BANKING SECTOR REFORMS AND ITS IMPACT ON AGRICULTURAL FINANCE – A CASE STUDY OF Y.S.R KADAPA DISTRICT (SPECIAL REFERENCE TO SELECTED SAMPLE MANDAL VILLAGES)

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Received: August 25, 2018
Accepted: October 12, 2018

ABSTRACT
The aim of the present study was to study the Banking Sector Reforms and its Impact on Agricultural Finance – A Case Study of Y.S.R Kadapa District. For the present study the district is broadly divided into two categories namely developed and less developed areas. Based on the irrigation facilities and cropping pattern one mandal from the developed area namely Kamalapuram and another mandal from the less developed area namely Yerraguntla are selected as sample mandals. In the next stage, two villages one from each mandal has been selected randomly. From each village through stratified random sampling method from the agricultural household’s 50 percent of households (covering marginal, small, medium, and large farmers) have selected for final field survey. And the data were to be subjected the ANOVA.

Keywords: Banking Sector Reforms, Agricultural Finance.

Introduction: Two mandals are purposively selected for the present study because of convenience and familiarity. Kamalapuram mandal is developed and Yerraguntla mandal is less developed to represent the dualistic geographical and agro-climatic pattern of Kadapa District. It would be appropriate to provide a bird’s eye view of the agricultural economy of the sample mandals before describing the agricultural economy and the corresponding agricultural credit system in the sample villages, namely Gangavaram and Valasapalle.

Objectives of the Study
1) To study the extent of credit supplied by different agencies to sample households.
2) To study the impact of banking sector reforms on farmers in terms of cost and access to credit.
3) To analyze the problems of farmers in getting loans from different agencies.

Hypotheses
1) There is no significant difference in the volume of credit supplied by different agencies to sample households.
2) Banking sector reforms have no significant impact on farmers in terms of cost and access to credit.
3) There is no significant difference in the interest rates on agricultural loans among different categories of households and villages.

Methodology
Kadapa district, one of the backward districts in agricultural development in the state of Andhra Pradesh has been purposively selected for the present study. Though the studies mentioned in review of literature have covered agricultural credit markets at various places in different dimensions, no study has been conducted in the two sample villages in Kadapa district so far. Hence, the present study can be a gap filling in this direction. Based on the agricultural development levels, the district is broadly divided into two categories namely developed and less developed areas. Based on the irrigation facilities and cropping pattern one mandal from the developed area namely Kamalapuram and another mandal from the less developed area namely Yerraguntla are selected as sample mandals. In the next stage, two villages one from each mandal has been selected randomly. From each village through stratified random sampling method from the agricultural households 50 percent of households (covering marginal, small, medium, and large farmers) have selected for final field survey. Selection of samples is shown in table-1.
Table 1
Selection of Sample households

<table>
<thead>
<tr>
<th>Category of farmers (Acres)</th>
<th>Gangavaram Village (Developed Village)</th>
<th>Valasapalle Village (Less developed Village)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Borrowers</td>
<td>Non-borrowers</td>
</tr>
<tr>
<td></td>
<td>Total 50% sample</td>
<td>Total 50% sample</td>
</tr>
<tr>
<td>Marginal farmers (0-2.5)</td>
<td>89</td>
<td>44</td>
</tr>
<tr>
<td>Small farmers (2.5-5.0)</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>Medium farmers (5-10)</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Large farmers (Above10)</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>58</td>
</tr>
</tbody>
</table>

*Thus the totals sample households are arrived at 205.

Data base
Two types of data are collected for the present study. Primary data and secondary data. To analyze the concentration of credit in different size groups of farmers, interest rates charged by different credit agencies, cropping pattern, asset structure, loan outstanding and loan defaults, a structured schedule was canvassed among the sample households in both the villages. The field data relates to the agricultural year 2013-14. Secondary data are collected from the published reports of the centre and state governments, and the Syndicate Bank which is the lead bank of the district. Visits to the district, mandal and village level offices have made to fill the gaps in time series data.

Application of statistical tools
The data collected from different sources are analysed by employing statistical tools such as averages, percentages, ANOVA, Growth Rates etc. Maps and graphs are also presented to illuminate the data.

Scope and limitations
The present investigation is confined to two villages situated in two regions of Kadapa district. The size of the sample was kept at the minimum to match the meager financial and time resources of the researcher. Moreover, the investigation was conducted on the basis of cross sectional data only. As the farmers did not maintain records of their farm expenditures and incomes and information collected from them was memory based. However, efforts were made to collect reasonably satisfactory information from the farmers by repeated appeals and persuasion.

Profile of the Sample Mandals
The basic details relating to these sample mandals are furnished in table-2

Table 2
Characteristic Features of Sample Mandals

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item</th>
<th>Kamalapuram</th>
<th>Yerraguntla</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total population</td>
<td>49093</td>
<td>65254</td>
</tr>
<tr>
<td>2</td>
<td>Geographical area</td>
<td>18635</td>
<td>24995</td>
</tr>
<tr>
<td>3</td>
<td>Inhabited villages</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>Rural population</td>
<td>49093</td>
<td>38416</td>
</tr>
<tr>
<td>5</td>
<td>Forest area</td>
<td>80</td>
<td>1782</td>
</tr>
<tr>
<td>6</td>
<td>Net sown area</td>
<td>7328</td>
<td>6437</td>
</tr>
<tr>
<td>7</td>
<td>Net irrigated area</td>
<td>1516</td>
<td>490</td>
</tr>
<tr>
<td>8</td>
<td>Cultivators</td>
<td>1281</td>
<td>936</td>
</tr>
</tbody>
</table>
The table-2 reveals that the density of population is comparatively very high in Yerraguntla mandal (65254) than in Kamalapuram mandal (49093). The total geographical area is also higher in Yerraguntla mandal (24995) than in Kamalapuram mandal (18635). Kamalapuram mandal has 23 revenue villages compared with 16 revenue villages in Yerraguntla. The density of rural population is higher in Kamalapuram mandal (100 per cent) than in Yerraguntla mandal (58.8 per cent). Forests occupy 80 (0.42 per cent) and 1782 (7.12 per cent) hectares in Kamalpuram and Yerraguntla mandals respectively. The net sown area (7328) and net irrigated (1516) areas are higher in Kamalapuram mandal than in Yerraguntla mandal. The cultivators increased nearly 1.36 times higher in Kamalapuram mandal. Marginal farmers are higher in 4467 Kamalapuram mandal. The agricultural labour force is higher in Kamalapuram mandal. The number of factories is significantly higher in Yerraguntla mandal. There are 2 nationalized banks in Kamalpuram mandal and 4 in Yerraguntla mandal. The number of SHGs are lower in Kamalapuram mandal (397) than in Yerraguntla mandal (406).

Profile of the Sample Villages

Gangavaram Village
Gangavaram village represents a developed area, selected out of the 23 revenue villages of Kamalapuram mandal of Kadapa district. Gangavaram village is situated at a distance of 5 kms from the Kamalapuram mandal. It is located on the river banks of Kundu and Penna rivers. It has 310 households with a population of 1122 of which 574 are males and 548 are females. The average sex ratio in Gangavaram village is 955 women for every 1000 men. In 2011, the illiteracy rate of Gangavaram was 67.50 per cent compared to 67.02 per cent average of Andhra Pradesh. In Gangavaram, male literacy stands at 78.70 per cent while female literacy rate is 55.67 per cent.

The main crops grown in the village are paddy, groundnut and sunflower. Watermelon, sesame are also cultivated in small pockets in the village.

Valasapalle village
Valasapalle village representing the less developed mandal is selected from 16 revenue villages of Yerraguntla mandal, of Kadapa district for the study. It has 229 households with a population of 864 of which 439 are males and 425 are females as per population census, 2011. The average sex ratio of Valasapalle village is 964. In 2011, the illiteracy rate of Valasapalle was 65.41 per cent compared to 67.02 per cent average of Andhra Pradesh. In Valasapalle village male literacy stands at 76.63 per cent while female literacy rate is 53.82 per cent. Groundnut and redgram are the main crops. Jowar, sesame, blackgram, coriander are the other crops grown in small pockets.

Agricultural Credit Structure of Sample Households
Since the demand for use of credit on farm is partly conditioned by the supply or availability of credit, an examination of the supply side of the credit is an essential part of credit analysis. The principles of institutionalization of agricultural credit thereby minimize the dominance of the non-institutional credit agencies. The supply of credit provided by institutions should be adequate to meet the credit needs of the...
culturators. Due to the adoption of modern technology, high yielding variety of seeds, chemical fertilizers, pesticides etc, the credit requirements of all the farmers have gone up substantially. The cost of cultivation is high in the case of cultivation of high yielding varieties. As majority of the farmers lack self-financing ability, borrowings become necessary for carrying out farm operations. The extent of credit borrowing particulars in sample villages from both institutional and non-institutional sources are given in table-3.

**Farm Size and Sources of Credit**

Source-wise agricultural credit per household among borrowers is presented in Table-3

### Table-3

**Source-wise Agricultural Credit Per Household among Borrowers: 2013-14**

<table>
<thead>
<tr>
<th>Sl. NO</th>
<th>Credit agency</th>
<th>Developed village (Gangavaram)</th>
<th>MF</th>
<th>SF</th>
<th>Md.F</th>
<th>LF</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Institutional agencies(1+2+3)</td>
<td>83556 (58.4)</td>
<td>154705 (60.8)</td>
<td>207008 (61.4)</td>
<td>505600 (64.9)</td>
<td>115535 (60.1)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Co-operatives</td>
<td>20927 (14.6)</td>
<td>40459 (15.9)</td>
<td>50853 (15.1)</td>
<td>150275 (19.3)</td>
<td>29966 (15.6)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Commercial banks</td>
<td>30629 (21.4)</td>
<td>44036 (17.3)</td>
<td>58035 (17.2)</td>
<td>165075 (21.2)</td>
<td>38763 (20.2)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Regional rural banks</td>
<td>32000 (22.4)</td>
<td>70210 (27.6)</td>
<td>98120 (29.1)</td>
<td>190250 (24.4)</td>
<td>46806 (24.3)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Non-institutional agencies(4+5+6+7)</td>
<td>59552 (41.6)</td>
<td>99764 (39.2)</td>
<td>130104 (38.5)</td>
<td>89733 (35.1)</td>
<td>76836 (39.9)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Agricultural money lenders</td>
<td>19270 (13.4)</td>
<td>36087 (14.2)</td>
<td>47640 (14.1)</td>
<td>77060 (11.5)</td>
<td>25776 (13.4)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Professional moneylenders</td>
<td>16000 (11.2)</td>
<td>22056 (8.7)</td>
<td>31432 (9.3)</td>
<td>69434 (9.9)</td>
<td>19843 (10.3)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Traders</td>
<td>13579 (9.5)</td>
<td>21981 (8.6)</td>
<td>28782 (8.5)</td>
<td>37800 (8.9)</td>
<td>17595 (9.1)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Relatives, friends &amp; others</td>
<td>10703 (7.5)</td>
<td>19640 (7.7)</td>
<td>22250 (6.6)</td>
<td>27402 (4.8)</td>
<td>13621 (7.1)</td>
<td></td>
</tr>
<tr>
<td>Total A+B</td>
<td></td>
<td>143108 (100)</td>
<td>254469 (100)</td>
<td>337112 (100)</td>
<td>779627 (100)</td>
<td>192371 (100)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sl. NO</th>
<th>Credit agency</th>
<th>Developed village (Valasapalle)</th>
<th>MF</th>
<th>SF</th>
<th>Md.F</th>
<th>LF</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Institutional agencies(1+2+3)</td>
<td>79750 (50.5)</td>
<td>132440 (56.4)</td>
<td>156410 (58.6)</td>
<td>184940 (60.1)</td>
<td>96920 (53.2)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Co-operatives</td>
<td>19250 (12.2)</td>
<td>38450 (16.5)</td>
<td>47800 (17.9)</td>
<td>58030 (18.5)</td>
<td>25562 (13.9)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Commercial banks</td>
<td>28000 (17.8)</td>
<td>48120 (20.5)</td>
<td>50360 (18.9)</td>
<td>58210 (18.9)</td>
<td>33808 (18.6)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Regional rural banks</td>
<td>32500 (20.5)</td>
<td>45870 (19.4)</td>
<td>58250 (21.8)</td>
<td>68700 (22.7)</td>
<td>37549 (20.7)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Non-institutional agencies(4+5+6)</td>
<td>78250 (49.5)</td>
<td>102830 (43.6)</td>
<td>109680 (41.4)</td>
<td>122790 (39.9)</td>
<td>85832 (46.8)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Agricultural money lenders</td>
<td>53250 (33.7)</td>
<td>54450 (23.1)</td>
<td>60000 (22.7)</td>
<td>81500 (26.5)</td>
<td>54637 (29.8)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Professional moneylenders</td>
<td>-</td>
<td>25490 (10.8)</td>
<td>28890 (10.9)</td>
<td>22500 (7.3)</td>
<td>7014 (3.8)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Relatives, friends &amp; others</td>
<td>25000 (15.8)</td>
<td>22890 (9.7)</td>
<td>20790 (7.8)</td>
<td>18790 (6.1)</td>
<td>24180 (13.2)</td>
<td></td>
</tr>
<tr>
<td>Total A+B</td>
<td></td>
<td>158000 (100)</td>
<td>235270 (100)</td>
<td>266090 (100)</td>
<td>307730 (100)</td>
<td>182753 (100)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Data.
Note: Figures in the parenthesis represent the percentages to the total.

Source-wise borrowings of sample households presented in table-3 shows that the share of borrowings per household from institutional agencies is 60.1 per cent and the balance of 39.9 per cent comes from non-institutional agencies in the developed village. For all the categories of farmers, the share of...
institutional credit per household is higher (58.4 per cent, 60.8 per cent 61.4 per cent, 64.9 per cent) for different size groups than the non-institutional credit (41.6 per cent, 39.2 per cent, 38.5 per cent, 35.1 per cent) in the developed village. Among the non-institutional agencies, agricultural moneylenders play a dominant role. Further, the table reveals the share of institutional borrowing in less developed village (53.2 per cent) is lower than that of developed village (60.1 per cent). In the case of marginal and small farmers, the share of institutional credit is lower (50.5 per cent and 56.4 per cent) than that of the medium and large farmers (58.6 per cent and 60.1 per cent). Among the non-institutional agencies, agricultural moneylenders play a dominant role than the professional moneylenders, relatives, friends and others. In the case of all categories of sample households there exists a significant difference in the volume of credit supplied by different agencies during the period under reference. The corresponding F-statistics (presented in table-4) are significant at 5% per cent level. Hence based on the ANOVA results the hypothesis namely that there is no significant difference in the volume of credit supplied by different agencies to sample households is rejected. Figure-1 indicate the source-wise agricultural credit per household of borrowers in developed and less developed villages.

Table 4
ANOVA - Agricultural Credit per Household in Sample Villages

<table>
<thead>
<tr>
<th>Source</th>
<th>d.f</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Developed and Less developed villages</td>
<td>12</td>
<td>26802816637.19</td>
<td>2233568053.10</td>
<td>3.951719*</td>
</tr>
<tr>
<td>Between the Farmers</td>
<td>3</td>
<td>21696946566</td>
<td>7232315522</td>
<td>12.7957*</td>
</tr>
<tr>
<td>Error</td>
<td>36</td>
<td>20347715328</td>
<td>565214314.7</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>68847478531</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Significant at 5% level.
*Significant at 5% level.

Figure 1
Source-wise Agricultural Credit Per Household Among Borrowers in Sample Villages: 2013-14
Interest Rate Structure

The interest rate structure of sample households are presented in table-4. It is noticed that the average rate of interest for all categories of borrowers from institutional agencies works out to 7.8 per cent in both the villages. Similarly the average rate of interest for all categories of borrowers from non-institutional agencies works out to 30.3 and 31.4 per cent in both the villages. Further, the data reveals that among the non-borrowers in both the villages, the corresponding rates from non-institutional agencies are 30.3 and 35.1 per cent respectively. It may also be noticed that the Regional Rural Banks loans are slightly cheaper than the co-operative and commercial banks. The rates of interest paid by the large farmers are slightly higher than the rest of their counter parts due to a comparatively larger size of the loan amounts borrowed. There is an inverse relationship between farm-size and the rate of interest paid to non-institutional agencies in both the villages. The rates of interest charged by agricultural moneylenders are slightly lower than that of professional moneylenders in the case of small and marginal farmers. Similarly, lower rates of interest are charged by the traders due to inter linkage of credit and productive markets.

Table-4
Interest Rate Structure of Sample Households: 2013-14 (%)

<table>
<thead>
<tr>
<th>Category</th>
<th>Developed village (Gangavaram)</th>
<th>Less developed village (Valasapalle)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Institutional</td>
<td>B. Non-institutional</td>
</tr>
<tr>
<td></td>
<td>Co-op</td>
<td>CS</td>
</tr>
<tr>
<td>MF</td>
<td>6.9</td>
<td>9.0</td>
</tr>
<tr>
<td>SF</td>
<td>7.4</td>
<td>10.3</td>
</tr>
<tr>
<td>Md.F</td>
<td>9.4</td>
<td>10.2</td>
</tr>
<tr>
<td>LF</td>
<td>9.8</td>
<td>11.5</td>
</tr>
<tr>
<td>All Categories</td>
<td>7.2</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Source: Field data.

Table-5
Interest Rates and Institutional Loans in Sample Villages: 2013-14 (%)

<table>
<thead>
<tr>
<th>Category</th>
<th>Developed village (Gangavaram)</th>
<th>Less developed village (Valasapalle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borrowers</td>
<td>Non-borrowers</td>
<td>Both Categories</td>
</tr>
<tr>
<td>MF</td>
<td>19.4</td>
<td>31.0</td>
</tr>
<tr>
<td>SF</td>
<td>18.9</td>
<td>28.5</td>
</tr>
<tr>
<td>Md.F</td>
<td>17.1</td>
<td>26.5</td>
</tr>
<tr>
<td>LF</td>
<td>16.3</td>
<td>22.5</td>
</tr>
<tr>
<td>All Categories</td>
<td>19.0</td>
<td>30.3</td>
</tr>
</tbody>
</table>

Source: Field data.

An important development in the credit market in the study area is nearly 60% of credit needs of the borrower sample households are met by the institutional agencies in both the sample villages (table-5) compared with 1960’s where the share of institutional agencies in the total credit needs of farmers was less than 20%! there share of more than 60% in the sample villages can be considered as a significant
improvement over 1960’s with regard to improvements in the access to credit to the farming community in the rural areas. Hence the hypothesis namely that banking sector reforms have no significant impact on farmers in terms of access to credit is rejected. Regarding the interest rate differences between the borrowers and non-borrowers the borrower households are able to get loans at around 19% interest compared with 30% interest rate paid by the non-borrowers in the developed village. The corresponding interest rates in the less developed village are around 20% and 35% respectively. The comparatively less interest rates paid by the borrower households in both the villages is mainly due to the involvement of institutional agencies in extending credit to the farmers in the study area. Hence the hypothesis namely that banking sector reforms have no significant impact on farmers in terms of cost of credit is also rejected. Regarding the interest rates charged to agricultural loans at village level by different credit agencies it ranges from 18% to 24% in the developed village and 21% to 27% in the less developed village. It means the difference between the categories is significant in the developed village and comparatively less significant in the less developed village. Between the villages except in the case of large farmers (where the difference is around 3%) the difference between different categories are also insignificant. Hence the 3rd hypothesis namely that there is no significant difference in the interest rates on agricultural loans among different categories of households and villages is partly accepted.

Findings

1. The share of borrowings per household from institutional agencies is 60.1 per cent and the balance of 39.9 per cent comes from non-institutional agencies in the developed village.
2. All the categories of farmers, the share of institutional credit per household is higher (58.4 per cent, 60.8 per cent, 61.4 per cent, 64.9 per cent) for different size groups than the non-institutional credit (41.6 per cent, 39.2 per cent, 38.5 per cent, 35.1 per cent) in the developed village.
3. The share of institutional borrowing in less developed village (53.2 per cent) is lower than that of developed village (60.1 per cent).
4. In the case of marginal and small farmers, the share of institutional credit is lower (50.5 per cent and 56.4 per cent) than that of medium and large farmers (58.6 per cent and 60.1 per cent).
5. It is noticed that the average rate of interest for all categories of borrowers from institutional agencies works out to 7.8 per cent in both the villages.
6. The average rate of interest for all categories of borrowers from non-institutional agencies works out to 30.3 and 31.4 per cent in both the villages.
7. Regarding the interest rate differences between the borrowers and non-borrowers the borrower households are able to get loans at around 19% interest compared with 30% interest rate paid by the non-borrowers in the developed village.
8. Regarding the interest rates charged to agricultural loans at village level by different credit agencies it ranges from 18% to 24% in the developed village and 21% to 27% in the less developed village.

Conclusion

Distribution of credit among different classes is not equitable. This is primarily due to persistence of imperfections in the credit market. Although reforms, particularly, banking sector reforms initiated since 1991 could rectify this deficiency to some extent it goes a long way to eliminate the deficiency completely to make the rural credit delivery system cater to the needs of weaker sections in rural areas and remove inequality. Inspite of banking sector reforms the financial institutions, particularly, commercial banks, couldn't develop innovations in financial intermediation that would allow them to serve the rural poor and maintain their own financial viability. This highlights the need for reorientation of the policies of the government to strengthen the financial sector. Unless suitable policy formulations are designed to carry forward the reforms in the financial sector, the solutions to the problems of rural sector, specially for weaker sections among farming community and inequality remain as distant goals. Hence the governments at various levels along with the Reserve Bank of India and the NABARD have to implement the needed reforms further in the banking sector for expansion of institutional credit facilities to achieve inclusive agricultural growth in Kadapa district in particular and in all the rest of the backward rural areas of the country in general.

References

1. RBI, All India Debt and Investment Surveys 1961 and 1971-72