INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT

IJRCM

A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

Indexed & Listed at:

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A., Google Scholar,
Indian Citation Index (ICI), J-Gage, India [link **of** the same is duly available at Inflibnet of University Grants Commission (U.G.C.)],
Index Copernicus Publishers Panel, Poland with IC Value of 5.09 (2012) & number of libraries all around the world.
Circulated all over the world & Google has verified that scholars of more than **6575 Cities** in **197 countries/territories** are visiting our journal on regular basis.
Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA
http://ijrcm.org.in/

CONTENTS

CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to the recent developments & practices in the areas of Computer Science & Applications; Commerce; Business; Finance; Marketing; Human Resource Management; General Management; Banking; Economics; Tourism Administration & Management; Education; Law; Library & Information Science; Defence & Strategic Studies; Electronic Science; Corporate Governance; Industrial Relations; and emerging paradigms in allied subjects like Accounting; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Rural Economics; Co-operation; Demography: Development Planning; Development Studies; Applied Economics; Development Economics; Business Economics; Monetary Policy; Public Policy Economics; Real Estate; Regional Economics; Political Science; Continuing Education; Labour Welfare; Philosophy; Psychology; Sociology; Tax Accounting; Advertising & Promotion Management; Management Information Systems (MIS); Business Law; Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labour Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; International Relations; Human Rights & Duties; Public Administration; Population Studies; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism & Hospitality; Transportation Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic; Web Design and emerging paradigms in allied subjects.

Anybody can submit the **soft copy** of unpublished novel; original; empirical and high quality **research work/manuscript** ***anytime*** in ***M.S. Word format*** after preparing the same as per our **GUIDELINES FOR SUBMISSION**; at our email address i.e. infoijrcm@gmail.com or online by clicking the link **online submission** as given on our website (***FOR ONLINE SUBMISSION, CLICK HERE***).

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION:**

DATED: _____________

THE EDITOR

IJRCM

Subject: **SUBMISSION OF MANUSCRIPT IN THE AREA OF** ____.

(e.g. Finance/Mkt./HRM/General Mgt./Engineering/Economics/Computer/IT/ Education/Psychology/Law/Math/other, please specify)

DEAR SIR/MADAM

Please find my submission of manuscript titled '____' for likely publication in one of your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published anywhere in any language fully or partly, nor it is under review for publication elsewhere.

I affirm that all the co-authors of this manuscript have seen the submitted version of the manuscript and have agreed to inclusion of their names as co-authors.

Also, if my/our manuscript is accepted, I agree to comply with the formalities as given on the website of the journal. The Journal has discretion to publish our contribution in any of its journals.

NAME OF CORRESPONDING AUTHOR	:
Designation/Post*	:
Institution/College/University with full address & Pin Code	:
Residential address with Pin Code	:
Mobile Number (s) with country ISD code	:
Is WhatsApp or Viber active on your above noted Mobile Number (Yes/No)	:
Landline Number (s) with country ISD code	:
E-mail Address	:
Alternate E-mail Address	:
Nationality	:

* i.e. Alumnus (Male Alumni), Alumna (Female Alumni), Student, Research Scholar (M. Phil), Research Scholar (Ph. D.), JRF, Research Assistant, Assistant Lecturer, Lecturer, Senior Lecturer, Junior Assistant Professor, Assistant Professor, Senior Assistant Professor, Co-ordinator, Reader, Associate Professor, Professor, Head, Vice-Principal, Dy. Director, Principal, Director, Dean, President, Vice Chancellor, Industry Designation **etc**. ***The qualification of author is not acceptable for the purpose***.

NOTES:

a) The whole manuscript has to be in ***ONE MS WORD FILE*** only, which will start from the covering letter, inside the manuscript. ***pdf. version* is liable to be rejected without any consideration**.

b) The sender is required to mention the following in the **SUBJECT COLUMN of the mail**:

New Manuscript for Review in the area of (e.g. Finance/Marketing/HRM/General Mgt./Engineering/Economics/Computer/IT/ Education/Psychology/Law/Math/other, please specify)

c) There is no need to give any text in the body of the mail, except the cases where the author wishes to give any **specific message** w.r.t. to the manuscript.

d) The total size of the file containing the manuscript is expected to be below **1000 KB**.

e) Only the **Abstract will not be considered for review** and the author is required to submit the **complete manuscript** in the first instance.

f) ***The journal gives acknowledgement w.r.t. the receipt of every email within twenty-four hours*** and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of the manuscript, within two days of its submission, the corresponding author is required to demand for the same by sending a separate mail to the journal.

g) The author (s) name or details should not appear anywhere on the body of the manuscript, except on the covering letter and the cover page of the manuscript, in the manner as mentioned in the guidelines.

2. **MANUSCRIPT TITLE:** The title of the paper should be typed in **bold letters**, **centered** and **fully capitalised**.
3. **AUTHOR NAME (S) & AFFILIATIONS**: Author (s) **name**, **designation**, **affiliation** (s), **address**, **mobile/landline number** (s), and **email/alternate email address** should be given underneath the title.
4. **ACKNOWLEDGMENTS:** Acknowledgements can be given to reviewers, guides, funding institutions, etc., if any.
5. **ABSTRACT**: Abstract should be in **fully Italic printing**, ranging between **150** to **300 words**. The abstract must be informative and elucidating the background, aims, methods, results & conclusion in a **SINGLE PARA**. ***Abbreviations must be mentioned in full***.
6. **KEYWORDS**: Abstract must be followed by a list of keywords, subject to the maximum of **five**. These should be arranged in alphabetic order separated by commas and full stop at the end. All words of the keywords, including the first one should be in small letters, except special words e.g. name of the Countries, abbreviations etc.
7. **JEL CODE**: Provide the appropriate Journal of Economic Literature Classification System code (s). JEL codes are available at www.aea-web.org/econlit/jelCodes.php. However, mentioning of JEL Code is not mandatory.
8. **MANUSCRIPT**: Manuscript must be in ***BRITISH ENGLISH*** prepared on a standard A4 size ***PORTRAIT SETTING PAPER***. *It should be free from any errors i.e.* ***grammatical, spelling*** *or* ***punctuation.*** *It must be thoroughly edited at your end*.
9. **HEADINGS**: All the headings must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.
10. **SUB-HEADINGS**: All the sub-headings must be bold-faced, aligned left and fully capitalised.
11. **MAIN TEXT**:

THE MAIN TEXT SHOULD FOLLOW THE FOLLOWING SEQUENCE:

INTRODUCTION
REVIEW OF LITERATURE
NEED/IMPORTANCE OF THE STUDY
STATEMENT OF THE PROBLEM
OBJECTIVES
HYPOTHESIS (ES)
RESEARCH METHODOLOGY
RESULTS & DISCUSSION
FINDINGS
RECOMMENDATIONS/SUGGESTIONS
CONCLUSIONS
LIMITATIONS
SCOPE FOR FURTHER RESEARCH
REFERENCES
APPENDIX/ANNEXURE

The manuscript should preferably be in ***2000 to 5000 WORDS***, But the limits can vary depending on the nature of the manuscript.

12. **FIGURES & TABLES:** These should be simple, crystal **CLEAR**, **centered**, **separately numbered** & self-explained, and the **titles must be above the table/figure**. **Sources of data should be mentioned below the table/figure**. *It should be ensured that the tables/figures are referred to from the main text*.
13. **EQUATIONS/FORMULAE:** These should be consecutively numbered in parenthesis, left aligned with equation/formulae number placed at the right. The equation editor provided with standard versions of Microsoft Word may be utilised. If any other equation editor is utilised, author must confirm that these equations may be viewed and edited in versions of Microsoft Office that does not have the editor.
14. **ACRONYMS:** These should not be used in the abstract. The use of acronyms is elsewhere is acceptable. Acronyms should be defined on its first use in each section e.g. Reserve Bank of India (RBI). Acronyms should be redefined on first use in subsequent sections.
15. **REFERENCES:** The list of all references should be alphabetically arranged. ***The author (s) should mention only the actually utilised references in the preparation of manuscript*** and they may follow Harvard Style of Referencing. **Also check to ensure that everything that you are including in the reference section is duly cited in the paper**. The author (s) are supposed to follow the references as per the following:

- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
- Use (**ed.**) for one editor, and (**ed.s)** for multiple editors.
- When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc., in chronologically ascending order.
- Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
- The title of books and journals should be in italic printing. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
- For titles in a language other than English, provide an English translation in parenthesis.
- ***Headers, footers, endnotes*** *and* ***footnotes*** *should* ***not be used*** *in the document.* However, **you can mention short notes to elucidate some specific point**, which may be placed in number orders before the references.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

BOOKS

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

UNPUBLISHED DISSERTATIONS

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

WEBSITES

- Garg, Bhavet (2011): Towards a New Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

EFFECT OF CREDIT RISK ON FINANCIAL PERFORMANCE OF SELECTED PUBLIC SECTOR BANKS IN INDIA

Dr. SANJAY SHARMA
ASSOCIATE PROFESSOR
INDORE MANAGEMENT INSTITUTE AND RESEARCH CENTRE
INDORE

Dr. REKHA LAKHOTIA
ASSOCIATE PROFESSOR
DEPARTMENT OF COMMERCE
IPS ACADEMY
INDORE

ABSTRACT
In this liberalization period, credit Risk Management has got much importance in the Indian Economy. The main challenges faced by the banking sector today are the challenge of identifying the risk and managing it. The risk is imbibed nature of the banking business. the most role of bank is of intermediate for those having resources and requiring resources. For risk management numerous risks like credit risk, market risk or operational risk got to be reborn into one composite live. Therefore, it's necessary that measure of credit risk ought to be in tandem bicycle with different measurements of operation and market risk in order that the requisite composite estimate is puzzled out. So, in banking sector credit risk management is being most vital task of all. The importance of the credit risk management and its impact on profitability has motivated us to pursue this study.

KEYWORDS
financial performance, credit risk management, public sector banks.

JEL CODES
G32, G33, G39.

INTRODUCTION
The banking system in India is dominant as it contains more than half of assets of the financial system. Banks in India are undergoing through an attractive phase through quick change because of the financial system reforms. They are in high rivalry with one another so the improvement of methodologies has gotten especially fundamental. Banks now days have become benefit arranged. The incredible obstruction in the creation benefit is the augmentation of non-performing advances or resources of the banks. To defeat the issue, banks must control their credit hazard. With the goal that NPA issue can be evaded up somewhat. Credit risk being the most basic and unavoidable danger for the business banks, that should be dealt with and overseen appropriately. Banks to be fruitful and beneficial, they need to create procedures in an approach to oversee credit risk. As giving advance to the client is one the most significant activity, banks need to oversee credit risk r to make the money accessible with them. Hence the study focuses on how credit risk management impacts the profitability and liquidity in the selected public sector banks of India.

LITERATURE REVIEW
Lalon (2015), it's imperative to say that default shoppers are a serious drawback for the banking money establishments for long and also the money establishments are attempting to attenuate the default drawback right along. The Asian Nation Bank has been endeavour to help the money establishments to induce out of the default risk drawback and formulating policies for that purpose. As a continuance to the present, Asian nation Bank has been providing directives once and wherever it looks to be necessary. Bhaskar (2014) it all over that the business grows primarily by taking risk. Larger the danger, higher the profit and thence the business unit should strike an exchange between them. The essential functions of risk management area unit} to spot measure and additional significantly monitor the profile of the bank. Whereas Non-Performing Assets square measure the bequest of the past within the gift, Risk Management system is that the pro-active action within the gift for the longer term. Managing risk is nothing however managing the modification before the danger manages. Whereas new avenues for the bank has displayed they need brought with them new risks yet, that the banks ought to handle and overcome. Attarwala and Balasubramaniam (2014), this analysis paper explained the necessity for risk management within the banks on account of assorted sorts of risks. The second half bestowed case studies of 2 leading Public Sector banks in Republic of India with their risk management structure and up to date expertise of non-performing assets (NPA) throughout 2011-14. Third half mentioned RBI's efforts on risk management at the macro level and key economic factors restrictive and trade problems. The study tried to develop early warning system (EWS) with a novel rating of stress and risky outcomes for a bank. Rising horizons for the banks within the economy would kind the Conclusion.

RESEARCH PURPOSE
The purpose of the research is to study and understand role of credit risk management in public sector banks and its overall impact on the financial performance of the bank. And to identify the loop holes in the banks operating structure, in managing the loans given to the primary sector. We try to study and analyze the recent trends in NPAs in public sector banks in relation with the profitability and liquidity of the bank. Under this research we have conducted regression analysis on bank NPA and the profitability of the bank. Along with that see impact on policy bank made to overcome it and see the trend of the bank NPA with Profitability of bank taking other things constant.

RESEARCH QUESTION
RQ.1 Does the credit risk management have the impact on financial performance of banks?
RQ.2 What is the relationship between the credit risk management and profitability of Public Sector banks in India from 2010 to 2019?
RQ.3 What are the trends in nonperforming assets in banks?

RESEARCH OBJECTIVES
1) To assess the impact of credit risk management on financial performance of selected Public Sector banks in India;
2) To analysis the relation between Non Performing Assets and Financial Performance of Selected Public Sector Banks;
3) To analysis the trends in Non-Performing Assets of selected Public Sector banks in India;

RESEARCH HYPOTHESIS

Impact of Credit Risk Management on Financial Performance of Selected Public Sector Banks

A. Credit Risk Management and Profitability:

H_{01}: There is no significant impact of CAR, NPLR, BS on ROE of the Selected Public Sector banks.
H_{02}: There is no significant impact of CAR, NPLR, BS on ROA of the Selected Public Sector banks.
H_{03}: There is no significant impact of CAR, NPLR, BS on NIM of the Selected Public Sector banks.

B. Credit Risk Management and Liquidity:

H_{04}: There is no significant impact of CAR, NPLR, BS on LAR of the Selected Public Sector banks.
H_{05}: There is no significant impact of CAR, NPLR, BS on LADR of the Selected Public Sector banks.

RESEARCH METHODOLOGY

Credit risk management is expected to have a direct and significant relationship to banks performance. A non-performing loan is a facility that is in default or close to being in default. When credit is considered to be non-performing, such would adversely affect the return on equity, return on asset and the net interest margin of the banks. Loan to deposits determines the liquidity of funds in banks. If such tends to be high, it is expected that the banks would not have enough to meet other banks obligation and in turn would either affect performance in terms to return on equity, return on asset and net interest margin.

In this study, the audited annual financial statement of listed banks, financial publications and reports from the Reserve Bank of India covering the period 2010-2020 are analyzed

Type of Study: Analytical and Descriptive

Selection of the Banks: According to their total assets

Number of Banks: Top Ten

Reason for Choosing Public Sector Bank: own nearly 80 per cent market share

TABLE 1: DESCRIPTION OF VARIABLES FOR IMPACT OF CREDIT RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF SELECTED PUBLIC SECTOR BANKS

Types of Variables	Nature	Indicators	Proxy Measures	Sign
Dependent Variables	Profitability	Return on Assets	Net Income/Total assets	ROA
		Return on Equity	Net income/Total equity	ROE
		Net Interest Margin	(Investment Income – Interest Expenses) / Average Earning Assets	NIM
	Liquidity	Liquid Asset Ratio	Liquid Asset/Total asset	LAR
		Liquid Asset To Total Deposit Ratio	Liquid Asset/Total Deposit	LATD
Independent Variables	Credit Risk Management	Capital Adequacy Ratio	(Tier 1 Capital + Tier 2 Capital) / Risk-Weighted Assets	CAR
		Non-Performing Loan Ratio	NPLs/Total Loans	NPLR
Control Variable		Bank Size	Natural log of total assets	BS

TABLE 2: DESCRIPTION OF VARIABLES FOR RELATION BETWEEN NON PERFORMING ASSETS & FINANCIAL PERFORMANCE OF SELECTED PUBLIC SECTOR BANKS

Types of Variables	Nature	Indicators	Proxy Measures	Sign
Dependent Variables	Financial Performance	Return on Assets	Net Income/Total assets	ROA
		Total Assets	Current Assets + Fixed Assets	TA
		Net Profit	Net Profit	NP
Independent Variables	Non-Performing Asset	Gross Non-Performing Asset	sum of all loan assets that are classified as NPA as per RBI guidelines	GNPA
		Net Non-Performing Asset	Gross NPAs – Provisions	NNPA

STATISTICAL TOOLS

1) Percentages and averages
2) Tables
3) Ratio analysis
4) F- Test
5) Regression and Correlation
6) Average annual growth rate (AAGR)
7) Compound annual growth rate (CAGR)
8) Trend Analysis:

Forecasting of Gross NPA and Net NPA for Selected Public Sector bank by the help of Least Square Method for the year 20-21

Trend Equation:

$$\boxed{Y = a + bX}$$

Where,

$$a = \frac{\sum Y}{N}$$

$$b = \frac{\sum XY}{\sum X^2}$$

RESULT OF HYPOTHESIS TESTING

A. CREDIT RISK MANAGEMENT AND PROFITABILITY

H_{01}: There is no significant impact of CAR, NPLR, BS on ROE of the Public Sector banks.

TABLE 3

S.No.	Banks	Accepted/Rejected		
		CAR on ROE	NPLR on ROE	BS on ROE
1	SBI	Rejected	Accepted	Rejected
2	BOB	Rejected	Accepted	Rejected
3	PNB	Rejected	Rejected	Rejected
4	Canara Bank	Rejected	Rejected	Rejected
5	BOI	Rejected	Accepted	Rejected
6	UBI	Rejected	Rejected	Rejected
7	CBI	Rejected	Rejected	Rejected
8	BOM	Rejected	Rejected	Rejected
9	IOA	Rejected	Rejected	Rejected
10	Indian Bank	Rejected	Rejected	Rejected

H_{02}: There is no significant impact of CAR, NPLR, BS on ROA of the Public Sector banks.

TABLE 4

S.No.	Variables	Accepted/Rejected		
		CAR on ROA	NPLR on ROA	BS on ROA
1	SBI	Rejected	Rejected	Rejected
2	BOB	Rejected	Rejected	Rejected
3	PNB	Rejected	Rejected	Rejected
4	Canara Bank	Rejected	Rejected	Rejected
5	BOI	Rejected	Accepted	Rejected
6	UBI	Rejected	Rejected	Rejected
7	CBI	Rejected	Rejected	Rejected
8	BOM	Rejected	Rejected	Rejected
9	IOA	Rejected	Rejected	Accepted
10	Indian Bank	Rejected	Rejected	Rejected

H_{03}: There is no significant impact of CAR, NPLR, BS on NIM of the Public Sector banks.

TABLE 5

S.No.	Variables	Accepted/Rejected		
		CAR on NIM	NPLR on NIM	BS on NIM
1	SBI	Rejected	Rejected	Rejected
2	BOB	Rejected	Rejected	Rejected
3	PNB	Rejected	Rejected	Rejected
4	Canara Bank	Rejected	Rejected	Accepted
5	BOI	Rejected	Rejected	Rejected
6	UBI	Rejected	Rejected	Rejected
7	CBI	Rejected	Rejected	Accepted
8	BOM	Rejected	Rejected	Rejected
9	IOA	Rejected	Rejected	Accepted
10	Indian Bank	Rejected	Rejected	Rejected

B. CREDIT RISK MANAGEMENT AND LIQUIDITY

H_{04}: There is no significant impact of CAR, NPLR, BS on LAR of the Public Sector banks.

TABLE 6

S.No.	Variables	Accepted/Rejected		
		CAR on LAR	NPLR on LAR	BS on LAR
1	SBI	Rejected	Rejected	Rejected
2	BOB	Rejected	Rejected	Rejected
3	PNB	Rejected	Rejected	Rejected
4	Canara Bank	Rejected	Rejected	Accepted
5	BOI	Rejected	Rejected	Rejected
6	UBI	Rejected	Rejected	Rejected
7	CBI	Rejected	Rejected	Accepted
8	BOM	Rejected	Rejected	Rejected
9	IOA	Rejected	Rejected	Rejected
10	Indian Bank	Rejected	Rejected	Rejected

H05: There is no significant impact of CAR, NPLR, BS on LADR of the Public Sector banks.

TABLE 7

S.No.	Variables	Accepted/Rejected		
		CAR on LADR	NPLR on LADR	BS on LADR
1	**SBI**	Rejected	Rejected	Rejected
2	**BOB**	Rejected	Rejected	Rejected
3	**PNB**	Rejected	Rejected	Rejected
4	**Canara Bank**	Rejected	Rejected	Accepted
5	**BOI**	Rejected	Rejected	Rejected
6	**UBI**	Rejected	Rejected	Rejected
7	**CBI**	Rejected	Rejected	Accepted
8	**BOM**	Rejected	Rejected	Rejected
9	**IOA**	Rejected	Rejected	Rejected
10	**Indian Bank**	Rejected	Rejected	Rejected

MAJOR FINDINGS FROM SECONDARY DATA

- In terms of average CAR, it can be said that Bank of Baroda (BOB) stood at 1st position among all the banks for credit risk management followed by Indian bank. Central Bank of India was found to have least average CAR for credit risk management.
- Ranking based on AAGR showed that SBI occupied 1st position with growth of 151.98 percentages. Indian bank occupied 2nd position followed by IOA. In terms of ROE, banks with rank 1 was said have had highest growth rate among the selected banks and bank with rank 10 can be marked as lowest growth rate. Among all the banks, only SBI and Indian bank showed positive growth rate and rest all are showing negative growth. SBI and Indian bank was generating maximum profits from shareholder's equity.
- On the basis of AAGR SBI showed highest profitability and IOA showed the lowest profitability. Overall SBI and IOA have used its assets more efficiently to increase their revenues and profit. PNB and Canara bank are ranked bottom two on the efficient use of their asset and its effects their profitability in negative direction. Banks with rank 1 is said to have had highest growth rate of profitability and rank 10 can be said as the bank with lowest growth rate of profitability.
- BOB showed highest profitability and PNB was found with lowest profitability. SBI and BOI are on second and third position on the basis of their CAGR on NIM and showing their strong financial performance. PNB, Indian Bank, Canara Bank and UBI have shown highest negative value on CAGR and it means these banks are inconsistence in their profit making. Overall BOB NIM is good because it is in increasing rate for the last five years.
- Credit Deposit ratio of SBI is above the standard ratio of 60 percent. The Credit Deposit ratio is above 80 percent from 2011-12 to 2003-04. From the year 2015-16 onwards, it has registered a steady decrease from 84.57 percent to 71.49 percent as on 2017-18. In the year 2018-19 registered a steady increase but again decrease in 2019-20.
- Ranking based on CAGR showed that Indian bank occupied 1st position with growth of 24.63 percentages. PNB occupied 2nd position followed by CBI. In terms of gross NPA to gross advance ratio, banks with rank 1 was said have had highest growth rate among the selected banks and bank with rank 10 can be marked as lowest growth rate. Among all the banks, SBI and IOA in bottom two.
- Net Non-Performing Assets and Net NPA to Net Advances Ratio between the periods of 2009 to 2019 with respect to selected public sector banks in India. Ranking based on CAGR showed that SBI occupied 1st position with growth of 15.47 percentages. BOB occupied 2nd position followed by Indian bank. In terms of net advances, banks with rank 1 was said have had highest growth rate among the selected banks and bank with rank 10 can be marked as lowest growth rate.
- All the banks will have increasing trend in their Gross NPA apart from BOB, UBI and PNB. It means in near future the problem of NPA will be increased and will affect the financial performance of the banking sectors.
- All the banks will have increasing trend in their Net NPA apart from CBI. It means in near future the problem of NPA will be increased and will affect the financial performance of the banking sectors.

CONCLUSION & SUGGESTIONS

Public sector Banks must maintain an effective management information system through which the banks can know about the history of borrowers which help them to decreases the no. of defaulters and by which automatically decrease the Non-Performing Assets. The effectiveness of risk management relies upon computerization, effective data framework and systems administration of the branch exercises. The public area banks ought to limit the NPA proportion by usage of legitimate credit hazard the board framework. In the time of rivalry, public area banks must have prepared their representatives according to request of the worldwide retail market. To decrease the NPAs in retail credit the public area banks mandatory follow the rules of the RBI. Banks ought to have Loan Review Policy and it ought to be looked into yearly by the Board. The fundamental goals of Loan Reviews are to give input on adequacy of credit endorse and to distinguish decay in nature of portfolio.

REFERENCES

1. Alshatti, A. S. (2015). "The effect of credit risk management on financial performance of the Jordanian Public Sector banks". Investment Management and Financial Innovations, Volume 12, Issue 1, 2015.
2. Al-Tamimi, H. and Al-Mazrooei M., (2007), "Banks' Risk Management: A Comparison Study of UAE National and Foreign Banks", The Journal of Risk Finance, Vol. 8 No.4, pp. 394-409.
3. Altman, Edward I., & Anthony Saunders. "Credit risk measurement: Developments over the last 20 years." Journal of Banking & Finance 21.11 (1997): 1721-1742.
4. Arora, S. (2013). Credit Risk Analysis in Indian Public Sector Banks-An Empirical Investigation. Asia-Pacific Finance and Accounting Review, 1(2), 25.
5. Arunkumar, R. &Kotreshwar, G., (2005). "Risk Management in Public Sector Banks (A Case Study of Public and Private Sector Banks)", Review Committee Ninth Capital Market Conference Indian Institute of Capital Market (December 19-20, 2005) Mumbai.
6. Attarwala, .A.A. &Balasubramaniam C.S. (2014). "Risk Management in Banking: Measurement, Models and Emerging Horizons". IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. PP 10-19. www.iosrjournals.org.
7. Berger, Allen N., and Gregory F. Udell. "Collateral, loan quality and bank risk."Journal of Monetary Economics 25.1 (1990): 21-42.
8. Bhaskar, P. J. (2014). Credit Risk Management in Indian Banks. International Journal of Advance Research in Computer Science and Management Studies l, 2(1), January (2014).
9. Bhati, G. (2014). "Trends in NPA Management: Comparative Study of Indian PSU Banks & Private Banks". IJSR - International Journal of Scientific Research, 3(10), October (2014).
10. Bindseil, U. andPapadia, F. (2006)., Credit Risk Mitigation in Central Bank Operations and its Effects on Financial Markets: The Case of the Euro system (August 2006). ECB Occasional Paper No. 49. Available at SSRN: http://ssrn.com/abstract=807426
11. Cibulskiené, D., & Rumbauskaité, R. (2012). Credit Risk Management Models of Public Sector Banks: Their Importance for Banking Activities. Social Research, (2), 27.

12. *Dash M. K. & Kabra G.*, The Determinants of Non-Performing Assets in Indian Public Sector Banks – An Econometric Study, Middle Eastern Finance & Economics (Euro journals Publishing Inc.), 2010
13. Dima, A. M., & Orzea, I. (2012). "Risk Management in Banking. Academy". Publish.org – Risk Assessment and Management.
14. Goyal, K. A, Risk Management in Indian Banks –Some emerging issues. Int. Eco. J. Res., 2010 1(1) 102-109.
15. Gumparthi, S., Khatri, S., &Manickavasagam, V. (2011). Design and development of credit rating model for public sector banks in India: Special reference to small and medium enterprises. Journal of Accounting and Taxation, 3(3), 105.
16. Jarrow, R. A.; Lando, D.A. and Turnbull, S. M. (1997). "A Markov Model for the Term Structure of Credit Risk Spreads". Review of Financial Studies **10** (2): 481–523. doi:10.1093/rfs/10.2.481. ISSN - 0893-9454.
17. Kanchu, T. & Kumar, M.M. (2013). Risk Management in Banking Sector: An empirical study. International Journal of Marketing, Financial Services & Management Research, 2(2), 145-153.
18. Kanchu, T. & Kumar, M.M. (2013). Risk Management in Banking Sector: An empirical study. International Journal of Marketing, Financial Services & Management Research, 2(2), 145-153
19. Kaur, K., & Singh, B. (2011). Non-performing assets of public and private sector banks (a comparative study). South Asian Journal of Marketing and Management Research, 1(3), 54-72.
20. Lalon, R. M. (2015), "Green Banking: Going Green, International Journal of Economics, Finance and Management Sciences", Vol. 3, No. 1, 2015, pp. 34-42. doi: 10.11648/j.ijefm.20150301.15
21. Mallikarjuna.T.K and Maregoud, R. (2012), "Risks in Public Sector Banking: Identification and Management", Indian Streams Research Journal, Vol.2, pp.1-4.
22. Mishra, B. M., & Dhal, S. (2010). Pro-cyclical management of banks' non-performing loans by the Indian public sector banks. BIS Asian Research Papers.
23. Nayan, J. & . Kumaraswamy, M. (2014), "Retail Credit Risk Management in Indian Public Sector Banks", Global Journal for Research Analysis, Vol: 3, Issue: 8
24. Periasamy, P. (2008). Financial Management. India: Tata McGraw Hill Education India) Private Limited
25. Reserve Bank of India: Reports on Trend and Progress of Banks in India.
26. Santomero, A. M. (1997). Public Sector bank risk management: an analysis of the process. Journal of Financial Services Research, 12(2), 83-115.
27. Serwadda, I. (2018), "Impact of Credit Risk Management Systems on the Financial Performance of Commercial Banks in Uganda". Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 66(6): 1627–1635.
28. Sharma, B.R. (2003). Bank Frauds - Prevention & Detection, Universal law Publishing Co. Pvt. Ltd.
29. Sikdar, P., &Makkad, M. (2013). Role of Non-Performing Assets in the risk framework of Public Sector Banks-A study of Select Indian Public Sector Banks. AIMA Journal of Management and Research, 2(4).
30. Singh, A.,(2013), "Credit Risk Management In Indian Public Sector Banks", International Journal of Marketing, Financial Services & Management Research ISSN 2277- 3622 Vol.2, No. 7, July (2013).Online available at www.indianresearchjournals.com.
31. Uppal, R. K. (2011), "Banking Sector Reforms: Policy Implications and Fresh Outlook", Information Management & Business Review, Vol. 2, No. 2, pp.55-64.

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce & Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue, as well as on the journal as a whole, on our e-mail **infoijrcm@gmail.com** for further improvements in the interest of research.

If you have any queries, please feel free to contact us on our e-mail **infoijrcm@gmail.com**.

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward to an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-
Co-ordinator

DISCLAIMER

ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

Our Other Journals