

Financial Appraisal of RRBs: Evidence from Eastern Uttar Pradesh

Satish Chandra Tiwari, Kishan Jee, T. Sita Ramaiah, Neeti Mathur

Abstract: India's major population lives in rural area and adequate financial credit supply are much needed for speedy economic development of this region. Regional Rural Banks (RRBs) was established with the objective to provide financial support in rural areas. RRBs have been working as an economic agent and disbursing loan to the rural people since its inception. RRBs have performed to a great extent in terms of rural credit disbursement but Non Performing Assets (NPA) has become a key trouble. For the last few years RRBs have been facing a primary challenge of mounting NPAs, which is clogging the smooth credit supply in the rural areas. The present study aims to analyze the loan disbursement towards agriculture sector, overdue and NPAs of RRBs working in Eastern Uttar Pradesh.

Key words: RRB, Rural Credit, Agricultural Loan Disbursement, Recovery, NPA, JEL Classification: G21

I. INTRODUCTION

Indian banking system is playing significant role in the growth of economy by mobilization of requisite resources. Indian households mostly depend upon informal sector because of unavailability of credit. In the informal sector charges high rate of interest on loans with painstaking terms and conditions SB Mishra (2006). To achieve the purpose of production and productivity, the pose and policy towards rural credit should ensure prerequisite of adequate credit supply at reasonable rate of interest to the most possible segment of rural population.

RRBs were established to provide a source of credit financing for rural people. However, majority number of RRBs could not achieve their primary objectives in Eastern part of UP and have been declared infertile to perform due to non-recovery of loans and such non Recovered loan are being converted into Non Performing Assets (NPAs).

II. REVIEW LITERATURE

There is colossal quantity of literatures available on the performance of RRBs in India. Some of them literature reviewed as per the requirement of the study. Murthy and *et.al* (2012) evaluated the performance of RRBs towards disbursement of agricultural credit and found hurdle free credit delivery in rural areas. Kanika & Nancy (2013) studied reasons to increase NPAs, the problem in the recovery of loan and how NPAs do effect on the performance of RRBs.

Their study found that quick loan disbursement causes overlook loan risk which later on causes NPAs. Bharat M. Kher (2013) observed the rural credit and the role played by the RRBs in the priority and non-priority sector lending. Later, researchers investigated how increased impacted NPAs loan on the RRBs. They found that banks with a high loan disbursement rate had higher NPAs. Salas V & Saurina J. (2002) revealed that banks with an aggressive loan supply had often ignored the credit risk undertaken while lending. Hence high loan growth resulted in higher NPAs. Bhatia, Mahajan and Chander (2012) suggested that bank portability has adverse relationship with NPAs. Ishwar P. (2011) evaluated performance of RRBs in his study and found that banks have become more efficient in managing NPA after amalgamation. Aparna K. (2011) found in her study that after amalgamation of four RRBs sponsored by State Bank of Hyderabad in Andhra Pradesh state has increased its turnover to 89.62% and the percentage of NPA to total advances was decreased to 1.72%. Louizetal.(2012) described that a well-capitalized bank tends to have lesser NPAs as the bank maintain credit risk levels at a low down while lending to borrowers.

As none of these studies analyzed disbursement, recovery, overdue and non performing assets (NPAs) of RRBs in Eastern Uttar Pradesh, there was need to carry out the present study.

III. OBJECTIVE OF THE STUDY

- To study the disbursement of loans towards agriculture sector by RRBs in Eastern U.P.
- To study the total loan disbursement, recovery and overdue of RRBs in Eastern U.P.
- To study Non-Performing Asset of RRBs in Eastern U.P.

IV. RESEARCH METHODOLOGY

Secondary data has been used in study in form of RBI Bulletin and RBI Report, Economic Survey, Reports of various commission and Annual reports of RRBs in Eastern Uttar Pradesh etc. We have selected a period of study from 2013-14 to 2018-19. We have taken variables like NPA and loan disbursement to evaluate the performance of the regional rural bank in agriculture sector. ANOVA and Tukey have been used as statistical techniques to achieve objective of the study.

V. ANALYSIS AND DISCUSSIONS

We have selected only 6 RRBs Kashi Gomati Samyut Gramin Bank (KGSGB), Baroda UP Gramin Bank (BUPGB), Pratama

Revised Manuscript Received on February 10, 2020.

Satish Chandra Tiwari, Department of Finance, ICFAI Business School, Hyderabad, India. E-mail: satish2bhu@gmail.com

Kishan Jee, FMS, GNS University, Rohtas, India.

T. Sita Ramaiah, Department of Finance, ICFAI Business School, Hyderabad, India. E-mail: sitaram2k4@ibsindia.org

Neeti Mathur, Department of Finance, NIIT University, Rajasthan, India.

Financial Appraisal of RRBs: Evidence from Eastern Uttar Pradesh

Bank (PrathamaB), Purvanchal Bank(PurvanchalB), Aryawart UP Gramin Bank (AUPGB) and Sarva UP Gramin Bank (SUPGB), for our study..

Comparison of ‘Agriculture Loan Disbursement’

Table 1: Descriptive Table for comparison of ‘Agricultural Loan Disbursement’

(Amount in lakh)

| Name of the RRB | N | Mean | Std. Deviation | Std. Error | Minimum | Maximum |
|-----------------|----|-------------|----------------|-------------|-----------|-----------|
| KGSGB | 5 | 61214.2000 | 26444.59200 | 11826.38107 | 27302.00 | 100610.00 |
| AUPGB | 5 | 343532.8000 | 89646.44363 | 40091.10838 | 265056.00 | 493047.00 |
| BUPGB | 5 | 275323.0940 | 87468.07931 | 39116.91424 | 159815.60 | 379023.67 |
| PrathamaB | 5 | 198010.6500 | 114915.66419 | 51391.84736 | 85963.00 | 336247.05 |
| PurvanchalB | 5 | 200483.4800 | 57502.99433 | 25716.12085 | 121042.52 | 264161.10 |
| SUPGB | 5 | 186017.0980 | 58105.14736 | 25985.41187 | 112575.00 | 266841.95 |
| Total | 30 | 210763.5537 | 113000.78013 | 20631.02543 | 27302.00 | 493047.00 |

Source: Author’s own calculations

Table 2: ANOVA Output for comparison of ‘Agricultural Loan Disbursement’

(Amount in lakh)

| | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|------------------|----|-----------------|-------|------|
| Between Groups | 225206598683.380 | 5 | 45041319736.676 | 7.450 | .000 |
| Within Groups | 145099514329.870 | 24 | 6045813097.078 | | |
| Total | 370306113013.250 | 29 | | | |

Source: Author’s own calculations

The above ANOVA table-2 shows F-value 7.450 and the significance of F-value is less than 0.001. Thus, it can be concluded that the difference in ‘Agricultural Loan Disbursement’ between the six RRBs is statistically

significant at 95% confidence level. Since the effect is significant, Tukey’s test is performed to check pair-wise differences in the means.

Table 3: Tukey’s Test output for comparison of ‘Agricultural Loan Disbursement’

(Amount in lakh)

| (I) Bank Name | (J) Bank Name | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---------------|---------------|-----------------------|-------------|------|-------------------------|--------------|
| | | | | | Lower Bound | Upper Bound |
| KGSGB | AUPGB | -282318.60000* | 49176.47038 | .000 | -434368.8615 | -130268.3385 |
| | BUPGB | -214108.89400* | 49176.47038 | .003 | -366159.1555 | -62058.6325 |
| | PrathamaB | -136796.45000 | 49176.47038 | .095 | -288846.7115 | 15253.8115 |
| | PurvanchalB | -139269.28000 | 49176.47038 | .086 | -291319.5415 | 12780.9815 |
| | SUPGB | -124802.89800 | 49176.47038 | .153 | -276853.1595 | 27247.3635 |
| AUPGB | KGSGB | 282318.60000* | 49176.47038 | .000 | 130268.3385 | 434368.8615 |
| | BUPGB | 68209.70600 | 49176.47038 | .734 | -83840.5555 | 220259.9675 |
| | PrathamaB | 145522.15000 | 49176.47038 | .066 | -6528.1115 | 297572.4115 |
| | PurvanchalB | 143049.32000 | 49176.47038 | .074 | -9000.9415 | 295099.5815 |
| | SUPGB | 157515.70200* | 49176.47038 | .039 | 5465.4405 | 309565.9635 |

| | | | | | | |
|-----------------|-------------|----------------|-------------|-------|--------------|-------------|
| BUPGB | KGSGB | 214108.89400* | 49176.47038 | .003 | 62058.6325 | 366159.1555 |
| | AUPGB | -68209.70600 | 49176.47038 | .734 | -220259.9675 | 83840.5555 |
| | PrathamaB | 77312.44400 | 49176.47038 | .624 | -74737.8175 | 229362.7055 |
| | PurvanchalB | 74839.61400 | 49176.47038 | .654 | -77210.6475 | 226889.8755 |
| | SUPGB | 89305.99600 | 49176.47038 | .475 | -62744.2655 | 241356.2575 |
| Pratham aB | KGSGB | 136796.45000 | 49176.47038 | .095 | -15253.8115 | 288846.7115 |
| | AUPGB | -145522.15000 | 49176.47038 | .066 | -297572.4115 | 6528.1115 |
| | BUPGB | -77312.44400 | 49176.47038 | .624 | -229362.7055 | 74737.8175 |
| | PurvanchalB | -2472.83000 | 49176.47038 | 1.000 | -154523.0915 | 149577.4315 |
| | SUPGB | 11993.55200 | 49176.47038 | 1.000 | -140056.7095 | 164043.8135 |
| Purvanc halB | KGSGB | 139269.28000 | 49176.47038 | .086 | -12780.9815 | 291319.5415 |
| | AUPGB | -143049.32000 | 49176.47038 | .074 | -295099.5815 | 9000.9415 |
| | BUPGB | -74839.61400 | 49176.47038 | .654 | -226889.8755 | 77210.6475 |
| | PrathamaB | 2472.83000 | 49176.47038 | 1.000 | -149577.4315 | 154523.0915 |
| | SUPGB | 14466.38200 | 49176.47038 | 1.000 | -137583.8795 | 166516.6435 |
| UPGB | KGSGB | 124802.89800 | 49176.47038 | .153 | -27247.3635 | 276853.1595 |
| | AUPGB | -157515.70200* | 49176.47038 | .039 | -309565.9635 | -5465.4405 |
| | BUPGB | -89305.99600 | 49176.47038 | .475 | -241356.2575 | 62744.2655 |
| | PrathamaB | -11993.55200 | 49176.47038 | 1.000 | -164043.8135 | 140056.7095 |
| | PurvanchalB | -14466.38200 | 49176.47038 | 1.000 | -166516.6435 | 137583.8795 |

Source: Author's own calculations

Table-3, the output of Tukey's test shows comparison of KGSGB with five other RRBs. While comparing agricultural loan disbursement of KGSGB with five other RRBs, the multiple comparison reveals existence of statistically significant difference between KGSGB & AUPGB (Significance < 0.001), and KGSGB & BUPGB (Significance = 0.003). With reference to the mean values in the descriptive table, it can be concluded that KGSGB has lower level of performance compared to AUPGB and BUPGB with respect to performance indicator 'Agricultural Loan Disbursement'. Whereas, KGSGB has similar level of agri-loan disbursement compared to PrathamaB,

PURVANCHALB and SUPGB. AUPGB is the best performer and KGSGB is the worst performer in this category.

Total Demand, Recovery and overdue of RRBs

RRBs disburse loan towards agriculture, industry and service sectors. Tables below details the total demand of loan, recovery of loan and overdue of loan during the period from 2014 to 2019. For analysis of the hypothesis, it has divided into three parts- the first part details the comparison of total demand of loans, the second part explains about recovery of disbursed loan and the third part details the total overdue.

Comparison of 'Total Loan Disbursement':

Table 4: Descriptive table for comparison of 'Total Loan Disbursement'

(Amount in lakh)

| Bank Name | N | Mean | Std. Deviation | Std. Error | Minimum | Maximum |
|-------------|----|-------------|----------------|-------------|-----------|-----------|
| KGSGB | 5 | 129664.2000 | 61348.32707 | 27435.80592 | 46443.00 | 212720.00 |
| AUPGB | 5 | 493917.1520 | 86130.51460 | 38518.73712 | 398526.56 | 592249.77 |
| BUPGB | 5 | 315709.9480 | 97828.09532 | 43750.05425 | 208383.00 | 455180.89 |
| PrathamaB | 5 | 329728.6040 | 126121.03179 | 56403.04010 | 193569.39 | 480352.94 |
| PurvanchalB | 5 | 295484.0640 | 71223.03077 | 31851.90767 | 201567.43 | 377373.00 |
| SUPGB | 5 | 247880.3360 | 110661.81400 | 49489.46772 | 105625.69 | 370613.82 |
| Total | 30 | 302064.0507 | 139976.71166 | 25556.13417 | 46443.00 | 592249.77 |

Source: Author's own calculations

Table 5: ANOVA output for comparison of ‘Total Loan Disbursement’

(Amount in lakh)

| | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|------------------|----|-----------------|-------|------|
| Between Groups | 352300150929.421 | 5 | 70460030185.884 | 7.832 | .000 |
| Within Groups | 215910763450.429 | 24 | 8996281810.435 | | |
| Total | 568210914379.850 | 29 | | | |

Source: Author’s own calculations

ANOVA table-5 shows F-value 7.832 and the significance of F-value is less than 0.001. Thus, it can be concluded that the difference in ‘Total Loan Disbursement’ between the six RRBs is statistically significant at 95% confidence level.

This indicates that there is difference in ‘Loan disbursement’ among the six RRBs. Since the effect is significant, Tukey’s test is performed to check pair-wise differences in the means.

Table 6: Tukey’s test output for comparison of ‘Total Loan Disbursement’

(Amount in lakh)

| (I) Bank Name | (J) Bank Name | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---------------|---------------|-----------------------|-------------|-------|-------------------------|--------------|
| | | | | | Lower Bound | Upper Bound |
| KGSGB | AUPGB | -364252.95200* | 59987.60475 | .000 | -549730.4968 | -178775.4072 |
| | BUPGB | -186045.74800* | 59987.60475 | .049 | -371523.2928 | -568.2032 |
| | PrathamaB | -200064.40400* | 59987.60475 | .029 | -385541.9488 | -14586.8592 |
| | PurvanchalB | -165819.86400 | 59987.60475 | .099 | -351297.4088 | 19657.6808 |
| | SUPGB | -118216.13600 | 59987.60475 | .387 | -303693.6808 | 67261.4088 |
| AUPGB | KGSGB | 364252.95200* | 59987.60475 | .000 | 178775.4072 | 549730.4968 |
| | BUPGB | 178207.20400 | 59987.60475 | .065 | -7270.3408 | 363684.7488 |
| | PrathamaB | 164188.54800 | 59987.60475 | .104 | -21288.9968 | 349666.0928 |
| | PurvanchalB | 198433.08800* | 59987.60475 | .031 | 12955.5432 | 383910.6328 |
| | SUPGB | 246036.81600* | 59987.60475 | .005 | 60559.2712 | 431514.3608 |
| BUPGB | KGSGB | 186045.74800* | 59987.60475 | .049 | 568.2032 | 371523.2928 |
| | AUPGB | -178207.20400 | 59987.60475 | .065 | -363684.7488 | 7270.3408 |
| | PrathamaB | -14018.65600 | 59987.60475 | 1.000 | -199496.2008 | 171458.8888 |
| | PurvanchalB | 20225.88400 | 59987.60475 | .999 | -165251.6608 | 205703.4288 |
| | SUPGB | 67829.61200 | 59987.60475 | .864 | -117647.9328 | 253307.1568 |
| PrathamaB | KGSGB | 200064.40400* | 59987.60475 | .029 | 14586.8592 | 385541.9488 |
| | AUPGB | -164188.54800 | 59987.60475 | .104 | -349666.0928 | 21288.9968 |
| | BUPGB | 14018.65600 | 59987.60475 | 1.000 | -171458.8888 | 199496.2008 |
| | PurvanchalB | 34244.54000 | 59987.60475 | .992 | -151233.0048 | 219722.0848 |
| | SUPGB | 81848.26800 | 59987.60475 | .747 | -103629.2768 | 267325.8128 |
| Purvanchal B | KGSGB | 165819.86400 | 59987.60475 | .099 | -19657.6808 | 351297.4088 |
| | AUPGB | -198433.08800* | 59987.60475 | .031 | -383910.6328 | -12955.5432 |
| | BUPGB | -20225.88400 | 59987.60475 | .999 | -205703.4288 | 165251.6608 |
| | PrathamaB | -34244.54000 | 59987.60475 | .992 | -219722.0848 | 151233.0048 |
| | SUPGB | 47603.72800 | 59987.60475 | .966 | -137873.8168 | 233081.2728 |
| SUPGB | KGSGB | 118216.13600 | 59987.60475 | .387 | -67261.4088 | 303693.6808 |
| | AUPGB | -246036.81600* | 59987.60475 | .005 | -431514.3608 | -60559.2712 |
| | BUPGB | -67829.61200 | 59987.60475 | .864 | -253307.1568 | 117647.9328 |
| | PrathamaB | -81848.26800 | 59987.60475 | .747 | -267325.8128 | 103629.2768 |
| | PurvanchalB | -47603.72800 | 59987.60475 | .966 | -233081.2728 | 137873.8168 |

Source: Author’s own calculations

Table-6, the output of Tukey’s test shows comparison of KGSGB with five other RRBs. While comparing total loan disbursement of KGSGB with five other RRBs, the multiple comparison reveals existence of statistically significant difference between KGSGB & AUPGB (Significance =

0.002), KGSGB & BUPGB (Significance = 0.049), and KGSGB & Prathama B (Significance = 0.029).

With reference to the mean values in the descriptive table, it can be concluded that KGSGB has lower level of performance compared to AUPGB, BUPGB, and Prathama B with respect to performance indicator 'Total Loan

Disbursement'. Whereas, KGSGB has similar level of total loan disbursement compared to PURVANCHALB and SUPGB. AUPGB is the best performer and KGSGB is the worst performer in this category.

Comparison of 'Loan Recovery':

Table 7: Descriptive table for comparison of 'Loan Recovery'

(Amount in Lakh)

| | N | Mean | Std. Deviation | Std. Error | Minimum | Maximum |
|-------------|----|-------------|----------------|-------------|-----------|-----------|
| KGSGB | 5 | 96454.8740 | 49095.17356 | 21956.02909 | 31581.24 | 164326.20 |
| AUPGB | 5 | 296409.3980 | 56331.31651 | 25192.13059 | 235608.90 | 377137.20 |
| BUPGB | 5 | 234830.4551 | 87568.55671 | 39161.84910 | 141471.22 | 360548.54 |
| PrathamaB | 5 | 245537.3963 | 94031.85037 | 42052.32190 | 140628.16 | 345678.90 |
| PurvanchalB | 5 | 201022.0571 | 56273.27836 | 25166.17514 | 128781.43 | 268915.99 |
| SUPGB | 5 | 176137.7020 | 87317.99217 | 39049.79323 | 84384.36 | 305830.52 |
| Total | 30 | 208398.6471 | 92623.01863 | 16910.57222 | 31581.24 | 377137.20 |

Source: Author's own calculations

Table 8 :ANOVA output for comparison of 'Loan Recovery'

(Amount in Lakh)

| | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|------------------|----|-----------------|-------|------|
| Between Groups | 117252052163.500 | 5 | 23450410432.700 | 4.279 | .006 |
| Within Groups | 131539631636.509 | 24 | 5480817984.855 | | |
| Total | 248791683800.009 | 29 | | | |

Source: Author's own calculations

The above ANOVA table-8 shows F-value 4.279 and the significance of F-value is 0.006. This indicates that Thus, it can be concluded that the difference in 'Loan Recovery' between the six RRBs is statistically significant at 95%

confidence level. This indicates that there is difference in 'Loan Recovery' among the six RRBs. Since the effect is significant, Tukey's test is performed to check pair-wise differences in the means.

Table 9: Tukey's test output for comparison of 'Loan Recovery'

(Amount in Lakh)

| (I) Bank Name | (J) Bank Name | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---------------|---------------|-----------------------|-------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| KGSGB | AUPGB | -199954.52400* | 46822.29377 | .003 | -344725.8335 | -55183.2145 |
| | BUPGB | -138375.58112 | 46822.29377 | .067 | -283146.8906 | 6395.7283 |
| | PrathamaB | -149082.52226* | 46822.29377 | .041 | -293853.8317 | -4311.2128 |
| | PurvanchalB | -104567.18312 | 46822.29377 | .260 | -249338.4926 | 40204.1263 |
| | SUPGB | -79682.82800 | 46822.29377 | .544 | -224454.1375 | 65088.4815 |
| AUPGB | KGSGB | 199954.52400* | 46822.29377 | .003 | 55183.2145 | 344725.8335 |
| | BUPGB | 61578.94288 | 46822.29377 | .774 | -83192.3666 | 206350.2523 |
| | PrathamaB | 50872.00174 | 46822.29377 | .882 | -93899.3077 | 195643.3112 |
| | PurvanchalB | 95387.34088 | 46822.29377 | .352 | -49383.9686 | 240158.6503 |
| | SUPGB | 120271.69600 | 46822.29377 | .144 | -24499.6135 | 265043.0055 |

Financial Appraisal of RRBs: Evidence from Eastern Uttar Pradesh

| | | | | | | |
|-------------|-------------|---------------|-------------|-------|--------------|-------------|
| BUPGB | KGSGB | 138375.58112 | 46822.29377 | .067 | -6395.7283 | 283146.8906 |
| | AUPGB | -61578.94288 | 46822.29377 | .774 | -206350.2523 | 83192.3666 |
| | PrathamaB | -10706.94114 | 46822.29377 | 1.000 | -155478.2506 | 134064.3683 |
| | PurvanchalB | 33808.39800 | 46822.29377 | .977 | -110962.9115 | 178579.7075 |
| | SUPGB | 58692.75312 | 46822.29377 | .806 | -86078.5563 | 203464.0626 |
| PrathamaB | KGSGB | 149082.52226* | 46822.29377 | .041 | 4311.2128 | 293853.8317 |
| | AUPGB | -50872.00174 | 46822.29377 | .882 | -195643.3112 | 93899.3077 |
| | BUPGB | 10706.94114 | 46822.29377 | 1.000 | -134064.3683 | 155478.2506 |
| | PurvanchalB | 44515.33914 | 46822.29377 | .929 | -100255.9703 | 189286.6486 |
| | SUPGB | 69399.69426 | 46822.29377 | .678 | -75371.6152 | 214171.0037 |
| PurvanchalB | KGSGB | 104567.18312 | 46822.29377 | .260 | -40204.1263 | 249338.4926 |
| | AUPGB | -95387.34088 | 46822.29377 | .352 | -240158.6503 | 49383.9686 |
| | BUPGB | -33808.39800 | 46822.29377 | .977 | -178579.7075 | 110962.9115 |
| | PrathamaB | -44515.33914 | 46822.29377 | .929 | -189286.6486 | 100255.9703 |
| | SUPGB | 24884.35512 | 46822.29377 | .994 | -119886.9543 | 169655.6646 |
| SUPGB | KGSGB | 79682.82800 | 46822.29377 | .544 | -65088.4815 | 224454.1375 |
| | AUPGB | -120271.69600 | 46822.29377 | .144 | -265043.0055 | 24499.6135 |
| | BUPGB | -58692.75312 | 46822.29377 | .806 | -203464.0626 | 86078.5563 |
| | PrathamaB | -69399.69426 | 46822.29377 | .678 | -214171.0037 | 75371.6152 |
| | PurvanchalB | -24884.35512 | 46822.29377 | .994 | -169655.6646 | 119886.9543 |

Source: Author's own calculations

Table-9, the output of Tukey's test shows comparison of KGSGB with five other RRBs. While comparing loan recovery of KGSGB with five other RRBs, the multiple comparison reveals existence of statistically significant difference between KGSGB & AUPGB (Significance = 0.003), and KGSGB & Prathama B (Significance = 0.041). With reference to the mean values in the descriptive table, it

can be concluded that KGSGB has lower level of performance compared to AUPGB and Prathama B with respect to performance indicator 'Loan Recovery'. Whereas, KGSGB has similar level of loan recovery compared to BUPGB, PURVANCHALB and SUPGB. AUPGB is the best performer and KGSGB is the worst performer in this category.

Comparison of 'Overdue':

Table 10: Descriptive table for comparison of 'Overdue'

(Amount in Lakh)

| | N | Mean | Std. Deviation | Std. Error | Minimum | Maximum |
|-------------|----|-------------|----------------|-------------|-----------|-----------|
| KGSGB | 5 | 33209.3260 | 12380.14272 | 5536.56814 | 14861.76 | 48393.80 |
| AUPGB | 5 | 197507.7540 | 35815.88253 | 16017.34960 | 162917.66 | 249093.51 |
| BUPGB | 5 | 80879.4926 | 10458.03559 | 4676.97570 | 66911.78 | 94632.35 |
| PrathamaB | 5 | 84191.2080 | 45977.97381 | 20561.97498 | 41218.99 | 146747.82 |
| PurvanchalB | 5 | 94462.0060 | 15365.10083 | 6871.48199 | 72786.00 | 108457.01 |
| SUPGB | 5 | 71742.6340 | 52572.09662 | 23510.95635 | 21241.33 | 152328.78 |
| Total | 30 | 93665.4034 | 59451.65329 | 10854.33720 | 14861.76 | 249093.51 |

Source: Author's own calculations

Table 11: ANOVA output for comparison of 'Overdue'

(Amount in Lakh)

| | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|------------------|----|-----------------|--------|------|
| Between Groups | 75863266797.738 | 5 | 15172653359.548 | 13.670 | .000 |
| Within Groups | 26637206501.992 | 24 | 1109883604.250 | | |
| Total | 102500473299.730 | 29 | | | |

Source: Author's own calculations

ANOVA table-11 shows F-value 13.670 and the significance of F-value is less than 0.001. This indicates rejection of the null hypothesis and acceptance of the alternate hypothesis. Thus, it can be concluded that the difference in 'Overdue' between the six RRBs is statistically

significant at 95% confidence level. This indicates that there is difference in 'Overdue' among the six RRBs is .Since the effect is significant, Tukey's test is performed to check pair-wise differences in the means.

Table 12: Tukey's test output for comparison of 'Overdue'

(Amount in Lakh)

| (I) Bank Name | (J) Bank Name | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---------------|---------------|-----------------------|-------------|-------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| KGSGB | AUPGB | -164298.42800* | 21070.20270 | .000 | -229446.0444 | -99150.8116 |
| | BUPGB | -47670.16662 | 21070.20270 | .248 | -112817.7830 | 17477.4498 |
| | PrathamaB | -50981.88200 | 21070.20270 | .189 | -116129.4984 | 14165.7344 |
| | PurvanchalB | -61252.68000 | 21070.20270 | .074 | -126400.2964 | 3894.9364 |
| | SUPGB | -38533.30800 | 21070.20270 | .467 | -103680.9244 | 26614.3084 |
| AUPGB | KGSGB | 164298.42800* | 21070.20270 | .000 | 99150.8116 | 229446.0444 |
| | BUPGB | 116628.26138* | 21070.20270 | .000 | 51480.6450 | 181775.8778 |
| | PrathamaB | 113316.54600* | 21070.20270 | .000 | 48168.9296 | 178464.1624 |
| | PurvanchalB | 103045.74800* | 21070.20270 | .001 | 37898.1316 | 168193.3644 |
| | SUPGB | 125765.12000* | 21070.20270 | .000 | 60617.5036 | 190912.7364 |
| BUPGB | KGSGB | 47670.16662 | 21070.20270 | .248 | -17477.4498 | 112817.7830 |
| | AUPGB | -116628.26138* | 21070.20270 | .000 | -181775.8778 | -51480.6450 |
| | PrathamaB | -3311.71538 | 21070.20270 | 1.000 | -68459.3318 | 61835.9010 |
| | PurvanchalB | -13582.51338 | 21070.20270 | .986 | -78730.1298 | 51565.1030 |
| | SUPGB | 9136.85862 | 21070.20270 | .998 | -56010.7578 | 74284.4750 |
| PrathamaB | KGSGB | 50981.88200 | 21070.20270 | .189 | -14165.7344 | 116129.4984 |
| | AUPGB | -113316.54600* | 21070.20270 | .000 | -178464.1624 | -48168.9296 |
| | BUPGB | 3311.71538 | 21070.20270 | 1.000 | -61835.9010 | 68459.3318 |
| | PurvanchalB | -10270.79800 | 21070.20270 | .996 | -75418.4144 | 54876.8184 |
| | SUPGB | 12448.57400 | 21070.20270 | .991 | -52699.0424 | 77596.1904 |
| PurvanchalB | KGSGB | 61252.68000 | 21070.20270 | .074 | -3894.9364 | 126400.2964 |
| | AUPGB | -103045.74800* | 21070.20270 | .001 | -168193.3644 | -37898.1316 |
| | BUPGB | 13582.51338 | 21070.20270 | .986 | -51565.1030 | 78730.1298 |
| | PrathamaB | 10270.79800 | 21070.20270 | .996 | -54876.8184 | 75418.4144 |
| | SUPGB | 22719.37200 | 21070.20270 | .885 | -42428.2444 | 87866.9884 |
| SUPGB | KGSGB | 38533.30800 | 21070.20270 | .467 | -26614.3084 | 103680.9244 |
| | AUPGB | -125765.12000* | 21070.20270 | .000 | -190912.7364 | -60617.5036 |
| | BUPGB | -9136.85862 | 21070.20270 | .998 | -74284.4750 | 56010.7578 |
| | PrathamaB | -12448.57400 | 21070.20270 | .991 | -77596.1904 | 52699.0424 |
| | PurvanchalB | -22719.37200 | 21070.20270 | .885 | -87866.9884 | 42428.2444 |

Source: Author's own calculations

Table-12, the output of Tukey's test shows comparison of KGSGB with five other RRBs. While comparing overdue of KGSGB with five other RRBs, the multiple comparison reveals existence of statistically significant difference only between KGSGB and AUPGB (Significance < 0.001). With

reference to the mean values in the descriptive table, it can be concluded that KGSGB has similar level of performance compared to other RRBs except AUPGB with respect to performance indicator 'Overdue'. AUPGB has the highest amount and KGSGB has the lowest amount of overdue.

Financial Appraisal of RRBs: Evidence from Eastern Uttar Pradesh

Comparison of Net NPA

Table 13: Descriptive table for comparison of NPA (%)

(Amount in Lakh)

| | N | Mean | Std. Deviation | Std. Error | Minimum | Maximum |
|-----------|----|---------|----------------|------------|---------|---------|
| KGSGB | 5 | 15.4760 | 12.38047 | 5.53671 | 3.49 | 34.90 |
| AUPGB | 5 | 5.8600 | 1.73472 | .77579 | 3.85 | 8.54 |
| BUPGB | 5 | 1.1020 | 2.08022 | .93030 | .00 | 4.78 |
| PrathamaB | 5 | 1.6280 | .19627 | .08777 | 1.35 | 1.85 |
| PurGB | 5 | 7.7920 | 1.97385 | .88273 | 5.18 | 9.85 |
| SUPGB | 5 | .5120 | .26603 | .11897 | .10 | .80 |
| Total | 30 | 5.3950 | 7.14078 | 1.30372 | .00 | 34.90 |

Source: Author's own calculations

Table 14: ANOVA output for comparison of NPA (%)

(Amount in Lakh)

| | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | 820.261 | 5 | 164.052 | 5.979 | .001 |
| Within Groups | 658.472 | 24 | 27.436 | | |
| Total | 1478.733 | 29 | | | |

Source: Author's own calculations

The above ANOVA table-14 shows F-value 5.979 and the significance of F-value is 0.001. This indicates rejection of the null hypothesis and acceptance of the alternate hypothesis. Thus, it can be concluded that the difference in

'percentage of NPA' between the six RRBs is statistically significant at 95% confidence level. Since the effect is significant, Tukey's test is performed to check pair wise differences in the means.

Table 15: Tukey's Test output for comparison of NPA (%)

(Amount in Lakh)

| (I) Bank Name | (J) Bank Name | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---------------|---------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| KGSGB | AUPGB | 9.61600 | 3.31278 | .075 | -.6269 | 19.8589 |
| | BUPGB | 14.37400* | 3.31278 | .003 | 4.1311 | 24.6169 |
| | PrathamaB | 13.84800* | 3.31278 | .004 | 3.6051 | 24.0909 |
| | PurGB | 7.68400 | 3.31278 | .225 | -2.5589 | 17.9269 |
| | SUPGB | 14.96400* | 3.31278 | .002 | 4.7211 | 25.2069 |
| AUPGB | KGSGB | -9.61600 | 3.31278 | .075 | -19.8589 | .6269 |
| | BUPGB | 4.75800 | 3.31278 | .706 | -5.4849 | 15.0009 |
| | PrathamaB | 4.23200 | 3.31278 | .794 | -6.0109 | 14.4749 |
| | PurGB | -1.93200 | 3.31278 | .991 | -12.1749 | 8.3109 |
| | SUPGB | 5.34800 | 3.31278 | .598 | -4.8949 | 15.5909 |

| | | | | | | |
|-----------|-----------|------------|---------|-------|----------|---------|
| BUPGB | KGSGB | -14.37400* | 3.31278 | .003 | -24.6169 | -4.1311 |
| | AUPGB | -4.75800 | 3.31278 | .706 | -15.0009 | 5.4849 |
| | PrathamaB | -.52600 | 3.31278 | 1.000 | -10.7689 | 9.7169 |
| | PurGB | -6.69000 | 3.31278 | .361 | -16.9329 | 3.5529 |
| | SUPGB | .59000 | 3.31278 | 1.000 | -9.6529 | 10.8329 |
| PrathamaB | KGSGB | -13.84800* | 3.31278 | .004 | -24.0909 | -3.6051 |
| | AUPGB | -4.23200 | 3.31278 | .794 | -14.4749 | 6.0109 |
| | BUPGB | .52600 | 3.31278 | 1.000 | -9.7169 | 10.7689 |
| | PurGB | -6.16400 | 3.31278 | .449 | -16.4069 | 4.0789 |
| | SUPGB | 1.11600 | 3.31278 | .999 | -9.1269 | 11.3589 |
| PurGB | KGSGB | -7.68400 | 3.31278 | .225 | -17.9269 | 2.5589 |
| | AUPGB | 1.93200 | 3.31278 | .991 | -8.3109 | 12.1749 |
| | BUPGB | 6.69000 | 3.31278 | .361 | -3.5529 | 16.9329 |
| | PrathamaB | 6.16400 | 3.31278 | .449 | -4.0789 | 16.4069 |
| | SUPGB | 7.28000 | 3.31278 | .275 | -2.9629 | 17.5229 |
| SUPGB | KGSGB | -14.96400* | 3.31278 | .002 | -25.2069 | -4.7211 |
| | AUPGB | -5.34800 | 3.31278 | .598 | -15.5909 | 4.8949 |
| | BUPGB | -.59000 | 3.31278 | 1.000 | -10.8329 | 9.6529 |
| | PrathamaB | -1.11600 | 3.31278 | .999 | -11.3589 | 9.1269 |
| | PurGB | -7.28000 | 3.31278 | .275 | -17.5229 | 2.9629 |

Source: Author's own calculations

Table-15, the output of Tukey's test shows comparison of KGSGB with five other RRBs. While comparing income of KGSGB with five other RRBs, the multiple comparison reveals existence of statistically significant difference between the pairs KGSGB & BUPGB (Significance = 0.003), KGSGB & Prathama B (Significance = 0.004), and KGSGB & SUPGB (Significance = 0.002). With reference to the mean values in the descriptive table, it can be concluded that KGSGB has higher level of NPA (%) compared to BUPGB, Prathama B, and SUPGB. The mean values also suggest that KGSGB has the highest percentage of NPA and SUPGB has the lowest of NPA among all the six banks.

VI. CONCLUSION

RRBs have grown phenomenally both in terms of increasing the numbers as well as branch from its establishment. Branch expansion of RRBs in the Eastern U.P. is rather impressive and they become important banks in the rural areas of Eastern U.P. In our study period it has been found that loan disbursement by KGSGB towards agriculture sector remained equal as compared to Prathama Bank, Purvanchal Bank and SUPGB. The highest agricultural loan disbursement has been made by AUPGB during the study period. However, the recovery performance of KGSGB was not so satisfactory as compared to recovery performance of other RRBs operating in Eastern U.P.

In case of overdue, it is concluded that KGSGB has similar level of performance compared to other RRBs except AUPGB with respect to performance indicator 'Overdue'. Several reasons are responsible to increase non-recovery of loan like no proper collection point, unawareness about penalty of non-payment of loans, no proper monitoring of sanctioned loan utilization (borrowers do not use loan amount for agriculture purpose), Sometimes the government writes off the loans to get benefits of the political advantages which adversely affects the recovery of loans, borrowers of sound financial position having repaying capacity also tend to delay the installment (willful defaulter) and without proper verification, bank sanctioned agricultural gold loans on subsidized interest rate but borrower utilizes such amount for other purpose.

In case of NPA, it is concluded that KGSGB has higher level of NPA (%) compared to BUPGB, PrathamaB, and SUPGB. Whereas, KGSGB has the highest percentage of NPA and SUPGB has the lowest of percent of NPA among all the six banks.

REFERENCE

1. Aparna K., (2011), "Amalgamation and Deccan Grameena Bank", "Journal on Banking Financial Services & Insurance Research", Vol. 1, Issue 6, pp.98-105
2. Bharat M. Kher (2013), "The Role of Rural Banks in the Development of Rural Socio-economy", "International Journal of Research in Humanities and Social Sciences", Vol.1, Issue 4, pp.31-36.
3. Bhatia,A.,Mahajan,P.,&Chander,S.(2012).DeterminantsofprofitabilityofprivatesectorbanksinIndia.IndianJournalofAccounting, Vol.42, Issue 2, pp.39-51.
4. Ishwar P. (2011), "A Financial Performance Analysis of RRBs: Pre and Post Transformation", "International Journal of Economics", Vol. 2, Issue 1, pp.142- 152
5. Kanika & Nancy.(2013),"Financial Performance of Regional Rural Banks in India",International Journal of Management & Information Technology, Vol. 4, Issue 2, pp. 120-128.
6. Mishra, B.S., 2006, The Performance of Regional Rural Banks (RRBs) in India: Has Past Anything to Suggest for Future?, Reserve Bank of India Occasional Papers, 27 (1), 89-118.
7. Murthy, Sudarsana D. Narasaiah, P.V. Mohan, B. (2012), "Agricultural Credit By Regional Rural Banks: An Empirical Study", "Journal of Commerce & Accounting Research, Vol. 1, Issue 3, pp. 1-12.
8. Salas,V.,&Saurina,J.(2002).Creditriskintwoinstitutionalregimes:Spanishcommercialandsavingsbanks.JournalofFinancialServicesResearch, Vol. 22, Issue 3, pp. 203-224.
9. Reserve Bank of India, 2018, Handbook of Statistics on Indian States, State-wise Number of Branches of Regional Rural Banks, 410-412. Online available at: https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/118BS_240617BBC06A1AB9584FF4B4F539934F9E7E6E.PDF