Restructuring as a Management Strategy for Strengthening and Repositioning of Regional Rural Banks (RRBs) in India: An Evaluation

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ABSTRACT

Six Regional Rural Banks with 17 branches covering 12 districts were started with the objective of developing the rural economy by promoting agriculture, trade commerce, industry and other productive activities in the rural areas in December 1975. The RRBs suffered overall net loss of ₹279 crores, ₹280 crores and ₹129 crores at the end of March 1996, 1997 and 1998 respectively. At the end March, 2005 166 RRBs secured profit of ₹903 crore and 30 RRBs suffered losses of ₹155 crore and net profit was ₹748 crores. The Credit-deposit ratio was 57 percent and the net Non Performing Assets stood at 5.15 percent. The path of restructuring of RRBs was considered to ameliorate the operational viability of the Regional Rural Banks by taking the advantage of the economies of scale and strengthen the weak banks. The Indian Government initiated the process of structural consolidation of RRBs in 2005-06. As a result of merger, the number of Regional Rural Banks reduced from 196 to 64 at the end of March 2013. The net profit rose to ₹2,200 cores and the Credit-Deposit ratio increased to 63 percent and the net NPAs reduced to 3.4 percent from 4.84 percent. An attempt has been made in this paper to study whether restructuring of RRBs has really strengthened and repositioned and brought any progress in the performance of RRBs in India. For this purpose the researchers have studied financial results of RRBs before and after merger/amalgamation from 1997-98 to 2012-13.

Keywords: RRBs, Recapitalisation, Merger, Amalgamation, Pre and Post Merger Performance.

1. INTRODUCTION

In order to provide institutional credit for the rural and agriculture sector, Regional Rural Banks (RRBs) were established in 1975. The main objective of Regional Rural Banks was to protect the rural poor, who were generally denied access to financial services from rural co-operatives and commercial banks (Machiraju, 1999).

Regional Rural Banks owned by the Indian Government, State Government and Sponsor Banks with the capital of 50 percent, 15 percent and 35 percent respectively. The financial resources mobilized from rural and semi-urban areas were used to grant loans and advances to farmers, agricultural laborers and rural artisans by RRBs.

Due to poor performance of RRBs during 90s the central government had recapitalized the RRBs, to accelerate the performance of the RRBs and their economic health. Yet the Government of India shall not able to rescue the RRBs from financial losses. Hence, the GOI had led up the restructuring process of RRBs to ameliorate their working, to ensure better managerial control and to achieve the economics of scale. The restructuring process makes the weaker RRBs become stronger. At the same time for stronger RRBs, merger helps to extend the business opportunities without much investment. The merger assists to increase the customer base, reduce the cost of operations and spread the risk to different sectors.

2. RESTRUCTURING AS A STRATEGY FOR BETTER MANAGEMENT

During the thirty years of functioning of Regional Rural Banks, Working Groups and Committees were set up to study the poor performance pertaining to RRBs and suggest measures to address the same. The researchers have summarized the studies which demand for restructuring of RRBs for better performance.

In 1984, the Working Group on RRBs (Kelkar Committee) recommended that "small and uneconomic RRBs should be merged in the interest of economic viability". The Agricultural Credit Review Committee (Khusro Committee), 1989 pointed out that "the weaknesses of RRBs are endemic to the system and non-viability is built into it, and the only option was to merge the RRBs with the sponsor banks". The Bhandari Committee (1994) on Restructuring of RRBs, identified 49 RRBs for comprehensive restructuring. It suggested greater devolution of decision-making powers to the Boards of RRBs regarding business development and staff affairs. The option of liquidation again was mooted by the Committee on Revamping of RRBs, 1996 (Basu Committee).

The Thingalaya Committee on RRBs in 1997 held that "very weak RRBs should be viewed separately and possibility of their liquidation be recognized. They might be merged with neighboring RRBs". Subsequently, Chalapathy Rao Committee in 2003 recommended that "the entire system of RRBs may be consolidated while retaining the advantages of regional character of these institutions. As part of the process, some sponsor banks may be eased out. The sponsoring institutions may include other approved financial institutions as well, in addition to commercial banks."

Purwar Committee, The Group of CMDs of Select Public Sector Banks, 2004 recommended "the amalgamation of RRBs on regional basis into six commercial banks - one each for the Northern, Southern, Eastern, Western, Central and North-Eastern Regions". The restructuring options given by the Working Group headed by Shri A.V. Sardesai in June, 2005 includes (i) Balance sheet strengthening (ii) Change of sponsor banks, (iii) Merger/amalgamation, and (iv) Other options like meeting minimum capital requirements, issues pertaining to governance and management, etc., for strengthening and converting RRBs into viable rural financial institutions after examining various alternatives available within the existing legal framework.

3. RESTRUCTURING PROCESS

3.a. First Phase (1993-2000)

Many initiatives have been taken by the Government of India and the Reserve Bank of India (RBI) to strengthen RRBs and improve their performance. Recapitalization of RRBs was carried during 1994-95, as part of the comprehensive restructuring programme. The process which covered 187 RRBs included aggregate financial support of ₹2188.44 crore from the shareholders. Moreover, RRBs have been permitted to merge/close down their unviable branches which are a large number of branches in far flung rural areas.

3.b. Second Phase: 2004-2010

As recommended by Vyas Committee in 2005-06, the Government of India amalgamated RRBs within a state which was initiated as the process of structural consolidation of RRBs. Customer and large area of operation, enhanced credit exposure limits and all around performance of RRBs were expected from the amalgamated RRBs.

3.c. Third Phase: 2010 to 2012

Recapitalization of 40 out of 82 RRBs for strengthening their Capital to Risk weighted Assets Ratio (CRAR), a standard metric to measure balance sheet strength of banks was recommended by the Chakrabarty Committee after reviewing the financial position of all RRBs in 2010. In the Committee's opinion, the remaining RRBs are in a position to achieve the desired level of CRAR on their own. The government of India recapitalized the RRBs to the extent of ₹2200 Crore, accepting the recommendations of the committee, Hence, the number of RRBs had been reduced from 196 to 64 and the number of branches of RRBs increased to 17856 as on 31 March 2013 covering 635 districts across the country.

3.d. Fourth Phase: 2012 Onwards

The fourth phase of consolidation started from October, 2012 with merger of RRBs across sponsor banks within a State.

4. IMPORTANT FINANCIAL INDICATORS

Table 1 and Table 2 show the performance of RRBs before and after the merger respectively. Because of merger, the number of RRBs reduced drastically from 196 to 133 at the end of March, 2006 and further reduced to 82 at the end of March 2010. Eighteen RRBs have been merger during 2012-13 and only 64 RRBs were functioning at the end of March 2013.

5. REVIEW OF LITERATURE

In the year 1998, Chandrakanth K.Sonara ascertained the performance of five gramin banks in Gujarat during the period 1985 to 1994. The study results revealed that only one RRB made a profit of 0.55 lakhs in the year 1985 out of the five RRBs in operation. Restructuring of RRBs in order to provide economies of scale was suggested by the researcher. Biswa Swarup Misra (2006) presented a research paper in RBI occasional papers titled "The Performance of Regional Rural Banks (RRBs) in India: Has Past Anything to

Table 1
Performance of RBBs during the Pre-Merger Period

Parameters	*Pre-Merger Period*							
	Period I 1997-98	*Period II 1998-99*	*Period III 1999-00*	*Period IV 2000-01*	*Period V 2001-02*	*Period VI 2002-03*	*Period VII 2003-04*	*Period VIII 2004-05*
No. of RRBs	196	196	196	196	196	196	196	196
No. of branches	14,471	14,475	14,462	14,431	14,486	14,462	14,484	14,433
Capital	1,118	1,380	1,959	2,049	2,143	2,221	5,438	6,181
Deposits (in ₹ crore)	17,976	22,191	27,059	32,226	38,294	44,539	49,582	56,295
Investments (₹ in crore)	3,891	5,280	6,680	7,760	8,800	9,471	17,444	24,532
Bank Credit (₹ in crore)	9,021	10,559	12,663	15,579	18,373	21,773	25,481	31,803
Income (₹ in crore)	2,136	2,760	3,432	4,860	5,564	5,931	6,244	6,135
Expenditure (₹ in crore)	2,265	2,617	3113	4,259	4,956	5,407	5,475	5,387
Net profit (in ₹ crores)	–129	143	319	601	608	524	769	748
Total Assets (₹ in crore)	29,468	35,820	42,236	49,641	56,804	63,614	70,278	77,866

Source: NABARD/RBI Reports

Table 2
Performance of RBBs during the Post-Merger Period

Parameters	*Post-merger period*							
	Period I 2005-06	*Period II 2006-07*	*Period III 2007-08*	*Period IV 2008-09*	*Period V 2009-10*	*Period VI 2010-11*	*Period VII 2011-12*	*Period VIII 2012-13*
No. of RRBs	133	96	90	86	82	82	82	64
No. of branches	14,432	14,422	14,558	15,010	15,303	15,658	16,170	16.985
Capital	6,647	7,286	8,616	10,910	12,247	13,900	16,500	19,100
Deposits (in ₹ crore)	71,329	83,144	99,093	1,20,189	1,45,035	1,66,200	1,86,300	208500
Investments (₹ in crore)	24,925	26,352	30,166	37,984	47,289	54,200	60,200	62,000
Bank Credit (₹ in crore)	38,520	47,326	57,568	65,609	79,157	94,700	1,13,000	1,30,900
Income (₹ in crore)	6,546	7,653	9,406	11,388	13,835	16,200	20,000	20,800
Expenditure (₹ in crore)	5,929	7,038	8,379	10,053	11,951	14,500	18,100	18,600
Net profit (in ₹ crores)	617	625	1027	1335	1884	1700	1900	2200
Total Assets (₹ in crore)	88,652	1,05,768	1,25,194	1,50,654	1,84,093	2,15,400	2,42,500	2,75,800

Source: NABARD/RBI Reports

Suggest for Future?" The analysis exhibited that the problem of the loss making RRBs is neither confined to some specific states nor to a group of sponsor banks. The sponsor bank contributes positively to the financial health of the profit making RRBs. In 2010, Syed Ibrahim carried a research on "Performance Evaluation of Regional Rural banks in India". The researcher made an attempt to analyze the performance in terms of loans, investments and deposits, done by the RRBs. Dr. Syed Ibrahim pointed out that during the after-merger period and the Regional Rural Banks in India improved. Aparna (2011) examined the "impact of amalgamation on various aspects of the Deccan Grameena Bank". The researcher also assessed the operational viability of the bank after amalgamation. The study reveals that the asset quality of the bank has improved after merger due to bank's improvement over recovery performance. Shri. Bhasker (2011) ascertained that RRBs have to be repositioned and carry out their entrusted responsibility of meeting the credit requirement in rural sector. Dr. Ishwara, P in the year 2011 noted that merging the weak RRBs with the stronger ones was done by the amalgamation of different RRBs of the same sponsor bank in a State which helped the combined entity increase business and profits.

6. STATEMENT OF PROBLEM

Due to poor rural savings, inadequate infrastructure, low deposits and poor recovery of loans have increased the cost of operations; many RRBs have incurred heavy financial losses which escalate the non-performing assets and lower net profits. The Indian Government inducted a restructuring process of Regional Rural Banks by merging Regional Rural Banks within a state, for strengthening and repositioning the banks. As a result of amalgamation, the number of RRBs reduced from 196 to 64 as on March 31, 2013. The current study is undertaken to analyse and understand the functioning of RRBs during pre and post merger period.

7. OBJECTIVES

The major objective of the current study is to judge whether merger/amalgamation of RRBs has strengthened and repositioned and brought any progress in the performance of RRBs in India. Following are other aims of present study.

1. To assess the performance of RRBs in India pre and post merger process.
2. To analyse the implications of merger on different financial aspects of the RRBS.

8. RESEARCH METHODOLOGY

The current research is exploratory and diagnostic in nature and based on secondary sources of data. The data was collected from the RBI and NABARD data sources. The study is fenced in eleven variables like number of branches, Deposits mobilised, capital deployed, investment made, bank credits offered, credit-deposit ratio, income, expenditure, net profit, net NPA and total assets for the pre merger period starting form 1997-98 to 2004-05 and post merger period from 2005-06 to 2012-13. A paired t-test has been undertaken to establish whether the post-merger performance significantly differ from the pre-merger performance of the RRBS during the study period. The Hypotheses are framed to different variables. For analysis of data the researchers have applied of SPSS software.

9. ANALYSIS AND FINDINGS

8.1. Branch Expansion

Table 3 shows branches expanded during before and after amalgamation period. The total number of branches of RRBs decreased to 14,433 as on 31st March 2005 as against 14,471 as on 31st March 1998, registering decline rate of 0.28% during pre-merger period. The number of branches of RRBs increased to 16,985 as on 31st March 2013 as against 14,432 as on 31st March 2006, registering growth rate of 17.69% during the post-merger period.

H_0: There is no significant difference in the growth rate of branch expansion between before and after merger period under study.

Table 3
Branch Expansion

Year	*Pre-merger period*							
	1997-98	*1998-99*	*1999-00*	*2000-01*	*2001-02*	*2002-03*	*2003-04*	*2004-05*
Branch Expansion (₹ in crores)	14,471	14,475	14,462	14,431	14,486	14,462	14,484	14,433
Growth rate (%)	100	100.03	99.91	99.79	100.38	99.83	100.15	99.48
Year	*Post-merger period*							
	2005-06	*2006-07*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*	*2012-13*
Branch Expansion (₹ in crores)	14,432	14,422	14,558	15,010	15,303	15,658	16,170	16.985
Growth rate (%)	100	99.93	100.94	103.10	101.95	102.32	103.27	105.04

Result: The calculated value of t is 3.158, p-value is 0.016. The null hypothesis is rejected since the p-value is less than 0.05. Hence it is concluded that there is a statistically significant difference between growth rate of branch expansion between before and after merger period.

8.2. Capital Employed

Table 4 shows capital employed during pre and post merger period. The aggregated capital of all RRBs in India stood at ₹6,181 crore as on 31st March 2005 as against ₹1,118 crore as on 31st March 1998, registering a growth of 5.5 times during the pre-merger period. The aggregated capital of all RRBs in India stood at ₹19,100 crore as on 31st March 2013 as against ₹6,647 crore as on 31st March 2006, registering a growth of 2.87 times during the post-merger period.

H_0: There is no significant difference in the growth rate of capital employed between before and after merger period under study.

Table 4
Capital Employed

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Capital employed (₹ in crores)	1,118	1,380	1,959	2,049	2,143	2,221	5,438	6,181
Growth rate (%)	100	123.43	142.68	104.59	104.59	103.64	244.85	113.66
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Capital employed (₹ in crores)	6,647	7,286	8,616	10,910	12,247	13,900	16,500	19,100
Growth rate (%)	100	109.61	118.25	126.63	112.26	113.50	118.71	115.76

Result: The calculated value of t is 0.923, p-value is 0.387. The p-value is higher than 0.05. The null hypothesis is accepted. Hence it is concluded that there is no statistically significant difference between growth rate of capital employed between before and after merger period under study.

8.3. Deposits Mobilised

Table 5 shows deposit mobilised during pre and post merger period. Deposits of RRBs have been increased by ₹38,319 crore, from ₹17,976 crore as on 31st March 1998 to ₹56,295 crore as on 31st March 2005, registering growth rate of 213.17% during the pre-merger period. Deposits of RRBs have been increased by ₹1,37,171 crore, from ₹71,329 crore as on 31st March 2006 to ₹2 08 500 crore as on 31st March 2013, registering growth rate of 192.31% during the post-merger period.

H_0: There is no significant difference in the growth rate of deposits between before and after merger period under study.

Table 5
Deposit Mobilised

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Deposit mobilised (₹ in crores)	17,976	22,191	27,059	32,226	38,294	44,539	49,582	56,295
Growth rate (%)	100	123.45	121.94	119.10	118.83	116.31	111.32	113.54
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Deposit mobilised (₹ in crores)	71,329	83,144	99,093	1,20,189	1,45,035	1,66,200	1,86,300	2 08 500
Growth rate (%)	100	116,56	119.18	121.29	120.67	114.59	112.09	111.92

Result: The calculated value of *t* is 0.993, *p*-value is 0.354. The *p*-value is higher than 0.05. The null hypothesis is accepted. Hence it is concluded that there is no statistically significant difference between growth rate of deposits mobilised between before and after merger period under study.

8.4. Deposit per Branch

The performance of a bank can be measured by deposits per branch. Table 6 shows deposit per branch during pre and post merger period. Deposits per branch of RRBs have been increased by ₹2.66 crore, from ₹1.24 crore as on 31st March 1998 to ₹3.90 crore as on 31st March 2005, registering growth rate of 214.52% during the pre-merger period. Deposits per branch of RRBs have been increased by ₹7.33 crore, from ₹4.94 crore as on 31st March 2006 to ₹12.27 crore as on 31st March 2013, registering growth rate of 148.38% during the post-merger period.

H_0: There is no significant difference in the growth rate of deposits per branch between before and after merger period under study.

Table 6
Deposit per Branch

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Deposit per branch (₹ in crore)	1.24	1.53	1.87	2.23	2.64	3.08	3.42	3.90
Growth Rate (%)	100	123.39	122.22	119.25	118.38	116.67	111.04	114.04
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Deposit per branch (₹ in crore)	4.94	5.77	6.81	8.01	9.48	10.61	11.52	12,27
Growth Rate (%)	100	116.80	118.02	117.62	118.35	111.92	108.58	106.51

Result: The calculated value of *t* is 3.380, *p*-value is 0.012. The *p*-value is lesser than 0.05. The null hypothesis is rejected. Hence it is concluded that there is a statistically significant difference between growth rate of deposits per branch between before and after merger period under study.

8.5. Investments

Table 7 shows investments made during pre and post merger period. The investment of RRBs increased from ₹3,891 crore as on 31st March 1998 to ₹24,532 crore as on 31st March 2005, registering an increase of 6.3 times during the pre-merger period. The investment of RRBs increased from ₹24,925 crore as on 31st March 2006 to ₹62,000 crore as on 31st March 2013, registering an increase of 2.48 times during the post-merger period.

H_0: There is no significant difference in the growth rate of investments between before and after merger period under study.

Table 7
Investment made by RRBs

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Investments (₹ in crores)	3,891	5,280	6,680	7,760	8,800	9,471	17,444	24,532
Growth rate (%)	100	135.70	126.52	116.17	113.40	107.63	184.18	140.63
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Investments (₹ in crores)	24,925	26,352	30,166	37,984	47,289	54,200	60,200	62,000
Growth rate (%)	100	105.73	114.47	125.92	124.49	114.61	111.07	102.99

Result: The calculated value of *t* is 1.494, *p*-value is 0.179. The *p*-value is higher than 0.05. The null hypothesis is accepted. Hence it is concluded that there is no statistically significant difference between growth rate of investments between before and after merger period under study.

8.6. Bank Credit

Table 8 shows credit extended during pre and post merger period. As on 31st March 2005, the bank credit offered by all RRBs have been increased in absolute terms by ₹22,782 crore during the study period. The bank credit of RRBs increased from ₹9,021 crore as on 31st March 1998 to ₹31,803 crore as on 31st March 2005, registering an increase of 3.52 times during the pre-merger period. As on 31st March 2013, the bank credit offered by all RRBs have been increased in absolute terms by ₹92,380 crore during the study period. The bank credit of RRBs increased from ₹38,520 crore as on 31st March 2006 to ₹1,30,900 crore as on 31st March 2013, registering an increase of 3.4 times during the post-merger period.

H_0: There is no significant difference in the growth rate of bank credit between before and after merger period under study.

Table 8
Bank Credits

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Bank Credits (₹ in crores)	9,021	10,559	12,663	15,579	18,373	21,773	25,481	31,803
Growth rate (%)	100	117.05	119.93	123.03	117.93	118.51	117.03	124.82
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Bank credits (₹ in crores)	38,520	47,326	57,568	65,609	79,157	94,700	1,13,000	1,30,900
Growth rate (%)	100	122.86	121.64	115.70	120.65	119.64	119.32	115.84

Result: The calculated value of t is 0.183, p-value is 0.860. The null hypothesis is accepted since the p-value is higher than 0.05. Hence it is concluded that there is no statistically significant difference between growth rate of bank credit between before and after merger period under study.

8.7. Credit per branch

The functional progress in credit per branch deployment is in Table 9. Credit per branch of RRBs have been increased by ₹1.58 crore, from ₹0.62 crore as on 31st March 1998 to ₹2.20 crore as on 31st March 2005, registering growth rate of 254.88% during the pre-merger period. Credit per branch of RRBs have been increased by ₹5.04 crore, from ₹2.67 crore as on 31st March 2006 to ₹7.71 crore as on 31st March 2013, registering growth rate of 188.76% during the post-merger period.

H_0: There is no significant difference in the growth rate of credits per branch before and after the merger period under study.

Table 9
Credit per Branch

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Credit per branch (₹ in crore)	0.62	0.73	0.88	1.08	1.27	1.51	1.76	2.20
Growth Rate (%)	100	117.74	120.55	122.73	117.59	118.90	116.56	125
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Credit per branch (₹ in crore)	2.67	3.28	3.95	4.44	5.17	6.05	6.99	7.71
Growth Rate (%)	100	122.85	120.42	112.41	116.44	117.02	115.54	110.30

Result: The calculated value of t is 1.342, p-value is 0.222. The p-value is higher than 0.05. The null hypothesis is accepted. Hence it is concluded that there is no statistically significant difference between growth rate of credit per branch between before and after merger period under study.

8.8. Income

Table 10 shows income earned during pre and post merger period. Income of RRBs have been increased by ₹3,999 crore, from ₹2,136 crore as on 31st March 1998 to ₹6,135 crore as on 31st March 2005, registering growth rate of 187.20% during the pre-merger period. Deposits of RRBs have been increased by ₹14,254 crore, from ₹6,546 crore as on 31st March 2006 to ₹20,800 crore as on 31st March 2013, registering growth rate of 217.75% during the post-merger period.

H_0: There is no significant difference in the growth rate of income between before and after merger period under study.

Table 10
Income Earned by RRBs

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Income earned (₹ in crores)	2,136	2,760	3,432	4,860	5,564	5,931	6,244	6,135
Growth rate (%)	100	129.21	124.35	141.61	114.49	106.60	110.34	98.25
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Income earned (₹ in crores)	6,546	7,653	9,406	11,388	13,835	16,200	20,000	20,800
Growth rate (%)	100	116.91	122.91	121.07	121.49	117.09	123.46	104

Result: The calculated value of t is – 0.063, p-value is 0.951. The null hypothesis is accepted since the p-value is higher than 0.0 and it is concluded that there is no statistically significant difference between growth rate of income between before and after merger period under study.

8.9. Expenditure

Table 11 shows expenditure incurred during pre and post merger period. Expenditure of RRBs increased by ₹3,122 crore, from ₹2,265 crore as on 31st March 1998 to ₹5,387 crore as on 31st March 2005, registering growth rate of 137.84% during the pre-merger period. Expenditure of RRBs increased by ₹12,671 crore, from ₹5,929 crore as on 31st March 2006 to ₹18,600 crore as on 31st March 2013, registering growth rate of 213.71% during the post-merger period.

H_0: There is no significant difference in the growth rate of expenditure incurred between before and after merger period under study.

Table 11
Expenditure Incurred by the RRBs

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Expenditure (₹ in crores)	2,265	2,617	3113	4,259	4,956	5,407	5,475	5,387
Growth rate (%)	100	115.54	118.95	136.81	116.37	109.10	101.25	98.39
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Expenditure (₹ in crores)	5,929	7,038	8,379	10,053	11,951	14,500	18,100	18,600
Growth rate (%)	100	118.70	119.05	119.98	118.88	121.33	124.83	102.76

Result: The calculated value of t is – 0.899, p-value is 0.399. The p-value is higher than 0.05. The null hypothesis is accepted. Hence it is concluded that there is no statistically significant difference between growth rate of expenditure incurred between before and after merger period under study.

8.10. Net Profit

Table 12 shows net profit earned during pre and post merger period. The total net profit of the RRBs has increased from loss of ₹129 crore in 1997-98 to ₹748 crore during 2004-05 and registering a growth of 579.85% pre-merger period. The total net profit of the RRBs has increased from ₹617 crore in 2005-06 to ₹2,200 crore during 2012-13 and registering a growth of 256.56% during the post-merger period.

H_0: There is no significant difference in the growth rate of net profit between before and after merger period under study.

Table 12
Net Profit of RRBs

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Net profit (₹ in crores)	-129	143	319	601	608	524	769	748
Growth rate (%)	100	210.85	223.08	188.40	101.16	86.18	146.76	97.27
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Net profit (₹ in crores)	617	625	1027	1335	1884	1700	1900	2200
Growth rate (%)	100	101.30	164.32	129.99	141.12	90.23	111.76	115.79

Result: The calculated value of *t* is 1.425 and *p*-value is 0.197. The *p*-value is higher than 0.05. The null hypothesis is accepted. Hence it is concluded that there is no statistically significant difference between growth rate of net profit between before and after merger period under study

8.11. Total Assets

Table 13 shows total assets accrued during pre and post merger period. The total assets of RRBs increased by ₹48,398 crore, from ₹29,468 crore as on 31st March 1998 to ₹77,866 crore as on 31st March 2005, registering growth rate of 164.24% during the pre-merger period. Expenditure of RRBs increased by ₹1,87,148 crore, from ₹88,652 crore as on 31st March 2006 to ₹2,75,800 crore as on 31st March 2013, registering growth rate of 211.11% during the post-merger period.

H_0: There is no significant difference in the growth rate of total assets between before and after merger period under study.

Table 13
Total Assets of RRBs

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Total Assets (₹ in crores)	29,468	35,820	42,236	49,641	56,804	63,614	70,278	77,866
Growth rate (%)	100	121.56	117.91	117.53	114.43	111.99	110.48	110.80
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Total Assets (₹ in crores)	88,652	1,05,768	1,25,194	1,50,654	1,84,093	2,15,400	2,42,500	2,75,800
Growth rate (%)	100	119.31	118.37	120.34	122.20	117.01	112.58	113.73

Result: The calculated value of *t* is –2.147 and *p*-value is 0.069. The *p*-value is higher than 0.05. The null hypothesis is accepted. Hence it is concluded that there is no statistically significant difference between growth rate of total assets between before and after merger period under study.

8.12. Credit Deposit Ratio

Credit Deposit Ratio is used to measure the efficiency and ability of the bank's management to convert the deposits available with the bank into high earning advances. Credit includes loans and advances and deposits include demand deposits, savings deposits and term deposits. Table 14 shows credit deposit ratio during pre and post merger period. During the pre-merger period, credit deposit ratio of RRBs was improved from 50% to 57% as on 31 March 2005. During the post-merger period the credit deposit ratio of RRBs was improved from 54% to 63% as on 31 March 2013.

H_0: There is no significant difference in credit deposit ratio between before and after the merger period under study.

Table 14
Credit Deposit Ratio

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Credit Deposit Ratio	50%	48%	47%	48%	48%	49%	51%	57%
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Credit Deposit Ratio	54%	57%	58%	55%	55%	57%	61%	63%

Result: The calculated value of *t* is –9.734 and *p*-value is 0.000. The *p*-value is higher than 0.05. The null hypothesis is rejected and concluded that there is a statistically significant difference between credit deposit ratio before and after the merger period under study.

8.13. Advances to Assets Ratio

The Advances to Assets Ratio indicates a bank's aggressiveness in lending which ultimately results in better profitability. Higher ratio of advances/deposits including receivables (assets) is preferred to a lower one. Table 15 shows the advances to assets ratio during the premerger and post merger period. During the pre-merger period, the advances to assets ratio of RRBs were improved from 31% to 41% as on 31 March 2005. During the post-merger period, the advances to assets ratio of RRBs were improved from 44% to 48% as on 31 March 2013.

H_0: There is no significant difference in advances to assets ratio between before and after merger period under study.

Result: The calculated value of *t* is –11.79 and *p*-value is 0.000. The *p*-value is higher than 0.05. The null hypothesis is rejected. Hence it is concluded that there is a statistically significant difference between advances to assets ratio during before and after the merger period under study.

Table 15
Advances to Assets Ratio

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Advances to Assets Ratio	31%	30%	30%	31%	32%	34%	36%	41%
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Advances to Assets Ratio	44%	45%	46%	44%	43%	44%	47%	48%

8. 14. Net Non-Performing Assets

The efficiency of the bank in assessing credit risk and to an extent, recovering the debts is measured by Net NPAs. Lower Net NPAs indicate the better performance of the Bank. Table 14 shows the net NPAs of RRBs during pre and post merger period. During the pre-merger period, the net NPA of RRBs was declined extremely from 32.8% to 5.15% as on 31st March 2005. During the post-merger period, the net NPA of RRBs was declined narrowly 3.98% as on 31st March 2006 had decreased to 3.40% as on 31st March 2013.

H_0: There is no significant difference in Net NPAs rate between before and after merger period under study.

Table 16
Net NPAs of RRBs

Year	*Pre-merger period*							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Net NPA (%)	32.8	27.8	23.1	18.8	16.1	12.5	8.55	5.15
Year	*Post-merger period*							
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Net NPA (%)	3.98	3.46	3.4	1.68	1.80	2.05	2.98	3.40

Result: The calculated value of t is 4.7 and p-value is 0.002. The p-value is lesser than 0.05. The null hypothesis is rejected. Hence it is concluded that there is a statistically significant difference between net NPAs rate during the before and after the merger period under study.

10. CONCLUSION

The present study is conducted to judge whether merger/amalgamation of Regional Rural Banks has strengthened and repositioned and brought any progress in the performance of Regional Rural Banks in India. Table 17 shows the consolidated results of the analysis done. Performance of Regional Rural Banks in terms rupees have been increase considerably during the after merger period than before merger period. But in percentile terms growth rate of Regional Rural Banks differs. The mean of growth rate over the previous year, during the post-merger study period in respect of capital employed, deposits mobilised, deposits per branch, investment, bank credit, credit per branch, expenditure incurred, net profit and Net NPAs have been declined when compared to the pre-merger study period. Paired t-test results also conform that there is no statistically significant difference between growth rate during the before merger period and

Table 17
Consolidated Results of the Study

Variables	*Pre-merger periods*		*Post-merger periods*	
	Amount of growth during study period ₹ in Crore	*Mean growth rate over the previous year during study period*	*Amount of growth during study period ₹ in Crore*	*Mean growth rate over the previous year during study period*
Branch Expansion	– 38	99.95%	2,553	102.09%
Capital employed	5,063	129.68%	12,453	114.34%
Deposits	38,319	115.56%	1,37,171	114.25%
Deposit per branch	2.66	115.62	7.33	112.23
Investment	20,641	128.03%	37,075	112.41%
Bank Credits	22,782	117.29%	92,380	116.96%
Credit per branch	1.58	117.38	5.04	114.37
Income	3,999	115.61%	14,254	115.87%
Expenditure	3,122	112.05%	12,671	115.69%
Net Profit	877	144.21%	1,583	119.31%
Total Assets	48,398	113.09%	1,87,148	115.44%
Credit Deposit Ratios	–	50.00%	–	58.00%
Advances to Assets	–	33.00%	–	45.00%
Net NPAs	–	18.1%	–	02.84%

after merger period under study. However the mean growth rate over previous year during post-merger study period in respect of branch expansion, income, credit deposit ratio, total assets and advances to assets of the Regional Rural Banks have been increased when compared to the pre-merger study period. Paired t-test results also conforms the above results. From the data analysis one can easily understand that merger didn't brought any wonders in the performance of Regional Rural Banks.

The study confirmed that merger of Regional Rural Banks helped only to avoid bank failure and makes the weaker bank stronger. The structural consolidation of the RRBs through merger had brought enormous opportunities for growth in terms of deposits, credit, investment, net profit and decline in net NPAs in rupees terms. The Government of India implemented fourth phase of consolidation commenced in October, 2012 with merger of Regional Rural Banks across sponsor banks within a state to strengthen the position of Regional Rural Banks in India is the right decision at the right time. Because of merger with the sponsored banks the Regional Rural Banks shall be totally synergized. To conclude in the words of Dr. Chakraborty, Dy. Governor, Reserve Bank of India, "RRBs are Banks and so to say Commercial Banks".

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