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Factors influencing overdue bank credit to banana growers in Tirunelveli district of Tamil Nadu

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Abstract

In India, one of the main economic sectors is agriculture. All the resources required for the country's development are available in India, including year-round market demand, a wide variety of biological resources, and the capacity to produce precipitation when needed. It is vital to comprehend the level of debt incurred by farmers and farming as a vocation in the nation today. The agricultural industry, and farmers in particular, would operate more efficiently if the government provided the advantages and assistance that are required. Institutional finance is a major factor in financing the modernisation of the farm sector. The primary goal of farm communities receiving institutional credit was to support them in using modern inputs wisely in order to increase productivity. In addition to recording farmers' and financial institutions' responses to the loan waiver, the current study attempts to determine the factors that determine how long a credit is past due. It is now more important than ever for banks to recover advances due to the alarming increase in past-due sums. Maintaining the fewest number of past-due accounts is the bank management's major objective. The problem of bank loan non-repayment leads to past-due accumulation, which is a significant worry. When categorising a borrower as good or bad, his resources and ability to repay loans are taken into consideration. For this reason, the current study was conducted in order to provide guidelines that can aid in the classification of potential borrowers as either good or bad borrowers when combined with specific socio-economic factors. It was observed that many of the beneficiary farmers were not able to get loans from Primary Agricultural Credit Societies, even after their loans were erased, because they did not own land or had a history of deliberate default. Appropriate incentives could be developed for both beneficiaries and non-beneficiaries in order to promote loan payback and lower moral hazard in the farming community. They can raise their output and repay their loans if they are provided with incentives for power, products, off-farm employment, and inputs.

Keywords: agriculture sector, indebtedness, perception of farmers, defaulter borrower, institutional credit.

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India's economy has always been mostly based on agriculture. Undoubtedly, for the past forty years, development initiatives have reinforced our industrial foundation. There have been reports that the state has been cultivating bananas using traditional methods. Most of the farmers are growing only the conventional types of bananas.

India is the world leader in the production of bananas. Producing fruits and vegetables is so important to agriculture that it brings in three to four times as much money per acre as wheat. Fruit crops are quite promising in terms of increasing farmers' revenue[4]. Many farmers are directing their efforts towards the planting of fruit crops as a result of their realisation of the significance of fruit agriculture. Thus, the area planted with fruit crops is growing daily[9]. The banana is a year-round fruit, unlike other fruits that are only available during certain seasons and could be referred to as the poor man's apple[1].

There were few options available to Indian farmers, particularly the marginal and small farmers, for capital-intensive cultivation. Overuse of natural resources, particularly groundwater, heavy chemical use, poor soil quality, and fertiliser application, further pushed farm revenues in the direction of deeper tunnelling for the installation of submersible pumps[13]. Farmers reported suffering from recurrent losses in large numbers; 70% of respondents claimed that unseasonal rains, droughts, floods, pest and disease outbreaks, etc., had harmed their crops.[14]

Lately, the issue of farmer debt has spread throughout the nation, pushing farmers into irrelevance and despicable circumstances[16]. In order to examine this appalling state of affairs among farmers, a thorough analysis of texts has been conducted, with a particular emphasis on aspects pertaining to indebtedness, challenges, and farming-related issues.

One of the most important tactics for fostering agricultural development and livelihood diversification is still increasing access to formal financing[11]. The debt-to-asset ratio of rural households increased with time, from 1.6% in 1992 to 2.5% in 2013, suggesting that the liabilities of farmers are growing more quickly than their assets[10].

Farmers now require more finance due to the growing commercialisation of agriculture. In the period from 1980–81 to 2005–06, the credit borrowed from institutional sources climbed from Rs 3,436 crore to Rs 1,80,486 crore, while the credit content (short-term) in the value of agriculture inputs went from 11.83 per cent to 66.01 per cent.[5].

The growth in credit, which was necessary for the adoption of contemporary farm inputs, agricultural modernisation, and private agricultural investments, has resulted in new issues[3]. Loans that were not repaid reduced the availability of credit and prevented defaulters from accessing institutional financing in the future. The amount owed grew over time, making it harder for the farmer who received the loan to repay it[6]. The current rise in farmer suicides in the nation is largely due to the distress it caused the farmers[13].

Many farmers in India are focussing their efforts on producing fruit crops now that

they are aware of the market for horticultural commodities. Over a 9.76 million acre area, 37.74 million tonnes of fruit were produced in 2017–18[8]. A relatively constant and everlasting pattern of continuous consumption is layered on top of the cyclical cycle of agricultural production, which drives the demand for credit[2]. Due to seasonal differences in production and consumption patterns, this process's savings and credit demand may be significantly higher than its net income.[9]

According to G. Malvin Blasé, agricultural finance can be a potent tool for economic growth if it is utilised to support agriculture with necessary inputs that farmers would not be able to supply on their own through labour, capital, or other resources[7]. Agricultural financing should not be viewed as offensive or a show of weakness because it was not only necessary but also inevitable for the farmers.[9]

Many factors, such as consumption, spending, repaying capacity, family size, employment status, cropping intensity, amount of loan borrowed from financial institutions, and annual income from farming, affect how well farmers repay the loans they take out.

The characteristics that lead to overdues are considered in this study. Total land holdings in acres, operational land holdings size in acres, education level, caste, borrowers' age in years, percentage of HYV-affected area, percentage of farming income, percentage of cropping intensity, annual per capita family consumption expenditure per acre, amount of fertilisers used in rupees, amount of bank loan borrowed, and working capital used are the socio-economic characteristics that were chosen.

Some qualities are qualitative, and some qualities are quantitative. For the sake of this study's computation, qualitative traits are measurable. While some traits are more significant than others in assessing repayment potential, some selections are not. This research analyses the identification of factors that have a greater influence over overdue amounts.

Objectives of the study :

The current study's primary goals are:

1. To evaluate the key attributes of the chosen sample farmers in the research region.
2. To investigate the socio-economic traits of the study area's defaulters and borrowers.
3. To comprehend the socio-economic traits of the debtors in the research area who are in default, both willful and non-willful.

Numerous sources, including books, journals, government documents, NSSO data, annual reports from NABARD, Statistical Abstract, All India Rural Debt and Investment Survey, Reserve Bank of India, and Agricultural Census, were used in this study. The study's source data came from 300 marginal and small farmers in Tamil Nadu's Tirunelveli district who were indebted farmers. An organised interview schedule was followed when conducting the interviews. For the examination of the study, statistical procedures such as mean and linear discriminant function analysis were employed.

Table-1. Age-wise distribution of sample respondents

Age (in years)	Marginal	Small	Total
Less than 30	32 (16.84)	21 (19.09)	53 (17.67)
30 – 40	94 (49.47)	65 (59.09)	159 (53.00)
40 and above	64 (33.69)	24 (21.82)	88 (29.33)
Total	190 (100)	110 (100)	300(100)

Source: Survey Data.

Figures in brackets are percentages of the total.

Table-1 reveals that the age range of 53% of the respondents is between 30 and 40 years old. The proportion of small farmers who are between the ages of 30 and 40 is 59.09%, whereas the proportion of marginal farmers in the same age range is only 49.47% of the total. Just 17.67% of all farmers are less than 30 years old. Only 29.33 percent of people are over 40.

Table-2. Literacy level of sample respondents

Literacy Level	Marginal	Small	Total
Illiterate	65 (34.21)	38 (34.55)	103 (34.33)
School Level	105 (55.26)	64 (58.18)	169(56.34)
College Level	18 (9.47)	7 (6.36)	25 (8.33)
Professional and Others	2 (1.06)	1 (0.91)	3 (1.00)
Total	190 (100.00)	110 (100.00)	300 (100.00)

Source: Survey Data.

Figures in brackets are percentages of the total.

According to Table-2, 56.34 percent of the farmers in the study area have completed high school. The remaining farmers, or 34.33 and 8.33 percent of the total, are illiterate and have completed college. When it comes to college education, small farmers have a larger percentage (9.47%) than those in the marginal farmer's group (6.36%).

Table-3 Size of operational holdings in the sample farmers

Size of Holdings (in acres)	Marginal	Small	Total
Less than 1	21 (11.05)	0	21(7.00)
1 – 2	137 (72.11)	0	137 (45.67)
2 – 3	32 (16.84)	31(28.18)	63 (21.00)
3-4	0	58 (52.73)	58 (19.33)
4 and Above	0	21 (19.09)	21 (7.00)
Total	190(100.00)	110(100.00)	300(100.00)

Source: Survey Data.

Figures in brackets are percentages of the total.

According to Table-3, 73.67 percent of operating holdings are smaller than three acres. The remaining 26.33% is made up of land larger than three acres. Within the group of marginal farmers, the majority of their operating holdings (72.11%) are one to two acres, with two to three acres coming in second. Less than one acre, 11.05 percent of the total. But in the group of small farmers, the majority of their operating holdings (52.73%) are three to four acres, with two to three acres coming in second. Above five acres, 19.09 percent of the total.

Analytical framework :

The data gathered from the bank and the borrowers indicate the causes and consequences of past-due amounts. The criteria used to decide the default debtors' ability to repay their debts were

$$R = Y - [C + L + K]$$

Where,

R = Repayment capacity of the borrower (in Rs.)
Y = Total income from farming and other source (in Rs.)
C = Total farm and off-farm expenses (in Rs.)
L = Pre-existing liabilities to be met within a year (in Rs.) and
K = Risk-taking allowance to the farmer borrowers (in Rs.) (18^{th} percent of total income)

Table-4. Mean values and their differences with regard to the socio-economic characteristics of the borrower's defaulters in the study area

Sl. No.	Socio-Economic Characteristics of the Borrowers		Mean		Differences
			Non-defaulters	Defaulters	
1.	Size of holding in acres	(X_1)	4.5211	4.8205	-0.2994
2.	Operational size in acres	(X_2)	3.9421	4.7812	-0.8391
3.	Literacy	(X_3)	2.8142	2.3846	0.4296
4.	Caste	(X_4)	0.7564	0.6024	0.154
5.	Age of the farmer	(X_5)	28.3405	29.8471	-1.5066
6.	Percentage of area under HYV's to the total operated area	(X_6)	18.6242	16.4893	2.1349
7.	Cropping intensity in percentage	(X_7)	132.0815	117.3741	14.7074
8.	Percentage of income from farming to the total income	(X_8)	45.3715	38.0543	7.3172
9.	Per capita annual consumption expenditure in rupees	(X_9)	3875.3642	3348.7515	526.6127
10.	Per hectare fertiliser used in rupees	(X_{10})	732.5804	823.4054	-90.825
11.	Size of the loan	(X_{11})	7362.4842	7190.3476	172.1366
12.	Working capital in rupees per hectare	(X_{12})	352.4761	395.8472	-43.3711

Source: Computed from Survey Data.

Linear Discriminant Function Analysis :

Based on variations in their socio-economic attributes, the borrowers were divided into defaulters and non-defaulters using linear discriminant analysis. Afterwards, the defaulters were further divided into non-willful and wilful defaulters. Using the Mahalanobis D^2 test, the distance between the two groups of borrowers was determined. As a first step in the analysis, socio-economic characteristics and their significance were examined to determine whether the means of the characters under study differed significantly between the two groups of borrowers (defaulters and non-defaulters, or wilful defaulters and non-willful defaulters). Table 4 presents the chosen socio-economic attributes, their average values, and the variations between the defaulter and non-defaulter categories.

In light of the concerning rise in past due amounts, banks' recovery of advances has become increasingly crucial. The goal of the bank management is to maintain the lowest feasible amount of past-due accounts. The issue of bank loan non-repayment causes accumulating past dues, which is a major concern. A borrower's ability to repay debts and his resources are taken into account when classifying them as good or bad. Because of this, the current study was carried out to offer guidelines that, when combined with certain socio-economic traits, can help classify potential borrowers as good or bad borrowers.

Discriminant function for willful and non-willful defaulters :

Table-5. presents a classification of non-willful and wilful defaulters, as well as their mean and difference in terms of the socio-economic characteristics of the two groups.

Table-5 Mean and their differences with regard to the socio-economic characteristics of the defaulter borrowers for non-willful defaulters and willful defaulters in the study area during 2021-2022

Sl. No.	Socio-Economic Characteristic of the Borrowers	Mean Value		Differences
		Non-willful Defaulters	Willful Defaulters	
1.	X_1	4.7103	5.0175	-0.3072
2.	X_2	3.6427	9.0106	-5.3679
3.	X_3	0.8361	0.9245	-0.0884
4.	X_4	0.5204	0.7962	-0.2758
5.	X_5	32.5642	27.6311	4.9331
6.	X_6	19.6357	21.8472	-2.2115
7.	X_7	119.6475	108.7624	10.8851
8.	X_8	43.8271	48.5211	-4.694
9.	X_9	1286.4375	1186.4108	100.0267
10.	X_{10}	578.6324	762.9571	-184.325
11.	X_{11}	3597.8019	2570.6422	1027.16
12.	X_{12}	484.6721	260.6219	224.0502

Source: Computed from Survey Data.

Even after their loans were waived, it was noted that many of the beneficiary farmers were unable to obtain loans from Primary Agricultural Credit Societies due to a lack of land ownership or a history of wilful failure. Appropriate incentives for both recipient and non-beneficiary farmers may be developed to encourage loan payback in an effort to lessen moral hazard within the farming community. It was determined that incentives for inputs, electricity availability, off-farm jobs, and a higher price for their produce would enable them to boost productivity and pay back their loans. It was found that crop losses brought on by various natural disasters were a major factor in loan non-repayment. All farmers should be urged to purchase crop insurance in order to cover such losses. The current insurance market and claim settlement process are unsatisfactory to farmers. Appropriate insurance products must be created, and farmers must be informed about them. Farmers' insurance claims should also not be denied or postponed excessively. Reinforcement of legislation involving stringent recovery of loans is necessary to deter wealthy and non-needy farmers from defaulting.

Conflicts of Interest :

The author does not have any conflict of interest.

References :

1. Amutha, D. (1982). "Analysis of Growth of Area, Production and Productivity of Banana in India, 196566 to 1978-79" Agricultural Situation in India, Vol.XXXVI, No.6, September 1982, p. 367.
2. Amutha, D. (2013). Present Status of Indian Agriculture. Available at SSRN: https://ssrn.com/abstract=2739231 or http:// dx.doi.org/10.2139/ssrn.2739231
3. Amutha, D., (2013). Financial Crisis and Indian Agriculture Available at SSRN: https://ssrn.com/abstract=2199708 or http://dx.doi.org/10.2139/ssrn.2199708.
4. Amutha, D., Production and Export Performance of Floriculture in India (April 26, 2023). Available at SSRN: https:// ssrn.com/abstract=4430276 or http:// dx.doi.org/10.2139/ssrn.4430276
5. Chand R., S.S. Acharya, P.G. Chengappa and R.S. Deshpande (2009), Policies and Institutions, State of Indian Agriculture, National Academy of Agricultural Sciences, New Delhi, pp. 202.
6. Jeromi, P.D. (2007), Farmer's Indebtedness and Suicides-Impact of Agricultural Trade Liberalisation in Kerala, *Economic and Political Weekly, 42*(31): 3241-3247.
7. G. Melvin Blasé, Institution in Agricultural Development, The Jowa State University Press, Amer, 1971, pp. 101-106.
8. Indian Horticulture database (2018), retrieved on the internet http:/ /nhb.gov.in/ database-2018.pdf.
9. J.W. Mellor, (1992). The Economics of Agricultural Development, Asia Publishing House, Bombay, 1992, pp. 312-313.
10. Maurya, O. P., G. N. Singh, and R. K. S. Kushwaha, (1996). *Journal of Agricultural Marketing 4* (1): 68-70.
11. Rajakumar, J D, G Mani, S L Shetty and V M Karmarkar (2019). *Economic and Political Weekly, 54*(9): 41-49.
12. Ramprasad, V (2019). *Journal of Peasant Studies, 46*(6): 1286-1307.

13. Sarma, E.A.S. (2004), *Economic and Political Weekly, 39*(28): 3087-89.
14. Singh K (2008) Water table behaviour in Punjab: issues and policy options, IWMI-TATA water policy research program. In: Proceedings of the 7th annual partners' meet: managing water in the face of growing scarcity, inequity and declining returns: exploring fresh approaches, vol I, ICRISAT Campus, Patancheru, Hyderabad, pp 331–357.
15. Sood J (2014) India's deepening farm crisis: 76% farmers want to give up farming, Down To Earth, {http://www.downtoearth.org.in/news/Indias-deepening-farm-crisis-76-farmers-want-to-give-up-farming-shows-study-43728. Accessed 25 Feb 2017.
16. Tripathi, R. (2020) Farm workers, agriculture companies exempted from lockdown: Home Ministry. ET Bureau Mar 27, 2020.https://m.economictimes.com/news/economy/ agriculture/govt-exempts-farm-activities-fromlockdown/amp_articleshow/74852730.cms.