



Research Paper

An Analytical Study of Impact of Number of Bank Branches On Deposits, Advances and NPA: With Special Reference to Lead Bank Scheme

Mr. Rajiv G. Sharma* & Dr. Sejalben R. Christian#

* Research Scholar & Assistant Professor in Commerce Department, Idar Anjana Patidar H. K. M. Arts and P. N. Patel Commerce College, Idar- 383430 Gujarat.

Research Guide & Officiating, Shri D. N. Institute of P. G. Studies in Commerce, Anand - 388001 Gujarat

Abstract:

The concept of Lead Banks Scheme (LBS) originated in the year 1969 after bringing revolutionary changes in the banking sector. In order to meet all the financial needs of the farmers and artisans in the rural sector, RBI has brought changes in the policies and products of the LBS after receiving recommendations from various committees. In the current research paper researcher has tried to find out the impact of number of bank branches on total deposits and total advances of the bank. Pearson correlation coefficient test proves that there is a significant relation among number of bank branches, total deposits and total advances of the cooperative banks, RRBs, private sector Banks. So far as nationalised banks are concerned, there is no relation among total number of bank branches, deposits and advances. During the study period 2010-11 to 2019-20, the volatility pattern of NPAs has been remains almost constant and same in all the regions of the Gujarat it means socio economic cost of farmers, socio economic development programmes or schemes of Central and/or Gujarat Governments and climate change, all effects the revenue of farmers and thereby affect bank loan repayment capacity of loanee.

Keywords: Nationalised Bank, Lead Banks Scheme, NPA, NABARD, RBI, RRBs, Advances, Deposits, Small Finance Bank

Received 28 Nov, 2021; Revised 10 Dec, 2021; Accepted 12 Dec, 2021 © The author(s) 2021.

Published with open access at www.questjournals.org

I. Introduction:

LBS has been prepared for rural development, especially agricultural development in India. The Finance Minister of India has emphasized on the speedy process of financial assistance given under the scheme so that the needy people of rural sector can avail the loans at the right time from the lead banks and they do not have to take any loans from any other private lending institutions at high interest rates, but due to excessive targeted loan amount and lack of monitoring of end use of loan, the amount of NPA under the scheme is increased. The NPA has forced banks to tighten lending rules. The RBI highlighted that the banks NPA from all regions of the Gujarat have been showing steady increase during the last decade. In addition, the RBI has emphasized on the expansion of the bank branches under financial inclusion programme to encourage rural savings and deposits under LBS. In the present research study, the state of Gujarat has been divided into four regions on the basis of geographical location, namely North Gujarat, Central Gujarat, North Gujarat, and Saurashtra-Kutchch Gujarat.

Objectives:

- To find out region which has highest NPA in Gujarat
- To find out the relation among bank branches, deposits and advances in all the region of Gujarat
- To find out any similarities in the pattern of NPAs

Research Types and Data Collection:

To find out the mysterious question: Has the number of bank branches encouraged rural credit and savings? Researcher collected secondary data from the authorised bank website and used line charts and correlation test to find relationship between NPA, Advances and Deposits. At present, all the banks including co-operative banks, RRBs, Nationalised banks and private sector banks, have been given lead role and responsibility under LBS.

In order to find out which region of Gujarat has the highest NPA? the secondary data is divided on the basis of geographical location as follows:

Table No. 1 NPA under LBS (Amt. in Lacs)

Financial Year	South Gujarat	Central Gujarat	Saurashtra-Kutchch Gujarat	North Gujarat	Gujarat
2010-11	6525	44422	6221	10794	67962
2011-12	18694	98507	15950	35613	168764
2012-13	43098	67143	20544	30307	161091
2013-14	13656	60388	17070	32217	123331
2014-15	19259	84181	19669	51375	174484
2015-16	10549	43424	13311	36220	103504
2016-17	13095	58992	11491	53448	137026
2017-18	8943	31366	8547	35205	84062
2018-19	12027	43870	12689	45481	114067
2019-20	13199	34166	34298	46443	128106
Total	159045	566459	159790	377103	1262397
Average	15904	56646	15979	37710	126240

Table No.1 shows region wise NPA amount under LBS, the year 2014-15 witnessed the highest NPA amount in the Gujarat during the entire study period. So far as region is consider, Central Gujarat has recorded the highest NPA in the year 2011-12. Taking into account the calculation of the NPA mean of the last ten years, the lowest NPA has been found in South Gujarat and the highest NPA has been recorded in Central Gujarat. To find out and exploration of the trend of NPA during the last ten years, the researcher has used a line chart based on the absolute amount of NPA as follows:

Chart No. 1 Trend Analysis of NPA During Last Ten Years in All the Region of Gujarat

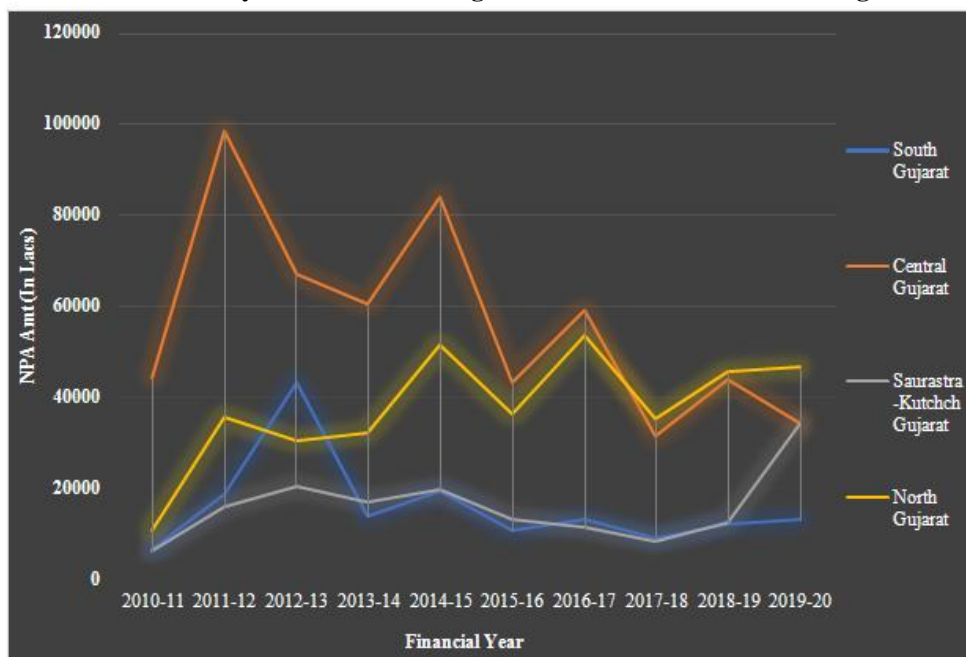


Chart No. 1 demonstrates the fluctuation of NPA during the 2010-11 to 2019-20. There is decrease in the amount of NPA in the North, Central, South and Saurashtra-Kutchch Gujarat region during the period of 2012-13 to 2013-14, 2014-15 to 2015-16, 2016-17 to 2017-18. while there is increase in the amount of NPA in the North, Central, South and Saurashtra-Kutchch Gujarat region during the period of 2010-11 to 2011-12, 2013-14 to 2014-15, 2015-16 to 2016-17, 2017-18 to 2018-19.

From the above discussion, we can conclude that there is almost same pattern in the NPA trend of all regions of Gujarat during the year of 2010-11 to 2017-18 but the pattern of NPA trend line got changed from 2018-19 to 2019-20 onwards, as the NPA trend line of Saurashtra-Kutchch Gujarat region is moving upward, NPA trend line of Central Gujarat region is moving downward while the NPA trend line of North and South Gujarat region is observed to be parallel.

There are many factors behind the fluctuation in the quantum of NPA account and NPA amount, but in the present research study, the researcher has examined only total number bank branches and advances provided to the beneficiaries under LBS to find out the impact on two variables on NPA.

Table No. 2 Bank Group Wise Descriptive Analysis of Total Deposits, Advances and Bank Branches

Bank Group	Deposits / Advances / Bank Branches	Mean	Std. Deviation
Nationalised Banks including SBI and Its Associate Banks	Total Deposits	450,20,989.38	46,69,018.748
	Total Advances	29,437,148.55	18,32,355.893
	Total No. Bank Branches	5,339.50	127.224
Co Operative Banks	Total Deposits	26,19,862.82	4,69,442.993
	Total Advances	18,15,163.57	3,04,877.870
	Total No. Bank Branches	1,546.00	46.904
RRBs	Total Deposits	11,89,570.30	2,72,471.296
	Total Advances	6,92,393.38	1,93,800.418
	Total No. Bank Branches	746.33	33.273
Private Sector Banks	Total Deposits	139,64,926.59	48,00,727.125
	Total Advances	184,68,085.11	70,09,258.285
	Total No. Bank Branches	1,634.50	325.146

Table No. 2 shows mean value and standard deviation of all bank groups (i.e., Nationalised Banks including SBI and its associate banks, RRBs, Private Sector Banks, State Cooperative Banks) which are working under LBS. In context of the highest mean and standard deviation, SBI ranks first among all banks, Private Sector Bank ranks second, Cooperative banks rank third and RRBs rank last.

Hypothesis Testing

So far as, objectives of research are concern, the following hypothesis is examined using Pearson Correlation (r) test.

Hypothesis 1: H0 There is no significant difference among Bank Branches, Advances and Deposit of Nationalized banks including SBI and its Associate bank in Gujarat State

H1 There is significant difference among Bank Branches, Advances and Deposit of Nationalized banks including SBI and its Associate bank in Gujarat State

Table No. 3 Correlation Test of Total Number of Bank Branches, Deposits and Advances of Nationalised Banks (NBs) Including SBI And Its Associate Banks in Gujarat

Bank Group		Total Deposits	Total Advances	Total No. Bank Branches
Nationalised Banks including SBI and Its Associate Banks	Total Deposits	P.C. (r)	1	.863*
		Sig. (2-tailed)	-	.027
		SOSs and CPs	1.090E14	3.692E13
		Cov.	2.180E13	7.384E12
	N	6	6	
	Total Advances	P.C. (r)	.863*	1

		Sig. (2-tailed)	.027	-	.995
		SOSs and CPs	3.692E13	1.679E13	-3816430.840
		Cov.	7.384E12	3.358E12	-763286.168
		N	6	6	6
	Total No. Bank Branches	P.C. (r)	.225	-.003	1
		Sig. (2-tailed)	.669	.995	-
		SOSs and CPs	6.670E8	-3816430.840	80929.500
		Cov.	1.334E8	-763286.168	16185.900
		N	6	6	6
		* Indicates significant of Correlation at the 5% level. While ** Indicates significant of Correlation at the 1% level.			

Table No. 3 shows the correlation between selected two different continuous variables (i.e., Total Deposits to Total Bank Branches and Total Advances to Total Deposits). The following results have been observed after performing Persons Correlation test at a five percent significant level.

With reference to NBs, Correlation value(r) of Total Deposits and Total Bank Branches is .225, which indicates poor positive relationship between selected variables, while correlation value of total deposits and total bank branches is -.003, which indicates negligible relationship.

Hypothesis 2 : H0 There is no significant difference among Bank Branches, Advances and Deposit of Co-Operative Banks in Gujarat State

H1 There is significant difference among Bank Branches, Advances and Deposit of Co-Operative Banks in Gujarat State

Table No. 4 Correlation Test of Effect of Total Number of Bank Branches on Total Deposits and Advances of Co-Operative Banks in The Gujarat

Bank Group		Total Deposits	Total Advances	Total No. Bank Branches	
Co-operative Banks	Total Deposits	P.C. (r)	1	.964**	
		Sig. (2-tailed)		.002	
		SOSs and CPs	1.102E12	6.898E11	1.081E8
		Cov.	2.204E11	1.380E11	21624828.488
		N	6	6	6
	Total Advances	P.C. (r)	.964**	1	.971**
		Sig. (2-tailed)	.002		.001
		SOSs and CPs	6.898E11	4.648E11	69416575.440
		Cov.	1.380E11	9.295E10	13883315.088
		N	6	6	6
	Total No. Bank Branches	P.C. (r)	.982**	.971**	1
		Sig. (2-tailed)	.000	.001	
		SOSs and CPs	1.081E8	69416575.440	11000.000
		Cov.	21624828.488	13883315.088	2200.000
		N	6	6	6
	* Indicates significant of Correlation at the 5% level. While ** Indicates significant of Correlation at the 1% level.				

The pearson Correlation test value of total deposits and total number of bank branches of cooperative banks is .982 which indicates a very strong positive relationship between selected variables. The variables total advances and total bank branches were significantly positively correlated as $r=.971$. Similarly, the “r” value of total deposits and total advances is .964, which also provides evidence of a strong positive correlation between selected variables.

Hypothesis 3: H0 There is no significant difference among Bank Branches, Advances and Deposit of RRBs in Gujarat State

H1 There is no significant difference among Bank Branches, Advances and Deposit of RRBs in Gujarat State

Table No. 5 Correlation Test of Effect of Total Number of Bank Branches on Total Deposits and Advances of RRBs in Gujarat

Bank Group		Total Deposits	Total Advances	Total No. Bank Branches	
RRBs	Total Deposits	P.C. (r)	1	.988**	.886*
		Sig. (2-tailed)		.000	.019
		SOSs and CPs	3.712E11	2.610E11	40160532.513
		Cov.	7.424E10	5.219E10	8032106.503
		N	6	6	6
	Total Advances	P.C. (r)	.988**	1	.879*
		Sig. (2-tailed)	.000		.021
		SOSs and CPs	2.610E11	1.878E11	28327932.120
		Cov.	5.219E10	3.756E10	5665586.424
		N	6	6	6
	Total No. Bank Branches	P.C. (r)	.886*	.879*	1
		Sig. (2-tailed)	.019	.021	
		SOSs and CPs	40160532.513	28327932.120	5535.333
		Cov.	8032106.503	5665586.424	1107.067
		N	6	6	6
* Indicates significant of Correlation at the 5% level. While ** Indicates significant of Correlation at the 1% level.					

With reference to RRBs, Correlation of Total Advances and Total Branches ($r=.879$), indicates there is strong positive correlation. The variables Total Deposits to Total Bank Branches is significantly positively correlated as $r=0.886$. Similarly, the “r” value of total deposits and total advances is .988, which indicated a strong positive correlation between selected variables.

Hypothesis 4: H0 There is no significant difference among Bank Branches, Advances and Deposit of RRBs in Gujarat State

H1 There is significant difference among Bank Branches, Advances and Deposit of RRBs in Gujarat State

Table No. 6 Correlation Test of Effect of Total Number of Bank Branches on Total Deposits and Advances of Private Sector Banks in Gujarat

Bank Group		Total Deposits	Total Advances	Total No. Bank Branches	
Private Sector Banks	Total Deposits	P.C. (r)	1	.997**	.992**
		Sig. (2-tailed)		.000	.000
		SOSs and CPs	1.152E14	1.677E14	7.740E9
		Cov.	2.305E13	3.355E13	1.548E9
		N	6	6	6
	Total Advances	P.C. (r)	.997**	1	.980**
		Sig. (2-tailed)	.000		.001
		SOSs and CPs	1.677E14	2.456E14	1.117E10
		Cov.	3.355E13	4.913E13	2.233E9
		N	6	6	6
	Total No. Bank Branches	P.C. (r)	.992**	.980**	1
		Sig. (2-tailed)	.000	.001	
		SOSs and CPs	7.740E9	1.117E10	528599.500
		Cov.	1.548E9	2.233E9	105719.900
		N	6	6	6
* Indicates significant of Correlation at the 5% level. While ** Indicates significant of Correlation at the 1% level.					

In the context of private sector banka, the Correlation between the variables, total deposits and total bank branches ($r=.992$), indicates there is a strong correlation between the two variables. The variables, total advances and total branches is significantly positively correlated as $r=0.980$. similarly, the variable total deposits and total advances is significantly positively correlated as the value of r is .997.

Table No. 7 Bank Group Wise Summary of Pearson Correlation test of Variable

Variable	Nationalised Bank	Co-operative Bank	Private Sector Bank	RRBs
Total Deposits and Total Bank Branches	0.225	0.982	0.992	0.886
Total Advances and Total Bank Branches	-0.003	0.971	0.980	0.879
Total Advance and Total Deposits	0.863	0.964	0.997	0.988

II. Conclusion:

From the above discussion and table No. 7, We can conclude that the increase in total deposits and total advances of co-operative banks, private sector banks and RRBs could be driven by an increase in the number of bank branches in the Gujarat. But in context of Nationalised banks, the overall observation support that there is significant difference among increase in total deposits, advances and number of branches.

So far as, absolute NPA amount for the year of 2019-20 is concern, North Gujarat ranks first in term of highest NPA, Central Gujarat and Saurashtra-Kutchch Gujarat ranks second and third respectively while South Gujarat ranks last. It is also observed that during the beginning of the study period, Central Gujarat was at the forefront of highest NPAs but due to fair practices and best efforts of the bank during the last three years, there has been a steady decline in the growth rate of NPA.

Limitations of the Current Research Study:

- In-depth research cannot be done due to non-availability of categorial financial data from the period 2010-11 to 2019-20.
- There are many factors behind the rise or fall of deposits and advances. But the researcher has examined only one factor in his research scope to find out the effect of bank branches on deposits and advances.

Abbreviation:

NBs	:	Nationalised Banks including SBI and its associate banks;
PSBs	:	Private Sector Banks;
RRBs	:	Regional Rural Banks;
COBs	:	Co-Operative Banks;
Act.	:	Account;
Amt.	:	Amount;
P.C.	:	P.C.
NPA	:	Non-Performing Assets
LBS	:	Lead Bank Scheme
SOSs and CPs	:	Sum of Squares and Cross Products
Covariance	:	Cov.
Person Correlation:	:	P.C.

References:

- [1]. Dube, M. (2001). Study of Impact of Nationalized Bank Branches on Consumer Services in selected area of Maharashtra. Research Gate India Publication, 21 (06), 899-918. https://www.reapublication.com/comm17/brfsd10n5_75.pdf
- [2]. Ferna, R., Lydia, E., Shankar, K., Hashim, W., & Maselena, A. (2003). The Increasing Market of Financial Institutions and its Impact on Potential Customers. Journal of Commerce and Management Reviews, 10(1), 210–223. <https://www.bibliomed.org/fulltextpdf.php?mno=302645117>
- [3]. R, P., & Walia, S. (2008). A Study of Impact of Modern Facilities Provided by Small Financial Institutions on India's Privates Companies. IJRSMP, 4(12), 433–453. <https://www.indianjournalijrsmip.com/site/default/files/issue-pdf/453.pdf>
- [4]. S., Shrihari, Mohammad, & Sonia, S. (2016, June). An Analytical Study of E-Banking Business Services in Settlements International Transaction. <http://Granthaalayah.Com/>. <http://granthaalayah.com/>