

Repayment Performance and Over dues of Cooperative Loans of Farmers in Rural Punjab

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Article History

Received : 29 August 2022

Revised : 30 September 2022

Accepted : 13 October 2022

Published : 27 December 2022

Citation

Rupinder Kaur & Palwinder Kaur (2022). Repayment Performance and Over dues of Cooperative Loans of Farmers in Rural Punjab. *Indian Development Policy Review*, Vol. 3, No. 2, pp. 167-177.

Abstract: Cooperative credit institutions play an important role in disbursing credit in rural areas but mounting overdues deteriorate the financial health of the credit cooperatives. This paper analysed the repayment performance of cooperative loans taken by farmers in rural Punjab. The study found that only 53.09 per cent of the total loans have been repaid while 46.91 per cent of loans are overdue. The repayment performance of the medium and large farm-size categories is better than the marginal and small farm-size categories. Bad harvest and financial difficulties have turned out to be the most important reason of overdues for the marginal and small farm-size categories whereas house construction and purchase of land cited the most important reason of overdues for the medium and large farm-size categories. The factors influencing repayment performance are income, farm size, family size, education level of household head and amount of loan.

Keywords: Cooperative loans, repayment, overdues, reasons and factors.

INTRODUCTION

Cooperative credit institutions have played a significant role in mobilizing rural savings and stimulating agricultural investment (Bansal, 2012). This sector seeks to remedy the economic inequality and evils of concentration of income and wealth and thereby prevents the exploitation of the weaker sections (Sekhar and Sudhir, 2013). These institutions play an important role in disbursing credit and farm inputs to agricultural sector. These institutions have developed with the specific objective of agricultural financing (Paramasivan, 2008). Their effectiveness lies in their ability to disburse the credit on time and recover the loans in full as well as in time. The success of credit institutions depends upon their capability to recover the loans (Mathapati, 2002). The repayment performance of the borrowers helps in mobilization of the bank loan for better circulation of money

among the larger members (Patel *et al.* 2017). Thus, it is obligatory for the credit institutions to make necessary arrangements for timely recovery of loans. But recovery of loans depends upon the repaying capacity of the borrowers. Timely repayment of loans by the borrowers reflects the better financial condition of the credit institutions. It also indicates proper end-use of loans for productive purposes and borrowers' loyalty to the credit institutions. The sound lending policy of the credit institutions can be envisaged only when there is an adequate and timely disbursement of loans to the borrowers and timely repayment of the loans by the borrowers. If the borrowers do not repay the full amount in time, the institutions will have to face the problem of overdues and non-performing assets that affects the future lending operations of the institutions.

Mounting overdues is a serious problem of cooperative credit institutions. Mounting overdues deteriorate the financial health of the credit cooperatives and ultimately limit their capacity to lend more. It results in the shortage of working funds for recycling (Selvaraj and Suganya, 2015). It also affects credit expansion on the one hand and economic viability of the lending institutions, specially the cooperatives and Regional Rural Banks, on the other (Mazumder *et al.* 2014). It becomes detrimental for development in general and agricultural and rural development in particular. Therefore, cooperative credit institutions cannot succeed if loans are not repaid on time. The Maclagon committee (1915) had rightly remarked that unless the loans are not repaid punctually cooperation is an illusion both financially and educationally (Mathapati, 2002). The agricultural credit structure which designed to accelerate agricultural development can be endangered by mounting overdues (Kumar *et al.* 2018).

The frequency of overdues in the agricultural cooperative credit system has been increasing year after year (Dhandapani and Vijayalakshmi, 2014) and has turned out to be the most important factor responsible for the steady erosion of the financial soundness and fitness of the system. Rising overdues is a very serious problem for PACS as they deal directly at the retail level. So, this is a cause of concern for the Government of India, RBI, State Governments and cooperative credit institutions themselves as increasing overdues have been acting as a constraint on the smooth flow of credit and affecting the working of the cooperative credit system (Sarma and Kharmowphany, 1995). The present paper is an attempt to analyse the repayment performance and overdues of cooperative loans of farmers in rural Punjab.

METHODOLOGY

The study is based on a primary survey of Punjab. The survey was conducted in 2014-15. For the selection of sample farming households, the state of Punjab was divided into three agricultural productivity zones viz. low, medium and high productivity zones. Then one district from each productivity zone was selected. On the basis of this criterion,

it was decided to select Gurdaspur district from the low productivity zone, Ferozepur district from the medium productivity zone and Fatehgarh Sahib district from the high productivity zone. There are five development blocks in Fatehgarh Sahib district, six development blocks in Ferozepur district and eleven development blocks in Gurdaspur district. Thus, in all, twenty-two villages have been selected for the survey. A representative proportional sample of 10 per cent of total farming households comprising marginal, small, medium and large farmers has been taken for the survey. Out of 22 villages, 490 farming households have been surveyed in total. The total sample size of marginal, small, medium and large farmers of these districts stood at 193, 142, 92 and 63 respectively.

It is pertinent to study the factors that influence the repayment of cooperative loans. There may be numerous factors that can affect the repayment performance of the borrowers. In the present study, it has been assumed that repayment performance of the sampled farming households depends on net annual income, annual household expenditure, farm size, family size, age of the household head, education level of the household head, amount of loan obtained and rate of interest on loans. Multiple regression technique has been applied to determine the significance of different factors in influencing the repayment performance of the sampled farming households. To select the regression function, a number of series of regression function has been fitted and then the function is finally selected on the basis of the coefficient of multiple determination (R^2) and significance of the factors. The functional form of multiple regression model used in the study is as under:

$$Y = f(x_1, x_2, x_3, x_4, x_5, x_6, x_7, x_8)$$

Where, Y = Amount of loan repaid (Rs.)

x_1 = Net annual income of the household (Rs.)

x_2 = Annual household expenditure (Rs.)

x_3 = Farm size (acres)

x_4 = Family size (number)

x_5 = Age of the household head (years)

x_6 = Education level of the household head (dummy)

x_7 = Amount of loan (Rs.)

x_8 = Rate of interest (Rs.)

RESULTS AND DISCUSSION

Repayment Performance of Cooperative Loans

Better repayment performance ensures better credit delivery to the needy farmers and enhances the agricultural productivity if borrowed money is utilised for productive

purposes. Enhanced agricultural productivity results in better remuneration to the farmers that help to improve the repaying capacity of the borrower farmers. Keeping in view the scenario of overdues of cooperative credit institutions, repayment performance of the sampled farming households has been analysed. Table 1 gives an account of amount borrowed, amount repaid and amount overdue of the sampled farming households of different farm-size categories. The percentage of amount repaid and amount overdue has also been presented in the table 1. It is evident from the table that an average farming household has borrowed a total sum of Rs.127940.47 out of which Rs.67923.47 (53.09 per cent) has been repaid and Rs.60017.00 (46.91 per cent) is an overdue amount. The data reveals that there are certain variations regarding the repayment of loans among the different farm-size categories.

Table 1: Repayment Performance of Sampled Farmers for Cooperative Loans

(Mean Values and Percentage)

<i>Farm-size categories</i>	<i>Amount borrowed (Rs.)</i>	<i>Amount repaid (Rs.)</i>	<i>Percentage of amount repaid</i>	<i>Amount overdue (Rs.)</i>	<i>Percentage of amount outstanding</i>
Marginal Farmers	63337.68	28379.03	44.81	34958.65	51.19
Small Farmers	120124.20	58441.70	48.65	61682.49	51.35
Medium Farmers	181013.16	93979.15	51.92	87034.01	48.08
Large Farmers	265965.25	172389.56	64.82	93575.70	35.18
All Categories	127940.47	67923.47	53.09	60017.00	46.91

Source: Field Survey, 2014-15.

The highest (64.82 per cent) repayment has been made by the large farm-size category, followed by the medium (51.92 per cent), small (48.65 per cent) and marginal (44.81 per cent) farm-size categories. This is obvious due to the general fact that the marginal and small farm-size categories cannot repay their loans on time because of poor financial conditions and more pressure of domestic and social responsibilities. The repayment performance of the medium and large farm-size categories is better than the marginal and small farm-size categories because of their well off position and influential social status. Further, it is in connection with the positive relation between the repayment performance of different farm-size categories and the farm size. The larger the size of farm more will be the repayment of loans. The data supports this relationship as the large farm-size category is repaying the highest percentage of loans whereas the marginal farm-size category is repaying the least percentage of loans.

The above analysis clearly asserts that only 53.09 per cent of the total loans have been repaid while 46.91 per cent of loans are overdue. It indicates an alarming situation

for cooperative credit institutions in general and for the Primary Agricultural Credit Societies (PACS) in particular. Prevalence of persistent overdues affects the profitability and legitimacy of cooperative credit institutions. It has been confirmed by the above data that repayment performance is not satisfactory for all farm-size categories. The category-wise data indicates the positive relation between the repayment performance and farm-size. As the farm size increases, so does the repayment of loans by the farmers. Therefore, it can be said that repaying capacity is primarily affected by the economic conditions of the farmers. The better economic condition assures more repayment of loans.

Reasons of Overdues of Cooperative Loans

Overdues are like a disease for cooperative credit institutions that is to be cured on time. There cannot be a single factor behind it. A number of factors are responsible for the mounting overdues of cooperatives. An attempt has been made to analyse the important reasons responsible for overdues of cooperative loans. Table 2 highlights the reasons of overdues stated by the sampled farming households on the basis of farm-size categories. For all the farm-size categories, bad harvest and financial difficulties have turned out to be the most important reason of overdues. Among the marginal and small farm-size categories, 26.83 per cent marginal and 28.32 per cent small farmers could not make timely payments due to the bad harvest and financial difficulties. On an average 21.43 per cent farmers have quoted this reason of overdues. 19.90 per cent farmers have cited the mounting cost of production on farms as a reason of overdues. The mounting cost of production has turned as second important reason of overdues for the marginal and small farm-size categories. In case of the marginal farm-size category, 26.83 per cent of farmers have affirmed this as a reason of overdues while 26.55 per cent of small farmers mentioned it as a reason of overdues.

Social and religious ceremonies have been cited as a reason of overdues by 13.78 per cent of farmers. The medium farm-size category quotes that they are unable to repay the loan on time due to the expenditure on social and religious ceremonies. 24.29 per cent farmers belonging to the medium farm-size category has affirmed this reason of overdues. This reason stated by them shows that they are very conscious about their social status and become financially irresponsible. The extravagance on socio-religious ceremonies by the medium farm-size category indicates the utilisation of loans for unproductive purposes. On an average, 12.76 per cent farmers have referred house construction or repairs as a reason of overdues. The most important reason of overdues stated by the large farm-size category is the house construction and major repairs. 31.11 per cent farmers of the large farm-size category have stated this reason of overdues. It exposes the fact that farmers have indulged in improving their standard of living by

Table 2: Reasons of Overdues as Stated by the Sampled Farmers

(Number and percentage)

<i>Reason of Overdues</i>	<i>Marginal Farmers</i>	<i>Small Farmers</i>	<i>Medium Farmers</i>	<i>Large Farmers</i>	<i>All Categories</i>
Willful defaulter	0(0.00)	0(0.00)	15(21.43)	7(15.56)	22(5.61)
Hope of debt relief from the Government	24(14.63)	17(15.04)	0(0.00)	0(0.00)	41(10.46)
Bad harvest and financial difficulties	44(26.83)	32(28.32)	8(11.43)	0(0.00)	84(21.43)
Purchase of land/ land development or some other implements	7(4.27)	7(6.19)	9(12.86)	10(22.22)	33(8.42)
Sale proceeds of crops not received	14(8.54)	9(7.96)	1(1.43)	1(2.22)	25(6.38)
Social and religious ceremonies	14(8.54)	13(11.50)	17(24.29)	10(22.22)	54(13.78)
House construction or repairs	17(10.37)	5(4.42)	14(20.00)	14(31.11)	50(12.76)
Mounting cost of production on farms	44(26.83)	30(26.55)	4(5.71)	0(0.00)	78(19.90)
Others	0(0.00)	0(0.00)	2(2.86)	3(6.67)	5(1.28)
Total	164(100.00)	113(100.00)	70(100.00)	45(100.00)	392(100.00)

Source: Field Survey, 2014-15.*Note:* Figures in parentheses are percentage of column total.

the borrowed money. The proportion of sample farming households belonging to the marginal, small and medium category citing this reason of overdues is 10.37 per cent, 4.42 per cent and 20.00 per cent, respectively.

10.46 per cent farmers have mentioned that they did not repay in a hope of debt relief from the Government. 14.63 per cent sampling households of the marginal farm-size category and 15.04 per cent sampling households of the small farm-size category has stated this reason for non-repayment of loans. 8.42 per cent sampled farmers have not repaid the loan due to the purchase of land/land development or some other implements. The proportion of the marginal, small, medium and large farm-size categories that mentioned the purchase of land/ land development or some other implements as a reason of overdues stands at 4.27 per cent, 6.17 per cent, 12.86 per cent and 22.22 per cent respectively. 6.38 per cent farmers have mentioned that they could not repay the loan because of non-receipt of sale proceeds of crops. It has been found further that 8.54 per cent of the marginal, 7.96 per cent of the small, 1.43 per cent of the medium and 2.22 per cent of the large farmers have not repaid their loans because they have not received the sale proceeds of crops.

An amazing finding of the present study regarding the overdues is that the medium and large farm-size categories do not repay the loans as per their wish. They are willful

defaulters. 5.61 per cent farmers have emerged as the willful defaulters. 21.43 per cent farming households belonging to the medium farm-size category are willful defaulter whereas the proportion of willful defaulters in case of large farm-size category is 15.56 per cent. This may be due to the inaction of the Government against the willful defaulters or corrupt officials may be responsible for this. A very small proportion of farmers (1.28 per cent) have not paid on time due to other reasons.

Factors Affecting Repayment Performance of the Sampled Farmers for Cooperative Loans

In order to analyse the variations in the significance of factors influencing the repayment performance of the sampled farming households, category-wise analysis has been done and it has been reflected in Table 3. The table indicates that all the variables have turned out to be significant factors of repayment except the age of household head. The value of R^2 is 0.88.

Table 3: Factors Affecting Repayment Performance of Sampled Farmers for Cooperative Loans

(Results of Multiple Regression Analysis)

<i>Factors</i>	<i>Marginal Farmers</i>	<i>Small Farmers</i>	<i>Medium Farmers</i>	<i>Large Farmers</i>	<i>All Categories</i>
Income	0.17* (3.43)	0.004ns (0.20)	0.208* (2.86)	0.043ns (0.56)	0.038*** (1.64)
Expenditure	-0.06ns (1.35)	-0.04** (1.99)	-0.081** (2.28)	-0.025*** (1.90)	-0.012*** (1.73)
Farm-size	1646.79ns (0.71)	4514.99* (2.51)	892.086ns (0.25)	2183.685ns (0.71)	1734.473** (1.92)
Family size	-1212.82ns (0.91)	-225.19ns (0.14)	9786.198** (1.97)	12012.984*** (1.91)	2573.629*** (1.66)
Age of household head	-22.71ns (0.10)	-434.73** (2.07)	-1077.256*** (1.90)	-705.214ns (0.57)	-178.280ns (0.84)
Education level	356.46ns (0.70)	291.92ns (0.62)	775.561ns (0.65)	5243.419*** (1.70)	755.901*** (1.75)
Amount of loan	0.42* (20.16)	0.55* (17.20)	0.705* (13.85)	0.651* (19.22)	0.598* (41.19)
Rate of interest	731.18*** (1.82)	-1171.86*** (1.77)	1854.600*** (1.86)	4122.244*** (1.84)	-894.899** (2.10)
R^2	0.76	0.79	0.91	0.96	0.88

Source: Field Survey, 2014-15.

Note: Figures in parentheses indicate t-values

* Significant at one per cent, ** Significant at five per cent, *** Significant at ten per cent

ns: Non-significant

In case of all the farm-size categories, it is visible from Table 3 that the regression coefficients of all the variables except the age of household head are statistically significant. The coefficients of income, farm-size, family-size, education level of household head and amount of loan are positive and significant at ten per cent, five per cent, ten per cent, ten per cent and one per cent level of significance respectively. The category-wise analysis reveals that regression coefficients of some independent variables differ in direction and magnitude for different farm size categories. It can be noticed from the table that coefficients of income, expenditure, farm-size, age of household, education level of household head and amount of loan have same direction of change for different farm-size categories but they differ on statistical level of significance. Some of them are non-significant.

The regression coefficient of income is positive for all the categories but statistically significant for the marginal and small farmers. It can be concluded that high income of farmers improves the repayment performance of a farmer. The regression coefficient of farm size is positive and statistically significant. It implies that more farm-size means more income of a farmer that enhances repaying capacity of the farmer resulting in better repayment performance. The regression coefficient for household expenditure is negative and statistically significant for all farm-size categories except marginal farm-size category indicating negative relationship of expenditure with repayment of loans. The high expenditure on family maintenance, illness of family members, shelter and marriages and other socio-religious ceremonies might be some of the reasons for inflated household expenditure that resulted in low loan repayment. The conclusions regarding negative regression coefficient of expenditure can be made on the ground that with the rise in expenditure, a farming household is left with less saving or no saving at all to pay off the loan.

Family-size also demonstrates the positive relationship with repayment of loans. It can be concluded that the large size of the family may help in relieving the burden of debt where a family has maximum members as earners and minimum dependents or no dependents at all. Thus, the positive relation between the family size and repayment of loans is justified on this ground. It can be concluded about positive coefficient of education level of household head that higher education makes the debtor more accountable and responsible towards his liabilities. So is true for all farm-size categories. Repayment of loans increases as the education level of household head increases.

The regression coefficient for age of household head is significant at five per cent level of significance for the small and medium farm-size categories and showing negative relationship with repayment of loans. It implies that as the household head grows old, repayment of loans become less. Declining productivity as he/she become old may be

the reasons behind it. The regression coefficient of amount of loans is positive and significant at one per cent. It highlights that higher amount of loans imposes more burden on the debtors. Realising the excess burden of bigger amounts of loans, the sampled farm households have revealed more repayment of loans for the higher amount of loans to avoid the excess burden and vice-versa. The positive regression coefficient of amount of loans brings into light that higher amount of loans compels the farmers to clear their loans to avoid the negative consequences of loans on them and their future generations as well.

The regression coefficient of rate of interest is positive and significant at ten per cent level of significance for the marginal, medium and large farm-size categories. It can be concluded that at high rate of interest repayment will be more to stay away from the principal amount of loan to be compounded into a larger amount. But, the regression coefficient of rate of interest is negative for all the categories taken together and for the small farm-size category. The negative coefficient of rate of interest makes it clear that at higher rate of interest, repayment of loans is less and at lower rate of interest, it is more. It may be because of the reason that higher rate of interest on the principal amount results in enlarged compounded amount of loan for which the farmers find it difficult to repay their loans. This may be due to the reason that at high rate of interest the farming households feel more burden of debt and start waiting for the government to waive-off their debt under debt waiver schemes. Thus repayment reduces at higher rate of interest. The coefficient of multiple determination (R^2) is 0.88. It represents that 88 per cent variation in dependent variable has been explained by the independent variables. The coefficient of multiple determination (R^2) is 0.76, 0.79, 0.91 and 0.96 for the marginal, small, medium and large farm-size categories, respectively.

CONCLUSION AND POLICY IMPLICATIONS

The above analysis shows that slightly more than 53 per cent of the total cooperative loans have been repaid. The repayment performance of the medium and large farm-size categories is better than the marginal and small farm-size categories because of their well off position and influential social status. When reasons of overdues are taken into consideration, bad harvest and financial difficulties have turned out to be the most important reason of overdues for the marginal and small farm-size categories. The medium and large farmers cited house construction and purchase of land as major reasons of non-repayment. The mounting cost of production, delay in receipt of sale proceeds of crops, hope of debt relief from the government and social and religious ceremonies are among the other important reasons of overdues for the marginal and small farmers. Regarding the factors influencing the repayment performance of the

farmers, the study reveals the regression coefficients of income, farm size, family size, education level of household head and amount of loan are found to be positive. It can be concluded that high income of farmers and higher farm size improves the repayment performance of a farmer. Additionally, an educated person is more accountable and responsible. Repayment of loans increases as the education level of household head increases. At higher amount of loan, repayment of loans is more due to the reason that the farmers try to avoid excessive burden of higher amount of loans. Further, it has been found that the coefficients of expenditure and rate of interest are negative. It implies the inverse relation of these factors with the repayment performance.

To avoid the overdues of marginal and small farmers, they should be encouraged to adopt subsidiary occupations to enhance their levels of income. Otherwise, they will not be able to earn sufficiently to pay off their loans. Main focus of the Government along with the provision of cheap credit to the marginal and small farmers should be on guiding them how to utilise their credit judiciously and economically. Counselling and guidance cells should be formed to guide the farmers about the subsidiary occupations and proper utilisation of credit. Another method to avoid the overdues is that instead of lending the money, the cooperatives should lend them the machinery etc. for the agricultural purposes or if the money is lent to them, they should be encouraged to purchase farm inputs from the very institution. This needs the credit institution to be multipurpose. It will be like killing two birds with one stone.

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