

Factors Affecting Repayment Capacity of Borrower Farmers: An Analysis

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ABSTRACT

It is well known that institutional agencies have made significant progress in meeting the credit needs of the farmers. However, non-repayment of bank loans is causing a serious threat to the successful development of banking system. Non-repayment of bank loans not only limits the recycling of the funds but also adversely affects the profitability and viability of banks. The present study is confined to hundred borrowers farmers comprises of 25 each for marginal, small, medium, and large farmers respectively, selected from five villages of the Ravtipur Block of Ghazipur district in Eastern Uttar Pradesh. The study has measured the influence of different factors responsible for over dues of the borrowers. The results show that different factors like caste, educational status, per capita farm and non-farm income, operational size of holding significantly influence the repayment capacity of the farmers.

Keywords: Repaying capacity, factors affecting repaying capacity, over dues, Uttar Pradesh

Credits play a vital role in economic transformation and rural development. Agricultural or farm credit is a crucial input required by the smallholder farmers to establish and expand their farms with the aim of increasing agricultural production, enhancing food sufficiency, promoting household and national income, and augmenting the individual borrower's ability to repay borrowed fund. It enables the poor farmers to tap the financial resources and take advantage of the potentially profitable investment opportunities in their immediate environment (Zeller and Sharma, 1998). The need for credit facilities is necessitated by the limitations of self-financing, uncertainty pertaining to the levels of output, and the time lag between inputs and output (Kohansal and Mansoori, 2009). Therefore, its accessibility is imperative for improvement in the quality and quantity of farm products, so as to increase farmer's income and reduce rural-urban drift (Kohansal and Mansoori, 2009). However, at present the financing institutions are facing very critical problem of mounting over dues. The magnitude of the over dues of the institutional

loans has been mounting every year in most of the institutional loans in most of the states of the country. If this tendency continues to remain unchecked, the ability of the credit institutions to recycle their funds would be highly restricted and ultimately it would adversely affect the growth of agricultural production. The growing delinquency in the repayment of the agricultural credit has become a cause of great concern to the national leaders, policy planners and other officials of the credit institutions in the country. For taking appropriate policy decisions and to correct the delinquency in the repayment of agricultural loan advanced by various credit institutions, the systematic analysis of various socio-economic, administrative, institutional and economic factors affecting the repayment performance of the borrower/farmers become of paramount importance. Keeping these considerations in view, an effort has been made in the present study to find out the various factors responsible for mounting the over dues in agricultural credit.

DATABASE AND METHODOLOGY

The study is based on the primary data of 100 borrower farmers comprising of 25 each for marginal, small, medium, and large farmers respectively and were purposively selected from 5 villages of Ravatipur block of Ghazipur district in Eastern Uttar Pradesh. It has been found that among the 100 borrowers, 23 borrowers have repaid the entire amount of loan. However, rest of the 77 borrowers (consisting of 34, 31 and 12 of short, medium and long term borrowers, respectively) have not repaid the loan. The regression technique analysis was employed to find out factors responsible for non-payment of loan. Least square technique was deployed for estimating functions under reference. Cobb-Douglas production function was most appropriate and was selected in estimating factors responsible for over dues. The Cobb-Douglas production function used here is of the following identity:

$$Y = A \prod_{i=1}^{12} X_i^{b_i}$$

$X = (X_1, \dots, X_{12})$

Where,

- Y = Amount of over dues (In ₹)
- X_1 = Caste (score)
- X_2 = Educational Status (score)
- X_3 = Family size (Number)
- X_4 = Per cent of earning adult to total adult
- X_5 = Per capita off farm income
- X_6 = Operational size of holding (ha.)
- X_7 = Cropping intensity (%)
- X_8 = Per capita income from crop
- X_9 = Per cent of total expenditure to total farm income
- X_{10} = Per capita expenditure on food consumption
- X_{11} = Miscellaneous expenditure
- X_{12} = Per cent of production loan to total loan.

RESULTS AND DISCUSSION

The values of regression coefficients, standard errors and coefficient of determination (R^2) of variables are shown in Table 1. The results show that the included independent variables explained 61%, 64%

and 72% of over dues for short term, medium term and pooled (overall) data. This variation may be due to variation in income, expenditure, production process of the farmers.

It is found from Table 1 that the variables which are affecting overdue significantly are caste (X_1), educational status (X_2), per capita off-farm income (X_3), per capita income from crop (X_4) and per capita expenditure on food consumption (X_5). The coefficient of regression of caste (X_1) was found to be negative (-) 1.12 and significance at 10% level indicates that schedule caste and backward caste are more responsive to over dues in the study area. The adverse result was found in case of education. The coefficient of regression for educational status was 1.431 and significant at one percent level of significance and this phenomenon occurs may be due to inability to repay the loan. Inability may arise due to several factors like wilful default, poverty, political influence etc. The coefficient of per capita off-farm income was (-) 0.701 and significant at one percent level of significance. The coefficient of per capita income from crop further explains that by one percent increases in income causes 0.33% decrease in over dues. However, contrary to the general phenomenon it has been found that the per capita expenditure on food consumption have negative coefficient (-0.32). The result is very interesting. The decrease in outstanding amount of over dues is low but praiseworthy even there is higher consumption expenditure. This happens may be due to better capacity in generating higher income which ultimately leads to enhance the repayment capacity of the borrowers.

The variables having significant effect on over dues are percent of earning adult to total adult (X_4), operational size of holding (X_6), per capita income from crop (X_8) and miscellaneous expenditure (X_{11}) (Table 1). The regression coefficient of per cent of earning adult to total adult was negative and highly significant at one percent level of significance. Thus, increase in earning income of the adult helps in repayment the loan. The coefficient of operational size of holding (X_6) was also negative and significant at 10 percent probability level indicating that marginal and small farmers are comparatively prominent defaulters than medium and large farmers. It is a general phenomenon that farmers having large operational size of holding

Table 1: Regression coefficients, standard errors and coefficient of multiple determination (R^2) of over dues in short, medium and long term loans on borrower farmers of Ravatipur block

Categories of loans	No. of observations	Intercept	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	R^2
Short term loan	34	6.687 (2.456)	-1.12* (0.52)	1.431*** (0.513)	-0.1 (0.526)	0.282 (0.532)	0.701*** (0.23)	0.201 (0.248)	-0.01 (0.282)	-0.33*** (0.040)	-0.04 (0.695)	-0.322* (0.145)	0.11 (0.192)	0.112 (0.422)	0.61
Medium term loan	31	4.396 (1.72)	-0.49 (0.878)	-0.11 (0.30)	-0.041 (0.441)	-1.04*** (0.353)***	0.118 (0.160)	-0.498* (0.221)	-0.40 (0.446)	0.080* (0.031)	0.201 (0.250)	-0.02 (0.182)	0.419* (0.15)	0.162 (0.301)	0.64
Pooled	77	7.216 (1.446)	-0.35 (0.578)	0.303 (0.301)	-0.325 (0.349)	-0.844** (0.351)	-0.232* (0.12)	0.375* (0.184)	0.011 (0.193)	-0.21*** (0.044)	0.135 (0.235)	-0.367** (0.164)	0.083 (0.152)	0.063 (0.277)	0.72

Note: *Significant at 10% level, **Significant at 5% level, ***Significant at 1% level

Values in parentheses are standard error of corresponding variables.

at an advantage of generating better income and savings and therefore repayment capacity are more. The coefficient of regression of miscellaneous expenditure (X_{11}) was positive and significant. It means that one percent increase in miscellaneous expenditure has resulted 0.42 percent increase in over dues.

When we pool the data, it has been found that the independent variables affecting over dues significantly are percentage of earning adult to total adult (X_6), per capita off-farm income (X_5), operational size of holding (X_5), per capita income from crop (X_8) and per capita expenditure on food consumption (X_{10}). The regression coefficient of earning adult to total adult was 0.84 and significant at 5 per cent level of significance. It means increase in earning adult enhances the repayment capacity of the borrowers. The regression coefficient of per capita off-farm income was (-) 0.23 and thus it indicates that off-farm income also helps in enhancing the repayment capacity of the borrowers. However, the result is interesting in case of operational holding. The coefficient of regression of operational size of holding was 0.38 and significant at 10 per cent level of significance. It means that large farms are the stubborn defaulters even the income of these group of farmers are comparatively healthier than small and marginal farms. The coefficient of per capita income from crop was (-) 0.21 and significant at one per cent level of significance. The coefficient of per capita expenditure on food consumption was negative and significant at 5 per cent level of significance. Generally expenditure on food depends on farm and non-farm income. The farmers having better source of income help in making more expenditure on food and they have also good repayment capacity.

CONCLUSION

The study assessed the loan repayment rates and analysed the factors influencing the loan repayment capacity of the farmers. The findings led to the conclusion that promoting the loan repayment capacity of smallholder farmers would require conscious use of policies directed at increasing loan size and farm holdings size. Larger loan sizes may enhance the access of the beneficiary farmers to basic inputs and improved farm management opportunities, which would lead to higher productivity, reduced per unit cost and higher income. Similarly, non-farm income is also important. In the same vein, higher farm sizes may be encouraged commercial farming, maximise market opportunities while manageable extension activities relating to awareness about advantage of repayment of loan in time may lead to reduce the over dues in a real perspective.

REFERENCES

- Gupta, J.N., Singh, C.B. and Patel, R.K. 1983. Credit Worthiness of landless Farm Labours, Marginal and Small Farmers for Dairy Loans, *Asian. J. Dairy*, 2(2): 153 - 161.
- Kohansal, M.R. and Mansoori, H. 2009. Factors Affecting loan Repayment Performance of Farmers in Khorasan-Razavi Province of Iran. Paper presented at the Conference on International Research on Food Security, Natural Resource Management and Rural Development, University of Hamburg, October 6-8.
- Rao, C.S. and Krishna, M. Ram *et al.* 1987. Wilful default in short term cooperative credit" *Indian Co-operative Review*, 25(2): 121-126.
- Singh R.P. 1996. Analysis of Factors Affecting Repayment Capacity of Borrowers, *Banking Finance*, 9(4): 7 - 8.
- Singh, S.P. Balishter and Jain, A.K. 1999. A study of over dues of loans in agriculture in Agra district of Uttar Pradesh, *I.J.A.E.*, 43.
- Zeller, M. and Sharma, M. 1998. Rural Finance and Poverty Alleviation. Food Policy Report. International Food Policy Research Institute (IFPRI), Washington, D.C.