



**RISK MANAGEMENT STRATEGIES AND DETERMINANTS OF
NON-PERFORMING ASSETS IN SELECTED NATIONALISED BANKS IN
TIRUNELVELI DISTRICT**

Author : GIFTSON SOLOMON J,
Ph.D. Research Scholar (Registration No.: 18221271011024),
PG and Research Department of Commerce,
St. John's College, Palayamkottai,
Tirunelveli District, Tamil Nadu - 627002, India.

Co-author : DR D JANIS BIBIYANA,
Research Guide and Supervisor,
PG and Research Department of Commerce,
St. John's College, Palayamkottai,
Tirunelveli District, Tamil Nadu - 627002, India.

Affiliation : Manonmaniam Sundaranar University, Abishekapatti,
Tirunelveli District, Tamil Nadu - 627012, India.

Contact details : Mobile No : 9025507681

Email Id : giftsonsolomon.j@gmail.com

ABSTRACT

The main aim of the study is to study the Asset Quality of selected nationalised Banks and assess the determinants of Non Performing Assets of nationalised banks in Tirunelveli District. The present study is based on both analytical and descriptive in methods. The study is primarily analytical in the sense that it analyses various financial variables based on secondary data. The secondary data relevant to the study have been gathered from published sources like the RBI publications such as reports on trends and progress of banking in India, statistical tasks relating to banking in India, RBI Annual Report and RBI Bulletins and Report on Currency and Finance. This study shows that extent of NPA is very high in nationalised banks. Although various steps have been taken by government to reduce the NPAs but still a lot needs to be done to curb this problem. The NPAs level of nationalised banks is still high. It is not at all possible to have zero NPAs. The bank management should speed up the recovery process. The problem of recovery is not with small borrowers but with large borrowers and a strict policy should be followed for

solving this problem. The government should also make more provisions for faster settlement of pending cases and also it should reduce the mandatory lending to priority sector as this is the major problem creating area. So the problem of NPA needs lots of serious efforts otherwise NPAs will keep killing the profitability of nationalised banks which is not good for the growing Indian economy at all.

KEY WORDS: Non Performing Assets, Risk Management Strategies, Nationalised Banks and Asset Quality

INTRODUCTION

Risk Management is the process of identifying, quantifying, and prioritizing risks followed by a chosen strategic action for economical utilization of resources to track, reduce, and control the probability and/or potential impact of unfortunate events. Thus risk management can cause the probability of an unfortunate event to reduce, or it can help minimize the consequences in case of an unfortunate event. The Indian banking industry is a densely regulated with detailed and

focused regulator like Reserve Bank of India. On one hand the Indian banks face a challenge to keep up with the changes in the regulations by RBI, however on the other hand RBI faces a challenge to efficiently regulate the Indian banking industry with timely launch of effective policies.

REVIEW OF LITERATURE

Khurram Rehman, et al (2020) in their study entitled “A Multi-Group Analysis of Risk Management Practices of Public and Private Commercial Banks” the study examines the relationship between credit risk and operational risk (understanding of risk management, risk identification, risk assessment and control, and risk monitoring) on risk management practices followed by private and public sector commercial banks. The cross-sectional data method was used to check the impact of risk management practices. Data was collected from the bank employees and a total of 284 respondents were finally selected for further analysis. Measurement Invariance of Composite Models analysis is used to test the quality of the measurement model for sub-samples, and multi-group analysis is used for path analysis in sub-sample through PLS-SEM. The findings of the study as the total sample show that both types of banks are managing adequate and significant risk management practices. On the other hand, sub-groups’ results show private sector banks are more momentous than public sector banks. Risk identification is significantly different at the sub-group level, which shows public sector banks are more concentrating on this type of risk. Understanding of risk management has no significant effect on both types of banks and risk assessment & control for public sector banks, and there is a difference in the risk management practices among private and public sector commercial banks.

Rehman et al. (2019) identified risk management strategies adopted by commercial banks of Balochistan (Pakistan) and found that corporate governance, hedging, diversification, and the banks’ capital adequacy ratio, are factors significantly explaining credit risk management.

Rashmi Soni (2017) made a study titled “Management of Risk in Indian Banking Industry” revealed that the Banking sector has a crucial role to play in the development of an economy. It is the key driver of economic growth of the country. In India, the banking sector is very strong at the present but at the same time, banking is considered to be a very risky business. Most often than not root cause of a financial turmoil is inefficient risk management practices adopted by the financial institutions. Banks must thus see risk management as an ongoing and valued activity as it is directly linked to financial system stability of the country. The purpose of this research is to outline various risks posed by the Indian Banks and strategies adopted by them for risk management. The secondary objective is to compare the risk severity and success of risk management practices for the public sector and private sector Indian Banks.

Remzi Ahmeti and Besarta Vladi (2017) in their study entitled “Risk Management in Public Sector: A Literature Review” revealed that public sector today faces a variety of complex and challenging events, and adequate measures are required in order to ensure that the perceived public value is maintained at certain levels. There is a treasure of literature available for the

theory of risk and risk management in private sector, mainly with focus in financial and banking sector. Nonetheless, there is a gap in the literature regarding risk management in public sector. There is no well established theoretical background of strategic risk management in public sector and most of the available literature focus only on the risk estimation and fail to further contribute to how these estimations can be introduced to the decision-making process within public authorities. For this reasons, this paper aims to present a review of the most sound literature on risk management in public sector and a special focus will be given to the identification of current literature gaps and possible future research areas.

Roy Payel & Samanta Pradip Kumar (2017) in their study entitled, “Analysis of Non-performing Assets in Public Sector Banks of India”. In this paper the author tries to depict the difference between gross NPAs and net NPAs of public sector banks. He also attempts to find out the impact of NPAs on some selected banks for last five years. The analysis shows that NPAs have negative correlation with the profits of the banks. The position of loan assets has deteriorated over the last few years. Banks have suffered huge losses due to NPAs. Banks need to more careful while granting loans and transparency in disclosure norms should be followed by the banks.

Ayub Ahmed & Panwar Vishwanath (2016) in their study entitled, “A Comparative Study of Non-Performing Assets (NPA) in Private Sector Banks and Public Sector Banks in India”. In this paper the author has tries to compute the difference between the non-performing assets of public and private sector banks. NPAs have negative impact on the liquidity and profitability of the banks. The study shows that non-performing assets of public sector banks is more than private sector banks. Year 2016 proved to be a black mark for the public sector banks of India as the NPAs of this is more than double from the previous year. Various amendments were made by the government for the speedy recovery of NPAs. The study shows that the main problem of recovery is from large borrowers. Bank need to follow the strict policy for the recovery of loans and corrective actions need to be taken by the government and RBI to resolve the problem of NPAS from the banking industry.

STATEMENT OF THE PROBLEM

The practice of risk management is an age old phenomenon. With the passage of time almost all the economies are changing at a very fast pace, so as their regulation regarding financial institutions, thereby making them more independent in decision making. The traditional concept of doing business by staying under well guided regulations and stereotypical thinking no longer exists, which is bringing fresh air for the market but at the same time increases the extent of volatility. Thus modern financial institutions are more exposed to risk than before. Economic records exhibit instances of financial flux across the world, which in turn recognize the need for entrenched risk management system especially for the financial institutions.

Granting Credit for economic activities is the prime duty of banking apart from raising resources through fresh deposits, borrowing and recycling of funds received back from borrowers constitute a major part of funding credit dispensation activity. Lending is generally

encouraged because it has the effect of funds being transferred from the system to productive purposes, which results in economic growth. However, lending also carries a risk called Credit Risk, which arises from the failure of borrower.

OBJECTIVES OF THE STUDY

- 1) To study the Asset Quality of selected nationalised banks.
- 2) To assess the determinants of Non Performing Assets of nationalised banks in Tirunelveli District

METHODOLOGY

The present study is based on both analytical and descriptive in methods. The study is primarily analytical in the sense that it analyses various financial variables based on secondary data. The secondary data relevant to the study have been gathered from published sources like the RBI publications such as reports on trends and progress of banking in India, statistical tasks relating to banking in India, RBI Annual Report, RBI Bulletins and Report on Currency and Finance, besides Books, Annual Reports of Commercial Banks, Reports of various Committees appointed by RBI and articles published in various Standard textbooks, Journals and Magazines. The papers presented by experts in various conferences have also been reviewed for the purpose of analysis and suggestions.

ANALYSIS AND INTERPRETATION

Capital Adequacy of Selected Nationalised Banks

Capital adequacy reflects the overall financial condition of the banks and also the ability of the management to meet the need for additional capital. The average CAR and average D/E ratio along with ranking of the various nationalised banks in the above context has been shown in Table 1.

Table 1
Capital Adequacy Ratios of Selected Nationalised Banks

Nationalised Banks	Capital Adequacy Ratios	Rank	Debt–Equity Ratio	Rank	Average
Bank of Baroda	12.67714286	2	14.88943872	1	1.5
Bank of India	11.68428571	7	20.10319947	8	7.5
Canara Bank	12.05428571	5	17.22331866	4	4.5
Central Bank of India	10.87428571	8	20.04417387	7	7.5
Indian Overseas Bank	12.19428571	3	22.13268504	9	6
Punjab National Bank	12.15428571	4	16.73855765	2	2
UCO Bank	10.65	9	19.84466867	6	7.5
Union Bank of India	11.85142857	6	17.75067041	5	5.5
State Bank of India	12.83428571	1	16.78147692	3	2

Source: Statistical Tables relating to Banks in India from the year 2010-11 to 2019-20.

On the basis of Capital Adequacy Ratio of selected nationalised banks, State Bank of India enjoys first rank with Capital Adequacy Ratio of 12.83 followed by Bank of Baroda (12.68) and Indian Overseas Bank (12.19). UCO Bank has the least Capital Adequacy Ratio (10.65). On the basis of Debt Equity ratio, Bank of Baroda occupies the top most position with a ratio of 14.88 followed by IDBI (15.39) and State Bank of India (16.78). Lower the Debt Equity ratio, the better is the company's financial position. Banks like Central Bank of India (20.04), Bank of India (20.10) and Indian Overseas Bank (22.13) have very high Debt Equity ratio. On the aggregate basis, Bank of Baroda occupies the first rank followed by Punjab National Bank and State Bank of India are at the second position.

Asset Quality of Selected Nationalised Sector Banks

Asset quality refers to the degree of financial strength and risk in a bank's assets, typically loans and investments. A comprehensive evaluation of asset quality is one of the most important components in assessing the current condition and future viability of the bank. For evaluation of asset quality—NPAs as percentage of assets and NPAs as percentage of total advances have been evaluated. The aggregate position has been depicted in Table 2.

Table 2
Assets Quality Ratios of Selected Nationalised Banks

Nationalised Banks	NPA/Total Assets	Rank	NPA/Total Advances	Rank	Average
Bank of Baroda	1.624285714	5	3.588571429	4	5.5
Bank of India	2.181428571	8	3.944285714	8	9
Canara Bank	1.315714286	2	2.734285714	2	3
Central Bank of India	2.182857143	9	5.325714286	9	10
Indian Overseas Bank	1.498571429	4	3.411428571	3	4.5
Punjab National Bank	1.188571429	1	2.567142857	1	1.5
UCO Bank	1.787142857	6	3.878571429	7	7.5
Union Bank of India	1.855714286	7	3.722857143	6	7.5
State Bank of India	1.454285714	3	3.671428571	5	5

Source: Statistical Tables relating to Banks in India from the year 2010-11 to 2019-20.

The best bank in terms of least NPAs to total assets is Punjab National Bank (1.19) followed by Canara Bank (1.32) and State Bank of India (1.45). On the basis of NPA to total advances, Punjab National Bank (2.57) is ranked at number one. The second and the third positions are occupied by Canara Bank and Indian Overseas Bank, both in terms of NPA to total advances and aggregate asset quality.

Management Quality of Selected Nationalised Banks

It involves a subjective analysis for measuring the efficiency of the management. To measure the efficiency of the management in an objective way, I have used only two parameters: RONW and profit per employee of the bank. The aggregate position has been depicted in Table 3.

Table 3
Management Quality of Selected Nationalised Banks

Nationalised Banks	Return on Net Worth	Rank	Profit Per Employee	Rank	Average
Bank of Baroda	0.133354827	7	1.844285714	4	5.5
Bank of India	0.167405809	5	1.602857143	7	6
Canara Bank	0.188916516	2	2.32	1	1.5
Central Bank of India	0.107078394	9	0.83	9	9
Indian Overseas Bank	0.230172344	1	2.157142857	3	2
Punjab National Bank	0.177708816	3	1.808571429	5	4
UCO Bank	0.122245769	8	0.995714286	8	8
Union Bank of India	0.169874387	4	2.202857143	2	3
State Bank of India	0.158588166	6	1.674285714	6	6

Source: Statistical Tables relating to Banks in India from the year 2010-11 to 2019-20.

In terms of Return on Net Worth of select public sector banks, Indian Overseas Bank enjoys the highest return (0.23) followed by Canara Bank (0.19) and Punjab National Bank (0.18). Canara Bank earns the maximum profit per employee (2.32) followed by Union Bank of India (2.20) and Indian Overseas Bank (2.16). On overall basis of management quality, Canara bank is the best bank followed by Indian Overseas Bank.

Earning Quality of Selected Nationalised Banks

In this section, assess the quality of income in terms of income generated by core banking activity. Therefore, the researcher has compared the ratio of interest income to the total income. In addition, the researcher has compared the percentage change in net profit to rank the bank. The aggregate position has been depicted in Table 4.

Table 4
Earning Quality of Selected Nationalised Banks

Nationalised Banks	Increase in Net Profit	Rank	Interest Income/Total Income	Rank	Average
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Bank of Baroda	30.29249265	7	0.848332308	6	7
Bank of India	47.97805768	3	0.82750394	9	6.5
Canara Bank	39.76009734	5	0.835607547	8	7
Central Bank of India	77.36735266	2	0.888205948	1	2
Indian Overseas Bank	46.43096661	4	0.879051929	3	4
Punjab National Bank	23.15861057	8	0.864636125	5	7
UCO Bank	88.58831876	1	0.866818268	4	2
Union Bank of India	37.81986393	6	0.885684805	2	4.5
State Bank of India	19.95166667	9	0.844108392	7	8.5

Source: Statistical Tables relating to Banks in India from the year 2010-11 to 2019-20.

UCO Bank has the highest average increase in net profit, followed by Central Bank of India and Bank of India. With regard to ratio of interest income to total income, Central bank of India ranks first followed by Union Bank of India and Indian Overseas Bank.

MULTIPLE REGRESSION ANALYSIS OF NON-PERFORMING ASSETS DETERMINANTS IN NATIONALISED BANKS

Multiple regression analysis is an appropriate tool when there are more than two independent variables and one dependent variable. It helps to identify the depth of relationship between dependent and independent variables. By using this tool, hypothesis pertaining to the study has been tested. In multiple regression analysis, multicollinearity is said to be a problem where two or more independent variables explain the same relationship. It does not give clear picture about which of the independent variables is having a better explanatory power on dependent variable. Thus, multicollinearity is tested in this study.

Table 5

Multiple Regression Analysis of Non-Performing Assets Determinants in Public Sector Banks

R	R square	Adjusted R square	Std error of the estimate	F Statistics	Sig.
0.898	0.806	0.791	6.0140	54.107	0.000

Source: Computed Data

Table 5 depicts the summary of the regression result which is received from enter method of multiple regression. The adjusted R-square is 79.1%. This means that 79% of the changes in the gross non-performing assets are due to variation of the independent variables used in this study. The 21% variation in the dependent variable remains unexplained by the independent variables of the study. The value for F Statistic is 54.107 and is significant endorsing the validity and stability of the model relevant for the study.

Table 6
ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	681124195078.333	5	113520699179.722	28.804	.000
Residual	169534785.267	3	56511595.089		
Total	681293729863.600	8			

Source: Computed Data

The ANOVA table describes that F value is significant at 5% levels during the study period. This clearly indicates that the variation caused by independent variables such size of the nationalised banks (Logarithm of total assets), deposits to total assets, credit to deposits ratio, priority sector advances to total advances, term loans to total advances, secured advances to total advances, non-performing asset provision and capital adequacy ratio on gross non-performing assets is significant. At 95% confidence level, the critical value obtained from F table is 2.87. The calculated value is 28.804 which is greater than the tabular value and falls in the rejection region. Therefore, it can be concluded that there is a significant relationship between dependent variable GNPA and independent variables of non-performing assets of nationalised banks during the study period.

Table 7
Summary of Regression Coefficients of Non-Performing Assets Determinants in Nationalised Banks

Model	Unstandardized Coefficients		Standardized Coefficients	T - statistic	Sig.
	B	Std. Error	Beta		
Constant	1404080.602	648641.331		2.165	.119
Deposits to total assets	18443.632	2709.194	.197	6.808	.006
Credit to deposits ratio	9714.946	1170.181	.202	8.302	.004
Priority sector advances to total advances	21762.070	9130.155	.093	2.384	.097
Term loans to total advances	17537.575	2871.793	.298	6.107	.009

Secured advances to total advances	76.598	1104.441	.002	.069	.949
Non-performing assets provisioning ratio	136525.070	5625.811	.801	24.268	.000

Source: Computed Data

The significantly influencing non performing assets' determinants are deposits to total assets, credit to deposits ratio, term loans to total advances and non-performing assets provisioning ratio since their regression co-efficient are significant at five per cent level.

SUGGESTIONS

- ✓ There are creations of piles of NPAs because of economic slowdown. Hence, Government should initiate necessary steps to improve the economic conditions of various sectors namely, infrastructure, steel, sugar, textiles, spectrum, coal, and so forth.
- ✓ The information provided by Credit Information Bureaus related to default borrowers should be paid due consideration by the banks. Though, the credit related information is available on website, it has not been used efficiently by banks. The default borrower of one bank freely avails the loan from other banks that do not put much attention to his previous loan history and advances him more loans; consequently, it results in creation of more NPAs. Therefore, it is recommended that banks should give due weightage to the information provided by CIBIL.

CONCLUSION

This study shows that extent of NPA is very high in nationalised banks. Although various steps have been taken by government to reduce the NPAs but still a lot needs to be done to curb this problem. The NPAs level of nationalised banks is still high. It is not at all possible to have zero NPAs. The bank management should speed up the recovery process. The problem of recovery is not with small borrowers but with large borrowers and a strict policy should be followed for solving this problem. The government should also make more provisions for faster settlement of pending cases and also it should reduce the mandatory lending to priority sector as this is the major problem creating area. So the problem of NPA needs lots of serious efforts otherwise NPAs will keep killing the profitability of nationalised banks which is not good for the growing Indian economy at all.

REFERENCES

- Shanabhogara Raghavendra (2018). Non Performing Assets in Commercial Banks in India: An Analysis. *IMPACT: International Journal of Research in Humanities, Arts and Literature* Vol.6, Issue.4, pp.377-386
- Suvitha K Vikram and Gayathri (2018). Non Performing Assets of Private and Public Sector Banks, *International Journal of Pure and Applied Mathematics*, Vol.18, No.20, 2018,

pp.4537-4541

- Sengupta Rajeswari & Vardhan Harsh (2017). Non-Performing Assets in Indian Banks: This Time it is Different, Working Paper 2017-019 Indira Gandhi Institute of Development Research, Mumbai.
- Meher Bharat Kumar (2017). Impact of Demonetization on NPA Position of Indian Banks, International Journal of Advanced Scientific Research and Engineering Trends, Vol. 2(1), pp.1-7
- Miyan Mohammad (2017). A Comparative Statistical Approach towards NPA of PSU and Private Sector Banks in India. International Journal of Advanced Research in Computer Science. Vol. 8(1), pp.46-51
- Khurram Rehman, Hadi Hassan Khan, Bilal Sarwar, Noor Muhammad, Wahab Ahmed and Zia Ur Rehman (2020). A Multi-Group Analysis of Risk Management Practices of Public and Private Commercial Banks. Journal of Asian Finance, Economics and Business, Vol.7, No.11, pp.893–904
- Rehman, Z. U., Muhammad, N., Sarwar, B., & Raz, M. A. (2019). Impact of risk management strategies on the credit risk faced by commercial banks of Balochistan. Financial Innovation, 5(1), 44. doi: <https://doi.org/10.1186/s40854-019-0159-8>
- Rashmi Soni (2017). Management of Risk in Indian Banking Industry. Saudi Journal of Business and Management Studies, Vol.2, Issue.6, pp.663-671
- Remzi Ahmeti and Besarta Vladi (2017). Risk Management in Public Sector: A Literature Review. European Journal of Multidisciplinary Studies, Vol.2, Issue.5, pp.323-329
- Roy Payel & Samanta Pradip Kumar (2017). Analysis of Non-performing Assets in Public Sector Banks of India. International Journal of Management, Vol. 8(1), pp.21-29
- Ayub Ahmed & Panwar Vishwanath (2016). A Comparative Study of Non Performing Assets (NPA) in Private Sector Banks and Public Sector Banks in India. International Journal of Commerce, Business and Management, Vol. 5(6), pp.8-32