

INTER DISTRICT ANALYSIS OF REPAYMENT PERFORMANCE OF COOPERATIVE LOANS OF FARMERS IN RURAL PUNJAB

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ABSTRACT

In this paper, the repayment performance of cooperative loans taken by farmers in rural Punjab has been analysed. Inter district analysis of different farm-size categories of three districts of Punjab have been done on the basis of a primary study. The study found that only 50.61, 46.01 and 44 per cent of the total loans have been repaid in Gurdaspur, Ferezepur and Fatehgarh sahib districts, respectively. The remaining amount of loans is overdue. The repayment performance of medium and large farmers is better than the marginal and small farmers across the districts. Bad harvest and financial difficulties have turned out to be the most important reasons for overdues for the marginal and small farmers, whereas house construction and purchase of land are cited as the most important reasons for dues for the medium and large farmers in all the districts. The factors influencing repayment performance are income, farm size, family size, education level of household head and amount of loan in all three districts.

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

INTRODUCTION

Cooperative credit institutions play an important role in disbursing credit and farm inputs to the agricultural sector. By addressing economic inequality and the negative effects of income and wealth concentration, this industry works to stop the exploitation of the weaker group (Sekhar and Sudhir, 2013). Their efficacy stems from their capacity to promptly dispense credit and promptly collect loans in full. The borrowers' repayment behaviour facilitates the mobilisation of bank loans for improved money circulation among the larger members (Patel *et al.*, 2017). Timely repayment of loans by the borrowers is indicative of the credit institutions' improved financial standing. Only

when there is a sufficient and timely loan distribution to the borrowers and timely loan repayment by the borrowers can the credit institutions envision a sound lending policy. If the borrowers fail to make their full repayment on time, the institutions will have to deal with the issue of past due and non-performing assets, which will have an impact on their ability to provide loans in the future. One of the main issues facing cooperative credit organisations is growing past due amounts. Growing past due amounts damage credit unions' finances and eventually reduce their ability to extend further loans. Additionally, it has an impact on the growth of credit as well as the financial stability of lending institutions, particularly cooperatives and regional rural banks. (Mazumder *et al.*, 2014). It starts to negatively impact growth overall, and rural and agricultural development specifically. Therefore, late loan repayment is fatal to cooperative credit institutions. Growing past due amounts could jeopardise the agricultural finance arrangement, which was intended to speed up agricultural development. (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. Growing past due amounts have been impeding the seamless flow of credit and having an impact on how well the cooperative credit system functions. (Sarma and Kharmowphany, 1995).

OBJECTIVES OF THE STUDY

The study has been conducted with the following objectives:

1. To make an assessment of the repayment performance of cooperative loans of farmers in rural Punjab
2. To compare the repayment performance of districts under study making it an inter district analysis
3. To assess the reasons of overdues of cooperatives loans
4. To know the factors that affect the repayment performance of farmers

RESEARCH 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, Ferozpur 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 Ferozpur district and eleven development blocks in Gurdaspur district. Thus, from all the above-mentioned districts, 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. Furthermore, from 22 villages, 490 farming households have been surveyed in total. Moreover, the total sample size of marginal, small, medium and large farmers in these districts stood at 193, 142, 92 and 63 respectively. It is pertinent to study the factors that influence the repayment of cooperative loans. Therefore, the multiple regression technique has been applied to determine the significance of different factors in influencing the repayment performance of the sampled farming households. The functional form of the 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 (₹)

x_1 = Net annual income of the household (₹)

x_2 = Annual household expenditure (₹)

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 (₹)

x_8 = Rate of interest (₹)

RESULTS AND DISCUSSION

District-Wise Repayment Performance of Cooperative Loans

Adequate agricultural credit is a key to the enhanced agricultural productivity if the credit is utilised productively and repaid on time. But every credit disbursement does not ensure timely repayment of loans due one reason or the other. The entire amount of loan could not be recovered. Some amount stands as outstanding and gradually converts into overdues. For cooperative credit system, a sound and healthy repayment mechanism of agricultural loans is necessary. Therefore, an assessment of repayment performance of different farm-size categories across different districts has been made.

Table 1 describes the amount repaid and the amount outstanding of the sampled farming households of different districts. It can be observed from the table that in Gurdaspur district, the large farm-size category has repaid 62.16 per cent of the total amount of loans followed by the medium, small and marginal farm-size categories. Likewise, in Ferozpur and Fatehgarh Sahib districts, the highest amount of loans has been repaid by the large farm-size category and the lowest amount of loans has been repaid by the small farm-size category. In Ferozpur district, the large, medium, small and marginal farm-size categories have repaid 63.46 per cent, 50.54 per cent, 48.54 per cent and 47.52 per cent amount of loans respectively. In Fatehgarh Sahib district, the respective amount of loans repaid by the corresponding farm-size categories stands at 68.99 per cent, 54.19 per cent, 47.82 per cent and 44.02 per cent. The comparative data analysis of different districts reveals that the repayment of loans amongst the large farm-size category is the highest in Fatehgarh Sahib district followed by the large farmers of Ferozpur and Gurdaspur districts, Among the medium farm-size category, an average farming household of Fatehgarh Sahib district has repaid 54.19 per cent of total loans while in Gurdaspur and Ferozpur districts, the repayment of loans by the same farm-size category is 53.04 per cent and 50.54 per cent respectively.

Table 1: District-wise Repayment Performance of Cooperative Loans of Farmers

(Mean Values and Percentage)

Farm-size Categories	Amount borrowed (₹)	Amount repaid (₹)	Percentage of amount repaid	Amount outstanding (₹)	Percentage of amount outstanding
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Gurdaspur District					
Marginal Farmers	28691.43	11691.76	40.75	16999.68	59.25
Small Farmers	71070.32	35606.23	50.10	35464.09	49.90
Medium Farmers	153550.81	81443.33	53.04	72107.48	46.96
Large Farmers	144861.14	90045.71	62.16	54815.43	37.84
All Categories	58478.37	28883.92	49.39	29594.45	50.61
Ferozpur District					
Marginal Farmers	107931.70	51289.15	47.52	56642.55	52.48
Small Farmers	164785.56	79986.91	48.54	84798.65	51.46
Medium Farmers	158444.69	80077.95	50.54	78366.75	49.46
Large Farmers	242405.02	153830.23	63.46	88574.79	36.54
All Categories	166076.40	89665.26	53.99	76411.14	46.01
Fatehgarh Sahib District					
Marginal Farmers	114449.76	50380.79	44.02	64068.97	55.98
Small Farmers	139346.95	66635.72	47.82	72711.23	52.18
Medium Farmers	340033.92	184264.42	54.19	155769.50	45.81
Large Farmers	483194.11	333355.67	68.99	149838.44	31.01
All Categories	412560.84	231039.77	56.00	181521.07	44.00

Source: Field Survey, 2014-15.

In Gurdaspur district, the small farm-size category has repaid the highest proportion of total cooperative loans and the lowest for Fatehgarh Sahib district. The marginal farm-size category of Fatehgarh Sahib district has repaid the highest amount of loan in percentage terms. The least proportion of loans has been repaid by the marginal farm-size category of Gurdaspur district. In Gurdaspur, Ferozpur and Fatehgarh Sahib districts, 50.16 per cent, 46.10 per cent and 44.00 per cent amount of loans is overdue. The results indicate that overdues decline with the increase in agricultural productivity. With the increase in agricultural productivity repayment performance of farmers improves. The data indicates a positive relation between repayment performance and farm size across the different districts. 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 for Overdues of Cooperative Loans

Overdues are like a disease for cooperative credit institutions that is to be cured on time. Absence of overdues and timely recovery of loans is very important for a financial institution. Timely recovery of loans not only keeps the business running but also benefits the borrowers by reducing the load of debt and making them eligible for getting loans in future. If the loan outstanding increases year after year, one day or the other it becomes overdues. Such mounting overdues will have an adverse effect on transactions of an institution. The funds will get locked up indefinitely resulting in the shortage of working funds for recycling. The overdues will become un-remunerative ultimately affecting the profitability of a credit cooperative. The cooperative credit structure cannot be successful, if what it lends out is not recovered promptly (Selvaraj and Suganya, 2015). There may be several reasons of overdues. Hence an attempt has been made to analyse the reasons of overdues of the cooperative loans across various districts under study.

Table 2 gives an account of the reasons for overdues cited by the sampled farming households across different districts. It can be viewed from the table that in Gurdaspur district, the maximum proportion of sampled farming households has cited that they could not repay the loans on time due to the mounting cost of production on farms. In Ferozpur district, the maximum proportion of sampling farming households were unable to repay their loans because of expenditure on social and religious ceremonies. It implies farmers of Ferozpur district are more concerned with their social obligations than their financial liabilities/responsibilities. In Fatehgarh Sahib district, the maximum percentage of sampled farmers could not repay the loans due to the bad harvest and financial difficulties.

In Gurdaspur district, 24.34 per cent of sampled farming households have stated the bad harvest and financial difficulties as a reason for overdues, 13.16 per cent have cited the hope of debt relief from the government as a reason for overdues, 10.53 per cent have mentioned expenditure on social and religious ceremonies and house construction or repairs as a reason of overdues, In Ferozpur district, 17.79 per cent of the sampled farming households has mentioned bad harvest and financial difficulties as a reason of overdues, 15.95 per cent have stated house construction/repairs as a reason of overdues, 14.52 per cent have cited the purchase of land/ land development or some other implements as a reason of overdues, 11.04 per cent have quoted mounting cost of production on farms as a reason of overdues, 8.59 per cent are willful defaulter

and 6.75 per cent have affirmed hope of debt relief from the Government as a reason of overdues. In Fatehgarh Sahib district, 23.38 per cent of sampled farming households have cited bad harvest and financial difficulties as a reason of overdues, 22.08 per cent have mentioned the mounting cost of production on farms as a reason for overdues, 12.99 per cent have not repaid the loans as they didn't receive the sale proceeds of crops.

Table 2: District –wise Reasons for Overdues as Stated by the Sampled Farmers

(Number and percentage)

Sl. No.	Reason of Overdues	Marginal Farmers	Small Farmers	Medium Farmers	Large Farmers	All Categories
Gurdaspur District						
1	Willful defaulter	0 (0.00)	0 (0.00)	6 (46.15)	0 (0.00)	6 (3.95)
2	Hope of debt relief from the Government	15 (16.30)	5 (11.63)	0 (0.00)	0 (0.00)	20 (13.16)
3	Bad harvest and financial difficulties	23 (25.00)	13 (30.23)	1 (7.69)	0 (0.00)	37 (24.34)
4	Purchase of land/ land development or some other implements	0 (0.00)	3 (6.98)	1 (7.69)	1 (25.00)	5 (3.29)
5	Sale proceeds of crops not received	8 (8.70)	1 (2.33)	0 (0.00)	0 (0.00)	9 (5.92)
6	Social and religious ceremonies	9 (9.78)	4 (9.30)	2 (15.38)	1 (25.00)	16 (10.53)
7	House construction or repairs	11 (11.96)	2 (4.65)	1 (7.69)	2 (50.00)	16 (10.53)
8	Mounting cost of production on farms	26 (28.26)	15 (34.88)	2 (15.38)	0 (0.00)	43 (28.29)
9	Others	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)

	Total	92 (100.00)	43 (100.00)	13 (100.00)	4 (100.00)	152 (100.00)
Ferozepur District						
1	Willful defaulter	0 (0.00)	0 (0.00)	7 (14.89)	7 (20.00)	14 (8.59)
2	Hope of debt relief from the Government	5 (10.64)	6 (17.65)	0 (0.00)	0 (0.00)	11 (6.75)
3	Bad harvest and financial difficulties	16 (34.04)	6 (17.65)	7 (14.89)	0 (0.00)	29 (17.79)
4	Purchase of land/ land development or some other implements	7 (14.89)	4 (11.76)	6 (12.77)	7 (20.00)	24 (14.72)
5	Sale proceeds of crops not received	2 (4.26)	3 (8.82)	0 (0.00)	1 (2.86)	6 (3.68)
6	Social and religious ceremonies	2 (4.26)	8 (23.53)	12 (25.53)	8 (22.86)	30 (18.40)
7	House construction or repairs	4 (8.51)	2 (5.88)	11 (23.40)	9 (25.71)	26 (15.95)
8	Mounting cost of production on farms	11 (23.40)	5 (14.71)	2 (4.26)	0 (0.00)	18 (11.04)
9	Others	0 (0.00)	0 (0.00)	2 (4.26)	3 (8.57)	5 (3.07)
	Total	47 (100.00)	34 (100.00)	47 (100.00)	35 (100.00)	163 (100.00)
Fatehgarh Sahib District						
1	Willful defaulter	0 (0.00)	0 (0.00)	2 (20.00)	0 (0.00)	2 (2.60)
2	Hope of debt relief from the Government	4 (16.00)	6 (16.67)	0 (0.00)	0 (0.00)	10 (12.99)

3	Bad harvest and financial difficulties	5 (20.00)	13 (36.11)	0 (0.00)	0 (0.00)	18 (23.38)
4	Purchase of land/ land development or some other implements	0 (0.00)	0 (0.00)	2 (20.00)	2 (33.33)	4 (5.19)
5	Sale proceeds of crops not received	4 (16.00)	5 (13.89)	1 (10.00)	0 (0.00)	10 (12.99)
6	Social and religious ceremonies	3 (12.00)	1 (2.78)	3 (30.00)	1 (16.67)	8 (10.39)
7	House construction or repairs	2 (8.00)	1 (2.78)	2 (20.00)	3 (50.00)	8 (10.39)
8	Mounting cost of production on farms	7 (28.00)	10 (27.78)	0 (0.00)	0 (0.00)	17 (22.08)
9	Others	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
	Total	25 (100.00)	36 (100.00)	10 (100.00)	6 (100.00)	77 (100.00)

Source: Field Survey, 2014-15.

Note- Figures in parentheses are percentages of column total.

District-wise comparison brings us to the conclusion that in Gurdaspur district and Fatehgarh Sahib district, the mounting cost of production on farms and bad harvest and financial difficulties have emerged as the main reasons for overdues while in Ferozepur district, expenditure on social and religious ceremonies is the main reason of overdues. It draws attention towards the matter on the ground that in Ferozepur district, a number of farmers are unable to repay loans on time because they are to fulfil their social responsibilities at any cost. This results in the worst financial condition of the farmers as well as of the lending institutions. Another noteworthy finding is that in Gurdaspur district and Fatehgarh Sahib district, willful defaulters belong to the medium farm-size category and in Ferozepur district, the medium and large farm-size categories have shown themselves as willful defaulters. In percentage terms, the highest proportion (8.59 per cent) of sampled farming households who quoted themselves as willful defaulters belong to Ferozepur

district, followed by Gurdaspur district (3.95 per cent) and Fatehgarh Sahib district (2.60 per cent).

District-Wise Factors Affecting Repayment Performance of Cooperative Loans

Table 3 demonstrates a district-wise analysis of the factors that influence the repayment performance of sampled farming households. In the case of all the farm size categories taken together, the contribution of expenditure and amount of loan is significant in all the districts.

Table 3: District-Wise Factors Affecting Repayment Performance of Cooperative Loans

(Results of Multiple Regression Analysis)

Sl. No.	Factors	Gurdaspur	Ferozepur	Fatehgarh Sahib
1	Income	0.107* (3.31)	0.028ns (0.73)	0.084** (2.34)
2	Expenditure	-0.080* (2.31)	-0.025* (2.93)	-0.079** (2.31)
3	Farm-size	2923.991* (2.54)	1694.971ns (1.13)	1839.435ns (1.35)
4	Family size	-388.399ns (0.20)	-3924.707*** (1.75)	-3639.775*** (1.78)
5	Age of household head	-21.758ns (0.08)	-296.368ns (0.95)	-433.024** (1.64)
6.	Education level	400.228ns (0.54)	277.179ns (0.36)	929.109ns (1.25)
7	Amount of loan	0.500* (17.21)	0.642* (30.96)	0.589* (14.25)
8	Rate of interest	14.244ns (0.02)	-1207.885** (1.95)	-487.899ns (0.72)
	R²	0.90	0.91	0.86

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

The regression coefficient of expenditure is negative in all three districts. It expresses the inverse relationship between expenditure and repayment of loans. The regression coefficient of the amount of loan is positive in all the districts showing a direct relationship between the amount of loan and repayment of loans. In Gurdaspur district, the regression coefficients of income, expenditure, farm size and amount of loan are statistically significant while that of family size, age of household head, education level of household head and rate of interest, the regression coefficients are non-significant. All the significant variables are significant at a one per cent level of probability. Among significant variables, the regression coefficients of income, farm size and amount of loan are positive and expenditure is negative. In Ferozpur district, the regression coefficients of expenditure, family size, amount of loan and rate of interest are statistically significant and that of income, farm size, age of household head and education level of household head are non-significant. The regression coefficients of expenditure, family size and rate of interest are negative revealing the inverse relationship of these variables with repayment of loans. The regression coefficient of the amount of loan exhibits a positive relationship between income and repayment of loans. With the increase in income, repayment of loans increases and with the fall in income, repayment of loans falls. In Fatehgarh Sahib district, the regression coefficients of income, expenditure, family size, age of household head and amount of loan are significant and that of farm size, education level of household head and rate of interest are insignificant. The regression coefficients of income and amount of loan are positive. It shows a direct relationship between the repayment of loans with these variables. The regression coefficients of expenditure, family size and age of household head are negative showing the inverse relationship of repayment of loans with these variables. The coefficients of multiple determination (R^2) in Gurdaspur, Ferozpur and Fatehgarh Sahib districts are 0.90, 0.91 and 0.86 respectively.

CONCLUSIONS AND POLICY IMPLICATIONS

From the above analysis, it can be concluded that repayment of loans is the highest in the case of the large farm-size category and the lowest for the marginal farm-size category among all the districts. Therefore, it is evident that repaying capacity is primarily affected by the economic conditions of the farmers. The better economic condition assures more repayment of loans. In

Gurdaspur and Fatehgarh Sahib districts, the mounting cost of production on farms, bad harvest and financial difficulties have emerged as the main reasons for overdues while in Ferozepur district, expenditure on social and religious ceremonies is the main reason for overdues. The regression coefficients of expenditure, family size and age of household head are negative showing the inverse relationship of repayment of loans with these variables.

Since the farmers have quoted the bad harvest and mounting cost of production as the main reason of overdues, it is pertinent to ensure crop insurance for the farmers to compensate for the loss due to natural calamities and bad weather. Efforts should be made to enhance the agricultural productivity of the farms by using organic manures, pesticides and insecticides. By providing education to the farmers a number of problems of the farming community can be solved. An educated farmer will utilise his sources more economically and will adopt modern technology for agriculture.

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