Productivity Analysis of Regional Rural Banks: A Case Study of Mizoram Rural Bank (MRB)

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Abstract

The history of Regional Rural Banks (RRBs) in India dates back to 1975. It was the Narasimham committee that conceptualised the foundation of Regional Rural Banks in India. The committee felt the need of regionally oriented rural banks' that would address the problems and requirements of the rural people in India. Regional Rural Banks were established under the provisions of an Ordinance promulgated on the 26th September 1975 and the RRB Act, 1975 with an objective to ensure sufficient institutional credit for agriculture and other rural sectors.

The present study was conducted with the following major objectives:

- To analyse the performance of Mizoram Rural Bank (MRB) during the study period;
- To highlight and analyse the comparative productivity of MRB and other RRBs.

The present study is based on secondary data. The secondary data have been collected mainly through the data bases of various reports published by Mizoram Rural Bank and Regional Rural Banks. The study is confined only to the specific areas like number of branches, district coverage, deposits mobilised, credits and investments made by the Mizoram Rural Bank (MRB) for the eleventh year's period starting from 2000-01 to the year 20010-11.

Keyword: Productivity of Banks, Resource Mobilisation, Rural Bank

Introduction

The history of Regional Rural Banks in India dates back to 1975. It was the Narasimham committee that conceptualised the foundation of Regional Rural Banks in India. The committee felt the need of regionally oriented rural banks that would address the problems and requirements of the rural people in India. Regional Rural Banks were established under the provisions of an Ordinance promulgated on the 26[th]September 1975 and the RRB Act, 1975 with an objective to ensure sufficient institutional credit for agriculture and other rural sectors. The RRBs mobilise financial resources from rural/semi-urban areas and grant loans and advances mostly to small and marginal farmers, agricultural labourers and rural artisans. For the purpose of classification of bank branches, the Reserve bank of India defines rural area as a place with a population of less than 10,000.RRBs are jointly owned by Government of India, the concerned State Government and Sponsor Banks; the issued capital of a RRB is shared by the owners in the proportion of 50%, 15%, and 35% respectively. The first five RRBs were set up in five States in Haryana, West Bengal, Rajasthan, with one each and two in Uttar Pradesh, which were sponsored by different commercial banks (Sahni & Krishna, 2013)

The commercial viability of Regional Rural Banks emerged as the most crucial factor in deciding about their desired role in the emerging economic scenario. A committee under the chairmanship A.V. Sardesai (2005) revisited the issue of restructuring to improve the operational viability of Regional Rural Banks:

- Merger between Regional Rural Banks of the same sponsor bank in the same state.

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- Merger of Regional Rural Banks sponsored by different banks in the same state.

The committee was the view that 'a change in sponsor banks may, in some cases help in improving the performance of Regional Rural Banks. A change in sponsorship may, improve the competitiveness, work culture, management and efficiency of the concerned Regional Rural Banks'(Reddy & Padmavathi, 2013). The present paper concentrates on the productivity performance of RRBs and Mizoram Rural Bank.

Literature Review

Hebber (1985) had analysed the problem of RRBs and he has pointed out certain constraints in the effective functioning of it. The main focus of his research paper is on how to make the Regional Rural Banks functionally efficient. On the other hand, Anand Kumar Vasan (1988) in his study exhibits the facts that the weaker sections were availing finance to a low extend compared to upper-caste people.

Roy (2007) in his case study observed that the RRBs have experienced high rate of growth of deposits on their savings bank accounts. Meanwhile there still seems to be further scope of mobilisation of savings with regard to the agricultural working population of the area of operation of RRBs. He suggested that the loanable funds should be more liberally augmented by borrowings from the RBI, Sponsoring bank, NABARD to stimulate growth of savings bank deposits of the RRBs as well as their loaning operations. He also suggested that strong monitoring and supervision of the activities of the recipients of credit should be made since the most problem of the RRBs is poor recovery of loans.

Objective

The present study was conducted with the following major objectives:

1. To analyse the performance of MRB during the study period;
2. To highlight and analyse the comparative productivity of MRB and other RRBs.

Methodology

The present study is based on secondary data. The secondary data have been collected mainly through the data bases of various reports published by Mizoram Rural Bank and Regional Rural Banks. The study is confined only to the specific areas like number of branches, district coverage, deposits mobilised, credits and investments made by the Mizoram Rural Bank (MRB) for the eleventh year's period starting from 2000-01 to the year 20010-11.

Hypotheses

H_{10}: There is no significant relationship between loan and advances given by MRB.

H_{11}: There is a significant relationship between loan and advances given by MRB.

H_{20}: There is no statistical relationship between the performance of MRB and RRBsthe study period.

H_{21}: There is a statistical relationship between the performance of MRB and RRBs during the study period.

H_{30}: There is no significant relationship between per branch total income and per branch total expenditure of MRB.

H_{31}: There is significant relationship between per branch total income and per branch total   expenditure of MRB.

The following are the commonly used ratios measuring productivity of the banks.

a) Labour productivity

   i) Deposit per employee

   ii) Advances per employee

   iii) Business per employees

b) Branch productivity

   i) Deposit per branch

   ii) Advances per branch

   iii) Business per branch

c) Return on Investment and Return on Assets

The productivity of banks can also be measured with return on investment (ROI) and profit as percentage of volume of business. The return on investment enables

us to know profitability of capital employed. Higher the profits as a percentage of volume of business, the better will be the productivity performance of a bank. The return on investment (ROI), profit as percent of assets (ROA), and profit as percentage of volume of business can be calculated with the help of the following formulas.

   i)   Return on Investment (ROI)   *X 100*

   ii) Profit as percent of Assets (ROA)   *X 100*

Results and Discussion

Regional Rural Banks in India

The total number of RRBs in all India level was196 in 2000-2001, which is reduced to 82 in the year 2010-11. This decrease in number is due to restructuring strategies adopted and amalgamation of various RRBs in the country which started after the implementation of Narasimham Committee recommendation by the Government of India. Even though, the numbers of Regional Rural Banks (RRBs) decreased, the branch network has increased to 15,658 in 2010-2011 from 14,301 branches in 2000-2001. During the period of 11 years under consideration, 1,357 branches increased in order to cover more number of districts in the country. This has been confirmed by the fact that the number of districts covered by the RRBs in the country has increased from 484 in 2000-2001 to 621 districts in the year 2010-2011. It indicates that an additional 137 districts were covered by setting up of new branches in the various uncovered and under banked districts of the country. The population served per branch

of RRBs is interestingly high. i.e., roughly 84.6 thousand in 2000-2001 which slightly improved and figured at 77.3 thousand populations served per branch in 2010-2011. The scenario is extremely poor while compared with the population per branch of commercial bank as a whole which covered 18 thousand populations by each branch during 2010-2011 (IBA: 2011). The number of employee per branch is found to be very low, i.e., around 4 to 5 persons throughout the period. In the year 200-2001, the average number of employees per office was 4.90 which declined to 4.14 during the year 2010-2011. This decrease in average number of employees per branch may be due to computerisation in certain branches of RRBs. The data relating to the background of RRBS are presented in Table 1.

The resource mobilisation is an integral part of banking activity. The government has directed the banks to make all possible efforts to access to new deposits that can only expedite the pace of lending activities. There has been a substantial rise of deposits of RRBs during the period under consideration. The amount of deposit in the year 2000-2001 was Rs. 37,027 crore and this has gone up to Rs. 1,45,035 crore in 2009-2010, and to Rs. 1,63,928 crore in 2010-2011, recording 4043 times increase in deposit over the years. Although there has been decrease in the total numbers of RRBs in the country, the quantum of deposit has increased over the years.

RBI Report on Trend and Progress of Banking in India, Various Issues RBI, Statistical Tables Relating to Banks in India 2003

Table 1: **Performance of Regional Rural Banks in India**

(Rs. in crore)

Year	No. of RRBs	Branches	Employees per Branch	Districts Covered	Deposits	Loans & Advance	CD ratio
2000-01	196	14,301	4.9	481	37,027	15,794	41
2001-02	196	14,390	4.86	511	43,220	18,629	41.8
2002-03	196	14,433	4.82	516	48,346	22,158	44.2
2003-04	196	14,446	4.79	518	57,010	26,115	46.3
2004-05	133	14,484	4.76	523	62.143	32,871	52.8
2005-06	94	14,494	4.73	525	71,329	38,520	55.6
2006-07	90	14,520	4.7	534	83,144	47,326	58.3
2007-08	90	14,761	4.6	594	99,093	57.568	59.5
2008-09	86	15,181	4.51	616	1,20,189	65,609	56.4
2009-10	82	15,475	4.22	619	1,45,035	79,157	57.6

Source: Reserve Bank of India, Basic Statistical Return of Scheduled Commercial Banks, Various Issues

The bank credit is an important input variable in the production functions of agriculture, industry, commerce and allied productive activities for the socio-economic development of the backward region of the country (Ahmed, 2012). The loans and advances offered by the RRBs in the country are also increasing over the years in a continuous manner as observed from Table 1. The total amount of loans and advances of RRBs in the country was Rs. 15,794 crore in 2000-2001. The amount has gone up to a total of Rs. 79,157 crore in the year 2009-2010. It is clear that the total amount of loans and advances of RRBs in the country has increased by more than 5 times over the period.

The credit deposit of the RRBs in the country has been increased over the study period. In 2000-2001 the credit deposit ratio of the RRBs in the country was 41 percent which was increased to 57.6 percent in 2009-2010. The trend of credit deposit ratio of commercial banks is much higher than that of the RRBs. The figure was 45.9 percent in March 2001 which has reached to the level of 73.9 percent in March 2001 (RBI: 2008). Hence, the apparent fact remains that the RRBs failed to maintain the CD ratio of commercial banks of the country during the study period. The reason of significantly low CD ratio of RRBs may be attributed to nature of loans sanctioned, non-recovery of loans, stubborn cheaters, lack of implementation of bankable schemes and so on (Ahmed, 2012).

RRBs in the North East India

Table 2 represents the position of branch and labour of all the RRBs in North East region. It is observed that branch productivity i.e., volume of business per branch of Tripura Gramin Bank (Rs. 2567.42 lakhs) is the highest in North-East region which is followed by Assam Gramin Vikas Bank (Rs. 1427.13 lakhs), Meghalaya (Rs. 1259.63 lakhs), Mizoram Rural Bank (Rs. 1166.05 lakhs), Arunachal Pradesh Rural Bank (Rs. 963.53 lakhs), Langpi Dehangi Rural Bank (Rs. 864.90 lakhs), Manipur Rural Bank (Rs. 438.33 lakhs), and Nagaland Rural Bank (Rs. 418.86 lakhs).

In case of business per employee, Tripura Gramin Bank is the highest in the North-East region which is Rs. 437.76 lakhs followed by Mizoram Rural Bank (Rs. 333.94).

Meghalaya stands at the third place which is Rs. 317.80 lakh, followed by Assam Gramin Bank (Rs. 298.68 lakh), Arunachal Pradesh Rural Bank (Rs. 298.56 lakh), Langpi Dehangi Rural Bank (Rs. 205.23 lakh), Manipur Rural Bank (Rs. 140.89 lakh), and Nagaland Rural Bank(Rs. 113.20 lakh).

It is clear from the analysis that Mizoram Rural Bank performed better than many of the other RRBs in North East Region as on March, 2010 in term of both business per employee and business per branch.

Table 2:   Regional Rural Banks in North East India

(as on March 2010)Rs in Lakh

Sl.No.	Name of Branches	Business per Branch	Business per Employee
1	Arunachal Pradesh Rural Bank	963.53	298.56
2	Assam Gramin Vikas	1427.13	298.68
3	Langpi Dehangi Rural Bank	864.90	205.23
4	Manipur Rural Bank	438.33	140.89
5	Meghalaya Rural Bank	1259.63	317.80
6	Mizoram Rural Bank	1166.05	333.94
7	Nagaland Rural Bank	418.86	113.20
8	Tripura Gramin Bank	2567.42	437.76
	North East Region	1138.23	268.26
	All India RRBs	1471.93	330.02

Source: RRB Monitoring, Key Performance Indicators and Statistics of RRBs 2009-2010

Table3: **District-wise no. of Mrb Branches in Mizoram**

(As on 31.03.2010)

Sl.No.	No of Districts	Branches	Urban	Semi Urban	Rural
1	Aizawl	22	11	-	11
2	Lunglei	8	-	3	5
3	Champhai	8	-	1	7
4	Kolasib	6	-	2	4
5	Mamit	6	-	1	5
6	Serchhip	7	-	2	5
7	Saiha	2	-	1	1
8	Lawngtlai	3	-	1	2
Total		62	11	11	40

Source: Mizoram Rural Bank Annual Report 2009-10

Mizoram Rural Bank

In the state of Mizoram the first Regional Rural Bank (RRB) known as Mizoram Rural Bank (MRB) was set up on 27th September 1983 under the Regional Rural Bank Act 1975. It is perhaps the only RRB in the country to be spread out in all the districts and blocks of the state. It covers 8 districts and 25 RD blocks including 1 urban and 11 semi urban centers.

MRB is the second largest bank in the state next to the State Bank of India which is also the sponsoring bank. It has a market share of 8.55% in deposits and 17.64% in advances. (MRB Annual reports 2000-10). Table 3 clearly shows that MRB branches located in urban, semi urban and rural areas in the state of Mizoram.

Productivity Performance of MRB

The total amount of deposit mobilised by MRB in 2000-2001 was Rs. 50,51,77 thousand and the amount has increased to Rs. 32,62,356 thousand in the year 2009-2010. It indicates that the increase in total deposit mobilisation of MRB is 9.43 fold during 2000-2001 to 2009-2010. Similarly, the total loans and advance outstanding of the MRB in 2000-2001 was Rs. 17,55,79 thousand. In 2009-2010 the quantum of total loans and advances outstanding has increased to Rs. 17,71, 272 thousand. A ratio of aggregate outstanding advances and aggregate outstanding deposits multiplied by hundred is called Credit-Deposit (CD) ratio. This ratio indicates the extent of deployment and utilisation of resources by bank,

and issued for evaluating the performance of a bank. According to Hosamoni (2002) "This measure acts as an indirect means of assessing the monetary management by the bank." Regional Rural Banks are required to deploy credit for the financial assistance to the weaker sections residing in their jurisdiction and to decrease the rural urban disparities. As can be seen from above, Mizoram Rural Bank serves the rural populace of the state much more than the other financial institutions in the state. Table 2.16 gives the scenario of credit-deposit ratios of total business of MRB during the financial years 2000-2001 to 2009-2010. It reveals the changing trends of MRB during the last decade in terms of increase in public deposits and credit availed by the public. CD ratio was maximum in the year 2006-2007 (65.38 percent) as compared to 2002-2003 (32.76 percent) which was the least during the study period. The credit deposit ratio of the Mizoram Rural Bank was 35 percent in 2000-2001 which is increased to 54.29 percent in 2009-2010.

The total amount of deposit mobilised by the MRB in 2000-2001 was Rs. 50,51,77 thousand and the amount has increased to Rs. 47,67,633 thousand in the year 2010-2011. It indicates that the increase in total deposit mobilisation of MRB is 9.43 fold during 2000-2001 to 2010-2011. Similarly, the total loans and advance outstanding of the MRB in 2000-2001 was Rs. 17,55,79 thousand. In 2010-2011 the quantum of total loans and advances outstanding has increased to Rs. 23,45,267 thousand. A ratio of aggregate outstanding advances and aggregate outstanding deposits multiplied by hundred is called Credit-Deposit (CD) ratio. This ratio indicates the

Table4: **Productivity Performance of Mizoram Rural Bank**

Years	No. of Branches	No. of employee per office*	No. of Districts Covered	Deposits (thousand)	Loans & Advances (thousand)	C/D Ratio
2000-01	54	3.3	8	50,51,77	17,55,79	35
2001-02	54	3.2	8	68,34,34	23,00,91	33.67
2002-03	54	3.2	8	86,08,09	28,19,69	32.76
2003-04	54	3.2	8	10,07,068	33,72,72	33.49
2004-05	54	3.1	8	12,45,462	50,26,24	40.36
2005-06	54	3.2	8	14,71,026	80,20,74	54.52
2006-07	54	3.1	8	16,60,182	18,44,27	65.38
2007-08	60	3.8	8	19,88,504	12,83,307	64.54
2008-09	60	3.6	8	28,31,902	16,10,642	56.87
2009-10	61	3.4	8	32,62,356	17,71,272	54.29

Source: Annual Reports of Mizoram Rural Bank, Various Issues.

*Note: *No. of employee per office of MRB is calculated with total no. of staff divided by no. of branches.*

extent of deployment and utilisation of resources by bank, and issued for evaluating the performance of a bank. According to Hasmoni (2002) "This measure acts as an indirect means of assessing the monetary management by the bank." Regional Rural Banks are required to deploy credit for the financial assistance to the weaker sections residing in their jurisdiction and to decrease the rural urban disparities. As can be seen from above, Mizoram Rural Bank serves the rural populace of the state much more than the other financial institutions in the state. Table 4 gives the scenario of credit-deposit ratios of total business of MRB during the financial years 2000-2001 to 2009-2010. The data revealed that the changing trends of MRB during the last decade in terms of increase in public deposits and credit availed by the public. CD ratio was maximum in 2006-2007 (65.38 percent) as compared to 2002-2003 (32.76 percent) which was the least in the period in this the present study. The credit deposit ratio of the Mizoram Rural Bank was 35 percent in 2000-2001 which is increased to 49.19 percent in 2010-2011.

Further, an attempt is made here for a correlation analysis for deposits and advances between MRB and other RRBs of the country in order to examine the performance and productivity of MRB. The result found is shown as under:

Table5: **Correlation between MRB and RRBs on Advances and Deposits**

Deposits	Advances
0.87	0.90

The high positive 'r' values for both the parameters indicate a close relationship between MRB and RRBs in respect of their performance. It observed that MRB is performing as good as RRBs as a whole particularly for acquiring deposits and advances during 2000-01 to 2009-10. It can be concluded that the Mizoram Rural Bank is performing its volume of business at par with Regional Rural Banks of the country.

Table 6 indicates the deposit per employee, advance per employee and business per employee of MRB. It widely used parameter to measure the labour productivity. The deposit per employee in 2000-2001 was Rs. 2822.218 thousand and it increased to Rs. 15316.23 thousand in 2009-10. Over the years, the increase in deposit is Rs 0.065 thousand per employee. Similarly in the case of advance per employee it was Rs. 980.8883 thousand in the year 2000-2001 and increased to Rs. 8315.831 thousand in 2009-2010. Over the years it increased by 0.093 time. In the same manner, the business per employee was Rs. 3803.106 thousand in the year 2000-2001 which is increased to Rs. 23632.06 thousand in 2009-2010 recording 0.1 time increased.

The Mizoram Rural Bank maintained the similar trend of business growth of per employee with the per employee business growth of RRBs. During the year 2000-2001 the business per employee of RRBs was Rs. 7500 thousand which increased to Rs. 40400 thousand in 2009-2010.

Table 6: **Productivity Ratio of Mizoram Rural Bank**

(Rs in thousand)

Year	Labour Productivity			Branch Productivity		
	Deposit per employee	Advance per employee	Business per employee	Deposit per branch	Advance per branch	Business per branch
2000-01	2822.21	980.888	3803.10	9355.13	3251.46	12606.59
2001-02	3839.51	1292.64	5132.16	12656.19	4260.94	16917.13
2002-03	4863.32	1593.04	6456.37	15940.91	5221.64	21162.56
2003-04	5754.67	1927.26	7681.94	18649.41	6245.77	24895.19
2004-05	7283.40	2939.32	10222.73	23064.11	9307.85	32371.96
2005-06	8503.04	4636.26	13139.31	27241.22	14853.22	42094.44
2006-07	9823.56	1091.28	10914.85	30744.11	3415.31	34159.43
2007-08	8534.35	5507.75	14042.11	33141.73	21388.45	54530.18
2008-09	13050.24	7422.31	20472.55	47198.37	26844.03	74042.4
2009-10	15316.23	8315.83	23632.06	53481.25	29037.25	82518.49
2010-11	18551.1	9125.55	27676.65	76897.31	37826.89	114724.2

Source: Calculated from MRB Annual Reports

Table 6 again reveals that deposit per branch in the year 2000-2001 was Rs. 9355.13 thousand, which is increased to Rs.53481.25 thousand in the year 2009-2010. Over the year, the increase is 0.082 time per branch. The advance per branch in 2000-2001 was Rs. 3251.463 thousand which is increased to Rs.29037.25 thousand in 2009-2010. During that period, there has been 0.11 time increase in advance per branch. Lastly, the business per branch was Rs. 12606.59 thousand in 2000-2001 which is increased to Rs. 82518.49 thousand in 2009-2010 recording 0.1 time increase. The MRB is still having higher performance but not much good in terms of volume of business per branch while compared with RRBs as a whole. The business per branch of RRBs was Rs. 36900 thousand in 2000-2001 which is increased to Rs. 167400 thousand in 2009-2010.

Total income and expenses is an indication of branch financial efficiency. If the income per branch is more it indicates that the branch is doing well in terms of financial management and vice versa and also the lower expenditure per branch greater is the efficiency of branch (Makandar, 2013). This ratio is a measure of total income earned by per branch. This ratio is computed by dividing the amount of total income divided by the number of branches in the bank.

Table 7 indicates that the average of total income per branch during 2000-2001 was Rs. 1008.645 thousand which is increased to Rs. 6762.09 thousand in 2009-2010. Again, the average total expenditure per branch during

2000-2001 was Rs. 953.14 thousand which is increased to Rs. 5854.14 thousand in 2009-2010 with the increase of branches as well as deposits and advances during the study period.

Table 7: **Per Branch Total Income, Total Expenditure and Net Profit**

(Rs. in thousand)

Years	Income per Branch	Expenditure per Branch	Net profit per Branch
2000-01	1008.64	953.14	55.5
2001-02	1142.67	1109.98	32.69
2002-03	1532.93	1485.9	55.35
2003-04	1953.4	1890.93	47.03
2004-05	2031.58	2079.46	62.47
2005-06	2616.24	2583.48	47.89
2006-07	3542.59	3424.03	32.76
2007-08	4185.33	3903.88	118.56
2008-09	5191.43	4587.79	281.45
2009-10	6762.09	5854.14	603.65

Source: Calculated from MRB Annual Reports

The perusal of Table7 observed that per branch net profit of MRB has marginally improved. Net profit per branch during the year of 2000-2001 was Rs. 55.50 thousand which is increased to Rs. 603.65 thousand in 2009-2010.

Further, Table 8 reveals the correlation analysis[1] between per branch income and per branch expenditure in order to examine the extent of performance productivity.

Table 8: **Correlations between *per* Branch Total Income and Expenditure**

	Income	*Expenditure*
Income	1	0.99
Expenditure	0.99	1

The high positive 'r' values i.e., 0.99 indicates that, there is a strong correlation between per branch income and per branch expenditure which means that if income increases expenditure will also increases.

Comparison of Expenditure of MRB: Kruskal-Wallis Test

The Kruskal-Wallis Test is a non-parametric test. Non-parametric tests are distribution free, since these tests do not depend on the shape of the distribution (Silvakumar *et al,* 2013). Non-parametric tests are applicable to all types of data: qualitative (nominal scale) data in rank form (ordinal scale). Many non-parametric methods make it possible to work with very small samples. Non-parametric tests require less restrictive assumptions concerning the level of data measurement.

Kruskal-Wallis Test can be used with ordinal data as well as with interval or ratio data. This test does not require the assumptions of normality and equal variances. The Kruskal-Wallis Test statistic, which is based on the sum of ranks for each of the samples, can be computed as follows:

where,

k = Number of population groups

= Number of items in sample I

= Total number of items in all samples

= Sum of the ranks for sample I

The Kruskal-Wallis Test is used when $k \geq 3$

In order to compute the W value for this study, ranks are assigned to combined data from low to high. The lowest value receives the rank of 1, whereas, the highest value assigned rank 30. Tied growth rates are assigned average rank values.

Kruskal and Wallis were able to show that under the null hypothesis the population is identical; the sampling distribution of W can be approximated by a χ^2 Chi-square distribution with k-1 degrees of freedom. This approximation is generally acceptable if each of the sample sizes is greater or equal to 5. The calculated value of W is compared with the table value of chi-square (χ^2), at 5 percent level of significance. If the calculated value of W is less than or equal to the table value of chi-square (χ^2), at 5 percent level of significance the performance of MRB in the state is considered statistically the same. In other words, there is no significant difference in the performance of MRB in the state. In case the calculated value exceeds the table value, the difference will be termed as significant. If it is found to be significant at 5 percent level, it is further checked at 1 per cent level of significance.

In order to analyse statistically significant difference in the growth rates of various classification of expenditure of MRB in the state, the W value was calculated. The calculation of Kruskal-Wallis Test is given in Table 9.

From the table, it can be inferred that the calculated value of W for total expenditure (9) is less than the table value of c[2](9.21 at 1 percent level of significant). It means that there is no statistically significant difference in the growth rates of various classification of expenditure of MRB in the state.

Comparison of Interest Income and Other Income of MRB: Mann-Whitney – Wilcoxon Test

In order to know whether there is any statistically significant difference between the growth rate of interest income and other income of MRB in the state, Mann-Whitney-Wicoxon-Test was used. The application of Mann-Whitney-Wicoxon-Test[2] is given in Table 10.

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1 In statistics*, dependence* refers to any statistical relationship between *two random variables* or *two sets of data. Correlation* refers to any of a broad class of statistical relationships involving *dependence.*

2 In statistics, the Mann–Whitney U test (also called the Mann–Whitney–Wilcoxon (MWW), Wilcoxon rank-sum test, or Wilcoxon–Mann–Whitney test) is a non-parametric test of the null hypothesis that two populations are the same

Table 9: **Comparison of Expenditure of MRB: Kruskal-Wallis Test**

Year	Interest expenditure		Operating expenditure		Provisions and contingencies	
	Growth rate	Rank	Growth rate	Rank	Growth rate	Rank
2000-01	22.87	23	3.91	6	34.24	30
2001-02	26.713	25	29.204	26	-9.021	2
2002-03	18.541	19	6.4705	10	-10.25	1
2003-04	17.916	18	7.4597	11	21.568	21
2004-05	10.371	14	2.8922	5	5.4078	8
2005-06	13.39	17	11.9	16	19.702	20
2006-07	33.027	29	11.036	15	22.111	22
2007-08	26.536	24	8.0753	12	-6.213	3
2008-09	30.166	27	4.2334	7	-2.413	4
2009-10	31.415	28	8.2073	13	5.8788	9
Total		224		121		120

Source: Calculated from MRB Annual Reports

For testing this hypothesis, the T_L and T_U values were calculated.

The table value of T (T_L) for $n_1 = 10$ and $n_2 = 10$ at 5 per cent level of significance is 78.

$T_U = n_1 (n_1 + n_2 + 1) - T_L$

$n_1 = 10$ (growth rate at interest income)

$n_2 = 10$ (growth rate at other income)

$T_U = 10 (10 + 10 + 1) - 78 = 132$

It is inferred thus that the T value (139) is greater than T_L and less than T_U for the growth rates of interest income and other income at 5 percent level of significance. That means there is no statistically significant difference between the growth rates of interest income and other income of MRB in the state.

Trends of Investment Portfolios

The RRBs, in following the trend set by the commercial banks, have taken steps to increase the share of investment assets in the portfolio. To augment the profit position of RRBs, RBI has authorised them to make investment in government approved securities and other securities like debenture and bonds of different companies/ institutions. The surplus fund of RRBs thus can be invested in SLR

bonds and non- SLR bonds/debentures/deposits of different financial institution like IFCI, ICICI, IDBI, and UTI etc. So far as MRB is concerned, it started its first investment in the year 1994 amounting to Rs. 5,000 thousand on debentures and bonds in Non-SLR head (MRB: 2010).

Table 10: **Comparison of Interest Income and Other Income of MRB**

Mann-Whitney – Wilcoxon Test

Year	Interest Income		Other Income	
	Growth rate	Rank	Growth rate	Rank
2000-01	10.4	7	243.09	20
2001-02	45.366	18	5.4857	5
2002-03	16.739	11	-3.125	3
2003-04	38.23	13	10.619	8
2004-05	13.933	9	-6.231	2
2005-06	42.529	16	9.6625	6
2006-07	43.593	17	29.336	12
2007-08	41.105	14	-3.067	4
2008-09	60.273	19	-12.46	1
2009-10	41.818	15	14.038	10
Total	-	139	-	71

Source: Calculated from MRB Annual Reports

against an alternative hypothesis; especially a particular population tends to have larger values than the other.

Return on Investment and Profit as A Percentage of Total Assets

The productivity of MRB has also been assessed with the return on investment (ROI) and profit as percentage of total assets and the calculated figures are presented in Table 11. It reveals that during the year 2000-01 the return on investment was 0.40 per cent which is very less but increased to 0.43 per cent in 2009-10.

The return on investment in 2005-06 (0.22 percent) indicated a less variation in MRB productivity. The average return on investment is 0.9 percent throughout the period. Similarly, the profit as percent of total assets in 2000-01 was 0.88 percent. In 2009-10, this has increased to 2.40 percent and it is the highest percentage over the period. The average profit as percentage assets of MRB is 1.03 percent which is better than the RRBs as a whole i.e. 0.78 percent. This is a positive sign for Mizoram Rural Bank operating in the rural areas of the state.

Table 11: **ROI and Profit as Percent of Total Assets of MRB**

Years	Return on Investment (ROI)	Profit as a percentage of Assets (ROA)
2000-01	0.4	0.88
2001-02	0.63	1.21
2002-03	0.46	0.86
2003-04	0.52	0.77
2004-05	0.42	0.37
2005-06	0.22	0.19
2006-07	0.74	0.45
2007-08	1.29	1.08
2008-09	3.66	2.11
2009-10	0.43	2.4
Average	0.9	1.03

Source: Calculated from MRB annual reports

Conclusion and Suggestions

The growth in business, income, net profit of per branch and per employee shows moderate growth in performance and productivity. As far as MRB is due to the fact that, they are able to mobilise more deposit from the area, to disbursed more loan to the rural areas of the state there are some suggestion for further improvement are as under:

i) More credit should be provided to rural areas than in urban areas.

ii) MRB should mobilise new and young people to attain credit facilities.

iii) MRB should be more liberal in granting loans and advances to agricultural sectors rather than in service sector to improve their performance in rural areas.

iv) New and operative areas of operation must be developed.

v) Specialised trained staff should be appointed.

vi) New attractive scheme should be launched in rural areas.

MRB provides credit and financial services exclusively to the rural poor, without any collateral, for creating self employment opportunities so as to increase income and empower poor families. MRB have also given primary focus on micro finance towards poor women as they are politically, socially and economically deprived and believes that providing credit to women benefits the entire family as they are self-disciplined, dedicated, better manager of family and most importantly better savers and investors than men. The bank provides very small loans without any collateral which is repayable in weekly installments for undertaking income generating activities. Even though the performance of MRB in the state of Mizoram is good as compared with the regional rural banks as a whole, concentration to rural area especially in agricultural sector through micro finance is still needed to increase.

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