



IMPACT OF NON-PERFORMING ASSETS (NPAs) ON BANKING INSTITUTIONS

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Abstract

The impact of Non-Performing Assets (NPAs) on banking institutions is a critical aspect of financial stability and risk management. This abstract provides an overview of the implications of NPAs on the financial health, profitability, capital adequacy, liquidity, and reputation of banks. NPAs, categorized based on their duration of non-performance, pose significant challenges to banking institutions worldwide. Economic downturns, ineffective risk management practices, and poor credit appraisal contribute to the proliferation of NPAs. The repercussions of NPAs are far-reaching, affecting various aspects of banking operations. Financial health indicators such as Net Interest Margin (NIM), Return on Assets (ROA), and Return on Equity (ROE) are adversely impacted by NPAs, affecting profitability. Moreover, NPAs erode capital adequacy ratios, exposing banks to regulatory scrutiny and constraints. Liquidity risks escalate as NPAs tie up funds that could otherwise be deployed profitably. Additionally, high NPAs tarnish a bank's reputation, eroding customer trust and investor confidence. Effective NPA management strategies, including restructuring and recovery mechanisms, are essential for mitigating these impacts. Regulatory interventions and robust risk management practices play a pivotal role in addressing NPAs and safeguarding banking institutions' stability. This abstract underscores the necessity for banks to proactively manage NPAs to preserve financial soundness and uphold stakeholders' trust.

Keywords: Financial Stability, Credit Risk, Profitability, Risk Management, Capital Adequacy

INTRODUCTION

Non-Performing Assets (NPAs) are a critical aspect of the banking industry, representing loans or advances where borrowers have failed to make scheduled payments of principal and interest for a specified period, usually 90 days or more. NPAs are also commonly referred to as non-performing loans (NPLs) or bad loans.

The significance of NPAs stems from their implications for the financial health, stability, and sustainability of banking institutions. When loans deteriorate into NPAs, they not only impair the asset quality of banks but also pose various risks, including financial, operational, and reputational risks. Therefore, understanding NPAs and their impact is crucial for bankers, regulators, policymakers, investors, and other stakeholders in the financial ecosystem.

The causes of NPAs are multifaceted and can include economic factors such as economic downturns, industry-specific challenges, poor credit risk assessment, inadequate risk management practices, and borrower-related issues like financial distress or default. These factors contribute to the accumulation of NPAs in banks' loan portfolios, which can escalate if not effectively managed.

The classification of NPAs is typically based on the duration of non-performance and the probability of recovery. Categories may include sub-standard assets, doubtful assets, and loss assets, each representing varying degrees of credit risk and potential loss for banks.

The impact of NPAs on banking institutions is profound, affecting their financial stability, profitability, capital adequacy, liquidity, and reputation. High levels of NPAs can erode a bank's earnings, deplete its capital reserves, restrict lending capacity, increase liquidity risk, and tarnish its image in the eyes of investors and depositors.

In response to the challenges posed by NPAs, banks employ various strategies for NPA management, including loan restructuring, asset recovery, provisioning, and legal recourse. Additionally, regulatory authorities impose prudential norms and guidelines to ensure banks maintain adequate provisions for NPAs and manage them effectively.

Significance in Banking

- Financial Stability:** NPAs undermine the financial stability of banking institutions by eroding their asset quality. High levels of NPAs can impair a bank's ability to generate income, affect its liquidity position, and weaken its capital adequacy, thereby posing systemic risks to the entire banking system.
- Profitability:** NPAs have a direct impact on the profitability of banks. When loans turn into NPAs, banks not only lose the interest income but also incur additional costs associated with provisioning for expected losses. Consequently, NPAs reduce a bank's net interest income and net profit margins, affecting its overall profitability.
- Capital Adequacy:** NPAs affect a bank's capital adequacy ratios, such as the Capital Adequacy Ratio (CAR) or Tier 1 Capital Ratio. Banks are required to maintain minimum capital levels to absorb losses arising from NPAs. As NPAs increase, banks may face challenges in maintaining regulatory capital requirements, which could lead to regulatory intervention or constraints on lending activities.
- Liquidity Risk:** NPAs tie up funds that could otherwise be lent out or invested in profitable ventures. This reduction in liquidity can expose banks to liquidity risk, especially during times of financial stress or economic downturns when liquidity becomes scarce. Managing liquidity effectively becomes crucial in the presence of high levels of NPAs.
- Reputation Risk:** High levels of NPAs can damage a bank's reputation and erode customer trust and confidence. Persistent NPA problems may lead to negative perceptions among investors, depositors, and other stakeholders, impacting the bank's ability to attract funding and conduct business effectively.
- Regulatory Compliance:** Regulatory authorities impose stringent guidelines and norms for the identification, classification, and provisioning of NPAs. Banks must adhere to these regulations to maintain compliance and avoid penalties or sanctions. Failure to manage NPAs effectively can lead to regulatory scrutiny and intervention, further impacting the bank's operations and reputation.

Statement of the Problem

Non-Performing Assets (NPAs) pose significant challenges to banking institutions, impacting their financial health, profitability, capital adequacy, liquidity, and reputation. Despite being a well-documented issue, there is a need for a comprehensive understanding of the implications of NPAs on banking institutions across these dimensions. Furthermore, exploring effective strategies for mitigating the adverse effects of NPAs is essential for ensuring the stability and sustainability of the banking sector.

Research Objectives:

- To analyze the impact of NPAs on Financial Health: This objective aims to assess how NPAs influence key financial indicators such as Net Interest Margin (NIM), Return on Assets (ROA), and Return on Equity (ROE), thereby understanding their implications for the overall financial health of banking institutions.
- To Evaluate the Impact of NPAs on Profitability: This objective seeks to investigate the direct and indirect effects of NPAs on the profitability of banks, including the reduction in net interest income, increased provisioning costs, and overall impact on net profit margins.

3. To Assess the impact of NPAs on Capital Adequacy: This objective focuses on analyzing how NPAs affect capital adequacy ratios such as the Capital Adequacy Ratio (CAR) or Tier 1 Capital Ratio, and the subsequent implications for regulatory compliance and financial stability.
4. To investigate the Impact of NPAs on Liquidity: This objective aims to understand the liquidity risk associated with NPAs, including their impact on the availability of funds for lending and investment activities, and the strategies employed by banks to manage liquidity in the presence of high NPAs.
5. To Examine the Impact of NPAs on Reputation: This objective involves assessing the reputational risks associated with high levels of NPAs, including their impact on customer trust, investor confidence, and the overall perception of the bank in the market.
6. To Explore Strategies for Mitigating the Impact of NPAs: This objective seeks to identify and evaluate various strategies and best practices adopted by banks for managing and reducing NPAs, including loan restructuring, asset recovery, provisioning policies, and regulatory compliance measures.

Definition and classification of NPAs

Non-Performing Assets (NPAs) are assets held by financial institutions, primarily loans and advances, that have stopped generating income for the lender due to the borrower's failure to meet scheduled payments of principal and interest for a specified period. NPAs are indicative of credit risk and financial distress within a bank's loan portfolio.

Classification of NPAs:

1. **Sub Standard Assests:** Sub-standard assets are those where the repayment of principal and interest is overdue for more than 90 days but less than 12 months. These assets carry a higher risk of default, and banks typically make provisions against them to cover potential losses.
2. **Doubtful assets:** Doubtful assets are those where the repayment of principal and interest is overdue for more than 12 months. There is significant uncertainty about the borrower's ability to repay, and recovery prospects are generally weak. Banks make higher provisions against doubtful assets to reflect the higher risk of loss.
3. **Loss assets:** Loss assets are those where the losses have been identified by the bank, or internal or external auditors, but the amount has not yet been written off wholly. These assets are considered uncollectible, and banks must fully write off the outstanding amount from their books. Loss assets represent the highest level of credit risk and require complete provisioning.

Importance of Classification:

1. Classification helps banks identify and quantify credit risk within their loan portfolios. By categorizing assets based on their performance, banks can allocate appropriate provisions and assess the adequacy of their risk management practices
2. Regulatory authorities, such as central banks and financial regulators, require banks to classify and report NPAs accurately. Regulatory guidelines often dictate the provisioning norms and capital adequacy requirements based on the classification of NPAs, ensuring transparency and accountability in financial reporting.
3. Classification of NPAs informs banks' decision-making processes regarding loan restructuring, recovery efforts, and provisioning requirements. It enables banks to prioritize their resources and strategies for managing credit risk effectively.
4. T ransparent classification and reporting of NPAs enhance investor confidence in the bank's financial health and risk management practices. Investors rely on accurate NPA classifications to assess the quality of a bank's assets and its ability to generate sustainable returns.

Causes of NPAs:

The causes of Non-Performing Assets (NPAs) in banking are multifaceted and can stem from various internal and external factors. Understanding these causes is essential for banks to implement effective risk management strategies and mitigate the occurrence of NPAs. Here are some common causes of NPAs.

1. **Economic recessions or downturns:** Economic recessions or downturns can lead to a decline in borrowers' ability to repay loans due to factors such as unemployment, reduced income levels, and decreased business profitability. Economic instability can increase the incidence of NPAs across various sectors of the economy.
2. **Poor Credit Risk Assessment:** Inadequate credit appraisal processes, including lax due diligence, inaccurate assessment of borrower creditworthiness, and overreliance on collateral rather than borrower repayment capacity, can result in loans being extended to borrowers with a higher risk of default.
3. **Ineffective Risk Management Practices:** Weak risk management frameworks within banks, including insufficient monitoring and supervision of loan portfolios, inadequate stress testing, and lack of early warning systems, can contribute to the accumulation of NPAs. Failure to identify and mitigate emerging risks promptly can exacerbate NPA levels.
4. **Sectoral Factors:** Specific industries or sectors experiencing downturns, such as real estate, infrastructure, or agriculture, may witness a higher incidence of NPAs due to sector-specific challenges, regulatory changes, or adverse market conditions affecting borrowers' ability to service their loans.
5. **Borrower Related Issues:** Financial distress, business failure, or unforeseen events such as legal disputes, accidents, or natural disasters can impact borrowers' ability to repay loans, leading to the classification of loans as NPAs. Individual borrower defaults can also be influenced by personal financial mismanagement or fraud.
6. **Policy and Regulatory Factors:** Changes in regulatory requirements, accounting standards, or government policies related to loan classification, provisioning norms, or debt restructuring mechanisms can impact the classification and reporting of NPAs by banks, influencing their levels and trends over time.
7. **External Environment:** Factors beyond the control of banks, such as geopolitical tensions, currency fluctuations, or global economic shocks, can affect the performance of loans and contribute to the emergence of NPAs, particularly in internationally exposed banks or those with significant cross-border exposures.
8. **Lack of Recovery Mechanics:** Inefficient or delayed recovery mechanisms, including legal complexities, bureaucratic hurdles, and lengthy judicial processes, can hinder banks' efforts to recover dues from defaulting borrowers, leading to prolonged NPAs on their books.

Impact of NPAs on Financial Health

The impact of Non-Performing Assets (NPAs) on the financial health of banking institutions is profound and multifaceted. NPAs can significantly impair various aspects of a bank's financial performance and stability, affecting its overall health and sustainability. Here are some key ways in which NPAs impact the financial health of banks.

1. NPAs represent loans that borrowers have defaulted on, indicating a deterioration in asset quality. As NPAs accumulate, they reduce the overall quality of a bank's loan portfolio, increasing credit risk exposure and impairing the bank's ability to generate income from lending activities.
2. NPAs directly impact a bank's earnings by reducing interest income and increasing provisioning expenses. When loans become non-performing, banks stop earning interest on those assets, leading to a decline in net interest income (NII). Additionally, banks are required to set aside provisions to cover expected losses on NPAs, further reducing profitability.
3. The presence of NPAs exerts downward pressure on key profitability ratios, such as Net Interest Margin (NIM), Return on Assets (ROA), and Return on Equity (ROE). Lower NIM due to reduced interest income and higher provisioning expenses can compress margins, while lower ROA and ROE indicate diminished profitability and efficiency.
4. NPAs erode a bank's capital base by reducing its retained earnings and necessitating higher provisioning, which in turn reduces available capital for lending and investment activities. As NPAs increase, banks may face challenges in maintaining regulatory capital adequacy ratios, potentially leading to regulatory intervention or constraints on business operations.
5. High levels of NPAs signal weaknesses in a bank's risk management practices and governance framework, eroding investor confidence and impacting market perception. Investors may perceive banks with high NPAs as riskier investments, leading to a decline in stock prices and increased funding costs.

6. Banks burdened with high NPAs may face constraints on their ability to extend new credit, hampering their growth prospects and inhibiting their capacity to support economic development. Limited lending capacity can impede banks' ability to seize profitable business opportunities and compete effectively in the market.
7. Banks with elevated levels of NPAs may attract heightened regulatory scrutiny and intervention, leading to increased compliance costs and reputational damage. Regulatory authorities may impose stricter requirements on capital reserves, provisioning norms, and risk management practices to address NPA-related concerns.

Impact of NPAs on Profitability

The impact of Non-Performing Assets (NPAs) on the profitability of banking institutions is substantial and multifaceted, affecting various aspects of their financial performance. NPAs directly influence profitability by reducing net interest income (NII), increasing provisioning expenses, and impairing overall operational efficiency. Here's how NPAs impact profitability.

1. NPAs hinder a bank's ability to earn interest income on loans, as defaulted borrowers cease making interest payments. As a result, the portion of assets categorized as NPAs generates little to no income, leading to a decrease in NII. This reduction in NII directly impacts a bank's profitability by shrinking its primary source of revenue.
2. Banks are required to set aside provisions to cover expected losses on NPAs, based on regulatory requirements and internal risk assessments. Higher levels of NPAs necessitate increased provisioning expenses, which directly reduce a bank's pre-tax profit. Moreover, provisioning for NPAs ties up funds that could otherwise be used for more profitable activities, further impacting overall profitability.
3. The decrease in NII combined with the increase in provisioning expenses can lead to a compression of the Net Interest Margin (NIM), which is a key measure of a bank's profitability. A narrower NIM reflects reduced profitability as a percentage of total assets or interest-earning assets, indicating the adverse impact of NPAs on the bank's core lending activities.
4. The combination of reduced NII and increased provisioning expenses directly affects a bank's net profit margins. As NPAs escalate, the bank's net profit margins may decline, reflecting diminished profitability per unit of revenue generated. Lower net profit margins indicate inefficiencies in managing credit risk and recovering losses from NPAs.
5. NPAs can significantly impair a bank's Return on Assets (ROA) and Return on Equity (ROE), which are key performance indicators reflecting the bank's profitability relative to its assets and shareholders' equity, respectively. Higher levels of NPAs reduce the bank's ability to generate earnings from its asset base and erode shareholder value, resulting in lower ROA and ROE.
6. Managing NPAs involves additional administrative and operational costs, including loan restructuring, recovery efforts, legal proceedings, and monitoring of troubled assets. These operational inefficiencies and costs further erode profitability by diverting resources away from revenue-generating activities and increasing the overall cost-to-income ratio.

Impact on Capital Adequacy

The impact of Non-Performing Assets (NPAs) on the capital adequacy of banking institutions is a critical aspect that directly affects their stability, regulatory compliance, and ability to absorb losses. NPAs can erode a bank's capital base, affecting its capital adequacy ratios and potentially exposing it to regulatory scrutiny and intervention. Here's how NPAs impact capital adequacy.

1. NPAs result in potential losses for banks, which must be covered by their capital reserves. As banks allocate provisions for expected losses on NPAs, their regulatory capital base decreases. Consequently, the bank's Tier 1

capital, Tier 2 capital, and Total Capital—components of regulatory capital—may be depleted, affecting its capital adequacy ratios.

2. Capital adequacy ratios, such as the Capital Adequacy Ratio (CAR), Tier 1 Capital Ratio, and Tier 2 Capital Ratio, measure a bank's ability to absorb losses and meet regulatory capital requirements. The presence of NPAs reduces a bank's capital base while its risk-weighted assets remain unchanged or increase, resulting in a decline in capital adequacy ratios.
3. Regulatory authorities set minimum capital adequacy requirements to ensure banks can withstand unexpected losses and maintain financial stability. Banks with inadequate capital adequacy ratios may face regulatory sanctions, including restrictions on dividend payouts, limitations on lending activities, or even forced recapitalization measures.
4. A bank's capital adequacy position influences its credit rating, as credit rating agencies assess the bank's ability to honor its financial obligations and absorb potential losses. Deterioration in capital adequacy ratios due to high NPAs may lead to a downgrade in the bank's credit rating, increasing its funding costs and affecting market confidence.
5. Market participants closely monitor a bank's capital adequacy ratios as a measure of its financial strength and risk resilience. High levels of NPAs and weakened capital adequacy ratios may erode investor confidence, resulting in a decline in share prices and increased funding costs for the bank.
6. Inadequate capital adequacy may indicate weaknesses in a bank's risk management practices and governance framework, particularly in managing credit risk associated with NPAs. Effective risk management and capital allocation strategies are essential for banks to maintain adequate capital levels and enhance their capital adequacy position.

Impact on Liquidity:

The impact of Non-Performing Assets (NPAs) on the liquidity of banking institutions is substantial and can pose significant challenges to their financial stability and operational resilience. NPAs affect liquidity by tying up funds that could otherwise be used for lending and investment activities, reducing the availability of liquid assets and increasing funding costs. Here's how NPAs impact liquidity.

1. NPAs represent loans that have defaulted or are at risk of default, resulting in a loss of cash flow for the bank. As a result, funds that would otherwise be generated from interest payments on performing loans are unavailable, reducing the pool of available funds for lending and investment.
2. The process of recovering funds from NPAs can be lengthy and uncertain, resulting in delays in the receipt of loan repayments or write-offs. Banks may need to allocate additional resources to recover NPAs, further reducing the availability of liquid funds and impacting liquidity levels.
3. Banks are required to set aside provisions to cover potential losses on NPAs, based on regulatory requirements and internal risk assessments. Higher levels of NPAs necessitate increased provisioning, which reduces the amount of liquid assets available for lending and investment activities, impacting liquidity ratios.
4. High levels of NPAs can erode depositor confidence in the bank's financial health and stability, leading to increased deposit withdrawals. Deposit outflows further strain liquidity reserves, requiring banks to rely on alternative funding sources, such as interbank borrowing or central bank facilities, to meet liquidity requirements.
5. Reduced liquidity resulting from high NPAs can constrain a bank's capacity to extend new credit or support lending activities. Limited lending capacity hampers the bank's ability to generate interest income and expand its loan portfolio, further exacerbating liquidity pressures.
6. Banks with elevated levels of NPAs may face higher funding costs as investors demand higher returns to compensate for perceived credit risk. Increased funding costs reduce net interest margins and further strain liquidity reserves, as banks may need to allocate more funds to meet interest payments on borrowings.
7. High levels of NPAs pose liquidity risk management challenges for banks, as they must ensure they have adequate liquidity buffers to meet short-term obligations and withstand funding shocks. Inadequate liquidity management practices can expose banks to liquidity crises and financial instability.

Conclusion

In conclusion, the impact of Non-Performing Assets (NPAs) on banking institutions is profound and multifaceted, with far-reaching implications for their financial health, profitability, capital adequacy, liquidity, and reputation. NPAs represent a significant challenge for banks, reflecting weaknesses in credit risk management, economic downturns, and borrower-related issues. The consequences of NPAs extend beyond financial metrics, affecting investor confidence, regulatory compliance, and market perception.

From a financial health perspective, NPAs degrade asset quality, erode earnings, and strain capital reserves, posing risks to long-term sustainability. The compression of profitability ratios, such as Net Interest Margin (NIM) and Return on Assets (ROA), underscores the adverse impact of NPAs on banks' core operations. Moreover, NPAs can impair capital adequacy ratios, exposing banks to regulatory scrutiny and constraints on business activities.

The impact of NPAs on liquidity is significant, as they tie up funds that could otherwise be used for lending and investment, leading to increased funding costs and constraints on lending capacity. Liquidity risk management becomes paramount in the presence of high NPAs, necessitating proactive measures to maintain adequate liquidity buffers and withstand funding shocks.

Furthermore, NPAs can tarnish a bank's reputation and erode investor confidence, affecting market perception and credit ratings. Regulatory compliance becomes a focal point, as banks must adhere to stringent guidelines and norms for NPA classification, provisioning, and disclosure to mitigate risks and maintain transparency.

In response to the challenges posed by NPAs, banking institutions must adopt robust risk management practices, enhance credit appraisal processes, and implement proactive strategies for NPA resolution and recovery. Effective governance, transparency, and regulatory oversight are essential for addressing NPAs and safeguarding financial stability.

In summary, managing the impact of NPAs requires a holistic approach, encompassing risk management, regulatory compliance, and stakeholder engagement. By addressing the implications of NPAs on financial health, profitability, capital adequacy, liquidity, and reputation, banks can enhance their resilience, sustain growth, and uphold trust and credibility in the financial markets.

Reference:

1. Acharya, V. V., & Steffen, S. (2015). The "Greatest" Carry Trade Ever? Understanding Eurozone Bank Risks. *Journal of Financial Economics*, 115(2), 215-236.
2. Aggarwal, R. (2020). Non-Performing Assets in Indian Banking Sector: An Empirical Analysis. *Journal of Asian Finance, Economics and Business*, 7(11), 705-714.
3. Ahmad, S. (2017). Determinants of Non-performing Loans in Islamic Banking: A Case Study of Pakistan. *Journal of Islamic Banking and Finance*, 5(1), 23-33.
4. Akhtar, A., & Oliveros, S. (2019). The Determinants of Non-performing Loans: Dynamic Panel Evidence from South Asian Countries. *Journal of Economic Studies*, 46(1), 97-117.
5. Altunbas, Y., Gambacorta, L., & Marqués-Ibáñez, D. (2009). Securitisation and the Bank Lending Channel. *European Economic Review*, 53(8), 996-1009.
6. Banerjee, S., & Bhattacharya, I. (2017). Non-Performing Assets in Indian Banks: An Empirical Study. *Vision*, 21(4), 360-369.
7. Basel Committee on Banking Supervision. (2019). Overview of Pillar 3 Disclosure Requirements - Updated November 2019. Bank for International Settlements. Retrieved from <https://www.bis.org/bcbs/publ/d464.htm>
8. Bhattacharya, A., & De, T. (2017). Non-Performing Assets in Indian Banks: An Empirical Study. *Business Perspectives and Research*, 5(2), 181-192.
9. Bhasin, M. L., & Venkataraman, R. (2018). Non-Performing Assets and Profitability of Banks in India: A Comparative Study of Public and Private Sector Banks. *IIM Kozhikode Society & Management Review*, 7(2), 101-111.
10. Chakraborty, I., & Ray, T. (2019). A Study on the Impact of Non-Performing Assets on Profitability of Public Sector Banks in India. *International Journal of Research and Analytical Reviews*, 6(2), 407-411.

11. Dash, S., & Mahakud, J. (2019). Non-Performing Assets in Indian Banking Sector: Trends, Causes and Management. *IUP Journal of Bank Management*, 18(4), 7-25.
12. Dash, S., & Nayak, J. K. (2019). Non-Performing Assets in Indian Banks: A Critical Analysis. *Global Business Review*, 20(5), 1089-1104.
13. Goyal, A., & Kumar, M. (2019). A Comparative Study of Non-Performing Assets in Indian Public and Private Sector Banks. *Journal of Emerging Technologies and Innovative Research*, 6(5), 397-404.
14. Goyal, S., & Joshi, S. (2017). Non-Performing Assets: A Study of Public and Private Sector Banks. *International Journal of Management Studies*, 4(2), 109-116.
15. Gul, S., Irshad, F., & Zulfiqar, K. (2020). Non-Performing Loans and Financial Stability: Empirical Evidence from Pakistan. *Banks and Bank Systems*, 15(1), 151-161.
16. Hasan, I., & Dridi, J. (2010). The Effects of Global Shocks on Small and Medium-Sized Enterprises (SMEs). *World Bank Policy Research Working Paper No. 5497*.
17. Kaur, G., & Jain, K. (2018). Non-Performing Assets of Indian Banking Sector: Causes and Remedies. *International Journal of Engineering and Management Research*, 8(2), 1-9.
18. Kundu, A., & Ghosh, A. (2018). Non-Performing Assets: A Comparative Study of Public and Private Sector Banks in India. *Management and Labour Studies*, 43(3), 227-239.
19. Mohan, S. (2019). A Study on Non-Performing Assets in Indian Banking Sector. *International Journal of Business and Administration Research Review*, 2(10), 43-51.
20. Padhan, R., & Pradhan, R. P. (2018). Non-Performing Assets in Indian Banking Industry: Causes and Measures to Tackle NPAs. *The Journal of Asian Finance, Economics and Business*, 5(4), 65-75.
21. Rajan, R. G. (2006). Has Financial Development Made the World Riskier? *National Bureau of Economic Research Working Paper No. 11728*.
22. Sahu, M., & Satpathy, R. (2019). Non-Performing Assets in Indian Banking Sector: A Comparative Study of Public and Private Sector Banks. *International Journal of Management, Technology, and Social Sciences*, 4(1), 1-9.
23. Saini, M., & Kaur, G. (2018). A Comparative Study of Non-Performing Assets in Public and Private Sector Banks of India. *International Journal of Research in Management & Business Studies*, 5(2), 34-41.
24. Sharma, N., & Mahajan, M. (2017). Non-Performing Assets in Indian Banking Sector: A Review. *International Journal of Multidisciplinary Research and Modern Education*, 3(1), 353-358

