A Study and Analysis on Defaulters in Agricultural Credits Provided by State Bank of India in Thoothukudi District

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Abstract: Agriculture continues to be main activity of the rural people of Thoothukudi District. It is the main occupation of 70% of the people in the District. The major crops loan in the District are paddy, bajra, maize, black gram, green gram, jowar, chillies etc., State Bank of India is the lead bank of the district. The researcher classifies the agricultural borrowers in to crop loan borrowers, allied agricultural loan borrowers and other agricultural loan borrowers. In this paper, the researcher attempt to study and analyze on defaulters of agricultural borrowers.

Keywords: SBI, Agricultural Credit, Crop loan , Allied loan , Other agricultural loan

1. INTRODUCTION

Agriculture had played and will continue play a key role in the process of development in our country. Sander Vallabh Bhai Patel the first deputy finance minister of India had aptly said that India's culture was Agriculture. According to the All India Rural credit survey, "India is essentially rural India and rural India is virtually the cultivator"; India was a country of 5.76 lash village accounting for about 77 percent of the Indian population. Every four out of five person were villagers and they depended on Agriculture and its allied activation for their very livelihood.

Agriculture production essentially, provided

(a) The food needed for the growing population
(b) The raw materials requires for industrial production
(c) The foreign exchange which was earned through Agriculture exports
(d) The investible surplus as a part of the domestic savings and
(e) A vast market for the domestically manufactured products.

The linkage between the Agriculture and the non- agricultural sectors of our economy were many and varied.

Agricultural production in India depends upon millions of small farmers. It is the intensity of their effort and the efficiency of their technique that will help in raising yields per acre. Because of inadequate financial resources and absence as well as non-availability of timely credit facilities at reasonable rates, many of the farmers, even though otherwise willing are unable to go in for improved methods of cultivation, use of better seeds and fertilizers and introduce better methods or techniques. Works of minor irrigation sources like wells owned by the cultivators either get into disuse or are not fully utilized for want of capital.

In the agricultural sector which covers production of food and essential raw. The major objects of the agricultural improvement or developmental programmed are to develop local resources of seed manures and irrigation and to provide other accessories of production. To utilize man-power and cattle resources more productively, these aids and assistance and more intensive farming are essential. It is, therefore, of the utmost importance that the financial requirements of the farmers are adequately met. The achievement of targets material like cotton, jute and oilseeds, ought not to be allowed to suffer for want of adequate credit has, However to be related to specific items of productive work or of essential cost of cultivation.

2. NEED FOR CREDIT

Need for agricultural credit arises because modern farm technology is costly and the personal resources of the farmers are inadequate. Provision of agricultural credit, as an input, is essential for widespread use of improved agricultural methods. It is needed by farmers for both productive and unproductive purposes. Credit, a powerful instrument for growth, has been described by Schultz' in glowing terms: 'Once there are investment opportunities and sufficient incentives, farmers will turn sand into gold'

3. SOURCES OF AGRICULTURAL CREDIT

The financial requirements of Indian farmers are fulfilled by two sources namely institutional sources and non-institutional sources. Non-institutional source include moneylenders, traders, commission agents, relatives and friends. Institutional sources consist of government and co-operatives, commercial banks including the Regional Rural Banks (RRBs)

4. STUDY OF PROFILE AREA

Thoothukudi district carved out of the erst while thirunelveli district on 1980. It has certain rare features. The mixed landscape of the sea and the their (waste) lands has imbibed some special traits in the character of the sons of the soil. The district is divided into 3 revenue divisions namely Thoothukudi, Tiruchendur and Kovilpatti. It includes Revenue Firkas 41, Revenue villages 480.
For the purpose of election, this district is divided into 6 assembly constituencies and comes under 1 parliamentary constituency.
In the district there as 12 blocks which are Thoothukudi, Alwarthirunagari, Tiruchendur, Udangudi, Sattankulam, Srivaikundam, Karunkulam, Kovilpatti, Ottapidaram, Kayathar, Pudukotai and Vilathikulam.

5. SCOPE OF THE STUDY

The study covers the agricultural credit provided by State Bank of India in Thoothukudi district of Tamil Nadu. It does not cover the agricultural credit extended by other financial agencies including other banks except state bank of India and private sector banks in Thoothukudi district.

6. OBJECTIVE OF THE STUDY

The Objectives of the study are

1. To analyse the level of awareness among borrowers on various agricultural credit schemes of SBI and factors determining them.
2. To measure the levels of attitude of borrowers towards the lending practices of SBI and factors determining them.

7. PERIOD OF STUDY

This study covers a period of 7 years from 2004 to 2012. Secondary data were collected from Lead Bank of the District SBI, Annual Credit Plan of the respective years.

8. SAMPLE DESIGN

The aim of the study is to analyse the borrower's awareness and attitude towards various types of agricultural credits provided by SBI in Thoothukudi district. There are 12 blocks in Thoothukudi district. Among them 7 blocks were selected by using random sampling technique allotted sample of 485 farmers were selected from each of 7 blocks to ensure represents. The responds were chosen very sample random method.

There were 485 samples respondents, who availed either crop loan or allied loan or other agricultural loans from SBI in the district. This study aims at loan wise analysis.

9. METHODOLOGY FOR COLLECTIONS OF DATA

Both primary data and secondary data were collected for the study. Primary data were collected by conducting survey among 485 farmers who availed themselves of agricultural and allied loans from the branches of SBI of Thoothukudi district in Tamilnadu with an interview schedule.

10. LIMITATION OF STUDY

Researcher made an attempt to study the various types of agricultural credit provided by SBI in Thoothukudi district. The study analysis the awareness and attitude of borrowers who availed themselves of agricultural credit from SBI in Thoothukudi District. It took all possible efforts to eliminate personal bias in providing primary data by the respondents.

Limitations of the study were that it covers only the agricultural credit provided by the SBI in Thoothukudi district.

11. DEFAULTERS IN STATE BANK OF INDIA

State Bank of India offers various types loan to the farmers for development of agricultural and allied activities in the district. The problem of non-repayment of loans by the farmers has become a cause of great concern to the institutional agencies. The State Bank of India is not an exception to this. Many of the farmers have becomes wilfull defaulters due to various reasons. Some of the defaulters are non-wilfull. In this study the researcher made an attempt to examine the factors determining over dues of crop loan, allied loan and other agricultural loan. An attempt has also been made to examine the characteristics of wilfull defaulters.

12. CLASSIFICATION OF DEFAULTERS

The defaulters were classified into two categories namely wilfull and non-wilfull defaulters. The term wilfull defaulter refers to borrower who is left with no less than one-third of his family income after meeting all his installment for the loan taken by him from the State Bank of India and others are taken as non-wilfull defaulter in the present analysis. The details are provided in the table 1.

Table – 1 Classifications of defaulters who took farm loan from SBI

Type of loan	Category of defaulters		Total number of defaulters	Total sample
	Wilfull	Non-wilfull		
Crop loan	21 (11.41)	43 (23.27)	64 (35.16)	182
Allied loan	17 (9.24)	26 (14.13)	43 (35.86)	127
Other agricultural loan	23 (12.5)	54 (29.35)	77 (43.75)	176
Total	61 (12.58)	123 (25.36)	184 (37.94)	485

Source: Primary data

13. FACTOR ANALYSIS FOR DEFAULTERS

Factor analysis is the most often used multivariate technique, specially pertaining to social and behavioral sciences. Factor analysis has many alternative algorithms that can be used to extract factors out of set of variables. The primary decision in stage 1 of factor analysis is to decide how many factors to extract from the data. The sample rule of thumb normally used says that all factors with an Eigen value of 1 or more should be extracted.

In stage 2, the rotated factor matrix is used to assign variables to factors and to interpret factors. This matrix should be viewed column wise. For each column (factor) the variables which have a high (close to 1) loading should be identified and a combined meaning for the factor found. This leads to a phrase which is the name given to the factor. Factor analysis also provides an estimate of the variance explained by each factor, which can be used as a measure of its relative importance.

The factor analysis model in matrix notation is given as:

$x = Af + e$

Where, $x = (x1+x2+x3+\ldots\ldots Xp)$

$Af = (f1+f2+f3+\ldots\ldots fm)$

$e = (e1+e2+e3+\ldots\ldots ep)$

p = number of variables

m = number of factors

This rotated factor matrix is viewed column- wise and the variables with higher loadings are identified and a combined meaning for the factor is giving.

In this study, factor analysis in also used to identify the factors that influencing the borrowers to become a defaulter. Factor analysis in used after testing its appropriateness with the help of Kaiser Meyer Olkin (KMO) test and Bartlett's test.

It is a technique applicable when there is a systematic interdependence among a set of observed or manifest variables and the researcher is interested in finding out something more fundamental or latent which creates this communality. Factor analysis, thus seeks to resolve a large set of measured variables in forms of relatively few categories known as factors. The correlation between the factors and the variables is known as factor loading. The sum of squared values of factor loading relating to a factor is referred as Eigen value.

14. FACTOR ANALYSIS FOR DEFAULTERS IN CROP LOAN

Factor Analysis has been made to extract specific factors and define variables, which constitute each factor, based on the strength and direction of factor loadings in motivation. In total, 7 variables have been included in the analysis the factors motivating the borrowers to avail agricultural finance.

The factor analysis 7 variables have been factorized into 2 factors. The rotated factor matrix for influencing the borrowers to become a defaulter is given in Table 2

Table 2 The rotated factor matrix for influencing the borrowers to become a defaulter

Sl. No.	Variable	Factor 1	Factor 2
1.	Crop failure	-.099	**.597**
2.	Non-availability of proper guidance	**.565**	.392
3.	Poor and fluctuating income	**.896**	.006
4.	Unrealistic repayment schedule	**.719**	-.379
5.	Insufficient loan	-.136	**-.737**
6.	High rate of interest	**-.902**	-.094
7.	Social ceremonies and obligations	-.127	**.634**

Extraction method: Principal component analysis
Rotation method : Varimax with Kaiser Normalization
Source : Primary data

The above table exhibits the rotated factor loading for the seven statements (variables) of influencing. It is clear from the table that all the Seven statements have been extracted into two factors in Table 3

Table 3 – Factors influencing Crop loan defaulters

Sl. No.	Factor	Eigen value	Percentage of variance	Cumulative Percentage of variance
1.	Factor 1	2.349	33.562	33.562
2.	Factor 2	1.482	21.177	54.739

It is observed from the table that two factors were extract out of seven variables. These factors account for 54.739% of variance in the data. Eigen value of first factor is 2.349 which indicate that the factors contains very high influential factor than any other. The factor includes Non-availability of proper guidance, Poor and fluctuating income, Unrealistic repayment schedule, and High rate of interest should be clearly influencing the borrowers.

The second factor account for 21.177% variant the Crop failure, Insufficient loan, Social ceremonies and obligations are well understood just to influence the borrowers to become a defaulters the Eigen value of this factor 1.482.

Table 4 - KMO and Bartlett's Test – Crop Loan

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.517
Bartlett's Test of Sphericity	Approx. Chi-Square	144.700
	df	21
	Sig.	.000

Kaiser-Meyer-Olkin test of Sampling Adequacy is .517 which indicates that correlation between pairs of variables explained by other variables and thus factor analysis is considered to be appropriate in this model.

The Bartlett's Test of Sphericity chi-square indicates population correlation matrix. The test of statistics for sphericity based on chi-square test which is significant, the value is 144.700

15. FACTOR ANALYSIS FOR DEFAULTERS IN ALLIED LOAN

Factor Analysis has been made to extract specific factors and define variables, which constitute each factor, based on the strength and direction of factor loadings in motivation. In total, 7 variables have been included in the analysis the factors motivating the borrowers to avail agricultural finance.

The factor analysis 7 variables have been factorized into 3 factors. The rotated factor matrix for influencing the borrowers to become a defaulter is given in Table 5.

Table 5.The rotated factor matrix for influencing the borrowers to become a defaulter

Sl. No.	Variable	Factor 1	Factor 2	Factor 3
1.	Crop failure	-.009	-.035	**.790**
2.	Non-availability of proper guidance	.302	**-.811**	-.156
3.	Poor and fluctuating income	**.861**	-.255	-.064
4.	Unrealistic repayment schedule	**.848**	.256	-.105
5.	Insufficient loan	.078	**.796**	-.265
6.	High rate of interest	**-.888**	.236	-.074
7.	Social ceremonies and obligations	-.045	-.055	**.814**

Extraction method : Principal component analysis
Rotation method : Varimax with Kaiser Normalization
Source : Primary data

The above table exhibits the rotated factor loading for the seven statements (variables) of influencing. It is clear from the table that all the seven statements have been extracted into three factors.

Table 6 – Factors influencing Allied loan defaulters

Sl. No.	Factor	Eigen value	Percentage of variance	Cumulative Percentage of variance
1.	Factor 1	2.346	33.513	33.513
2.	Factor 2	1.482	21.170	54.683
3.	Factor 3	1.402	20.032	74.715

It is observed from the table that three factors were extract out of seven variables. These factors account for 74.715% of variance in the data. Eigen value of first factor is 2.346 which indicate that the factors contains very high influential factor than any other. The factor includes Poor and fluctuating income, Unrealistic repayment schedule, and high rate of interest should be clearly influencing the borrowers.

The second factor account for 21.170% variant the Non-availability of proper guidance, high rate of interest are well understood just to influence the borrowers to become a defaulters the Eigen value of this factor 1.482.

The third factor account for 20.032% variant the Crop failure and Social ceremonies and obligations are well understood just to influence the borrowers to become a defaulters the Eigen value of this factor 1.402.

Table 7 KMO and Bartlett's Test – Allied Loan

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.517
Bartlett's Test of Sphericity	Approx. Chi-Square	94.282
	df	21
	Sig.	.000

Kaiser-Meyer-Olkin test of Sampling Adequacy is .517 which indicates that correlation between pairs of variables explained by other variables and thus factor analysis is considered to be appropriate in this model.

The Bartlett's Test of Sphericity chi-square indicates population correlation matrix. The test of statistics for sphericity based on chi-square test which is significant, the value is 94.282.

16. FACTOR ANALYSIS FOR DEFAULTERS IN OTHER AGRICULTURAL LOAN

Factor Analysis has been made to extract specific factors and define variables, which constitute each factor, based on the strength and direction of factor loadings in motivation. In total, 7 variables have been included in the analysis the factors motivating the borrowers to avail agricultural finance.

The factor analysis 7 variables have been factorized into 3 factors. The rotated factor matrix for influencing the borrowers to become a defaulter is given in Table 8.

Table 8 The rotated factor matrix for influencing the borrowers to become a defaulter

Sl. No.	Variable	Factor 1	Factor 2	Factor 3
1.	Crop failure	-.004	.016	**.824**
2.	Non-availability of proper guidance	.326	**-.793**	-.181
3.	Poor and fluctuating income	**.845**	-.302	-.053
4.	Unrealistic repayment schedule	**.841**	.262	-.106
5.	Insufficient loan	.065	**.805**	-.259
6.	High rate of interest	**-.893**	.237	-.058
7.	Social ceremonies and obligations	-.055	-.097	**.800**

Extraction method: Principal component analysis
Rotation method : Varimax with Kaiser Normalization
Source : Primary data

The above table exhibits the rotated factor loading for the seven statements (variables) of influencing. It is clear from the table that all the seven statements have been extracted into three factors.

Table 9 – Factors influencing Other Agriculture loan defaulters

Sl. No.	Factor	Eigen value	Percentage of variance	Cumulative Percentage of variance
1.	Factor 1	2.332	33.314	33.314
2.	Factor 2	1.502	21.464	54.778
3.	Factor 3	1.437	20.527	75.305

It is observed from the table that three factors were extract out of seven variables. These factors account for 75.305% of variance in the data. Eigen value of first factor is 2.332 which indicate that the factors contains very high influential factor than any other. The factor includes Poor and fluctuating income, Unrealistic repayment schedule, and High rate of interest should be clearly influencing the borrowers.

The second factor account for 21.464% variant the Non-availability of proper guidance, Insufficient loan are well understood just to influence the borrowers to become a defaulters the Eigen value of this factor 1.502.
The third factor account for 20.527% variant the Crop failure and Social ceremonies and obligations are well understood just to influence the borrowers to become a defaulters the Eigen value of this factor 1.437.

Table 10 - KMO and Bartlett's Test – Other Agriculture Loan

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.525
Bartlett's Test of Sphericity	Approx. Chi-Square	179.227
	df	21
	Sig.	.000

Kaiser-Meyer-Olkin test of Sampling Adequacy is .525 which indicates that correlation between pairs of variables explained by other variables and thus factor analysis is considered to be appropriate in this model.

The Bartlett's Test of Sphericity chi-square indicates population correlation matrix. The test of statistics for sphericity based on chi-square test which is significant, the value is 179.227.

17. FACTOR ANALYSIS FOR DEFAULTERS IN AGRICULTURAL CREDIT

Factor Analysis has been made to extract specific factors and define variables, which constitute each factor, based on the strength and direction of factor loadings in motivation. In total, 7 variables have been included in the analysis the factors motivating the borrowers to avail agricultural finance.
The factor analysis 7 variables have been factorized into 3 factors. The rotated factor matrix for influencing the borrowers to become a defaulter is given in Table 11.

Table 11The rotated factor matrix for influencing the borrowers to become a defaulter

Sl. No.	Variable	Factor 1	Factor 2	Factor 3
1.	Crop failure	-.008	-.013	**.807**
2.	Non-availability of proper guidance	.312	**-.804**	-.160
3.	Poor and fluctuating income	**.853**	-.276	-.061
4.	Unrealistic repayment schedule	**.844**	.263	-.109
5.	Insufficient loan	.069	**.800**	-.260
6.	High rate of interest	**-.887**	.245	-.073
7.	Social ceremonies and obligations	-.048	-.076	**.809**

Extraction method: Principal component analysis
Rotation method : Varimax with Kaiser Normalization
Source : Primary data

The above table exhibits the rotated factor loading for the seven statements (variables) of influencing. It is clear from the table that all the seven statements have been extracted into three factors.

Table 12 – Factors influencing Agricultural defaulters

Sl. No.	Factor	Eigen value	Percentage of variance	Cumulative Percentage of variance
1.	Factor 1	2.331	33.295	33.295
2.	Factor 2	1.497	21.387	54.682
3.	Factor 3	1.419	20.274	74.956

It is observed from the table that three factors were extract out of seven variables. These factors account for 74.956% of variance in the data. Eigen value of first factor is 2.331 which indicate that the factors contains very high influential factor than any other. The factor includes Poor and fluctuating income, Unrealistic repayment schedule and High rate of interest should be clearly influencing the borrowers.

The second factor account for 21.383% variant the Non-availability of proper guidance and insufficient loan are well understood just to influence the borrowers to become a defaulters the Eigen value of this factor 1.497.

The third factor account for 20.274% variant the Crop failure and Social ceremonies and obligations are well understood just to influence the borrowers to become a defaulters the Eigen value of this factor 1.419.

Table 13 - KMO and Bartlett's Test – Agricultural defaulters

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.522
Bartlett's Test of Sphericity	Approx. Chi-Square	436.851
	df	21
	Sig.	.000

Kaiser-Meyer-Olkin test of Sampling Adequacy is .522 which indicates that correlation between pairs of variables explained by other variables and thus factor analysis is considered to be appropriate in this model.

The Bartlett's Test of Sphericity chi-square indicates population correlation matrix. The test of statistics for sphericity based on chi-square test which is significant, the value is 536.851.

18. SUMMARY

In this chapter the defaulters in agricultural credit by the sample borrowers are discussed in detail. For the purpose of analysis, t-test, discriminant function, regression analysis. In the addition, the problems faced by the defaulters in general and with specific reference to wilfull defaulters and non-wilfull defaulters are ranked on the basis of Garrett's ranking method.

FINDINGS ON PROBLEMS FACED BY THE DEFAULTERS IN REPAYING THE LOAN

1. It has also been observed that by borrowers who availed themselves of crop loan stated crop failure is the main reason followed by social ceremonies and obligations and poor and fluctuating income to become a defaulter in repaying the loan.
2. The study reveals that the most severe problem faced by the defaulters of allied loan is poor and fluctuating income. Unrealistic repayment schedule, social ceremonies and obligations and non-availability of proper guidance are other problems affecting the respondents in repaying allied loan.
3. It has also been noticed that the most severe problem faced by the defaulters who took other agricultural loan is poor and fluctuating income. It is also noticed that unrealistic repayment schedule framed by the bank affects the repayment of other agricultural loan.

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