CHAPTER- 3
REVIEW OF RELATED LITERATURE & RESEARCH METHODOLOGY

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CHAPTER 3
REVIEW OF RELATED LITERATURE & RESEARCH METHODOLOGY

3.1 Introduction:

The process of reviewing the literature helps the researcher to understand the subject area better and thus helps him to conceptualize his research problem clearly and precisely. It also helps to understand the relationship between their research problem and the body of knowledge in the area.

How does answers to researcher’s questions compare with what others have found? What contribution have researcher been able to make in to the existing body of knowledge? How are researcher’s findings different from those of others? For researcher to be able to answer these questions, he needs to go back to literature. It is important to place the researcher’s findings in the context of what is already known in his field of inquiry.¹

3.2 Review of Related Literature:

For the purpose of research of NPAs in banking industry the researcher has reviewed several thesis, reports, books and articles from the journals of national as well as international repute. From this study the researcher has found out several important topics which are mentioned as the ‘review of the literature’ hereunder:

*Ammannaya, K.K. (2004)²* concludes that future of PSBs will depend on their alertness operational efficiency, customer orientation and standard of customer service, creation of large volumes of performing assets, attainment of optimum levels of productivity, profitability and overall performance. Those banks which are proactive and which quickly respond to changing customers needs and which give adequate attention to the factors indicated above alone can survive successfully face the emerging challenges perform well and prosper.

*Angadi, Ansuya and Kumar, Ashwin (2007)³* have stated that NPAs are posing a great problem for not only public sector banks but also for the whole banking system.

They have described that the lenders have been making every possible efforts for recovery of NPAs but because of Indian legal system they have failed to recover the NPAs. They have suggested that the banks should follow the capital adequacy norms for reduction of NPAs and improving profitability.

*Arora, Usha (2000)*\(^4\) suggests that the Indian banks must achieve the level of international standards in NPA management. In the long run, only better credit management in terms of appraising and monitoring of loan assets can only solve the problem of NPAs in Indian banks. By doing these Indian banks can maintain the pre-eminent position in the global set up.

*Arora, U., Vashisht, B. and Bansal, M. (2009)*\(^5\) analysed and compared the performance of credit schemes of selected banks for the last five years. The study found a positive relationship between total loan disbursement and total non-performing assets outstanding of selected banks.

*Banerjee, B. and Dan, A.K. (2006)*\(^6\) observed that non-performing assets are one of the problem areas which require attention for improvement in the management of PSBs and their profitability. The present scenario shows that the NPAs of PSBs are increasing very speedily. These NPAs cost the economy in several ways. First, the government has to bail out banks with budgetary provisions periodically and ultimately taxpayers bear the cost. Secondly, money borrowed for investment, if not utilized properly, affects the creation of assets and the growth of economy is endangered. The author has suggested several strategic measures to control NPAs of PSBs.

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Bhagwati, Jaimini (2011)\(^7\) reviewed that the worries about global financial market have been increasing because in US the bankers have postulated Tier-I capital requirement should be raised to 9% of risk weighted assets. This will lead to reduction in lending. Assessment for China conducted by World Bank and IMF indicates that there has been increasing in the vulnerabilities in the financial sector. Credit rating agencies in India have downgraded the SBI and have put it in the negative list because of mounting NPAs. From the analysis it is concluded that private sector banks performed better than PSBs in terms of recovery of loans and advances.

Bhatia (2007)\(^8\) explored an empirical approach to the analysis of NPAs of public, private and foreign banks in India. NPAs are considered as an important measuring rod to judge the performance and financial health of banks. The level of NPAs is one of the drivers of financial stability and growth of the banking sector. It was observed that the NPA affects the banks on micro and macro level.

Bhosle, J. and Tiwari, D. (2011)\(^9\) reviewed that the country’s largest lender, SBI, is aggressively marketing its gold loan scheme for farmers to prevent defaults after the agriculture sector witnessed the sharp spike in bad-debt in the past one year. Other banks are also promoting gold loans just to avoid bad-debts and to get good security against the loans.

Biswa, P.K. and Reb, A.T. (2004)\(^10\) analyzed the process leading to formation of high levels of NPAs in Indian Public sector banks. The paper discusses the random and non-random reasons of NPA formation in PSBs. The study observes a number of reasons for the generation of NPAs which are important and peculiar to India. The paper also presents a critical evaluation of the series of policy measures that have been adopted to improve the NPA scenario since liberalization. The study concludes

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\(^9\) Bhosle, Jayashree and Tiwari, Dheeraj (2011), “Hit by NPAs, PSBs Now Offer Gold-Backed Farm Loans”, The Economic times, December 16, 2011, pp. 18

that the high degree of NPA is due to the malfunctioning of banking institutions in India.

**Bodla, B.S. and Verma-Bajaj, Richa (2010)**\(^{11}\) analyzes the efficiency of 29 private sector banks with the data set ranging from the period 1998-99 to 2005-06. The researchers have thrown the lights on the limitations of ratio analysis technique. Considering the limitations of ratio analysis technique the researchers have used production approach of Data Envelopment Analysis (DEA) to judge the efficiency of private sector banks. In this model, banks are considered as service providers and while interest expenses, non-interest expenses and Non-performing assets ratio, i.e. net NPA to net advances are considered as input variables, deposits, advances and investments are considered as the output variables. The results of this study shows that a majority of private sector banks in India need to take steps to decrease the NPA level and improve their output parameters such as deposits, advances and investments because they have failed to acquire full efficiency in all these years of study.

**Chari, P.S.V. and Narasimham, P.S. (2002)**\(^{12}\) revealed that among various other aspects of performance of co-operative banks, recovery performance is the major eligibility criterion for co-operatives to obtain re-finance from the apex bank. NPAs impair their capacity to obtain re-finance. The increase in quantum of NPAs would out do the actual expansion of credit in real money terms.

**Chaudhary, Kajal and Sharma, Monika (2011)**\(^{13}\) compared the performance of public sector and private sector banks in India. It is observed that most of the changes in the functioning of banks have taken place only after liberalization, globalization and privatization. The result of such changes is visible now. The result is mounting NPAs in these banks. The author has compared the trends of NPAs in public and private sector banks using statistical tools. It was concluded that the economic reforms have adversely affected the profitability of banks.


Das, S. and Bose, S.K. (2005) elaborated while there have been several schemes in the past to facilitate the recovery from NPAs, the success of such efforts in terms of NPAs reduction has been far from satisfactory. It was hoped that SARFAESI Act would greatly help banks to reduce and recover money from NPAs. Nonetheless, the recent developments have also brought out the limitations of the act, thereby creating apprehensions amongst banks and financial institutions.

Dash, M.K. and Kabra, G. (2010) discussed that the purpose of this research is to analyze the sensitivity of Non-performing loans to macroeconomic and bank specific factors in India. In particular, it employs regression analysis and a panel of data set covering 10 years (1998-’99 to 2008-’09) to examine the relationship between non-performing loans and several key macroeconomic and bank specific variables. The researchers concluded that both bank specific and macroeconomic factors impact on the loan portfolios of commercial banks in India. It is also concluded that there is positive relationship between nonperforming loans and real effective exchange rate. This makes that deterioration in international competitiveness of the local economy may result in higher levels of NPAs.

Garg, I.K. (1997) states that banks encounter various risks such as credit risk, liquidity risk, interest rate risk and currency risk. Out of them credit risk and liquidity risk are dealt with properly but interest rate risk and currency risk are new to Indian banks.

Georgekutty, V.V. (2000) described that the lending capacity of the banks is adversely affected due to their inability to recycle the resources or to raise more resources from higher financing agencies. Any liquidity crisis in co-operative banks will subsequently hinder capital formation in agriculture, which will decelerate the economic development.

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Gokhale, Nihar (2011)\textsuperscript{18} observed that the future prices of selected bank stocks crashed because of the fear of rising non-performing assets and high interest rates turned sentiment against the sector. The banks like SBI, ICICI, AXIS and PNB have higher non-performing loans. This has affected the share prices of these banks.

Goyal, Krishna and Agrawal, Sunita (2010)\textsuperscript{19} described that the fast changing financial environment exposes the banks to various financial risks. The banking industry is passing through a process of change. The changes like rising global competition, increasing deregulation, introduction of innovative products and delivery channels expose the banks to the risk of NPA. The solution to this risk is only the ability to measure the risk and take appropriate position. Besides this, the paper throws light on the challenges and opportunities regarding implementation of Basel-II in Indian banking.

Gujarat Samachar Daily (2011)\textsuperscript{20} published that increasing interest rates and slowdown in the production have increased NPAs of PSBs in the last three months. The steps taken by RBI to control inflation have adversely affected the NPAs of PSBs. Moreover, adversities in the domestic infrastructure have lowered down the production, which is also a reason for increase in NPAs. The NPAs of PSBs have increased to Rs. 16,172 crores during the quarter ending on September 30, 2011, which is higher than the total NPAs of the previous year.

Gupta, S. and Kumar, S. (2004)\textsuperscript{21} analyzed that redeeming features of banking sector reforms is the continuing fall in gross and net NPAs as a proportion of total assets for all bank groups except private sector banks. Huge backlog of NPAs needs resolution of the earthiest as otherwise it can weaken the foundation of entire financial system.


\textsuperscript{20} Gujarat Samachar Daily (2011). “Jaher Kshetra ni bankoni NPA ma toting vadharo”, 18\textsuperscript{th} November, 2011, p. 08

Husan, Huzaifa (2011)\textsuperscript{22} stated that the banking sector is the sector to avoid for FI’s, because there are more loans which will turn NPAs in the near future. Through his article he has given negative remarks to banking sector for FI’s as the risk of NPAs is going to increase day-by-day.

Jain, Jayanth lal and Balachandran, K. (1997)\textsuperscript{23} described that the loss of income from NPAs not only brings down the level of income of the banks but also hinders them from quoting finer PLR. Thus, the foremost concern of banks is how best to reduce the share of NPAs to total advances but also the level of NPAs, though they are familiar with non-payment risk.

Jatna, Renu (2009)\textsuperscript{24} reviewed that the root cause of increasing NPAs in public sector banks is malfunctioning of the banks. This malfunctioning led to the setting up of Narasimham Committee which, in fact, identified the NPA as one of the possible effects of the malfunctioning of PSBs. According to RBI report, 1999 it was stated that the reduction in NPA should be treated as a ‘national priority’.

Jaysree, M. and Radhika, R. (2011)\textsuperscript{25} studied the trends in non-performing assets of Indian banks and made a comparison of public sector banks, old private sector banks, new private sector banks and foreign banks. The article attempted to establish relationship between net profit and NPAs and total advances. It was concluded that the increasing level of NPAs is a serious matter of concern for Indian banking sector.

Jilani, Rashid (1999)\textsuperscript{26} points out that the quantum of NPA in public sector banks in India is quite large. It indicates the fundamental weakness of Indian PSBs. This cannot be indicative of any systematic risk and we cannot consider Indian banking as unsound.

\begin{itemize}
  \item \textsuperscript{22} Husan, Huzaifa (2011). “Foreign Investors Will Wait For Clarity on Rupee”, The Economic Times, Dec. 5, 2011, pp. 7
  \item \textsuperscript{24} Jatna, Renu (2009). “Impact of NPAs on Profitability of Banks”, Indian Journal of Accounting, Vol. XXXIX, no. 2, June, 2009, pp. 21-27
\end{itemize}
Kakker, Rajendra (2005)\textsuperscript{27} opined that a high level of NPAs in banking system can severely affect the economy in many ways. He has emphasized the active role of ARCs in managing NPAs in Indian banking system. To relieve Indian banks from the clutches of NPAs, the ARCs can play an effective role.

Kamath, K.R. (2012)\textsuperscript{28}, chairman and M.D. of Punjab National Bank, said in his interview that the PNB is not worried about bad assets going up as banking is a business of taking risks and the formation of NPA’s is an integral part of banking. He said “If I shy away from NPA, probably I will shy away from sanctioning loans also”.

Karunakar, M., Vasuki, K. and Saravanan, S. (2008)\textsuperscript{29} have concluded that the problem of NPAs in Indian banking sector has become critical mainly after the economic reforms in India. They have found out various factors contributing to NPA. They have found out the magnitude of NPA in Indian banking sector. They have explained various reasons for high NPA and their impacts in Indian banking operations. They have also discussed the capital to risk weighted assets ratio of public sector banks. They have also given certain suggestions for managing the credit risks and measures to control the problem of NPAs. According to them the ultimate solution of the problem is only with proper credit assessment and risk management mechanism.

Kaur, H. and Pasricha, J.S. (2004)\textsuperscript{30} highlighted the problem of non-performing assets in public sector banks. The study covered the prudential norms given by RBI and also analysed the NPA management policies of public sector banks. Authors suggested that for effective handling of NPAs, there is an urgent need for creating proper awareness about the adverse impact of NPAs on profitability amongst bank staff, particularly the field functionaries. Bankers should have frequent interaction and meeting with the borrowers for creating better understanding and mutual trust.

\textsuperscript{29} Karunakar, M., Vasuki, K. and Saravanan, S. (2008), “Are non-performing assets gloomy or greedy from Indian perspective?”, Research Journal of Social Sciences, Vol. 3, pp. 4-12


**Kaur, Harpreet and Saddy, N.K. (2011)** have prepared the comparative analysis of nonperforming assets of public & private sector banks. In this article, she has discussed the issue of non-performing assets at length for financial system all over India. According to her, the problem of NPAs is not only affecting the banks but also the whole economy. In fact the high level of NPAs in Indian economy is nothing but the reflection of the state of health of the industry and trade. In her article, she has studied various aspects of NPAs in the banking sector of India. She has given the meaning of NPAs in this article. She has explained various factors contributing the growth of NPAs in the Indian banks. The article also brings out the magnitude of NPAs in the banks. She has explained various reasons of high NPAs and their impact on Indian banking operations and the economy. In this article she has studied the capital to risk weighted assets ratio of the public and private sector banks. She has also discussed the management of credit risk and measures to control the problem of NPAs.

**Kaveri, V.S. (2001)** studied the non-performing assets of the various banks and suggested various strategies to reduce the extent of NPAs. In view of the steep rise in fresh NPA advances, credit should be strengthening. RBI Should use some new policies/strategies to prevent NPAs. Other strategies to prevent the NPAs are stock inspection, study of ledger book transactions, scrutiny of periodicals statements and discussions with borrowers and co-bankers.

**Kaveri, V.S. (2002)** studied the developments not only in the recovery and prevention of NPAs but also suggested future strategies. She has described nine legal measures and eight non-legal measures to reduce NPAs effectively. Besides the legal and non-legal measures, sincerity and hard working along with professional approach on the part of bank management may help to recover the NPAs.

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Khan, M.Y. and Bisnoi, T.R. (2001)\(^{34}\) stated that NPAs affect the economy both at the macro and micro levels. At the macro level, alarming degrees of NPAs have a detrimental effect on the macro economy. A high level of NPAs or loss, eliminating fully or partially the banks’ capital could cause significant banking crisis or banking distress. Banking crisis exists in the country if the level of NPAs touches 10% of GDP.

Khurana, A. and Singh, M. (2010)\(^{35}\) studied that seven out of eight new private sector banks have significantly reduced the net NPAs to net advances ratio and fall in the category of less than 2% class. The new private sector banks have managed to sustain CRAR above the regulatory framework of Basel-II requirements.

Kotnal, J.R. and Naikwadi, I.A.M. (2010)\(^{36}\) studied the level of NPAs in the two co-operatives banks of Bagalakot, Karnataka. They found that the levels of NPAs in these banks were increasing rapidly. They have made suggestions like upgradation of assets, compromise settlement, and recovery through legal recourse to reduce NPAs.

Krishna, A.R. (2008)\(^{37}\) analysed the trend of NPA in the last five years and suggested measures to reduce them. The reform measures and policy initiative have resulted in reducing the level of NPAs in Indian commercial banks. The category-wise analysis showed that the PSBs have higher level of NPAs in comparison to private and foreign banks.

Krishnamurthi, C.V. (2000)\(^{38}\) states that the mounting NPAs is harmful for the public sector banks. It is seen that the gross NPAs of PSBs are rising very heavily. In banks the NPA curves vary between a gross of Rs.39,253 crores in 1992-’93 to Rs.45,653 crores in 1997-’98.

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Krishnamurthy, N.S. (1994) expressed the view that the public sector banks will always have an edge with regard to those investors for whom security and liquidity are the most important factors. The rate of return is also important these investors. So, marginal shift of funds need not cause undue concern or alarm for the PSBs.

Kumar, R. (2000) concludes that if NPA recovery rate is high, further disbursement would be automatically high. However, if NPA rise beyond the manageable limits, the health of the banking system would be jeopardized and the recycling of funds which is the key element in development would be severely stilled. An effective monitoring and control, aided by proper legal reforms would change the contours of NPAs in Indian banking on par with internal standards and build resilience for stronger and vibrant financial system to realize the objectives of the reforms measures implemented so far.

Kumar, Sanjay (2000) in a study relating to non-performing assets in regional rural banks states that high level NPA reduces the risk taking ability of the bank. It also affects the credit rating of the bank thereby restricting its ability to approach the public for capital subscription, which will ultimately affect the financial health of the banks.

Lall, S.B. (2011) stated that the most crucial factor that governs the performance of banks is health of its credit portfolio level of non-performing assets of the total loan assets of public sector banks. In offset of financial sector reforms the level of NPA is continuously increasing. NPA acts as a drag on the banks profitability and inhibit their lending decisions. The author concluded that the PSBs should adopt some strategies for reducing NPAs.

Makwana, Minal (2010)\textsuperscript{43} threw a light on the NPA management in banks. She has under taken a comparative research on public sector and private sector banks in India, as a part of her M. Phil. Degree. She analysed the financial performance, situation of NPAs for the period from 2005 to 2009.

Mehta, Sangita (2011)\textsuperscript{44} reviewed that the finance ministry is driving the capital-strapped public sector banks to hasten recovery of bad loans to improve their health. The finance minister has established DRT across the nation for the recovery of bad loans. But these DRTs are not efficient at the recovery of loans because of several reasons such as lack of presiding officers and recovery officers. Also judges are taking longer than six months to dispose of cases even as the DRT Act stipulates them to do so within six months. So, the amount of bad loans in PSBs is the matter of serious concern.

Menon, Shailesh (2012)\textsuperscript{45} stated that slower growth and high interest rates have taken a toll on many mid-sized companies. Close to 188 companies rated by CRISIL have failed to either service interest on borrowings or repay the principal amount on time. More than a dozen of these are listed companies. Most of these companies have not been able to repay funds in the range of Rs.50 crores to Rs.300 crores. Even leading micro finance institutions like Spandana Sphoorty and Ashmita Microfin also failed to meet their repayment commitments last year. These companies rated by CRISIL, India’s largest credit rating agency, have a combined debt outstanding of Rs.20,000 crores.

Muniappan, G.P. (2002)\textsuperscript{46} studied paradigm shift in banks from a regulator point of view. He concluded the positive effect of banking sector reforms on the performance of banks. He suggested many effective measures to strengthen the Indian banking system. The reduction of NPAs, more provisions for standards of the banks, IT, sound

\textsuperscript{43} Makwana, Minal (2010), “A Comparative Analysis of Selected Public Sector and Private Sector Banks in India”, M. Phil. Dissertation, Saurashtra University
\textsuperscript{44} Mehta, Sangita (2011), “State Owened Banks Told To Fast-Track Bad Loan Recovery”, The Economic Times, Dec. 12, 2011, p. 1
\textsuperscript{45} Menon, Shailesh (2012), “Around 188 companies default on Loans”, The Economic Times, April, 17 2012, p.1
capital bare are the positive measures for a paradigm shift. A regulatory change is required in the Indian banking system.

**Murli, S. and Sadasivan, B. (2001)** described that the skill of managing the credit risk is very important for the effective and efficient functioning of any financial institution. With the adoption of international norms of income recognition, and assets classification many public sector banks in India find themselves burdened with huge loads of NPAs.

**Pacha, M. and Sirisha, S. (2011)** examined the state of affairs of the NPAs of public and private sector banks in India with special reference to weaker section. It examined the trend of NPAs in weaker sections in both public sector and private sector. The study observed that the public sector banks have achieved a greater penetration in the weaker section as compared to the private sector banks but this has resulted into the increase of NPAs in PSBs.

**Pal, V. and Malik, N.S. (2007)** examined the difference in financial characteristics in public, private and foreign sector banks based on factors such as profitability, liquidity, risk and efficiency. The analysis reflected that foreign banks proved to be a high performer in generating business with a given level of resources and they are better equipped with managerial practices and in terms of skills and technology. The public sector banks emerged as the next best performer after foreign banks.

**Pathrose, P.P. (1998)** holds the view that the introduction of straight NPA norms and the standardization of provisioning requirements changed the situation of NPAs of Indian banks. Revised disclosure norms and new accounting standards along with the mounting provisions for NPA is a cause of reduction in the profitability of the banks.

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Poongavanam, S. (2011)\textsuperscript{51} highlighted that in recent times the banks have become very cautious in extending loans, this is due to mounting non-performing assets. Therefore an NPA accounts not only reduces profitability of banks by provisioning in the profit and loss account, but their carrying cost is also increased which result in excess and avoidable management attention. A high level of NPA also put strain on the banks’ net worth because banks are under pressure to maintain a desired level of capital adequacy and in the absence of comfortable profit level, banks eventually look towards their internal financial strength to fulfill the norms, thereby slowly eroding the net worth.

Prajapati, Pradip (2003)\textsuperscript{52} has stressed that the NPAs are the menace to the co-operative banks in India. According to him government policies are responsible for it. He has emphasized the internal audit and external audit in co-operative banks to control NPAs. He has warranted some urgent steps to be taken by the government as well as co-operative banks to control the mounting NPAs.

Prasad, M., Sinha, K.K. and Prasad, K.M. (2004)\textsuperscript{53} examined that NPAs has direct relation to the behavior of the economy as a whole. The increase in quantum of NPAs should not cause a panic, since every year more than Rs.10,000 crore is realized in NPA accounts. The government of India and the RBI has taken various steps in strengthening the functioning of DRTs and evolving a comprehensive settlement policy, which will certainly speed up the recovery in NPA accounts.

Raghavan, R.S. (2003)\textsuperscript{54} said that Indian banking system was working in a regulated environment and hence, the banks were not exposed to the risks. But especially after deregulation, the Indian banks are exposed to various types of financial and non financial risks. The researcher has considered main three categories of risks viz. Credit Risk, Market Risk and Operational Risk. Besides that the researcher has


\textsuperscript{52} Prajapati, Pradip (2003), “Sahakari Banko No Suryasta?”, Arthasankalan, issue no. 4, April, 2003, pp. 111-114


99
developed some other categories of risk such as Regulatory Risks and Environmental Risk. The researcher has presented various tools and techniques to manage credit risk, market risk and operational risk. The author has also checked effects of Basel’s New Capital Accord and Role of Capital Adequacy, risk aggregation and capital allocation and risk based supervision in managing risks in banking sector.

_Raiyani, J.R. (2011)_55 investigated the technical efficiency of Indian banks, segmented in terms of ownership. For this purpose, the data envelopment analysis (DEA) model was used with five input variables and four output variables and the efficiency scores were calculated for a sample of 49 major banks operating in India. The result of the study showed that foreign banks were slightly more efficient than public and private banks and that there was not much of the difference in the efficiency of the public and private banks.

_Rajender, K. (2009)_56 stated that the issue of mounting NPA is a tough challenge to public sector banks. The study found that the asset wise classification of PSBs is in right direction and there is significant variation in the recovery of NPAs in different sectors. The research observed that the PSBs should not be burdened with the twin objectives of profitability and social welfare.

_Rajesham, C.H. and Rajender, K. (2007)_57 described that NPAs is a characteristic of developing economy. They have focused on causes and consequences of NPAs. They have described RBI guidelines to recover NPAs. The initiatives by selected countries to recover NPAs are also described. They have stressed that it will be better if the government does not use PSBs as a means of accomplishing its political objectives by lending to unviable projects announcing loan melas and loan waiver schemes etc.

_Ramchandran, N. (1997)_58 concludes his article on NPAs with the argument that the quality of advances can be improved through introducing new tools and techniques

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for appraisal. Banks have to discard their traditional approach of overdependence on ratios to appraise projects. They should focus on their ability to foresee problems which might crop up with the borrowers.

Ram Mohan, K. (1995) argues that the system of roll-over credit will be replaced by loans of fixed maturity and by the deregulation of interest rates so that this will facilitates the matching of assets with liabilities depending upon their maturity profile.

Ramu, N. (2009) indicates that the UCBs are unit banks of the American model rather than branch banks of the British model. With the tightening prudential norms, the banking sector has been consistently confirming to and adopting international prudential norms and accounting practices. Such strengthening of prudential norms has resulted in increased levels of NPAs for the UCBs. As per CAMELS rating model, the highest weight is given to asset quality components. He has made an attempt to study the position of NPAs in UCBs of Tamil Nadu.

Ranjan, R. and Dhal, S.C. (2003) discussed that the non-performing loans are influenced by three major sets of economic and financial factors, i.e. terms of credit, bank size induced risk preferences and macro economic shocks. They have suggested that the banks should consider all these factors before providing loans.

Rao, C.H.V. (1999) remarks that lok adalat plays an important role as a forum for the disputes settlement among the defaulters. Through this forum the banks can recover their bad loans. The banks can adopt the principles of justice, equity, fair play and other legal principles in recovering the loans through the Lok Adalat.

Rao, Prabhakara (2004) indicates that several experiments such as BIFR/SICA, LOKADALATS, DRTS, OTS, SARFAESI etc. have been made to curb NPA’s in

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Indian banking industry. But, nothing did a miracle in controlling NPA. There is a need of adopting international standards for curbing NPAs in Indian banking industry.

*Rao, Ramchandran B. (1997)*\(^{64}\) strongly argues that the RBI should stop overplaying the concept of NPA. The relevant factor is NRA (Non Recoverable Assets). The banks should concentrate on this. It determines the quality of bank credit. Each bank should decide carefully to what extent loan assets are uncovered and cannot be realized due to losses and circumstances beyond the control of the borrowers.

*Rathore, S.S. and Singh, Alka (2004)*\(^{65}\) found out the relationship between NPAs and Capital Adequacy considering the case of Avadh Gramin Bank, Lucknow. They revealed that the main reason of NPAs was very poor receiving ratio. They have given some suggestions for curbing the high level of NPAs.

*Reddy, G.R. and Bhargavi, T.S. (2006)*\(^{66}\) observed that even though NPA is not new phenomenon, for the past few years, Indian banks have been weighed down by its enormous amounts. It has caused banking crisis and sometimes even threatened the very health of banking system. In spite of prudential norms framed by RBI, NPA in PSBs is continuously increasing.

*Reddy, N.P. and Panthulu N.K. (2006)*\(^{67}\) stated that the high level of non-performing assets in Indian banking sector is the matter of worry. According to them the magnitude of NPAs in public sector, private sector and foreign banks is continuously increasing. In their article they have emphasized on monitoring the signals in relation to NPAs and to take appropriate measures to speed up the recoveries.

*Saha, Gurudas (2007)*\(^{68}\) has thrown the light on the main reasons of increasing NPAs in Indian banking sector. According to him NPAs in Indian banking system are

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attributable to flaws in business models of the lenders, lending to certain identified sectors etc. He has stated that socio-politico-economic environment is responsible for mounting NPAs in India.

**Samal, B. (2002)** proposed a view that it is not possible to eliminate totally the non-performing assets in the banking business but can only be minimized. It is always wise to follow the proper policy appraisal, supervision and follow-up of advances to avoid NPAs. For reduction of NPAs, though there is a greater need of political threat and effective enactment of laws to recover NPAs, the bank should also take advantage of DRT, Lok Adalat, the legislations enacted by the state government and one time settlement scheme.

**Sarda, D.P. (1998)** states that the new guidelines issued by the RBI on income recognition, asset classification and provisioning norms have forced Indian banks to show the true financial picture in the balance sheet and the to take corrective steps for improving their loan portfolio. With the adoption of this new guideline, the banks are taking quality decisions of their assets and several steps are being taken by them to reduce NPAs.

**Sathye, Milind (2003)** found that the public sector banks performed better than their private sector counterparts with regards to their overall efficiency. The article raised concern over the higher level of NPAs in the banking system and suggested that policies should be implemented to reduce the bad loans.

**Sathye, Milind (2005)** examined the effect of privatization of banks on performance and efficiency. The data taken was for five years i.e. 1998 to 2002. It was observed that the privatization created a lot of effect on banking sector in India. It was concluded that partially privatized banks have performed better as compared to fully public sector banks in respect of financial performance and efficiency.

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\textit{Shah, Birju (2012)}\textsuperscript{73} reveals that the NPA’s of the public sector banks have increased from 66,712 crores as on December, 2010 to 1,02,001 crores as on December, 2011. There has been net rise of 53% in the NPA’s of public sector banks. Whereas the NPA’s of private sector banks increased from 18,147 crores to 18,618 crores during the same period. There has been an increase of 2.6% in NPA’s of private sector banks. The reason behind the increase in NPA’s is government’s policies for agriculture, petroleum, telecom, aviation, textiles and mining. The government has prepared a policy to give loans to these sectors but because of slowdown in the economy, these loans have not been recovered.

\textit{Shar, A.H., Shah, M.A. and Jamali, H. (2010)}\textsuperscript{74} analysed the performance and efficiency of banking sector of Pakistan using CLSA (Credit Leona’s Securities Asia) - Stress Test. The research covered the period of pre and post nationalization of state owned and commercial banks of Pakistan. It was analysed that some of the banks of Pakistan are under stress in regard to capital strength, assets quality, efficiency and liquidity.

\textit{Sharma, S., Sharma, R., Didwania, M. and Mittal, S. (2010)}\textsuperscript{75} studied that public sector banks have enough capital in hand to deal with future contingencies. Gross NPA and net NPA as percentage of advances are continuously declining which shows the efficiency of the PSBs.

\textit{Shastri, F.C. (2007)}\textsuperscript{76} explained the impact of NPAs at macro level and micro level. At the macro level, NPAs have checked off the supply line of credit of the potential lender and thereby having a deleterious effect on capital formulation and arresting the economic activities in the country. At the micro level, unsuitable level of NPA has eroded current profits of banks and financial institutions. The problem of NPA is not a matter of concern for banks and financial institutions alone but it is a matter of

\textsuperscript{73} \textit{Shah, Birju (2012)}, “Gujaratna Budgetne Bankoni NPA ‘Vatavi’ Gai!” (NPA’s of the Banks Crossed the Budget of Gujarat), Divya Bhaskar Daily, 27 February, 2012, pp. no.11


\textsuperscript{76} \textit{Shastri, F.C. (2007)}, “Asset Quality and Management of NPAs”, Restructuring of Indian Banks, Book Enclave, Jaipur, pp. 60-83
concern for the entire public. The factors like unfavorable business cycle, unanticipated shocks such as natural calamities, the RBI lending policy, bad management by banks etc. influence the NPAs in banking sector.

*Shukla, Jaya and Bajpai, Gaurav (2010)* presented a mathematical model for problem of stability of NPAs growth in banking sector. The various variables such as liquidity, political interference and other external factors affect the stability of NPA. All such variables are studied under this mathematical model. The model emphasized on growth of NPAs at stable rate to improve banks asset portfolio and quality of services assured by banks.

*Sikider, Sujita (1997)* points out in an article on NPA that the new RBI monitoring system of banks performance has become crucially dependent on the recognition of income and non-performing assets. The RBI guidelines issued for finalization of banks accounts for the year ending March, 1996 has pushed up the level of NPA and the subsequent provisioning requirements.

*Singh, Balwinder (2011)* is of the opinion that the problems of NPAs in central co-operative banks have emerged only after liberalization and globalization of economy and financial system. Some strict measures are required to recover the NPAs. The awareness, efforts and prudential norms of NPA reporting and provisioning have helped the central co-operative banks in Punjab to reduce their NPAs.

*Singh, Rajender (1999)* in an article related to NPA states that if we review the composition of NPAs in many banks, it is found that the priority sector advances are not necessarily the major cause of NPA. The percentage share of NPA in the poverty eradication programmes seem to be higher.

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Suchak, N.V. (2006)\textsuperscript{81} observed that the genesis of NPA is the new economic reforms in banking sector. Higher level of loans to the priority sector has created the problem of NPAs in the public sector banks. It is the prime time for PSBs to unearth hidden bad loans and write them off once for all and then strictly control the recurrence thereof to avoid the further cost of running many unviable projects.

Sudhakar, V.K. (1998)\textsuperscript{82} in a study on policies and perspectives of NPA reduction in banks points out that a banker can minimize risk by taking informal decisions with the help of technical expertise and market information. In the consideration of Indian banks, the risk assessment models are inadequate or underdeveloped and in such a scenario, unknown risks can enhance creation of more NPAs.

Swamy, B.N.A. (2001)\textsuperscript{83} studied the comparative performance of different banks since 1995-'96 to 1999-2000. An attempt was made by the researcher to identify factors which could have led to changes in the position of individual banks in terms of their share in the overall banking industry. He concluded that in many respects nationalized public sector banks are better than private banks and foreign banks.

Thiruttani, Munivelu (2000)\textsuperscript{84} points out that the NPA adversely affect banks’ earnings. The recovery of NPA is the key to increase profit and profitability of banks. Banks are required to accelerate recovery of loans for recycling of funds and this will improve the position of banks.

Tiwari, Dheeraj (2011)\textsuperscript{85} expresses his worry that a spike in bad loans could derail lending by state run banks. The finance ministry has urgently sought their company wise exposure to four stressed sectors- aviation, telecom, commercial real estate and power utilities. His worry is proved by the figures of NPAs in commercial banks. The NPAs of commercial banks have risen over Rs.25,000 crores in the first six months of

\textsuperscript{85} Tiwari, Dheeraj (2011),”Lens on Bank Loans to Stressed Sector”, The Economic Times, December 17, 2011, pp. 1
the current fiscal. State run banks wrote-off Rs.17,300 crores in 2010-’11 against 11,000 crores in the year before.

_Unnikrishnan, D. and Roy A. (2012)\(^{86}\)_ state that bad assets of India’s banks are expanding at a fast pace at a time growth in Asia’s third largest economy is slowing. The gross NPA’s of 34 listed banks that have announced December quarter earnings escalated to 76,644 crores, posting a growth of 30.51% year on year. The NPA’s of these banks are constantly increasing. For the March quarter, the NPA’s were 17.81%, for the June quarter, the NPA’s were 19.14% and for the September quarters the NPA’s were 28.28%.

_Upadhyay, Suresh (2007)\(^{87}\)_ considered the problem of NPAs as the one of the most severe problems faced by banking all over the world. NPAs affect the profitability, productivity and credibility of banks adversely. NPAs affect the growth of banking sector adversely. According to him banks need to take some strict measures to reduce NPAs and to improve the profitability.

_Velayudham, T.K. (2001)\(^{88}\)_ is of the opinion that though the banking reforms introduced by the Narasimham Committee have been proceeding in a phased manner in the country, they have not been much effective to reduce NPAs. The high level of NPAs poses serious hurdles.

_Vijayaragavan, G. (2009)\(^{89}\)_ prepared a special chapter in his book to explain the basics of NPAs in banks in India. He has explained various aspects of NPAs in details to develop the understanding of readers, e.g. meaning of NPA, trend, classification, RBI’s guidelines on asset classification and provisioning, how, why and when NPA occurs, impact and consequences of NPA as well as RBI’s definition on willful defaulters.


\(^{87}\) Upadhyay, Suresh (2007), “Vargikrut Vepari Bankoni Bin-Labhdayak Askyamato” , Yojana (Gujarati edition), issue no. 8, cont. issue no. 683, pp. no 22-25


Yadav, M.S. (2011)\textsuperscript{90} reviewed that $\frac{1}{4}$th credit of total advances was in the form of doubtful assets in the initial year of 1990s and has an adverse impact on profitability of public banks at aggregate or sectoral level indicating high degree of riskiness in credit portfolio and raising question mark on the credit appraisal. The profitability of all public sector banks affected at very large extent when NPAs work with other banking strategic variables and also affect productivity and efficiency.

3.3 Research Gap and Research Problem Statement:

This study will fill the gap in the literature by focusing on the analysis of NPAs of the nationalized banks in India. There is wide gap between previous studies done on this subjects and the research done by the researcher.

It shows that existing studies in most of the cases considered limited units in their study but the researcher has studied 6 nationalized banks to widen the scope of the study. Further, the existing literature shows that majority of the study is done in RRBs, but the present situation shows that there are maximum chances of NPAs in nationalized banks. So, the study of NPAs of nationalized banks is very important. This study will be guiding in that direction.

In most of the existing literature, the research work is limited up to the calculation of various ratios, which does not provide clear picture of performance of banks. While in this research, the researcher has made scale-wise analysis of the sampled units, which gives clear idea related to the capacity of bank for managing NPAs.

Most existing literature talks about the impact of NPAs on the profitability of financial institutions, but nobody has made technically proved. In this research, the researcher has made analysis of the impact of NPAs on profitability using appropriate statistical tools.

3.4  **Research Methodology:**

For the solution of any problem a systematically established method is required. Same as in case of solution of the research problem scientifically, a systematic method is required which is known Research Methodology. The research methodology of the selected topic follows in these dimensions:

3.4.1  **Research Title:**

“An Analytical Study of Non-Performing Assets of Nationalized Banks in India”

3.4.2  **Population of the Study:**

In this study, all banks working in India are the census for the study. The population of the study focused on banking sector in India, which may be classified into four groups’ viz. public sector banks, private sector banks, foreign banks and co-operative banks. As on 31st March, 2012 there are 237 scheduled banks reported in India. (SBI & its associates 6, Nationalized banks including IDBI 20, Old private sector banks 13, New private sector banks 7 Foreign banks 41, Regional Rural Banks 82, Scheduled State co-operative banks 16 and Scheduled Urban co-operative banks 52).

3.4.3  **Samples for the Study:**

As the banking sector in India has very wider scope, the researcher has focused on the study of the non-performing assets of nationalized banks in India. To justify the research without any bias, out of the 19 nationalized banks, the researcher has selected a random sample of 6 using lottery method. The selected banks under sample are as mentioned below:

1. Bank of Baroda (BOB)
2. Bank of India (BOI)
3. Bank of Maharashtra (BOM)
4. Central Bank of India (CBI)
5. Dena Bank
6. Punjab National Bank (PNB)
3.4.4 The Period of the Study:

The present study is focused on the analysis of the data for the period of 10 years i.e. from 2002-03 to 2011-12. This period is selected by the researcher for the study because this period covers the major fluctuations in the Indian capital market, Indian financial market and Indian economy as a whole. As banking sector is part of it, so the researcher selected this period with a view to study the current scenario of the NPAs of the nationalized banks in India.

3.4.5 Type of the Study:

The present research is empirical in nature. It provides basis for external validation. The empirical study is based on observation or experience alone; it is also known as data based research. It is capable of being verified by observation or experiment. The researcher has made an attempt to answer the questions raised in quantitative investigation. So, the present research may be defined as quantitative and analytical research. It is a functional study by nature and it focuses on the functional aspects of the banking sector with special reference to NPAs.

3.4.6 Scope of the Study:

The present research study is based on census of entire banking sector of India for the period of the 10 years from 2002-03 to 2011-12. It covers the analysis, evaluation and comparison of non-performing assets of nationalized banks, covered under the sample, viz. Bank of Baroda (BOB), Bank of India (BOI), Bank of Maharashtra (BOM), Central Bank of India (CBI), Dena Bank and Punjab National Bank (PNB). The present study is limited for analysis of non-performing assets with various aspects.

The scope of the study is still very wide. The presented study encompasses data on non-performing assets of nationalized banks, covered under sample. In the case of nationalized banks, selected under sample, the study has been conducted for the period of 10 years from 2002-03 to 2011-12. This study is aimed at an analysis of non-performing assets of selected nationalized banks in India. Furthermore, the researcher also made efforts to check impact of NPAs on profitability of the banks using statistical analysis.
3.4.7 Objectives of the Study:
The broader objectives of the present research are as listed below:

1) To find out the relationship between different variables, such as Gross NPAs and Advances, Gross NPAs and Total Assets, Net NPAs and Advances, Net NPAs and Total Assets, Unsecured Advances and Advances, Priority Sector Advances and Advances, Gross NPAs Recovered/Write-off/ Reduced and Gross NPAs, Gross NPAs Recovered/Write-off/ Reduced and Advances over the period of study.

2) To make comparative analysis of performance of sampled units over the period of study.

3) To analyze the efficiency of the banks to maintain the NPAs.

4) To analyze the performance of the banks on the basis of their efficiency of maintaining the NPAs.

5) To measure the impact of NPAs on profitability of the sampled units.

6) To suggest some precautionary steps to reduce risk of NPAs in future lending.

7) To suggest the banks in the way to increase profitability through adopting a better strategy to curb the NPAs.

3.4.8 Hypotheses:
A hypothesis is a proposition- a tentative assumption which a researcher wants to test for its logical or empirical consequences. To justify the research title and objectives, following null-hypothesis (H₀) were formulated by the researcher:

3.4.8.1 Hypotheses to Analyze Various Ratios Suggesting NPAs:

1) There is no significant difference between Gross NPAs to Advances ratio among selected nationalized banks during the period of study.

2) There is no significant difference between Net NPAs to Advances ratio among selected nationalized banks during the period of study.

3) There is no significant difference between Unsecured Advances to Advances ratio among selected nationalized banks during the period of study.

4) There is no significant difference between Gross NPAs to Assets ratio among selected nationalized banks during the period of study.
5) There is no significant difference between Net NPAs to Total Assets ratio among selected nationalized banks during the period of study.

6) There is no significant difference between Priority Sector Advances to Total Advances ratio among selected nationalized banks during the period of study.

7) There is no significant difference between Gross NPAs Recovered/Write-off/ Reduced to Gross NPAs Ratios among selected nationalized banks during the period of study.

8) There is no significant difference between Gross NPAs Recovered/Write-off/ Reduced to Advances Ratios among selected nationalized banks during the period of study.

9) There is no significant difference between Gross NPAs per Branch among selected nationalized banks during the period of study.

10) There is no significant difference between Net NPAs per Branch among selected nationalized banks during the period of study.

3.4.8.2 Hypotheses to Measure the Impact of NPAs on Profitability:

11) There is significant impact of Gross NPAs to Advances Ratio on Interest Spread As % to Total Assets.

12) There is significant impact of Gross NPAs to Advances Ratio on Net Interest Margin.

13) There is significant impact of Gross NPAs to Advances Ratio on Net Worth.

14) There is significant impact of Gross NPAs to Advances Ratio on Net Profit to Total Fund Ratio.

15) There is significant impact of Gross NPAs to Advances Ratio on Net Profit to Total Assets Ratio.

16) There is significant impact of Net NPAs to Advances Ratio on Interest Spread as % to Total Assets.

17) There is significant impact of Net NPAs to Advances Ratio on Net Interest Margin.

18) There is significant impact of Net NPAs to Advances Ratio on Return on Net Worth.

19) There is significant impact of Net NPAs to Advances Ratio on Net Profit to Total Fund Ratio.
20) There is significant impact of Net NPAs to Advances Ratio on Net Profit to Total Assets Ratio.

3.4.9 Method of Data Collection:
The present research is mainly based on secondary source of data. The data obtained from the published annual reports and statements of the banks have been used. To supplement the data RBI circulars, IBA Bulletin, RBI Databank are to be taken into consideration. As the data of public sector banks are public document, it is available from the various sources.

3.4.10 Method of Analysis:
To justify the research title, the researcher has used various accounting and statistical tools and techniques, listed as below:

- For the analysis of financial matters, Ratio analysis is the most widely used tool. The ratio analysis gives idea about the trends of various financial matters. It is useful for comparing the financial data of various years. It is also useful for comparison of financial condition of one unit with that of other unit.

  In this research work, the researcher has prepared various accounting ratios to establish relationship between different variables. The researcher has used these ratios to analyze NPAs in Nationalized banks of India.

- Sometimes, it becomes difficult to interpret the financial matters only through the statistical figures. To make an easier understanding of the financial matters, graphs and diagrams are often used. Generally, for the interpretation of various trends, the line chart is more useful.

  For the presentation of the trend of NPAs of the nationalized banks, the researcher has presented various ratios on line chart.

- For statistical analysis, condensation of data is useful to reduce the complexities of the data. The condensation is also useful to make data more comparable. This can be done by applying the measures of central tendencies on the data.
Here the researcher has used simple mean or arithmetic mean for condensing the data of NPAs of sampled units to make it more comparable and easily understandable.

- The term dispersion refers to the variability of the size of items. Dispersion explains the size of various items in a series are not uniform, rather, they vary. There are various techniques of dispersion available. Here the researcher has used the standard deviation and variance.

- For the testing of formulated hypothesis, various statistical tests can be applied. The researcher has used Two-way ANOVA using F-test because the data NPAs of the sampled units is classified in two ways i.e. years and banks.

- For the measurement of performance of the sampled units related to their NPAs, if the hypothesis formulated by the researcher gets rejected, the researcher has made ‘Scale-wise analysis’ at 5% level of significance (at 95% Confidence Interval). The researcher has classified the performance of the sampled units into four categories viz. Best, Good, Poor and Worst. This approach of analyzing the data is generally known as ‘Ordinal Analysis’. If the actual ratio falls below the lower bound, it is considered as the best performance in case of negative performance indicators and vice-versa in case of positive performance indicator. If the actual ratio falls between the lower bound and the mean, it is considered as the good performance in case of negative performance indicators and vice-versa in case of positive performance indicators. If the actual ratio falls between the mean and the upper bound, the performance is considered as poor for negative performance indicators and vice-versa for positive performance indicator. If the actual ratio is greater than the upper bound, the performance is considered as the worst in case of negative performance indicator and vice-versa for positive performance indicators.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Negative Performance</th>
<th>Positive Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Ratio &lt; Lower Bound</td>
<td>Best</td>
<td>Worst</td>
</tr>
<tr>
<td>Lower Bound &lt; Actual Ratio &lt; Mean</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td>Mean &lt; Actual Ratio &lt; Upper Bound</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>Upper Bound &lt; Actual Ratio</td>
<td>Worst</td>
<td>Best</td>
</tr>
</tbody>
</table>

The above given category-wise performance analysis is ‘Ordinal Analysis’ and hence it does not present accurate picture of the performance. So, the researcher has converted the ‘Ordinal Analysis’ into ‘Cardinal Analysis’ by giving scores or codes\(^2\) to the banks for each performance indicator viz. 1 for Worst, 2 for Poor, 3 for Good and 4 for Best.

To make the analysis of the financial data more accurate and to check the interrelationship of various ratios, multivariate analysis is used. Here the researcher has used ‘Centroid Factor’\(^3\) method to analyze the data with the application of ‘Eigen Value’.

After making the analysis of the data related to NPAs of the sampled units and the analysis of the performance of them, it is necessary to check the impact of NPAs on profitability of the sampled units. To check this impact, the researcher has used the regression analysis. On the basis of this regression analysis, the researcher has again formulated the hypotheses related to the impact of NPAs on profitability of the sampled units. These hypotheses are tested through student ‘t’ test.

To make this research work more accurate and meaningful, the researcher has used the technology such as Micro Soft Excel and SPSS from IBM so that there are least chances of errors in calculations.

3.4.11 Chapter Plan:

The present research work is divided in seven different chapters, mentioned as below:

Chapter – 1 An Introduction to Banking Sector
Chapter – 2 Non-Performing Assets- An Overview
Chapter – 3 Review of Related Literature & Research Methodology
Chapter – 4 Analysis and Interpretation
Chapter – 5 Comparison of Performance and Evaluation of Sampled Units
Chapter – 6 Impact of Non-Performing Assets on Profitability of Sampled Banks
Chapter – 7 Summary, Findings and Suggestions


\(^3\) Kothari, C.R. (2006), Research Methodology, New Age International Publishers, New Delhi, pp. 324-329
3.4.12 Contribution of the Study:

Mounting amounts of NPAs is a burning issue for the banks. In this situation, it is very much useful to analyze the performance of banks on the basis of data related to NPAs. This research work will be helpful for such analysis and it will be contributory in various aspects. Below given are a few contributions of the present research:

- **Guiding to the Banks:**
  
  This research will be a good guide to the banks which are going to allow loans and advances to their customers. It will be helpful for making the analysis of customers’ profile while sanctioning the loans. It will be guiding the banks for taking due care while making investment into the priority sector.

- **Useful for Performance Analysis:**
  
  This research will be providing information related to NPAs of the banks. It discloses the financial strength of the banks. Therefore it will be useful to measure the performance of the sampled banks in terms of recovery of loans and advances.

- **Useful to Bank Managers and Loan Officers:**
  
  This research will be useful for bank managers and loan officers for taking decisions related to sanctioning the loans. The research will be guiding the bank managers for proper selection of the borrowers, to take preventive steps for curbing the NPAs, to take the legislative measures for recovering NPAs etc.

- **Useful to Government Agencies:**
  
  This research work is useful to government agencies to alter the policies related to NPAs and recovery of loans from the defaulter customers. It will guide the government for the establishment of recovery cells or DRT for speedy recovery of NPAs.

- **Establishment of Ethical System:**
  
  In most of the cases, the bank officials adopt unethical practices while sanctioning the loans. This research will throw a light on the ethical system of offering loans and advances to the customers. It will help in selection of creditworthy customers while sanctioning the loans and advances.
Guide to RBI:
This research will be a guide to RBI for formulating the policies for controlling the NPAs in nationalized banks. Generally because of the rigid policies of investment in priority sectors without considering the risk, creates heavy NPAs in nationalized banks. This research will lead RBI to think in that direction.

Useful for Future Research:
This research will be a base for further study on NPAs and various matters related to NPAs such as policies of sanctioning the loans, policies of recovery of loans, steps for recovery from defaulter customers etc. This research will be useful for the students of the commerce, economics, banking and finance for further studies in the matters concerned to the banking industry.

3.4.13 Limitations of the Study:
The researcher is aware of the limitations of the study, as it is based on secondary sources of information and limited numbers of banks taken into consideration.

I. The present study is related to only 6 nationalized banks of India only, there is number of banks working in India, belong to different segments.

II. The study is based on NPAs of some selected nationalized banks in India; any generalization for universal application cannot be expected.

III. View of experts may be different for the purpose of the study, so it may create some difference in understanding the topic of the study.

IV. This study is in the nature of exploratory and empirical research. It is not being proposed to enter in the normative aspect and offer suggestion for improvement in the condition of NPAs in banks.

V. This study suggests the banks to adopt international standards to control NPAs but there are chances that the international standards may not be suitable to Indian condition.

VI. This study is based on secondary data collected from the annual reports of the banks, IBA Bulletin, RBI Databank, etc. so the quality of research may be based on the quality of data.
VII. This study focuses on only the nationalized banks. It does not consider the private sector banks and the foreign banks.

VIII. To study the impact on the profitability, only NPAs are considered as independent variable, other variables are ignored while measuring the impact.
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