International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 08 Issue: 12 | Dec - 2024 SJIF Rating: 8.448 ISSN: 2582-3930

CONCEPTUAL STUDY ON FINANCIAL RISK MANAGEMENT IN BANKS

NIRMALA EK*,

AIMS IBS B-SCHOOL

Under the guidance of Dr. Ravichandra Reddy (Dean Academics of AIMS IBS B-SCHOOL)

ABSTRACT:

Risk analysis identifies and evaluates potential threats to a project or Organization, assessing their likelihood and impact . It helps in making informed decisions to mitigate or manage risks effectively.

This paper aims to explore the significant role of financial risk management within "IDFC BANK" by evaluating the processes, strategies, and tools used to manage risks effectively. In addition, it will analyze the impact of quantitative risk management techniques in identifying, assessing, and mitigating risks related to market volatility, credit portfolios, and operational failures. The integration of technology in risk analysis and monitoring further enhances the bank's capabilities in preventing losses and ensuring sustained growth.

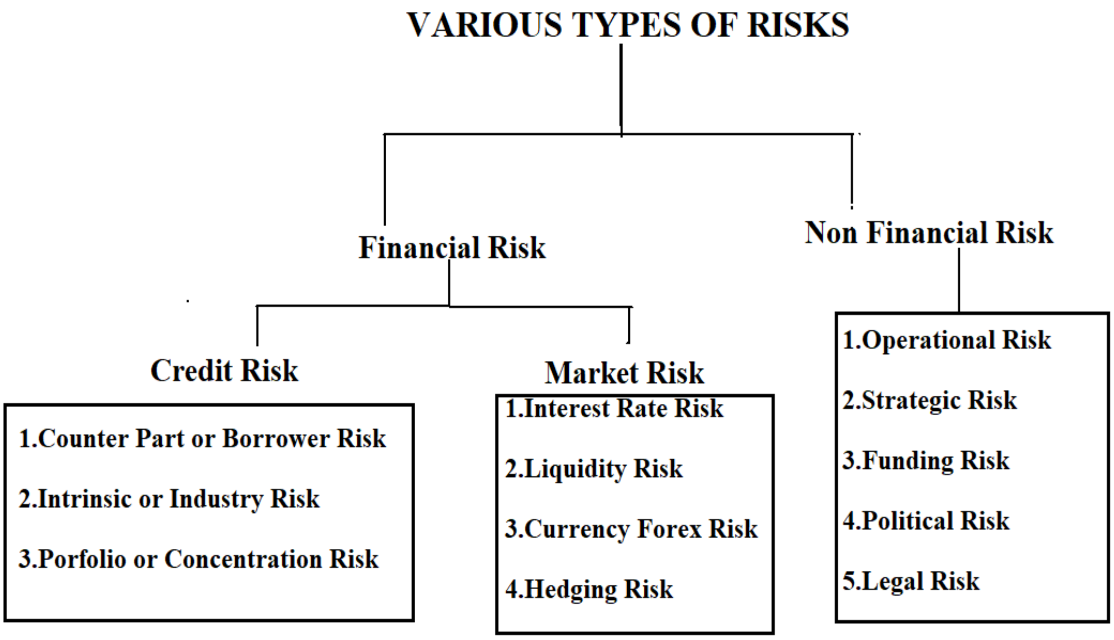
KEYWORDS: Financial Risk Management; Risk Strategies; Market Volatility .

INTRODUCTION

RISK MANAGEMENT

Risk is an inherent factor in any organizational process and can potentially impede the achievement of strategic objectives. It represents a future event that is uncertain yet capable of impacting organizational goals either positively or negatively. Such risks might arise due to a multitude of factors—ranging from internal organizational issues like process inefficiencies and human errors to external pressures like market shifts, economic downturns, or regulatory changes. Each type of risk brings its own unique set of challenges and potential consequences.

Effective risk management is not only about averting negative outcomes but also about increasing the likelihood of achieving positive results. Through risk management, organizations can differentiate between success and failure, as proactive identification and response enable better resilience and adaptability. In today's dynamic environment, risk management is integral to the organization's structure and embedded within its decision-making processes. It ensures that organizations are not merely reacting to risks as they arise but are well-prepared to handle potential disruptions while seizing opportunities that align with strategic objectives.



TYPES OF RISKS IN BANKING SECTOR

In view of growing complexity of banks,, business and the dynamic operating environment, risk management has become very significant, especially in the financial sector. Risk at the apex level may be visualized as the probability of a banks,, financial health being impaired due to one or more contingent factors. While the parameters indicating the banks,, health may vary from net interest margin to market value of equity, the factor which can cause the important are also numerous. For instance, these could be default in repayment of loans by borrowers, change in value of assets or disruption of operation due to reason like technological failure. While the first two factors may be classified as credit risk and market risk, generally banks have all risks excluding the credit risk and market risk as operational risk.

FINANCIAL RISK

Financial risk arises from any business transaction undertaken by a bank, which is exposed to potential loss. This risk can be further classified into Credit risk and Market risk.

I. Credit Risk is the potential that a bank borrower/counter party fails to meet the obligations on agreed terms. There is always scope for the borrower to default from his commitments for one or the other reason resulting in crystalisation of credit risk to the bank. These losses could take the form outright default or alternatively, losses from changes in portfolio value arising from actual or perceived deterioration in credit quality that is short of default. Credit risk is inherent to the business of lending funds to the operations linked closely to market risk variables. The objective of credit risk management is to minimize the risk and maximize bank"s risk adjusted rate of return by assuming and maintaining credit exposure within the acceptable parameters.

The management of credit risk includes
a) Measurement through credit rating/ scoring,
b) Quantification through estimate of expected loan losses,
c) Pricing on a scientific basis
d) Controlling through effective Loan Review Mechanism and Portfolio Management.

Types of credit risk

- **Counterparty or Borrower Risk:** This occurs when the party on the other side of a financial transaction (the counterparty) fails to meet their contractual obligations. This is particularly relevant in lending, derivatives, and other financial contracts. For banks, this includes the risk of loan defaults.

- **Intrinsic or Industry Risk:** Companies within the same industry often face similar challenges, such as regulatory pressures, demand volatility, and raw material price fluctuations. Intrinsic risk refers to risks tied to the core characteristics of a company, such as its financial health, management quality, and competitive position.

- **Portfolio or Concentration Risk:** Concentration risk arises when an investor's portfolio is heavily exposed to a single sector, geography, or asset type. For example, an overexposure to real estate or energy stocks can make the portfolio vulnerable if those sectors decline.

II. Market Risk may be defined as the possibility of loss to bank caused by the changes in the market variables. It is the risk that the value of on-/off-balance sheet positions will be adversely affected by movements in equity and interest rate markets, currency exchange rates and commodity prices. Market risk is the risk to the bank"s earnings and capital due to changes in the market level of interest rates or prices of securities, foreign exchange and equities, as well as the volatilities, of those prices.

There are various types of market risk :

- **Interest Rate Risk:** Changes in interest rates can affect the value of bonds and loans. For example, when interest rates rise, bond prices typically fall, and borrowing costs increase. This is especially relevant for fixed-income securities.
- **Liquidity Risk:** This is the risk that an asset or security cannot be sold quickly enough in the market without a significant loss in value. Liquidity risk is common in markets with few buyers or sellers or in times of financial crisis when everyone tries to sell assets at once.
- **Currency (Forex) Risk:** Companies and investors engaged in cross-border transactions are exposed to currency fluctuations. For example, a U.S. company that sells products in Europe may lose value if the euro weakens against the dollar.
- **Hedging Risk:** While hedging (using financial instruments like options or futures to offset potential losses) is a way to manage risk, it can backfire if market conditions move differently than expected, or the hedging strategy itself incurs high costs without significant benefits.

NON - FINANCIAL RISK:

Non-financial risk refers to risks that do not directly involve a loss of money through market fluctuations, investments, or financial instruments. Instead, these risks arise from the internal operations, external environments, and broader strategic and regulatory conditions in which an organization operates.

While these risks may not directly affect a company's financial assets, they can still have significant financial and reputational impacts if not managed properly. Non-financial risks include areas such as:

1. **Operational Risk:** This is the risk arising from internal failures in processes, systems, or people. For example, a software failure might disrupt an online payment system. Operational risk also covers external events like natural disasters that can disrupt business operations.
2. **Strategic Risk:** This risk occurs when a company's long-term strategic decisions turn out to be flawed or become obsolete due to changes in the market, competition, technology, or customer preferences. For instance, a company may invest heavily in a product line only to find out that demand has shifted to another type of product.
3. **Funding Risk:**
   - Short-term Funding Risk: This is the risk that a business cannot meet its short-term financial commitments, such as paying its suppliers or servicing its debt, due to lack of liquidity.
   - Long-term Funding Risk: This arises when a company is unable to secure the capital needed for expansion or growth at a reasonable cost, which can be caused by factors such as high debt levels or declining credit ratings.
4. **Political Risk:** Political instability, such as elections, changes in government policies, wars, or expropriation (government seizing private assets), can harm businesses operating in foreign countries. For example, a change in trade policy might impose tariffs on imports, making it more expensive for a company to source products internationally.
   - Regulatory Risk: Sudden regulatory changes that impact the cost of doing business, such as new taxes or environmental laws.

5. **Legal Risk:** This arises from lawsuits, regulatory penalties, or failure to comply with contractual obligations. Legal risk includes the possibility of costly legal disputes or being subject to stricter regulatory scrutiny.
   - Compliance Risk: Failing to adhere to laws and regulations.
   - Contractual Risk: Misinterpretation or failure to meet the terms of business contracts.

MEASURES OF RISK BANKING SECTOR :

In the banking sector, risk management is crucial for ensuring stability and profitability.

1. Credit Risk: The risk of loss due to borrowers failing to meet their obligations. It is often measured using:

- Non-Performing Assets (NPA) Ratio: The ratio of defaulted loans to total loans.
- Loan Loss Provisioning: Amount set aside by banks to cover potential loan losses.
- Credit Ratings: Independent evaluations of the bank's borrowers.

2. Market Risk: The risk of losses due to changes in market conditions, such as interest rates, exchange rates, or stock prices. Common measures include:

- Value at Risk (VaR): Estimates the maximum potential loss over a specific period with a given confidence level.
- Stress Testing: Evaluates the bank's ability to handle extreme market conditions.
- Interest Rate Sensitivity: Assesses the impact of rate changes on the bank's financial performance.

3. Liquidity Risk: The risk that a bank will not be able to meet its short-term financial obligations. It's measured using:

- Liquidity Coverage Ratio (LCR): Requires banks to hold sufficient high-quality liquid assets to cover net cash outflows for 30 days.
- Net Stable Funding Ratio (NSFR): Ensures that banks maintain a stable funding profile over a one-year horizon.

4. Operational Risk: The risk of loss from inadequate or failed internal processes, people, systems, or external events. Measured by:

- Operational Risk Capital: Amount of capital held to cover potential operational losses.
- Loss Event Frequency: Tracking the frequency and severity of operational risk events.

5. Capital Adequacy: Measures a bank's ability to absorb losses while maintaining operations, assessed through:

- Capital Adequacy Ratio (CAR): The ratio of a bank's capital to its risk-weighted assets.

6. Systemic Risk: The risk that the failure of one bank could trigger a wider collapse in the financial system, addressed by:

- Stress Testing and Scenario Analysis: Used to model how a crisis could impact the entire banking system.

These measures help banks identify, quantify, and mitigate various risks to ensure financial stability.

CONCEPT OF FINANCIAL RISK MANAGEMENT

Risk management is crucial in the banking sector as it helps institutions navigate the volatile financial environment, ensure stability, and maintain profitability. Here are the impacts of effective risk management in banking:

1. Stability and Resilience: Risk management helps banks identify potential risks (credit, market, liquidity, operational) and implement strategies to mitigate them. This increases a bank's stability, even during economic downturns or financial crises.

2. Compliance and Regulatory Adherence: Banks are highly regulated entities. Effective risk management ensures compliance with regulations like Basel III, which imposes requirements for capital adequacy and stress testing. Non-compliance can lead to penalties, reputational damage, or even loss of banking licenses.

3. Improved Credit Decision-Making: By managing credit risk, banks can assess the creditworthiness of borrowers and avoid excessive exposure to risky loans. This helps maintain healthy loan portfolios and reduces the risk of defaults.

4. Profitability and Financial Performance: Managing risks reduces unexpected losses and the need for provisioning against bad loans, thereby improving profitability. Banks that can successfully mitigate risk can also optimize their capital usage and achieve better returns on investment.

5. Customer Trust and Reputation: A bank known for prudent risk management gains the trust of its clients and investors, leading to increased business and

long-term customer relationships. Failure in risk management, on the other hand, can severely damage a bank's reputation.

6. Operational Efficiency: Managing operational risks, such as cyber risks, fraud, and system failures, ensures that banks can maintain service quality and operational continuity, minimizing disruptions that could lead to financial or reputational loss.

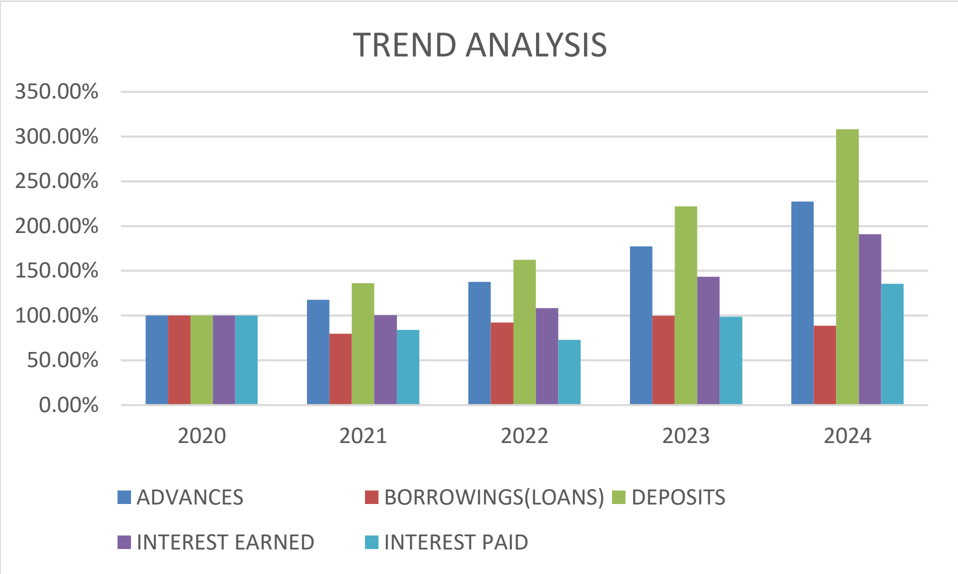
7. Stress Testing and Scenario Analysis: Through risk management, banks can perform stress testing to understand their financial position under adverse scenarios. This enables proactive measures to safeguard against systemic risks.

DATA ANALYSIS AND INTERPRETATION:

PARTICULARS	2020	2021	2022	2023	2024
ADVANCES	85595.36	100550.1	117857.8	151794.5	194592.4
BORROWINGS(LOANS)	57397.19	45786.09	52962.6	57212.09	50935.57
DEPOSITS	65107.97	88688.42	105634.4	144637.3	200576.3
INTEREST EARNED	15867.31	15967.86	17172.68	22727.54	30322.5
INTEREST PAID	10232	8587.6	7466.52	10092.21	13871.75

TREND ANALYSIS FOR ABOVE DATA

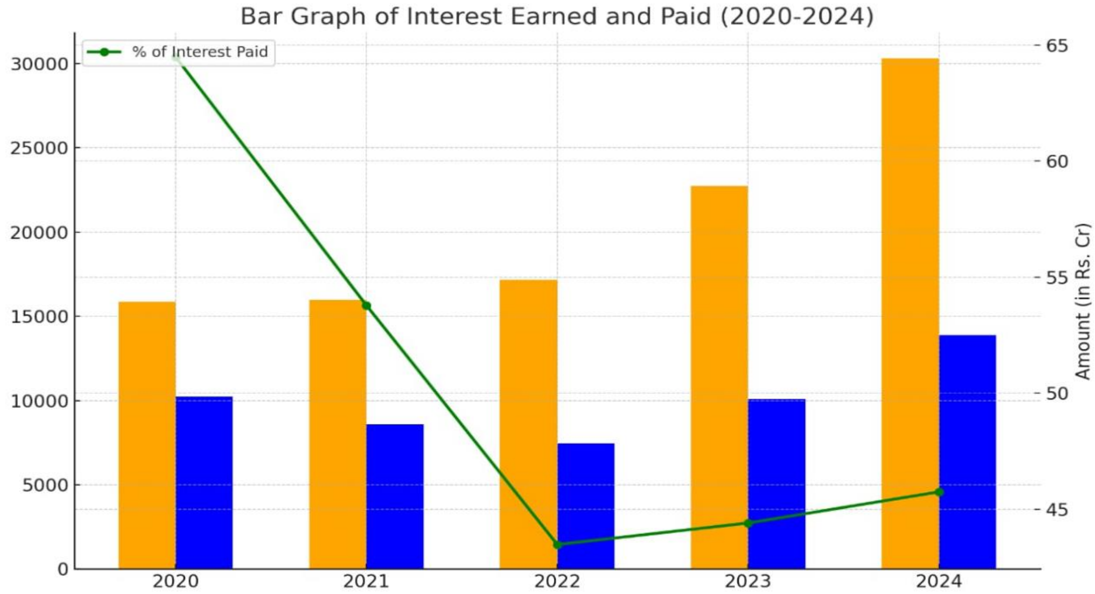
PARTICULARS	2020	2021	2022	2023	2024
ADVANCES	100.00%	117.47%	137.69%	177.34%	227.34%
BORROWINGS(LOANS)	100.00%	79.77%	92.27%	99.68%	88.74%
DEPOSITS	100.00%	136.22%	162.24%	222.15%	308.07%
INTEREST EARNED	100.00%	100.63%	108.23%	143.23%	191.10%
INTEREST PAID	100.00%	83.93%	72.97%	98.63%	135.57%



- The advances have grown significantly over the period, from 100% in 2020 to 227.34% in 2024. This indicates consistent growth in the financial institution's lending operations.The growth suggests increased demand for loans or improved credit disbursement policies.A high growth rate in advances can contribute to higher interest income, but it may also increase the credit risk if not managed properly.
- Borrowings showed a decrease from 100% in 2020 to 88.74% in 2024.This indicates the institution has become less dependent on external borrowings over time.Reducing reliance on borrowings may lower interest expenses, improving profitability.This could also reflect better internal fund generation (e.g., through deposits).
- Deposits have shown remarkable growth, from 100% in 2020 to 308.07% in 2024.This indicates a significant increase in customer trust and deposit mobilization.A strong deposit base reduces reliance on external borrowings.It indicates stability and better liquidity management for the institution.
- Interest earned grew from 100% in 2020 to 191.10% in 2024.The growth in interest income aligns with the increase in advances.While interest income has grown, its rate of growth is slower than the growth in deposits, suggesting possible pressure on lending rates or changes in the loan mix.
- Interest paid increased from 100% in 2020 to 135.57% in 2024.This reflects the cost associated with increased deposits and borrowings.The increase in interest paid is moderate compared to the rise in deposits, suggesting effective cost management or lower interest rates on deposits.

PERCENTAGE OF DEPOSITS

YEAR	%
2020	69.87
2021	74.77
2022	74.312
2023	88.32
2024	77.36



PERCENTAGE OF INTEREST PAID

YEAR	%
2020	64.48
2021	53.78
2022	43.47
2023	44.40
2024	45.74

PARTICULARS	2020	2021	2022	2023	2024
INTEREST EARNED	15867.31	15967.86	17172.68	22727.54	30322.5
INTEREST PAID	10232	8587.6	7466.52	10092.21	13871.75
Percentage	64.48478	53.78053	43.47906	44.4052	45.74738

Interest Earned has steadily increased from ₹15,867.31 crores in 2020 to ₹30,322.5 crores in 2024, nearly doubling over the five-year period.This growth highlights the institution's ability to generate higher revenue from its lending activities.

The interest paid has grown from ₹10,232 crores in 2020 to ₹13,871.75 crores in 2024, showing a more gradual increase compared to interest earned.This indicates controlled expenses related to borrowings and deposits.

The percentage of interest paid (as a proportion of interest earned) has decreased from 64.85% in 2020 to 45.75% in 2024.This reflects improved financial efficiency and a widening net interest margin, likely due to:

- Better cost management.
- Higher returns on advances compared to the cost of deposits and borrowings.

The orange bars (interest earned) consistently grow over the years, indicating strong revenue growth.The blue bars (interest paid) grow at a slower pace, supporting the trend of decreasing cost percentage.The green line (% of interest paid) shows a sharp decline initially (2020–2022), stabilizing slightly in the later years (2023–2024).

IDFC BANK FIXED DEPOSIT (FD) INTEREST RATES FOR PAST FIVE YEARS

YEAR	REGULAR FD RATES (%)	SENIOR CITIZEN FD RATES (%)
2020	5.0 -6.5	5.5-7.0
2021	5.5 -6.0	6.0 -7.0
2022	5.5 -6.5	6.0 -7.5
2023	6.0 -7.25	6.5 -7.75
2024	3.0-7.9	3.5 -8.4

Recurring Deposit of IDFC bank (2020-2024)

YEAR	Regular RD rate (%)	Senior Citizen RD Rates (%)
2020	5.00 -6.7	5.50 -7.25
2021	5.00 -6.50	5.50 -7.00
2022	5.50 -6.90	6.00 -7.40
2023	6.00 -7.75	6.50 -8.25
2024	6.50 -8.00	7.00 -8.50

Fixed Deposit (FD) Rates (2020-2024):

In 2020, the range was 5.0%-6.5%, indicating moderate returns.Rates increased slightly in 2021 (5.5%-6.0%) and 2022 (5.5%-6.5%), showing stability in interest rates.Significant growth occurred in 2023 (6.0%-7.25%), possibly reflecting economic recovery or increased competition.

The widest range is in 2024 (3.0%-7.9%), showing variability. Lower rates (3.0%) could be targeted for short-term deposits, while higher rates (7.9%) are likely for longer terms or specific schemes.

Senior citizens consistently received higher returns than regular customers, maintaining a premium of 0.5%-1.0%.Rates rose from 5.5%-7.0% (2020) to 6.5%-7.75% (2023), mirroring economic trends.In 2024, rates vary significantly (3.5%-8.4%), suggesting more tailored offerings for senior citizen.

Recurring Deposit (RD) Rates (2020-2024):

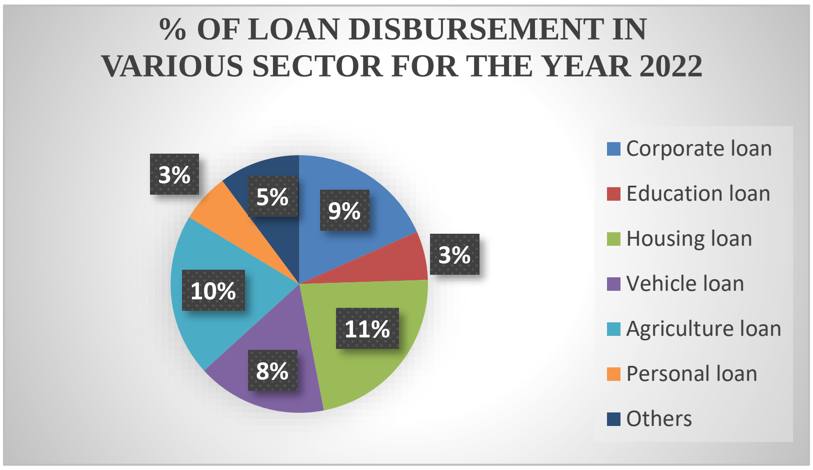
Interest rates steadily rose from 5.0%-6.7% (2020) to 6.5%-8.0% (2024).The higher rates in 2023 and 2024 could reflect inflation-adjusted returns or competition to attract regular savers.

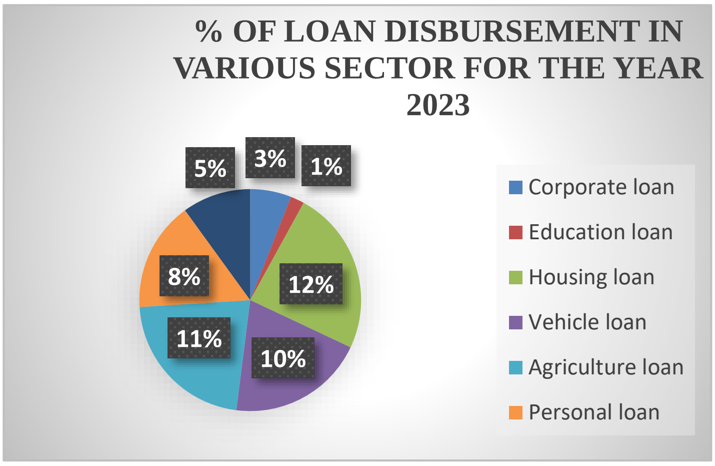
International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 08 Issue: 12 | Dec - 2024 SJIF Rating: 8.448 ISSN: 2582-3930

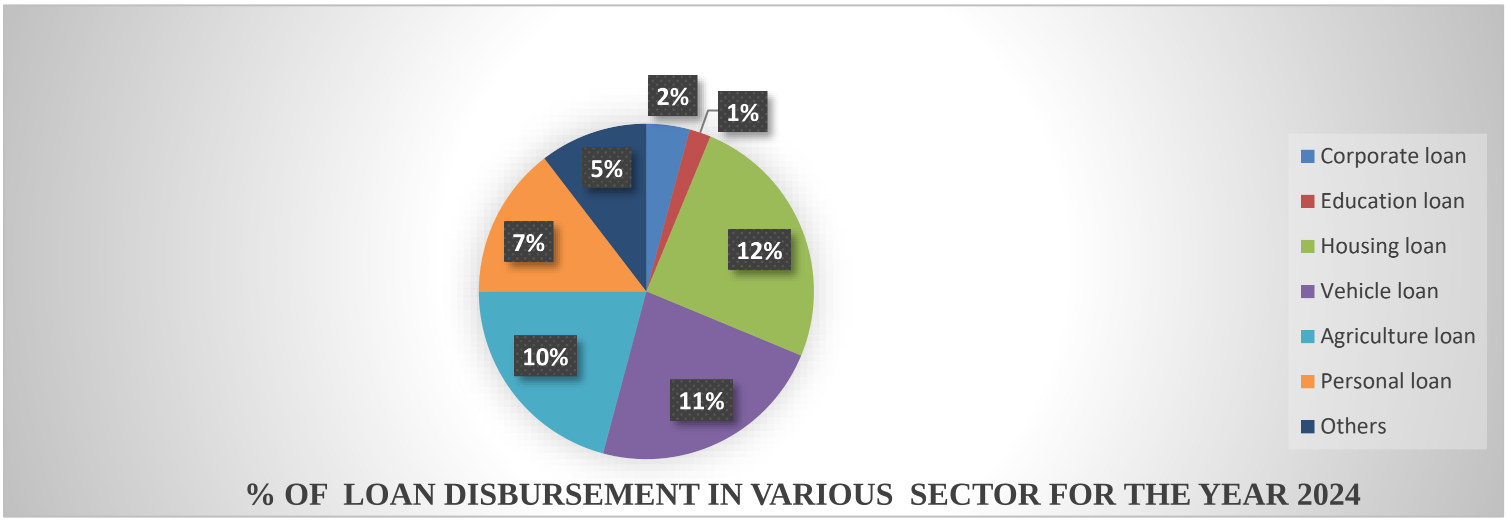
Rates for senior citizens consistently exceeded regular RD rates, ranging from 5.5%-7.25% (2020) to 7.0%-8.5% (2024).The increasing gap between regular and senior RD rates suggests a focus on providing better financial security for elderly customers.

Percentage of Loan Disbursed in various sectors

Years	2022(%)	2023 (%)	2024 (%)
Corporate loan	9	3	2
Education loan	3	1	1
Housing loan	11	12	12
Vehicle loan	8	10	11
Agriculture loan	10	11	10
Personal loan	3	8	7
Others	5	5	5







- The share of corporate loans disbursed shows a steady decline, dropping from 9% in 2022 to 3% in 2023 and 2% in 2024.This reflects a reduced focus on corporate lending, possibly due to strategic shifts or higher risk in this segment.

- The share of education loans remains minimal, declining from 3% in 2022 to 1% in both 2023 and 2024.This indicates limited activity in financing education, possibly due to low demand or a preference for other sectors.
- Housing loans see a slight but stable increase, going from 11% in 2022 to 12% in 2023 and 2024.This reflects consistent demand in the housing sector and the institution’s focus on long-term, secured loans.
- Vehicle loans experience steady growth, rising from 8% in 2022 to 10% in 2023 and 11% in 2024.This suggests increasing demand for vehicle financing, likely driven by economic growth and consumer spending.
- The share of agriculture loans remains stable, hovering around 10-11% across the years.This shows sustained support for the agricultural sector, highlighting the institution's commitment to rural and farming communities.
- Personal loans grow significantly, increasing from 3% in 2022 to 8% in 2023 and 7% in 2024.This suggests a rising trend in unsecured lending, possibly driven by consumer needs and spending patterns.
- The share of loans categorized as "Others" remains unchanged at 5% across all years.This indicates stability in miscellaneous or diverse loan disbursements.

FINDINGS:

- Advances have grown consistently, from ₹85,595.36 crores in 2020 to ₹194,592.4 crores in 2024, showing a 227.34% growth rate.
- Deposits have increased even more significantly, from ₹65,107.97 crores in 2020 to ₹200,576.3 crores in 2024, reflecting a 308.07% growth rate.
- Borrowings reduced from ₹57,397.19 crores in 2020 to ₹50,935.57 crores in 2024, indicating a lower reliance on external funding sources. The borrowing percentage decreased to 88.74%, showcasing efficient use of internal funds.
- Interest earned increased from ₹15,867.31 crores in 2020 to ₹30,322.5 crores in 2024 (191.10% growth).Interest paid rose at a slower pace, from ₹10,232 crores to ₹13,871.75 crores (135.57% growth).The percentage of interest paid to interest earned declined significantly, from 64.85% in 2020 to 45.75% in 2024, improving net interest margin.
- The growing gap between interest earned and paid points toward improving profitability. This is further supported by the efficient utilization of growing advances and deposits

SUGGESTIONS:

- Utilize the strong deposit base to expand lending, especially high-yield segments like personal loans, MSMEs, and business loans.Offer innovative deposit products to retain and attract customers.
- Continue reducing reliance on expensive borrowings and focus on deposit mobilization, which provides a cheaper source of funds.
- Maintain a healthy balance between interest earned and paid by diversifying the loan portfolio and optimizing lending rates.
- Focus on cross-selling products to generate additional revenue streams.
- Penetrate underserved areas (rural and semi-urban regions) to drive deposit and lending growth further.
- Implement advanced digital banking solutions to enhance customer experience, reduce costs, and increase efficiency.
- Keep track of economic conditions and interest rate trends to remain competitive and ensure lending-deposit rate alignment.

CONCLUSIONS:

The analysis concludes that the institution has demonstrated exceptional growth in its core operations, with a substantial rise in advances and deposits, indicating strong customer trust, effective resource mobilization, and an expanding market presence. The reduced reliance on borrowings reflects improved financial independence and stability, while the significant growth in deposits showcases the institution's ability to attract and retain customers. The decline in the percentage of interest paid to interest earned highlights enhanced profitability, improved operational efficiency, and a stronger net interest margin. This performance suggests that the institution is leveraging its financial resources effectively, resulting in sustained growth and increased competitiveness. However, the rapid growth in advances requires vigilant credit risk management to maintain asset quality and minimize potential defaults. Furthermore, with a solid foundation, the institution has ample opportunity to expand into new markets, diversify its income streams, and leverage technological advancements to drive future growth. Overall, it is well-positioned for long-term success, with a focus on stability, profitability, and sustainable growth.

REFERENCES:

Google Scholar:

https://scholar.google.com

Research database:

https://www.idfcfirstbank.com

https://www.moneycontrol.com

https://www.metricsstream.comhttps://www.investopedia.com

Reports:

idfc bank annual report

Reseach Gate:

www.researchgate.net