and to bolster customer service and overall bank development. The Reserve Bank of India (RBI) is actively pursuing measures to boost economic growth in India, with bank mergers being part of this strategy. While there are both advantages and disadvantages to bank mergers, they ultimately enhance the efficiency and resilience of banks, particularly in terms of customer support services and technological advancements. The merging of public sector banks presents an opportunity to enhance operational performance and compete internationally. Looking ahead, the merging of additional public sector banks seems inevitable, not only to fortify their financial standing but also to ensure sustainability in the financial market.
Diti Priya Paul and Amit Majumdar conducted a study in 2020 titled "A Study on Recent Wave of Mergers in Public Sector Banks in India," focusing on the structural dynamics of Indian commercial banks. Consolidating the banking industry is often achieved through mergers, which involve the combination of two entities under common ownership. According to the Oxford Dictionary, a merger refers to the amalgamation of two commercial companies into one. One notable example is the merger that occurred on April 1, 2017, when the State Bank of India merged with five of its associate banks: State Bank of Bikaner and Jaipur (SBBJ), State Bank of Hyderabad (SBH), State Bank of Mysore (SBM), State Bank of Patiala (SBP), and State Bank of Travancore (SBT), along with Bhartiya Mahila Bank. Following the merger, shares of State Bank of India (SBI) and its listed associate banks experienced gains of 3-13 percent, fueled by approval from the cabinet. The merger effectively consolidated nearly a quarter of all outstanding loans in India's banking sector onto SBI's balance sheet, propelling it into the ranks of the top 50 global banks. However, the merger also posted significant challenges, including issues related to employee redeployment or potential job loss, transfers, adjustments to new working conditions, and increased working hours.

In 2020, Patil Jaya Lakshmi Reddy and Mahesh Chandra conducted research on the topic "Mergers of Banks in the Indian Economy," focusing on mergers, non-performing assets (NPAs), the banking sector, performance, and the goal of achieving a $5 trillion economy. The banking sector holds a crucial position in every economy and is one of the fastest-growing sectors in India. However, it faces significant challenges from global players, such as international banks. Additionally, both public and private banks compete fiercely to capture their target markets. Unfortunately, NPAs have been increasing alongside the core business activities of banks, prompting mergers as a strategy to reduce them. Notably, the largest merger in banking history occurred on April 1, 2017, between the

State Bank of India and its associate banks. Subsequently, on August 30, 2019, the Indian government announced the merger of 10 public sector banks into four large banks. These mergers included Oriental Bank of Commerce and United Bank of India with Punjab National Bank, Syndicate Bank with Canara Bank, Andhra Bank and Corporation Bank with Union Bank of India, and Allahabad Bank with Indian Bank. This consolidation accounted for nearly half of all outstanding loans in the Indian banking sector. The mega bank merger is seen as a strategic move by the government to propel India towards its goal of becoming a $5 trillion economy within the next five years. It is expected to provide a significant boost to the Indian economy, which has been burdened by high NPA rates. The research paper aims to examine whether the performance of banks improves post-merger and contributes to accelerating economic growth.

In 2019, Sri Ayan Chakraborty conducted a study titled "The Merger of Allahabad Bank with Indian Bank: A Strategic Analysis" focusing on the Indian banking sector, specifically on mergers and acquisitions involving public sector banks. The research delved into various aspects such as net interest margin, non-performing assets (NPAs), segmental reports, current and savings account (CASA) ratios, return on equity (ROE), return on total assets (ROTA), asset-liability management (ALM), and gap analysis. The study highlighted the significance of consolidation in the banking sector for the burgeoning Indian banking industry, emphasizing the need for cost reduction and revenue enhancement through mergers and acquisitions. The announcement made by the Finance Minister of India on August 30, 2019, regarding the consolidation of ten major public sector banks, including the merger of Allahabad Bank with Indian Bank, came as a surprise. The Board of Directors of Allahabad Bank subsequently approved the consolidation with Indian Bank on September 16, 2019.

In 2017, Ashok Banerjee and Akshay Narayanan conducted research on the "Implications of Recent Bank Mergers," exploring the impact of the economic downturn on community banks and credit unions in rural areas. On August 30, 2019, the Finance Minister of India surprised many by announcing a significant consolidation of state-owned banks, reducing their number from twenty-seven to twelve through ten mergers, scheduled to be completed by mid-2020. Some banks, such as Allahabad Bank, have already begun taking action, with its board approving a merger with Indian Bank on September 16, 2019. This consolidation, which represents a reduction of over 50% in just two years, has been met with positive reception from the chairman of India's largest state-owned bank, who highlighted the advantages of larger banks in terms of resilience to economic shocks, economies of scale, and capacity to raise resources independently. The finance minister outlined three main objectives for the recent mergers: strengthening a sector plagued by poor asset quality, establishing banks with a robust national presence, and creating financial institutions of global scale to support the country's goal of achieving a $3 trillion GDP by 2024.

In 2011, Kamatam Srinivas conducted a study titled "Mergers and Acquisitions in the Indian Banking Sector – An Analysis of Selected Banks." The research explores the merger and acquisition activities of specific banks, highlighting their significance and impact. Mergers and acquisitions have a long history, with motivations varying over time and across companies. The process of consolidation has become more streamlined since the implementation of the new economic policy, particularly the liberalization policy in 1991. While numerous studies have examined mergers and acquisitions, the focus has primarily been on the manufacturing sector. There is a notable gap in the literature regarding M&A activity in the service sector, particularly within the banking industry. Consequently, there is a pressing need for research of this nature to provide a comprehensive understanding of the dynamics and implications of mergers and acquisitions in the banking sector.

In 2010, Pardeep KAUR and Gian KAUR conducted a study on the "Impact of Mergers on the Cost Efficiency of Indian Commercial Banks." Their research focused on the effects of mergers on Indian banks' cost efficiency using techniques such as Data Envelopment Analysis (DEA) and parametric and nonparametric tests. The study analyzed the cost efficiency of Indian commercial banks using non-parametric DEA techniques, considering both separate and common frontiers. It also investigated the influence of mergers on banks' cost efficiency post-liberalization, using unbalanced panel data from 1990-91 to 2007-08. To compare the efficiency of public and private sector banks, the study employed both parametric and non-parametric tests. The results indicated that public sector banks had an average cost efficiency of 73.4%, while private sector banks had 76.3% over the study period.
The findings suggested that the merger program had some success in the Indian banking sector. However, the study cautioned against promoting mergers between strong and distressed banks, as it could negatively impact the asset quality of the stronger banks and the interests of the depositors in distressed banks. In conclusion, the research highlighted the importance of careful consideration and policymaking regarding bank mergers to ensure the stability and efficiency of the banking sector.

In 2013, Suresh Kumar conducted a research study titled "The Impact of Bank Mergers on Banking Efficiency: A Case Study of the Merger between Bharat Overseas Bank and Indian Overseas Bank." The research provides an overview of the Indian banking system and highlights significant changes resulting from reform measures. Commercial banks are now required to effectively manage substantial financial inflows and outflows. Thus, there is a growing need for a robust banking system achieved through consolidation. In this context, it becomes imperative to analyze the effects of consolidation on various profitability and efficiency indicators of banks. The study compares the performance of Bharat Overseas Bank and Indian Overseas Bank before and after the merger using metrics such as Profit Per Employee, Business Per Employee, Investment and Advances, Interest Income, Return on Assets, and Non-Performing Assets (NPAs). The findings of the study reveal that post-merger, there is a notable improvement across all these parameters, indicating the positive impact of the merger on the efficiency and profitability of the banks.

In 2023, Dr. Drshital Vekariya, along with colleagues C. Dattatreyulu, G. Hari Krishna, and Ch. Satyanarayana, conducted a study on the topic "The Influence of Behavioural Finance on Investment Decision Making in the New Normal." This research delves into the impact of investment decisions on behavioral finance. Traditional finance theory suggests that sound investment choices are made by carefully assessing risks and returns to maximize profits and minimize losses. However, behavioral finance challenges this notion, proposing that individual investment decisions are influenced by various biases, especially in the context of the "new normal" brought about by events like the Covid-19 pandemic. During the pandemic, investors have shifted their focus towards investments with low risk and high returns. The study highlights the importance of minimizing psychological biases in investment decisions in the new normal. It also examines the significance of behavioral finance in the Indian stock markets and analyzes investor behavior and psychology. The paper concludes that individual investors should thoroughly evaluate facts and consider external influences before making investment decisions, particularly in the context of the Covid-19 pandemic. The aim of this research is to shed light on the new normal of behavioral finance in India.

In 2021, J. K. Das conducted a study titled "Qualitative and Quantitative Methods in Social Research," exploring the methodologies employed in both qualitative and quantitative research. Research, the pursuit of knowledge that has shaped human civilization, is an ongoing process of discovery, innovation, and dissemination. What we understand today may prove inadequate to explain future phenomena, necessitating continual reevaluation and expansion of our knowledge base. For instance, the traditional belief that light travels in a straight line was sufficient to explain basic phenomena like reflection and refraction. However, the observation of minute dark and light bands at the edge of a shadow challenged this understanding, prompting a reassessment. Subsequent research led to the development of the wave theory of light, demonstrating the fluid nature of scientific understanding. This iterative process of observation, analysis, and revision serves to broaden our understanding, perpetuating the cycle of inquiry. Research, therefore, can be defined as a systematic and scientific endeavour to uncover relevant information on a given topic, continuously advancing our understanding from the known to the unknown.

In 2012, Hongtao Guo, Miranda S Lam, Zhijie Xiao, and Guojun Wu conducted a study titled "Risk Analysis via Regression Quantiles - Evidence from International Equity Markets," which explores the concepts of value at risk, international equities, and risk analysis. This paper delves into risk management using a robust methodology through quantile regression. Unlike traditional methods for estimating Value at Risk (VaR), quantile regression offers a more flexible approach by accommodating various error distributions and demonstrating resilience to heavy-tailed distributions. The empirical analysis conducted on five international equity indexes validates the effectiveness of this approach.

In 2020, Mahantesh Angadi conducted a comprehensive study titled "An Analysis of the Indian Banking Industry," focusing on the dynamics of women entrepreneurship, challenges faced by women entrepreneurs, MSMEs, and financial aspects. The research underscores the significance of consolidation within the Indian banking sector through mergers and acquisitions to foster its growth. This consolidation can be achieved by implementing strategies such as cost reduction and revenue enhancement. Understanding the rationale behind the need for consolidation and the impending challenges is crucial. Additionally, analyzing the role of the Central government in shaping policies essential for the advancement of the Indian banking sector is imperative.

In 2017, Ambica conducted a research study titled "Mergers and Acquisition in the Banking Sector in India: An Analysis of Pre & Post Merger Performance of Kotak Mahindra Bank." The study delves into various aspects such as profitability, efficiency, merger and acquisitions, and financial ratios. The Indian banking sector underwent significant reforms introduced by the Indian Government in the early 1990s, aligning with the era of globalization and post-liberalization of the world economy. This period witnessed a transformation in the Indian banking sector, characterized by what is known as "consolidation." The paper analyzes the financial performance of the banking sector both before and after mergers, focusing on the consolidation efforts led by stronger financial institutions. Specifically, it examines the impact of mergers and acquisitions on the profitability of consolidated entities within the Indian banking sector. The study evaluates the performance, strengths, and weaknesses of Kotak Mahindra Bank using financial ratios, comparing the pre- and post-merger periods. Data was collected over five years, encompassing both pre- and post-merger periods for selected banks. Statistical tools such as arithmetic mean, standard deviation, t-tests, and p-values were employed to gauge changes in various financial ratios before and after mergers. The study found significant differences in metrics such as Net Profit Margin, Operating Profit Margin, Return on Capital Employed, Return on Net Worth, Interest Coverage, Deposit per Employee, and Credit Deposit Ratio. However, metrics such as Gross Profit Margin, Net Profit Margin, Operating Profit Margin, Return on Capital Employed, and Debt/Equity Ratio did not show significant differences. Overall, the study concluded that there were positive effects on banks' performance when comparing pre- and post-merger periods.

In 2011, Azeem Ahmad Khan conducted a study titled "Merger and Acquisitions (M&As) in the Indian Banking Sector in Post Liberalization Regime," focusing on the dynamics of M&A activity, financial parameters, profitability, and Indian banking institutions. The aim of the research was to delve into the various motivations driving M&As within the Indian banking sector, including their impact on financial performance. The paper examines both pre- and post-merger financial performance by analyzing metrics such as Gross-Profit Margin, Net-Profit Margin, Operating Profit Margin, Return on Capital Employed (ROCE), Return on Equity (ROE), and Debt-Equity Ratio. Through a review of existing literature, the study reveals that previous research primarily emphasized the effects of M&As on different facets of companies. Data on M&As since economic liberalization was gathered, enabling an assessment of the changes in acquiring firms' financial standing and the overall influence of M&As on acquiring banks. Statistical significance was evaluated using independent t-tests, not only for ratio analysis but also to gauge the impact of M&As on bank performance, both before and after mergers. The findings suggest a positive impact of M&As on banks, indicating that merged institutions can achieve efficiency gains and subsequently distribute benefits to equity shareholders in the form of dividends.

Dr. K.A. Goyal and Vijay Josh conducted a study in 2011 titled "Mergers in banking industry of India: some emerging issues," which delves into the realm of mergers and acquisitions within the Indian banking sector, exploring the underlying motives. In the cutthroat arena of competition, akin to a jungle, larger entities often consume smaller ones, necessitating a high level of competitiveness to emerge victorious in such rivalry. There is ample evidence indicating that major corporations have absorbed smaller competitors through mergers. This review article draws inspiration from the merger between the Bank of Rajasthan Ltd. and ICICI Bank Ltd., aiming to scrutinize the motivations behind bank mergers and acquisitions, particularly within the Indian context. The study analyzes a sample of 17 bank mergers post-liberalization, focusing on parameters such as branch networks, market penetration, and the benefits derived from these mergers. In addition to financial considerations, the article also poses pertinent questions regarding human resources management and organizational behavior, providing fertile ground for further scholarly inquiry into mergers and acquisitions from a fresh perspective.

Balla Appa Rao and D. Nagayya conducted research in 2015 on "Skill Development and Entrepreneurship for Micro and Small Enterprises." Their study delved into topics such as Foreign Direct Investment (FDI), the FDI culture, economic reforms, global investors, and FDI requirements. The research emphasized the importance of skill development and entrepreneurship for fostering gainful self-employment opportunities, particularly for the youth, to leverage the demographic dividend of the nation. Rather than simply providing jobs, the focus was on enhancing the employability of the workforce through quality education and training. In 2009, the National Skill Development Policy was formulated, and it was revised in 2015 to be more targeted and comprehensive in promoting self-employment through productive activities. The National Skill Development and Entrepreneurship Policy of May 2015 adopted an integrated approach, involving coordination among ministries and organizations across various sectors involved in skill development and entrepreneurship programs. This shift aimed to promote acquisition of expertise and encourage innovative ventures, particularly in Micro and Small Enterprises. Efforts were made to coordinate actions between Central and State organizations to foster a conducive environment for innovation-driven entrepreneurs. Various schemes were introduced, including the Pradhan Mantri Kaushal Vikas Yojana launched in July 2015, to facilitate skill development and entrepreneurship. In the micro, small, and medium enterprise sector, several initiatives were implemented to provide skills and motivation for enterprise establishment. The article proposed several suggestions for coordinated action across different ministries to expedite the implementation of these programs.

In 2016, Prof. Ritesh Patel and Dr. Dharmesh Shah conducted a study titled "Mergers and Acquisitions-The Game of Profit And Loss: A Study Of Indian Banking Sector," focusing on the financial dynamics of mergers and acquisitions in the Indian banking industry. This research delved into concepts such as financial performance, economic value added, mergers, banks, and profitability, recognizing the pivotal role of banking in India's economy. The objective of the study was to analyze the comparative financial performance of selected banks before and after mergers. The researchers utilized data from sources like Money control and Yahoo Finance to examine six banks that underwent mergers between 2004 and 2010. Employing the economic value-added approach, they assessed how mergers impacted on the banks' financial performance. The findings indicated an overall improvement in post-merger financial performance across the majority of cases studied. The research underscored the importance of conducting thorough analyses prior to merger deals, suggesting that such scrutiny could enhance a bank's performance. It's important to note that the study's results may not be universally applicable to all banks. The paper concluded with implications for bank management, emphasizing the significance of strategic merger planning to achieve synergies and enhance financial and stock performance, ultimately leading to wealth maximization.

In 2012, Madan Mohan Dutta and Dr. Suman Kumar Dawn conducted a comprehensive study titled "Mergers and acquisitions in Indian banks after liberalization: an analysis." The research delved into various aspects such as merger, acquisition, economies of scale, diversification, technical efficiency, economic reforms, balance of payment, recapitalization, unification, entity, amalgamation, operational risk, capital adequacy, synergy, leverage, secondary data, exploratory research, hypothesis testing, leasing, brokerage, globalization, and the World Trade Organization. Mergers and Acquisitions (M&A) initiatives are aimed at restructuring businesses to enhance competitiveness and shareholder value through improved efficiency. The banking sector has witnessed significant consolidation driven by the belief that substantial benefits can be achieved through cost reduction, enhanced market power, reduced earnings volatility, and economies of scale and scope. However, the extent to which these mergers realize anticipated performance gains is a critical question. This article examines M&A activities in the Indian banking sector post-2000, focusing on the objectives of both target and acquiring banks, resultant synergies (both operational and financial), deal modalities, alignment with organizational vision and goals, and long-term implications. The study seeks to analyze the success of these mergers and acquisitions within the context of post-liberalization India. To evaluate the performance of banks before and after mergers, a sample of five bank mergers from 1994 to 2004 was selected. While there have been approximately 25 significant bank mergers post-liberalization, this study focused on commercial banks, excluding cooperative and regional rural banks. Using this sample, the research aimed to assess the financial performance of banks pre- and post-merger and identify key success factors in the Indian banking industry's M&A operations.

In 2002, Dr. Meera Sharma conducted a study entitled "Bank Mergers: Opportunities and Preparation," which delves into the possibilities and necessary preparations prior to bank mergers. The research examines the global tendency towards consolidation within the banking sector, exploring the underlying reasons driving this phenomenon. Furthermore, it analyzes the potential for mergers within the Indian banking landscape and proposes regulatory strategies to navigate this environment. The deregulation of the banking sector, which began in the 1970s in certain developed regions, is highlighted as a significant catalyst for mergers.

In 2016, Dr. Anurag Pahuja and Dr. Shalini Aggarwal conducted a study titled "Impact of mergers and acquisitions on financial performance: evidence from Indian banking industry." The research delved into the realm of mergers and acquisitions (M&As), corporate restructuring, and the banking sector. Over the past two decades, M&As have emerged as crucial tools for corporate restructuring across various industries, including finance, pharmaceuticals, telecommunications, fast-moving consumer goods (FMCG), and banking. The banking industry, in particular, has experienced a significant amount of M&A activity. This paper aimed to analyze the effects of mergers on the financial performance of Indian banks both before and after the merger events. Utilizing a combination of financial ratios and event study methodology, the researchers sought to determine the impact of mergers and acquisitions on the performance of acquiring firms during different time periods. The findings revealed that there was no statistically significant evidence indicating any discernible impact of mergers and acquisitions on the profitability of firms, as measured by various financial ratios.

Deepak Kumar Adhana and Rebhava Raj Raghuvansh conducted a study in 2020 titled "Big Bank Theory: An Analysis of the Amalgamation Plan Involving 10 Public Sector Banks into 4 Entities." The research delves into the intricacies of capital infusion, consolidation, merger, and the implications for public sector banks (PSBs). On August 30, 2019, the Indian government announced a strategic initiative to merge 10 PSBs into four entities, thereby reducing the number of state-owned banks from 18 to 12. This move aimed to create next-generation financial institutions with strengthened balance sheets and increased risk-taking capacity. With previous instances of bank consolidation, the government seeks to fortify the banking sector to support the nation's aspiration of achieving a $5-trillion economy. Under the amalgamation plan, Punjab National Bank will absorb Oriental Bank of Commerce and United Bank of India, emerging as the country's second-largest lender after State Bank of India. Canara Bank will incorporate Syndicate Bank, while Andhra Bank and Corporation Bank will merge with Union Bank of India. Additionally, Allahabad Bank will integrate into Indian Bank. The driving forces behind these mergers include considerations of technological infrastructure, customer outreach, shared organizational culture, and enhanced competitiveness within the banking landscape.

In 2021, Dr. Chetan Kashyap conducted research on "Merger and Acquisition in the Indian Banking Sector: A Case Study of Bank of Baroda." The study delves into the intricacies of mergers, acquisitions, and amalgamation within the banking industry, focusing specifically on the Bank of Baroda, Vijaya Bank, and Dena Bank. It addresses the challenges faced by these institutions, particularly in the context of financing Micro, Small, and Medium Enterprises (MSMEs). In today's economic landscape, mergers and acquisitions play a pivotal role in the growth and development of the Indian banking sector. These strategic maneuvers are instrumental in achieving cost reduction and revenue augmentation. The merger of Vijaya Bank and Dena Bank with the Bank of Baroda, effective from April 1, 2019, underscores the significance of consolidation in the banking sector. Post-merger, the Bank of Baroda emerged as the third-largest bank and the second-largest public-sector bank, thereby bolstering its capacity to serve customers and contribute to the Indian economy's strength.

In 2015, Gwaya Ondieki Joash and Mungai John Njangiru conducted a study titled "The Impact of Mergers and Acquisitions on Financial Performance of Banks: A Survey of Commercial Banks in Kenya." The research aimed to explore the effects of M&A activities on the financial performance of banks. Mergers and acquisitions play a crucial role in corporate finance by helping firms achieve various objectives and financial strategies. In Kenya, banks have been engaging in M&A activities with the aim of enhancing their financial performance. Previous studies on M&A in the banking sector have yielded inconclusive results regarding their impact on financial performance, particularly in terms of profitability and earnings ratios. This study focused on analyzing the performance of banks involved in mergers or acquisitions in Kenya between 2000 and 2014. Its specific objectives were to assess the impact of M&A on shareholders' value and profitability. The study adopted a census approach, examining all 14 banks that had engaged in M&A activities during the specified period. Data collection involved the use of questionnaires containing both open and closed-ended questions. Statistical analysis, conducted using SPSS, focused on determining the correlation between independent and dependent variables. The findings indicated that M&A activities had a positive effect on the shareholders' value of the merged or acquiring banks in Kenya. Additionally, the study revealed that the primary motivation behind most M&A transactions was to enhance profitability. The research questions proved significant in informing the study's conclusions. Based on the findings, the researchers recommended conducting thorough feasibility studies before undertaking M&A transactions. They also suggested exploring the effects of M&A activities in other sectors of the economy to draw parallels with the banking sector's experiences.

In 2007, Rubi Ahmad, Mohamed Ariff, and Michael Skully conducted a study titled "Determinants of Bank Mergers in Malaysia's Banking Sector Reform." This research delves into the factors influencing bank mergers, including acquiring banks, managerial performance, and government connections. The study focuses on the unique banking sector reform initiated in 2002 by the central bank of Malaysia, which facilitated the consolidation of numerous depository institutions into 10 large banks through government-guided mergers. The paper aims to identify the factors driving this significant merger activity. Consistent with existing literature on bank mergers, the study reveals that larger banks tended to be acquirers. Moreover, banks with lower risk profiles were more likely to act as acquiring entities, while those with higher risk profiles were targeted for acquisition. Surprisingly, managerial performance, as measured by financial ratios and changes in productivity—factors highlighted in previous market-based merger studies—did not emerge as significant in this context. The research also uncovers a noteworthy trend: banks with closer ties to the government had a higher likelihood of becoming acquiring entities, whereas the opposite held true for target banks. These findings offer valuable insights that diverge from existing merger studies and could prove beneficial to central banks contemplating similar reforms. Overall, this study contributes to the understanding of bank mergers within the context of regulatory reforms and provides relevant implications for policymakers, as indicated by the classification under the JEL codes G21 and G34.

Chapter-3 Research Methodology

Data collected from various authentic sources such as,

- Research Journals
- Articles
- Magazines
- Annual reports
- Website of the PSBs
- Working papers by RBI and other government bureaus.

The data collected through secondary medium shall be processed by software such as MS excel and Delphi, and the variations be analyzed by testing financial and operational ratio analysis, etc.

Objectives

- To evaluate the events that led to the merger of Indian Bank and Allahabad Bank,
- To analyze the Profitability, Liquidity, NPA, Returns, Segmental Performance of both the merged entity.
- To understand the integration of organizational systems, culture and assets and liabilities of the banks after the acquisition.

Hypothesis

- There is significant difference in performance after the merger.
- Total income of the Indian Bank and Allahabad Bank increased post-merger.
- CAGR of the Indian Bank and Allahabad Bank increased post-merger.
- There is a significant difference in NPA post-merger.

Need of the Project

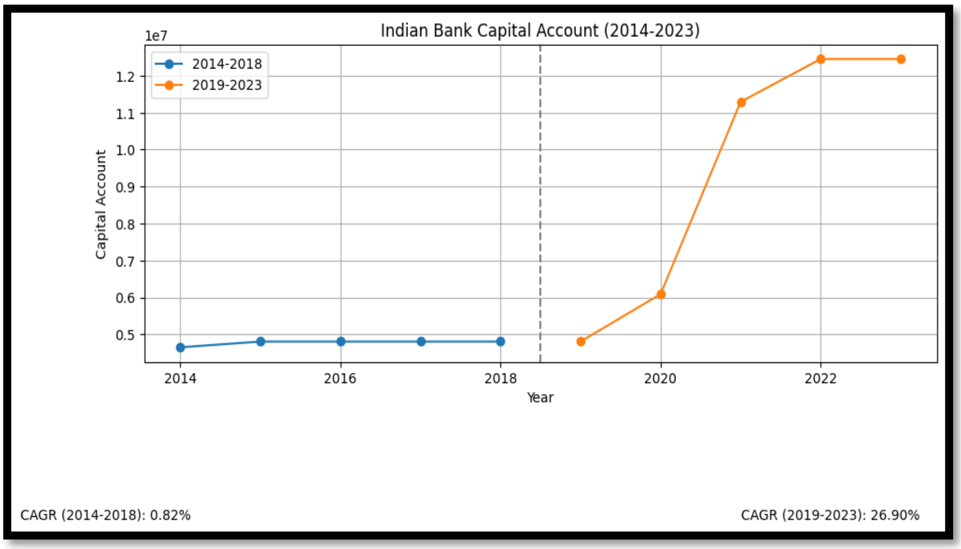
- Determining the factors contributing to the merger of Public Sector Banks in India.
- Impact of NPA in Public Sector Banking and measure to control.
- 2-year comparative analysis of the Indian Bank and Allahabad Bank.

Chapter-4 Results and Discussions

Capital Account

The graph shows the growth of the Indian Bank capital account from 2014 to 2023. The y-axis is labeled capital account and goes from 0.5 to 1.8. The x-axis is labeled year and goes from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018, 2019-2023.

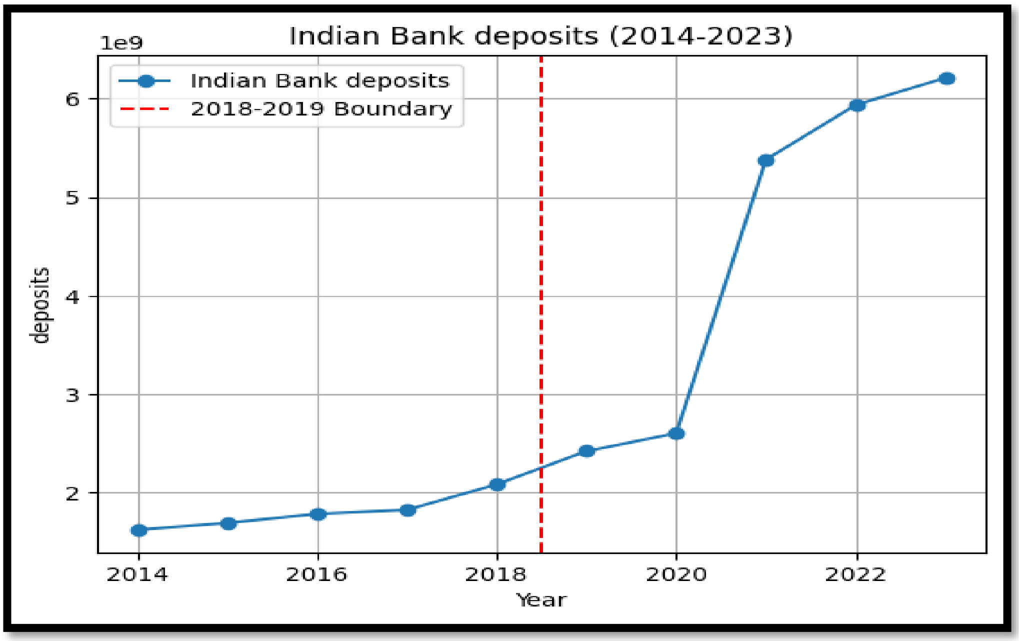
The capital account appears to have grown slowly but steadily between 2014 and 2018. There is a much steeper increase in the capital account from 2019 to 2023. The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 0.82% and the CAGR between 2019-2023 was 26.90%.



Liabilities

The image shows a line graph depicting the growth of Indian Bank deposits from 2014 to 2023. The y-axis labeled "Indian Bank deposits" goes from 2 trillion rupees to 18 trillion rupees. The x-axis labeled "Year" ranges from 2014 to 2022. There's a vertical dashed line dividing the x-axis into two sections: 2014-2018 and 2019-2023.

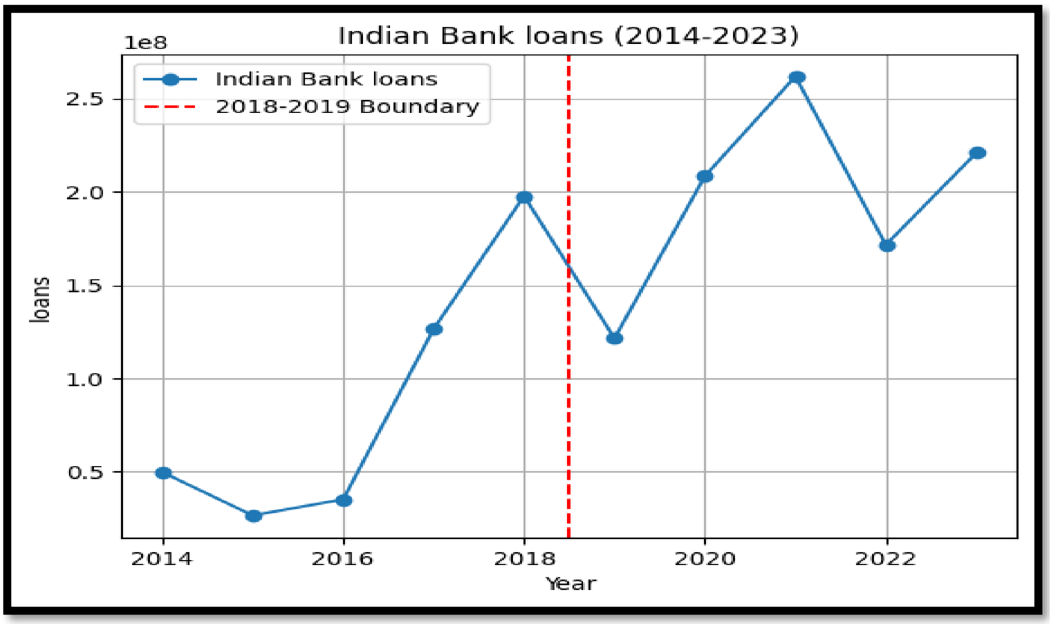
The graph suggests a steady rise in Indian Bank deposits between 2014 and 2018, followed by a steeper increase from 2019 to 2023.



Loans

The image shows a line graph showing the growth of Indian bank loans from 2014 to 2023. The y-axis labeled "loans" goes from 0.5 trillion rupees to 2.5 trillion rupees. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018, 2019-2023.

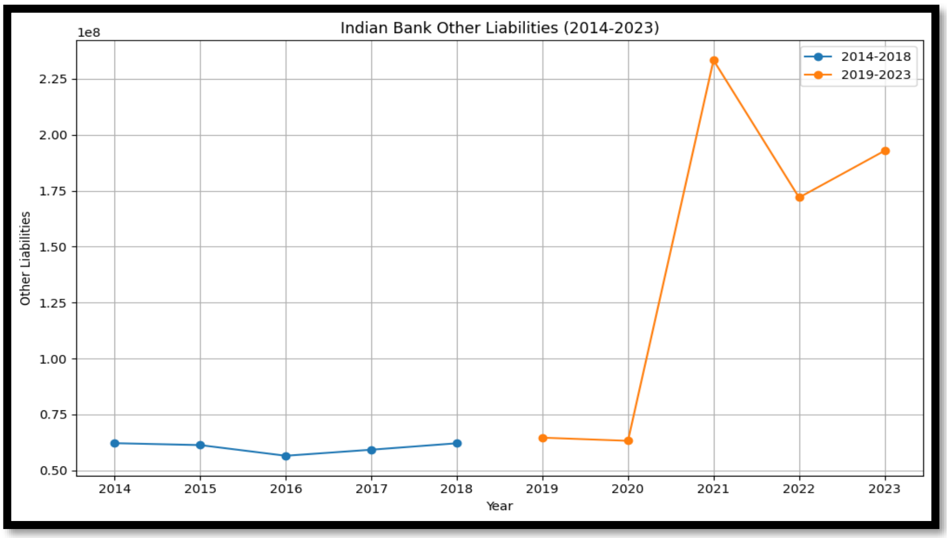
The graph suggests a slow but steady increase in Indian bank loans between 2014 and 2018. There is a much steeper increase in loans from 2019 to 2023.



Other Liabilities and provisions

The image shows a line graph showing the growth of Indian Bank's other liabilities from 2014 to 2023. The y-axis labeled "Other Liabilities" goes from 0.5 trillion rupees to 2.25 trillion rupees. The x-axis labeled "Year" ranges from 2014 to 2023. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023.

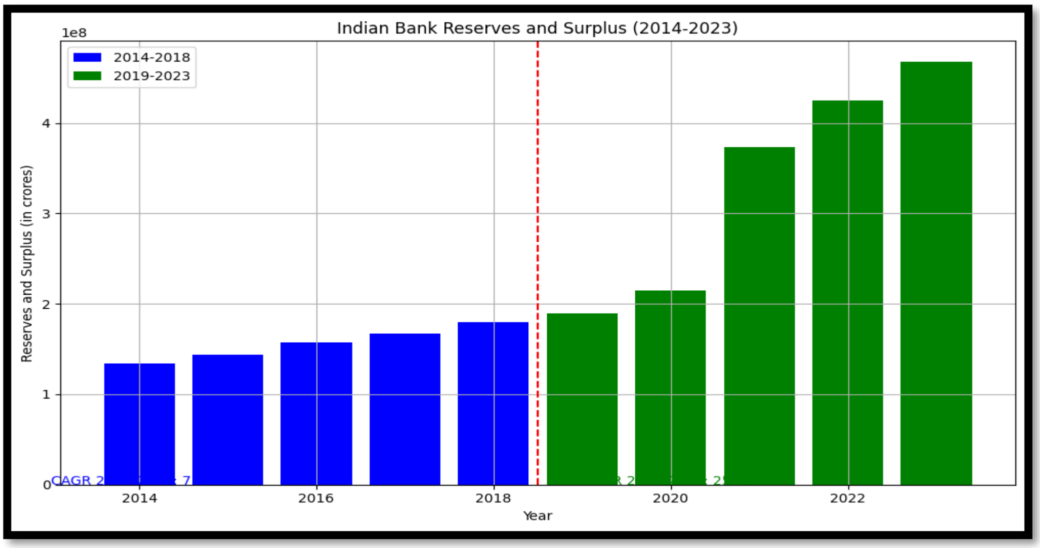
The graph suggests a slow but steady increase in Indian Bank's other liabilities between 2014 and 2018. There is a much steeper increase in other liabilities from 2019 to 2023.



Reserves and surplus

The image shows a line graph showing the growth of Indian Bank Reserves and Surplus from 2014 to 2023. The y-axis labeled "Reserves and Surplus (in crores)" goes from 0 to 3. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023. The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 0.82% and the CAGR between 2019-2023 was 26.90%.

The graph suggests a slow but steady increase in Indian Bank reserves and surplus between 2014 and 2018. There is a much steeper increase in reserves and surplus from 2019 to 2023.

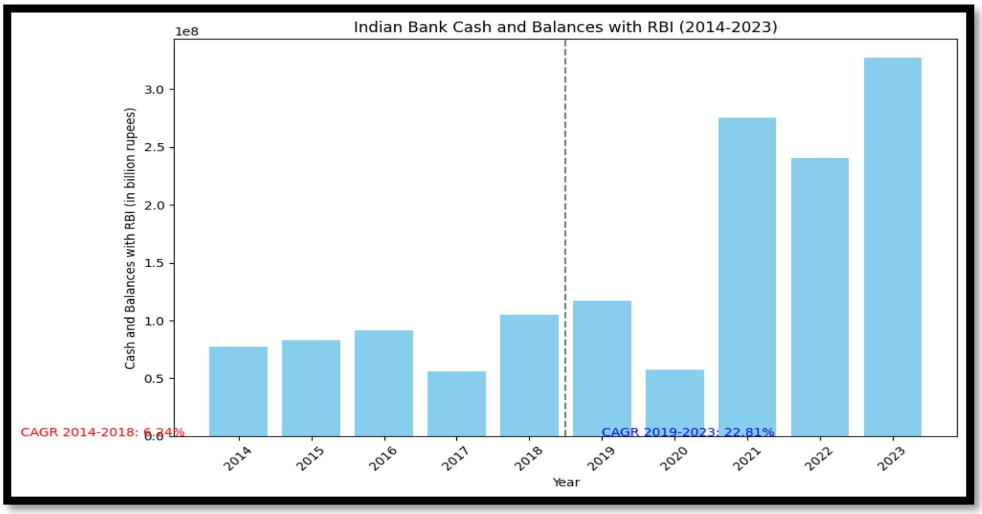


Cash and Balances with RBI

The image is a graph of Indian Bank's cash and balances with the Reserve Bank of India (RBI) from 2014 to 2023. The RBI is the central bank of India. The y-axis is labeled "Cash and Balances with RBI (in billion rupees)" and goes from 0.5 to 3.0. The x-axis is labeled "Year" and goes from 2014 to 2023. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018, 2019-2023.

The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 6.84% and the CAGR between 2019-2023 was 22.81%.

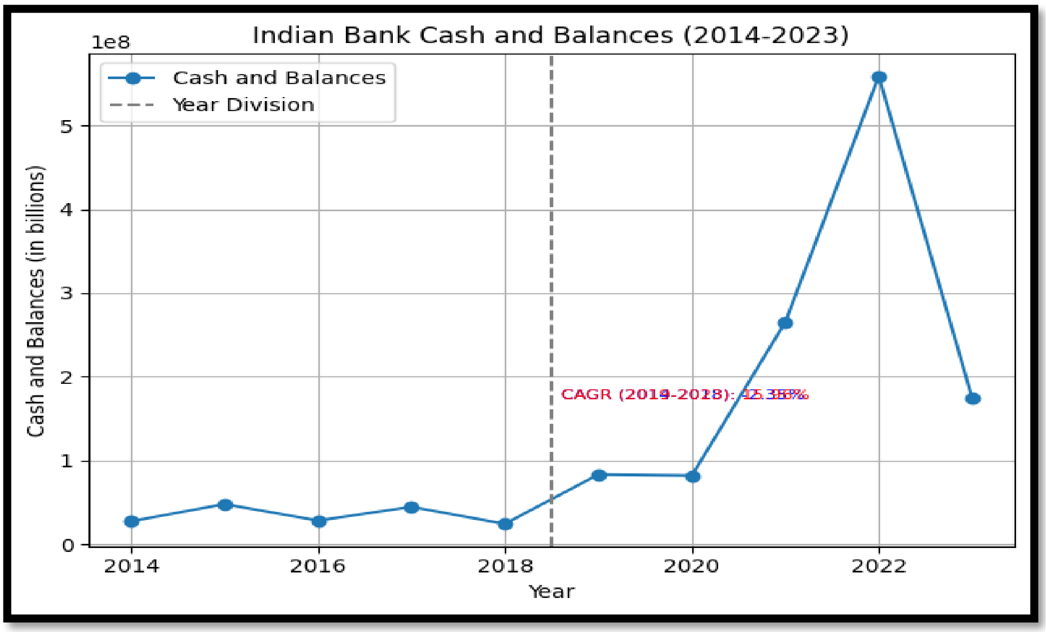
The graph suggests that Indian Bank's cash and balances with the RBI increased steadily from 2014 to 2023, with a sharper increase from 2019 to 2023.



Balances with bank and money at call and short notice

The image is a line graph of Indian Bank’s cash and balances with the Reserve Bank of India (RBI) from 2014 to 2023. The RBI is the central bank of India. The y-axis is labeled "Cash and Balances (in billions)" and goes from 0 to 1. The x-axis is labeled "Year" and goes from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018, 2019-2023.

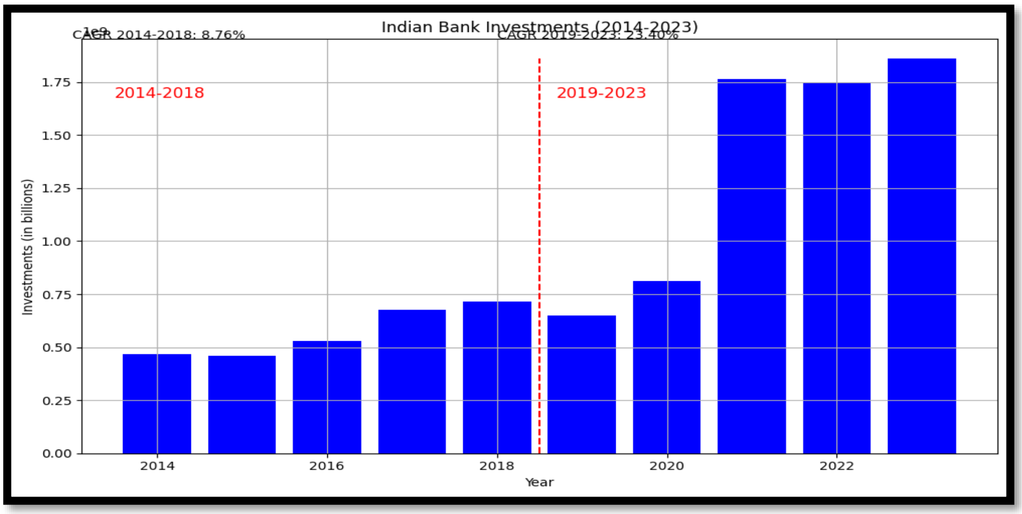
The graph suggests that Indian Bank's cash and balances with the RBI increased steadily from 2014 to 2023, with a sharper increase from 2019 to 2023.



Investments

The image is a line graph showing the growth of Indian Bank investments from 2014 to 2023. The y-axis labeled "Investments (in billions)" goes from 0 to 1.8. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023. The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 8.76% and the CAGR between 2019-2023 was not provided.

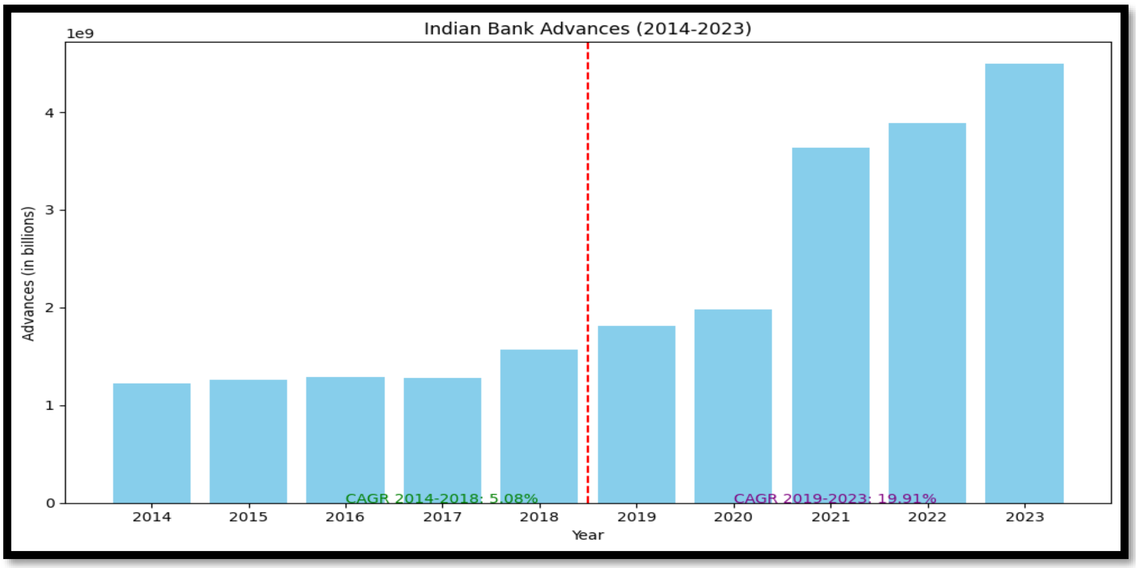
The graph suggests a slow but steady increase in Indian Bank investments between 2014 and 2018. There is a much steeper increase in investments from 2019 to 2023.



Advances

The image is a line graph showing the growth of Indian Bank advances from 2014 to 2023. The y-axis labeled "Advances (in billions)" goes from 0 to 4. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018, 2019-2023. The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 5.08% and the CAGR between 2019-2023 was 19.91%.

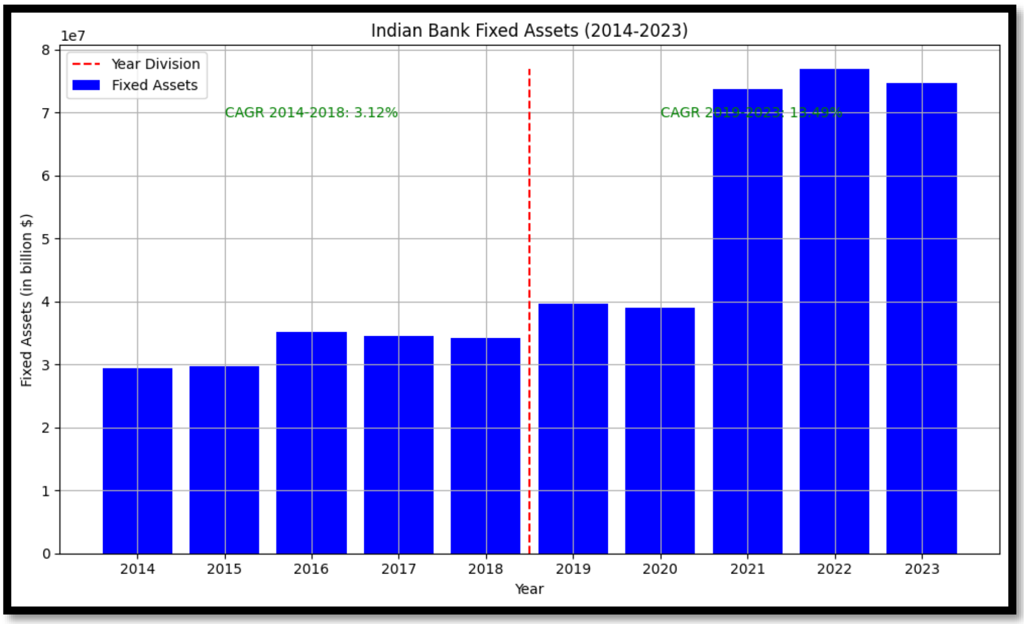
The graph suggests a slow but steady increase in Indian Bank advances between 2014 and 2018. There is a much steeper increase in advances from 2019 to 2023.



Fixed Assets

The image is a line graph showing the growth of Indian Bank's fixed assets from 2014 to 2023. The y-axis labeled "Fixed Assets (in billion $)" goes from 0 to 18. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018, 2019-2023. The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 3.12% and the CAGR between 2019-2023 is not shown in the image.

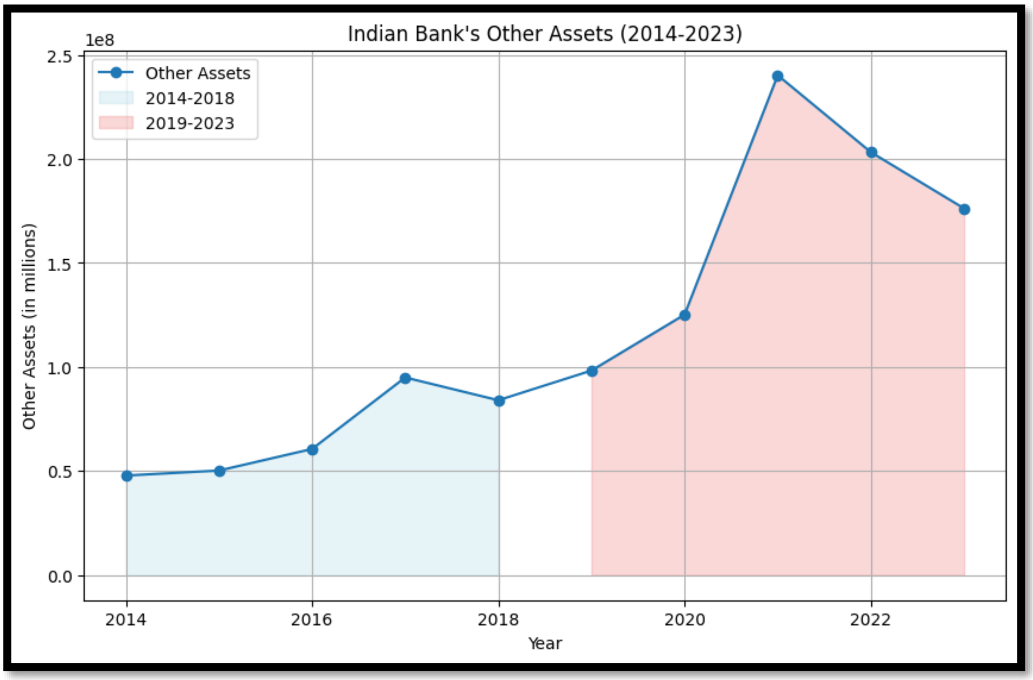
The graph suggests a slow but steady increase in Indian Bank's fixed assets between 2014 and 2018. There is a steeper increase in fixed assets from 2019 to 2023.



Other Assets

The image is a line graph showing the growth of Indian Bank's other assets from 2014 to 2023. The y-axis labeled "Other Assets (in millions)" goes from 0.5 to 2.5. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023.

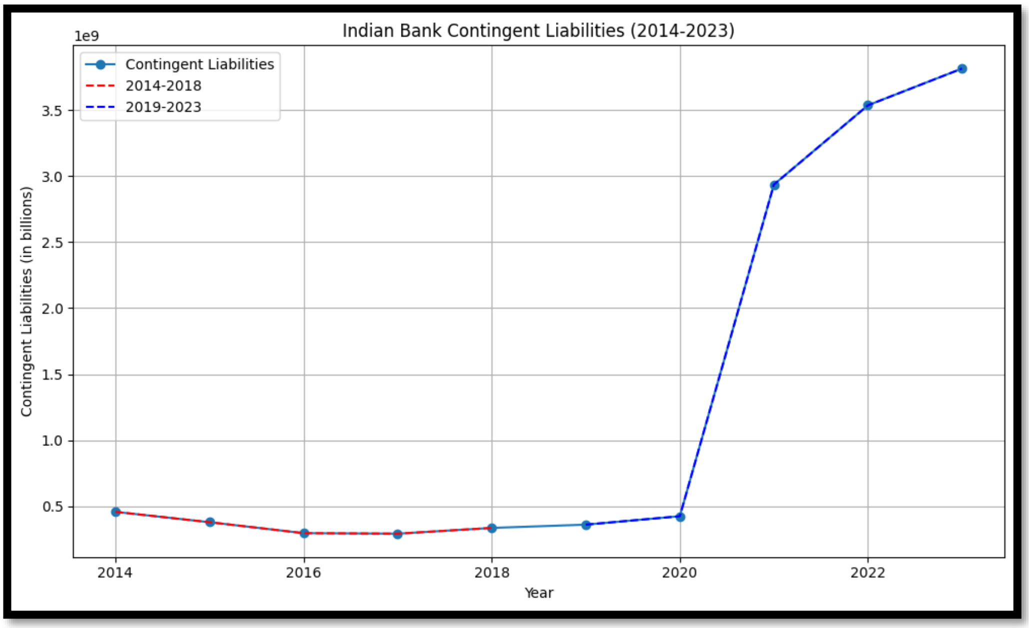
The graph suggests a slow but steady increase in Indian Bank's other assets between 2014 and 2018. There is a much steeper increase in other assets from 2019 to 2023.



Contingent Liabilities

The image is a line graph showing the growth of Indian Bank contingent liabilities from 2014 to 2023. The y-axis labeled "Contingent Liabilities (in billions)" goes from 0.5 to 3.5. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023.

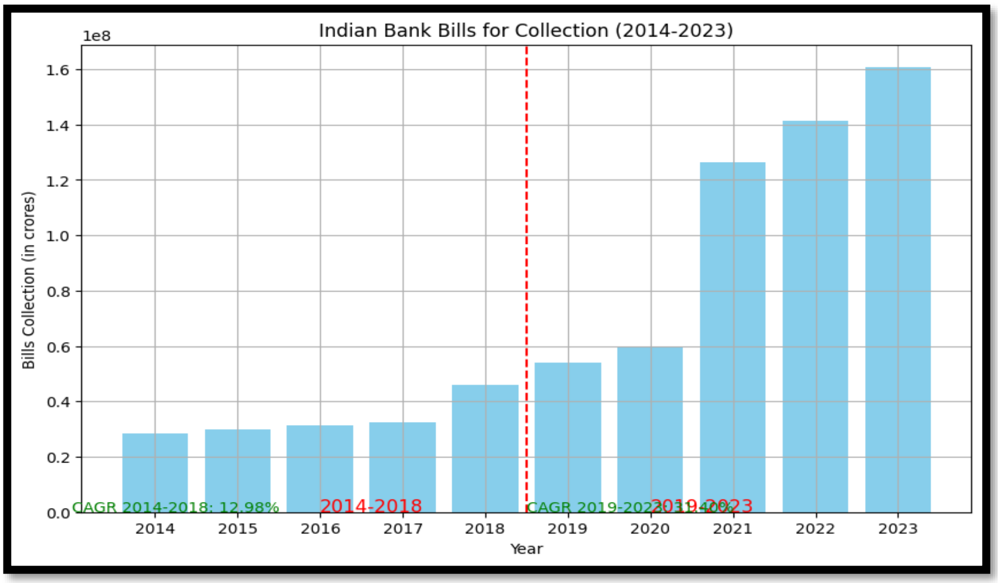
The graph suggests a slow but steady increase in Indian Bank contingent liabilities between 2014 and 2018. There is a much steeper increase in contingent liabilities from 2019 to 2023.



Bills for collection

The image is a line graph showing the growth of Indian Bank Bills for Collection from 2014 to 2023. The y-axis labeled "Bills Collection (in crores)" goes from 0 to 1.8. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023. The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 12.98% and the CAGR between 2019-2023 was 40.02%.

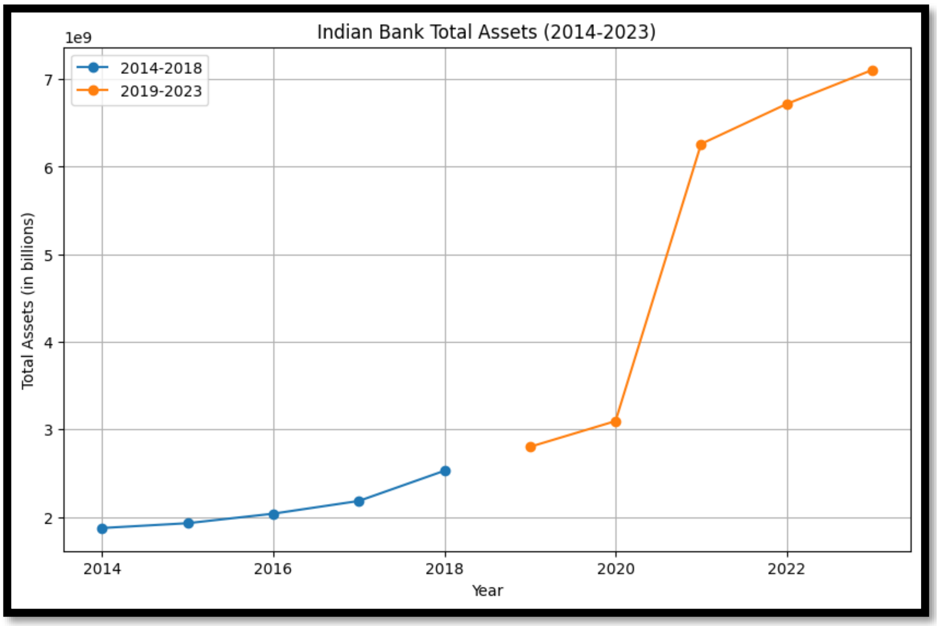
The graph suggests a steady increase in Indian Bank Bills for Collection between 2014 and 2018. There is a much steeper increase in Bills for Collection from 2019 to 2023.



Total Assets

The image is a line graph showing the growth of Indian Bank's total assets from 2014 to 2023. The y-axis labeled "Total Assets (in trillion rupees)" goes from 1 to 18. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023.

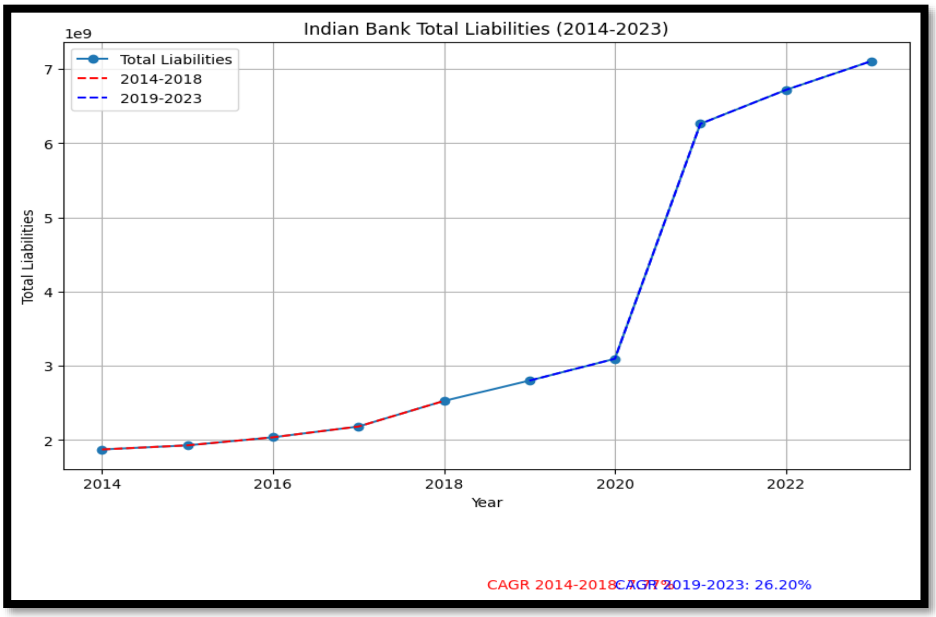
The graph suggests a slow but steady increase in Indian Bank's total assets between 2014 and 2018. There is a steeper increase in total assets from 2019 to 2023.



Total Liabilities

The image is a line graph showing the growth of Indian Bank's total liabilities from 2014 to 2023. The y-axis labeled "Total Liabilities (in trillion rupees)" goes from 1 to 7.5. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023. The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 4.82% and the CAGR between 2019-2023 was 26.20%.

The graph suggests a slow but steady increase in Indian Bank's total liabilities between 2014 and 2018. There is a steeper increase in total liabilities from 2019 to 2023.



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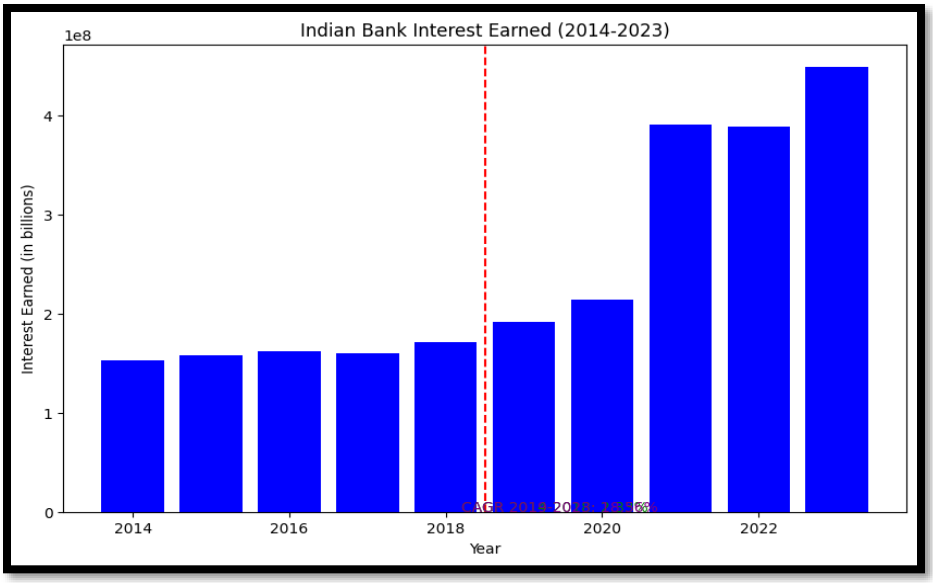
Interest Earned

The image is a line graph showing the growth of Indian Bank interest earned from 2014 to 2023. The y-axis labeled "Interest Earned (in billions)" goes from 0 to 18. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023.

The graph suggests a slow but steady increase in Indian Bank interest earned between 2014 and 2018. There is a much steeper increase in interest earned from 2019 to 2023.

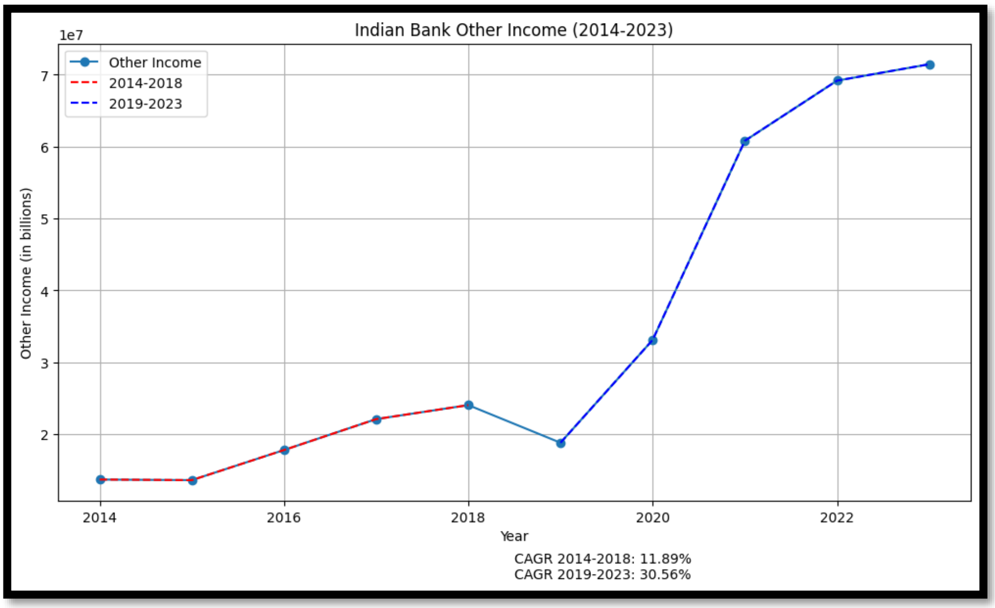


Other Income

The image is a line graph showing the growth of Indian Bank's other income from 2014 to 2023. The y-axis labeled "Other Income (in billion rupees)" goes from 0 to 1. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023. The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 11.89% and the CAGR between 2019-2023 was 30.56%.

The graph suggests a slow but steady increase in Indian Bank's other income between 2014 and 2018. There is a much steeper increase in other income from 2019 to 2023.

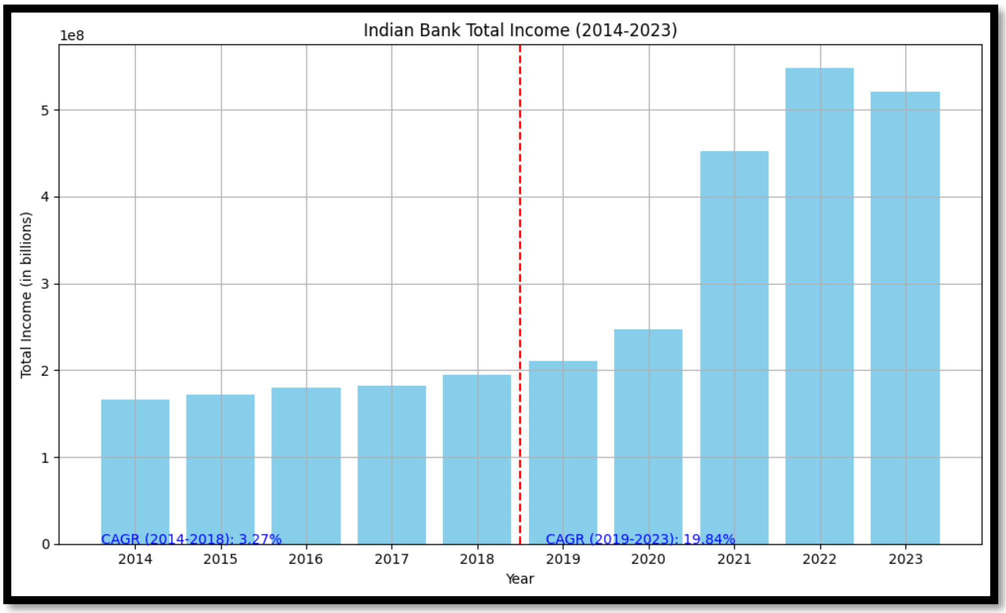
Other income typically refers to income earned by a bank from sources other than interest on loans and investments. This can include fees for services such as account maintenance, wire transfers, and currency exchange.



Total Income

The image is a line graph showing the growth of Indian Bank's total income from 2014 to 2023. The y-axis labeled "Total Income (in billion rupees)" goes from 500 to 2000. The x-axis labeled "Year" ranges from 2014 to 2022. There are two vertical dashed lines dividing the x-axis into three sections: 2014-2018 and 2019-2023. The text at the bottom of the image says that the CAGR (Compound Annual Growth Rate) between 2014-2018 was 3.27% and the CAGR between 2019-2023 was 19.84%.

The graph suggests a slow but steady increase in Indian Bank's total income between 2014 and 2018. There is a much steeper increase in total income from 2019 to 2023.

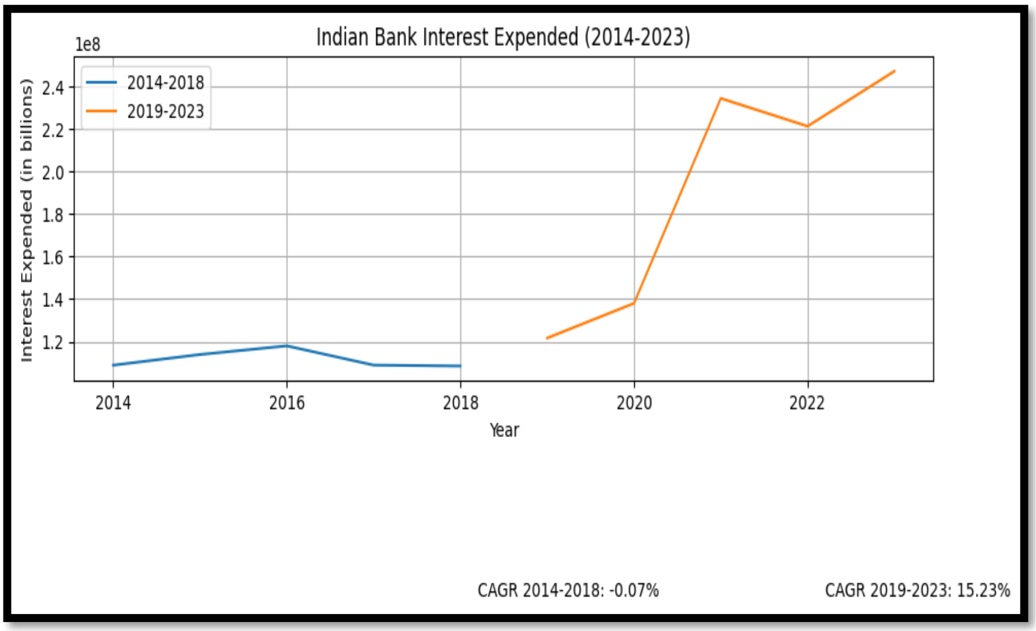


Interest Expended

The line graph depicts Indian Bank's total income from the fiscal year 2018 to 2022. The y-axis is labelled "total income (in billion rupees)" while the x-axis is labelled "financial year". The financial year in India spans from April to March.

The graph depicts a consistent growth in Indian Bank's overall income over a five-year period. The overall income climbed from almost 195 billion rupees at the end of fiscal year 2018 to slightly more than 457 billion rupees at the end of fiscal year 2022.

Each era is identified with its compound annual growth rate (CAGR), which was -0.07% between 2014 and 2018 and 15.23% between 2019 and 2023.



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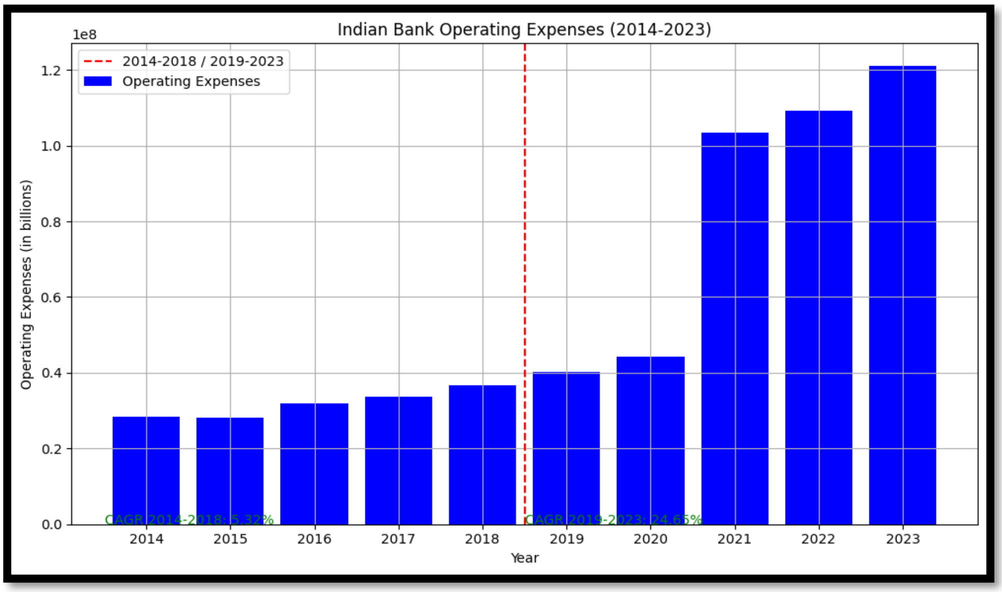
Operating Expenses

The line graph depicts Indian Bank's operational expenditures from fiscal year 2014 to 2023. The y-axis is labelled "Operating Expenses (in billions)" while the x-axis is labelled "Year".

The graph indicates that Indian Bank's operational expenditures have usually increased during the last 10 years. There are variations throughout, but costs appear to be on an upward trend.

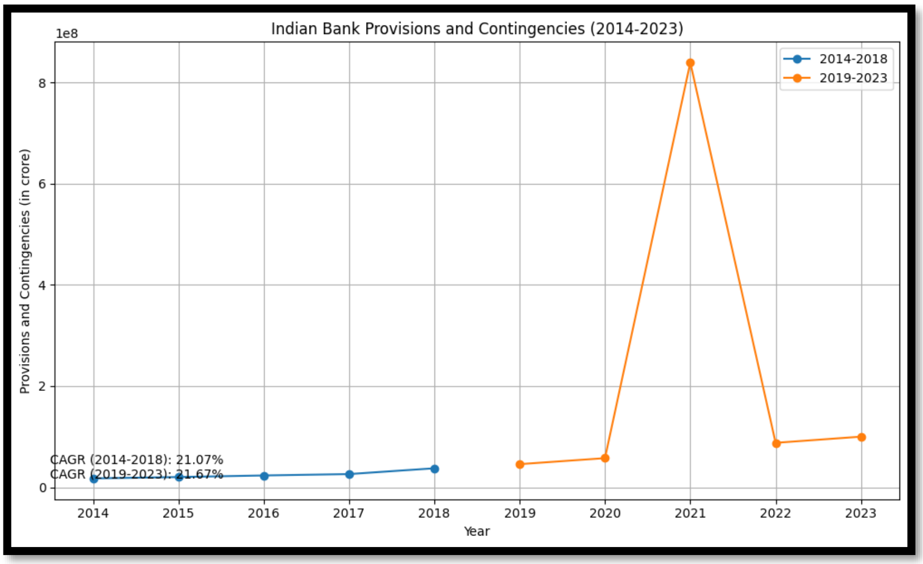
Each era is identified with its compound annual growth rate (CAGR), which was 3.32% between 2014 and 2018 and 24.65% between 2019 and 2023.



Provisions and Contingencies

The line graph depicts the rise of Indian Bank's provisions and concessions between 2014 and 2023. The y-axis is labelled "Provisions and Contingencies (in crore)", while the x-axis is labelled "Year". The graph is broken into two sections: 2014–2018 and 2019–2023.

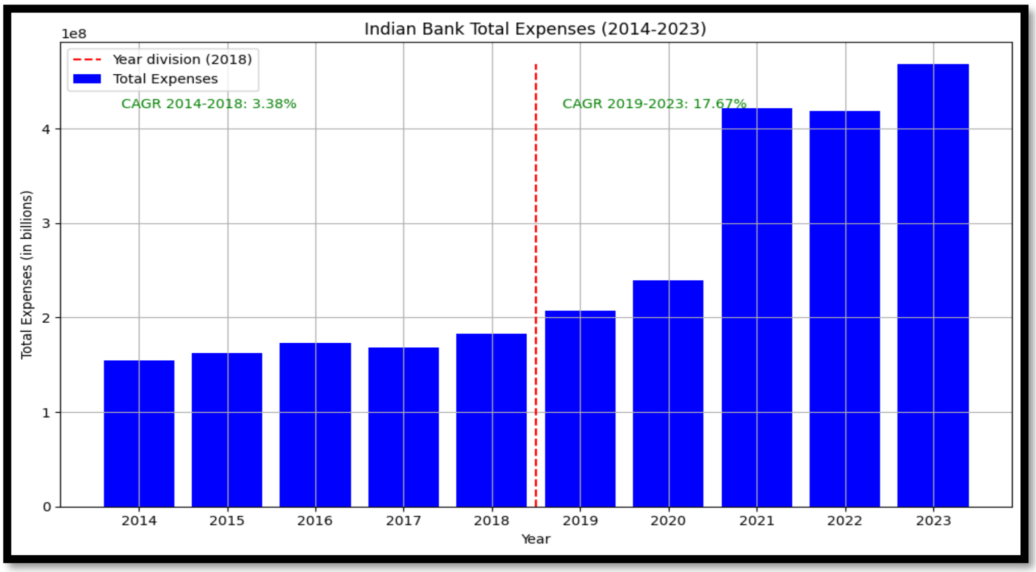
The graph depicts a consistent growth in Indian Bank's provisions and concessions over a ten-year period. The pace of rise looks to be higher between 2019 and 2023 than it was from 2014 to 2018. Each year is identified with its compound annual growth rate (CAGR), which was 21.07% between 2014 and 2018 and 21.67% between 2019 and 2023.



Total Expenses

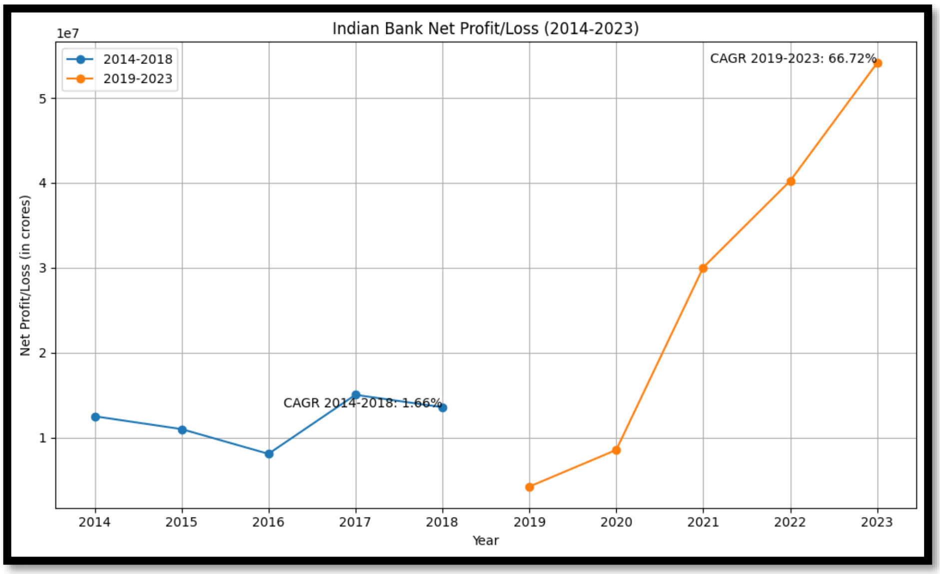
The line graph depicts Indian Bank's total costs from 2014 to 2023. The y-axis is labelled "Total Expenses (in billions)" while the x-axis is labelled "Year". The graph also depicts two compound annual growth rates (CAGR), one for 2014-2018 and another for 2019-2023.

The graph clearly demonstrates a rise in Indian Bank's overall costs over a ten-year period. Expenses appear to have increased at a lesser rate between 2014 and 2018 (CAGR 3.38%), but significantly quicker between 2019 and 2023 (CAGR 17.67%).



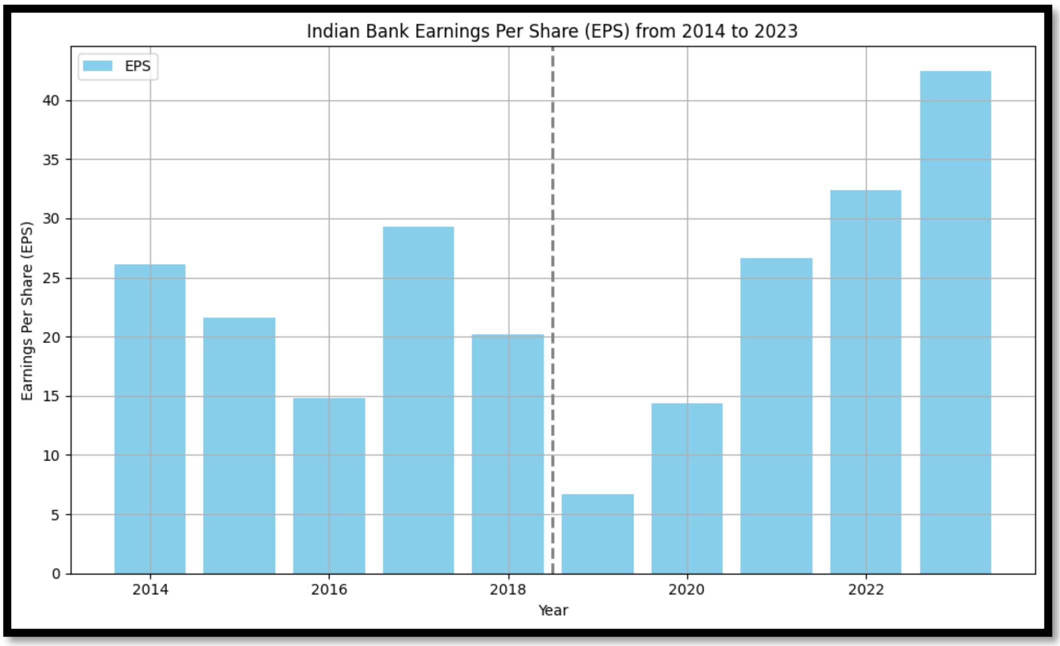
Net Profit/Loss Account

The line graph of Indian Bank's net profit/loss shows remarkable increase over the previous five years (2019-2023), with a CAGR of 66.72%. Previously (2014-2018), the CAGR was 1.66%, resulting in slower net profit growth. There appears to be a net loss in 2017.



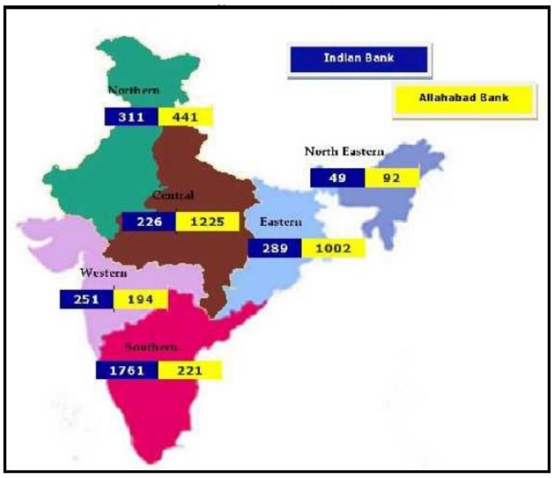
Earnings Per share

The graph depicts the average profits per share (EPS) of Indian banks, not any bank, from 2014 to 2023. EPS is a number that compares a company's earnings to its outstanding shares. The average EPS appears to fluctuate approximately 20% over the years. There was a modest rise between 2020 and 2023.The line graph of Indian Bank's EPS shows remarkable increase over the previous five years (2019-2023), with a CAGR of 58.62%. Previously (2014-2018), the CAGR was -4.96%, resulting in slower net profit growth.



Final Chapter- Conclusion and Future Scope

The directorial thesis proposition states that, a establishment whose directorial capabilities are lesser than it's needed by the current ask by the establishment, may seek to employ fat by acquiring and perfecting the effectiveness of a establishment, which is less effective due to lack of directorial coffers. Therefore, the junction will produce community since the fat directorial coffers of the acquirer is combined with the non-managerial organizational capital of the establishment. Combinations and accessions do because of the lower cost of internal backing compared to external backing. A combination of enterprises with different cash inflow positions and investment openings may produce a fiscal community effect and achieve lower cost of capital. When two banks combine, their concerted debt capacity may be lesser than the sum of their individual capacities before the junction.



In this case, the junction story of both Allahabad Bank & Indian Bank began in September 2019 when, Finance Minister Nirmala Sitharaman blazoned the junction with the end to form India's seventh- largest Public Sector Bank.The scheme of admixture imaged an exchange rate of 115 Indian Bank shares for every 1,000 shares held in Allahabad Bank. After the transmission of shares took place Shareholders Wealth dropped by25.25. Post-merger, the total issued share capital of Indian Bank increased to Rs 7,214.27 million. The connection will help Indian Bank to gain strategic advantage in the Indian Banking sector due to strong presence of Allahabad Bank in the Eastern & Northern part of India. Post-merger, the combined reality will operate with its increased distribution network of around 6,104 branches, total business of Rs crore & 42,814 workers. Indian Bank with its product range, threat operation and marketing moxie, would contribute to the smooth handling of the combined reality. It was editorialized that the HDFC Bank with its service and moxie chops in marketing, force, technology, would be suitable to boost up the profit of the combined reality. As per, K Ramachandran, Executive Director Allahabad Bank, "It's good in the sense that the junction will bring in a lot further solidarity because two big banks are getting intermingled. The two banks are roughly equal size. The core banking platform is the same for both the banks. We're generally present in the north and east, and they're present in the south.

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