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## Repayment behaviour of crop loan borrowers of Sabarkantha District central Co-operative bank in Gujarat

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### Abstract

Credit has an immense role in Indian economy and in the development of the country. Rural credit system plays an important role in the economic development of farmers because they have inadequate savings to finance farming and other economic activities. Since Independence, cooperative banks which work on cooperative principles have played an important role in the development of rural economy in India. For the study, primary data was collected from selected branches of Sabarkantha District Central Co-operative Bank and their borrowers of Aravalli district who obtained crop loan during the year 2018-19. The study revealed that the maximum number of borrowers, *i.e.*, 59.00 per cent was found in the middle age group. Majority of the borrowers who borrowed credit for crop production was more related to the literate group and belonged to the medium size family. Study also revealed that majority of the borrowers have medium level of experience in the farming and belonged to the low-level income group. The study showed that higher numbers of borrowers, *i.e.*, 35.83 per cent are semi - medium farmers and maximum number of the farmers borrowed less than ₹ 1, 00, 000 per farm. The study also reported that maximum numbers of borrowers, *i.e.*, 54.17 per cent borrowers belonged to low amount borrowed category and were found to have to have medium level of cropping intensity in the farm. The study also showed that maximum number of borrowers, *i.e.*, 44.17 per cent was found to have medium level of irrigation potential.

The land use pattern showed that while comparing operated area *kharif* crops were dominant. It was found out that the farmers have generated gross return of ₹ 2,36,426 per farm in production of maize, wheat and groundnut and the farmer (credit need) took loan with ₹ 1,03,034 per farm for the same purpose. After clearing the loan which indicates his credit worthiness the repayment capacity stood at ₹ 35,203.

**Keywords:** Credit, Sabarkantha district central co-operative bank, repayment capacity

### Introduction

Credit has an immense role in Indian economy and in the development of the country. Rural credit system plays an important role in the economic development of farmers because they have inadequate savings to finance farming and other economic activities. After independence, Government of India started various institutions to provide adequate credit to farmers at a lower interest rate like co-operatives, commercial banks, regional rural banks *etc.* who were otherwise dependent on moneylenders who charged higher rate of interest. Since Independence, cooperative banks which work on cooperative principles have played an important role in the development of rural economy in India. After the passing of Cooperative Societies Act in 1904, cooperative banking was started in India. "To encourage thrift, self-help and cooperation among agriculturists, artisans and persons of limited means" was the objective of this act. Since this act, cooperative banks in India have undergone a drastic change. They serve as the main support for rural people's credit requirements.

Cooperative banks are one of the major sources of agricultural credit for people of tribal areas in Gujarat. The present study entitled "Economic Analysis of Institutional Agricultural Finance in Tribal area of North Gujarat" is designed to assess the role of Sabarkantha District Central Cooperative Bank in the economic development of tribal population. The specific objectives of the study are as follows:

### Objectives

1. To study the personal and socio-economic characteristics of the sampled borrowers
2. To examine the repayment capacity and reasons for repayment of loan

**Methodology**

Aravalli district in Gujarat state which is the first largest district of North Gujarat in tribal population was selected for the present study. Agriculture is the main source of livelihood for the people in the district. The economic condition of farming community in the tribal pockets is very weak due to the scanty rainfall received by these areas. Primary data was collected from borrowers of Aravalli district who obtained crop loan during the year 2018-19 and from selected branches of Sabarkantha District Central Co-operative Bank.

Secondary data was collected from the following sources:

1. Published reports and other official documents of Sabarkantha District Central Co-operative Bank
2. Journals, books, reports, bulletins, periodicals *etc.* on the subject

The sampling design used was multi-stage sampling design. Because of the higher number of the loan accounts in the two tribal talukas, Bhiloda and Meghraj, these were purposively selected from all the talukas of Aravalli district. 6 villages from Bhiloda (Bhiloda, Takatuka, Siladri, Bavaliya, Padardi and Mau) and 6 villages from Meghraj (Bhuval, Naranpur, Odha, Rajpur, Moti Moydi and Lalpur) were selected randomly for the present study. With the help of bank personnel, a list of borrowers who obtained crop loan in the selected villages was prepared. From these borrowers, 10 borrowers from each selected village, therefore, total 120 borrowers were selected randomly for the present study. The collected data was compiled into a tabular form and analyzed in order to find out the result as per the stated objectives. The analysis of the data was done on per farm basis. Descriptive statistics as well as other statistical and economical techniques were employed to analyze the collected data. Descriptive statistical tools like frequencies, percentage, mean, average *etc.* were used to represent the data in the tabular form.

**Mean**

Mean was obtained by dividing the sum of the scores by the total number of cases involved. The formula for determining mean is

$$\text{Mean } (\bar{x}) = \frac{\sum_{i=1}^n X_i}{N} \quad [i= 1, 2, 3 n]$$

Where,

**n** = no. of respondents

$\bar{x}$  = Mean

$$\sum_{i=1}^n X_i = \text{sum of scores}$$

**Percentage**

The term 'percentage' means a fraction whose denomination is 100 and the numeration of the fraction is called percentage. For calculating percentage, frequency was multiplied by 100 and divided by total beneficiaries farmers.

$$P = \frac{X}{N} \times 100$$

**Where,**

P = Percentage

X = Frequency of beneficiaries farmers

N = Total number of beneficiaries farmers

**Repayment capacity**

Repayment capacity was analyzed as formula of the second 'R' of credit.

Repayment Capacity = Gross income – (Working expenses including short term loans + family living expenses + other loans due + miscellaneous expenditure + annual installment due for term loan)

**Results and Discussion**

**Personal and socio-economic characteristics of the sampled borrowers**

There are many factors that directly or indirectly influence the decisions made by a farmer. It was found that personal and social economic aspect of a borrower affected the crop production patterns, use of inputs, investment patterns, utilization of credit, source of borrowing, amount borrowed *etc.* The point of difference between a conscious and an unconscious borrower is utilization and misutilization of loans and overdues. Since loans and overdues of a borrower were influenced by personal and socio-economic aspects of the borrower, it was very important to study these features as one of our objectives. Following section presents a detailed distribution of the borrowers according to their personal and socio-economic characteristics.

The study considered many independent variables such as age of borrower, level of education, size of family members, farming experience and income of farmer which might be responsible for overdues. Respondents character wise distribution has been presented in following table.

**Age**

To increase the farm income credit plays a major role by helping in adopting the modern production technology for the production purpose. Availability of credit helps in assuring source of income from various agricultural activities. Credit bearing risk of the farmer is dependent upon age of the farmer. Therefore, it is an important factor to be considered for study.

The age of the borrowers mention that the chronological age of the respondents in completed years at the time of examination. The detailed description as per their age level of the borrowers has been described in the Table 1.

**Table 1:** Distribution of borrowers as per their age

Sr. No.	Particular	Frequency (N=120)	Per cent
1	Young (up to 35 years)	27	22.50
2	Middle (36 to 50 years)	71	59.00
3	Old (Above 50 years)	22	18.50

The study revealed that the maximum number of borrowers, *i.e.* 59.00 per cent was found in the middle age group. This shows that the credit borrowing for crop production is mainly associated by the middle age group. It was followed by 22.50 per cent borrowers who were in the young age group and 18.50 per cent borrowers were in old age group. This result was found similar to Oladeebo and Oladeebo (2008) [4].

## Education

Education helps the individuals in solving their daily life problems by giving them a different approach while dealing with it. Education develops skills, habits and capacity for analyzing the information of an individual. The respondents were categorized under different groups as illiterate, primary education, secondary education, higher education, graduate and postgraduate on the basis of education level. The detail distribution of borrowers as per their level of education has been given in Table 2.

**Table 2:** Distribution of borrowers as per their level of education

Sr. No.	Education level of borrowers	Frequency (n=120)	Per cent
1	Illiterate	35	30.00
2	Primary school (up to 7 <sup>th</sup> Standard)	29	24.00
3	Secondary school (8 <sup>th</sup> to 10 <sup>th</sup> Standard)	33	27.50
4	Higher Secondary (11 <sup>th</sup> to 12 <sup>th</sup> Standard)	14	11.00
5	Graduation	6	5.00
6	Post-Graduation	3	2.50
7	Total frequency of literate group	85	71.00
8	Total frequency of illiterate group	35	29.00

It is observed that the maximum numbers of borrowers, *i.e.*, 71.00 per cent belonged to the literate group and just 29.00 per cent borrowers were illiterate. From the table it is evident that majority of the borrowers who borrowed credit for crop production is more related to the literate group.

The study reported that within the literate group, maximum numbers of borrowers, *i.e.*, 27.50 per cent was found to have passed the secondary school (8<sup>th</sup> to 10<sup>th</sup> Standard) followed by 24.00 per cent borrowers who had passed primary school (up to 7<sup>th</sup> Standard). Higher secondary (11<sup>th</sup> to 12<sup>th</sup> Standard) was passed by 11.00 per cent borrowers and 5.00 per cent borrowers had passed graduation. Only 2.50 per cent borrowers had passed the level of post-graduation. Education helped the farmers to gather knowledge on recent technologies and they required the credit to implement these technologies. This result was found similar to Harikumar (1991) [3].

## Family Size

Agriculture requires mainly the field work and labour for which having good size of family is a matter of advantage. Family size is the number of individuals living and taking food together under single household. It includes the number of children, old aged people and adults. The detailed distribution of borrowers on the basis of family members has been showed in Table 3.

**Table 3:** Distribution of borrowers on the basis of their family members

Sr. No.	Family members	Frequency (n=120)	Per cent
1	Family size up to 4 members	39	32.50
2	Family size up to 5 members	29	24.17
3	Family size up to 6 members	34	28.33
4	Family size up to 7 members	12	10.00
5	Family size up to 8 members	6	5.00

The study revealed that the maximum numbers of borrowers, *i.e.*, 32.50 per cent was found to be belonging to the family size of 4 members. Therefore it is evident that the majority of

the borrowers belonged to the medium size family. This was followed by 28.33 per cent borrowers who belonged to family size of 6 members. Then, 24.17 per cent borrowers belonged to family size of 5 members which was followed by 10.00 per cent borrowers who belonged to family size of 7 members and only 5.00 per cent borrowers belonged to family size of 8 members. Most of the farmers were utilizing their family labour in production process.

## Farming Experience

The knowledge and skills gained by a farmer over a period of time is termed as his experience in the field of farming. The experience of farming refers to the number of years dedicated in farming activities by the farmer. The detailed distribution of borrowers on the basis of farming experience has been showed in Table 4.

**Table 4:** Distribution of borrowers on the basis of their farming experience

Sr. No.	Farming experience	Frequency (N=120)	Per cent
1	Low level experience (up to 5 years)	21	17.50
2	Medium level experience (6 to 10 years)	89	74.17
3	High level experience (more than 10 years)	10	8.33

It is evident from the study that the highest number of borrowers, *i.e.* 74.17 per cent was observed to have medium level of experience in farming followed by 17.50 per cent borrowers who had low level of experience in farming and only 8.33 per cent borrowers had high level of experience in farming. It shows that majority of the borrowers have medium level of experience in the farming. This result was found similar to Pasha and Majeed (2014) [5].

## Income

Purchasing power of a person is proportional to his income hence higher is the income higher will be the overdue repayment capability of a farmer. While measuring this variable, the sum of yearly income of individual respondents from all the sources was measured in rupees. The detailed distribution of borrowers on the basis of their annual income has been showed in Table 5.

**Table 5:** Distribution of borrowers on the basis of their income of their farmers

Sr. No.	Annual income	Frequency (N=120)	Per cent
1	Low level income (up to ₹ 1,00,000)	65	54.17
2	Medium level income (₹ 1,00,000 to ₹ 2,00,000)	34	28.33
3	High level income (more than ₹ 2,00,001)	21	17.50

The table shows that majority of the borrowers, *i.e.* 54.17 per cent belonged to the low-level income group followed by 28.33 per cent borrowers who belonged to medium level income group while only 17.50 per cent borrowers belonged to high level income group.

## Land Holdings Size

The area of land belonging to an individual is called his land holding. Greater is the land holding of a farmer greater would be the production since land is extensive part of the production (land, labour, capital, organization) which favours

the employment and income of the farmer. The detailed description as per the land holding of the borrowers has been described in the Table 6.

**Table 6:** Distribution of borrowers as per their size of land holding

Sr. No.	Size of land holding	Frequency (n=120)	Per cent
1	Marginal farmer (up to 1.0 ha land)	21	17.50
2	Small farmer (1.01 to 2.0 ha land)	26	21.67
3	Medium farmer (2.01 to 4.0 ha land)	22	18.33
4	Semi-medium farmer (4.01 to 10 ha land)	43	35.83
5	Large farmer (more than 10 ha land)	8	6.67

The study revealed that higher numbers of borrowers, *i.e.*, 35.83 per cent are semi - medium farmers followed by 21.67 per cent borrowers who are small farmers. While 18.33 per

cent borrowers are medium farmers followed by 17.50 per cent borrowers who are marginal farmers. Only 6.67 per cent borrowers had large size of land holding.

Land size plays an important role in generation of income as well as employment generation for farmers. This result was found similar to Dadhich (1971) [2].

#### Amount borrowed

In the area of study, farmers were generally lacking in resources so there is always a requirement of credit facility to carry out the production process. The amount of credit can vary according to cultivation cost of the crop per unit area and amount of fund available with the farmer. The detailed description as per the amount borrowed of the borrowers has been described in the Table 7.

**Table 7:** Distribution of Borrowers on the Basis of Amount Borrowed

Sr. No.	Amount borrowed	Frequency (n=120)	Percent
1	Low amount borrowed (up to ₹ 1,00,000)	65	54.17
2	Medium amount borrowed (₹ 1,00,001 to 2,00,000)	44	36.67
3	Large amount borrowed (more than ₹ 2,00,000)	11	9.16

The study revealed that maximum number of the farmers borrowed less than ₹ 1, 00, 000 per farm. The study reported that maximum numbers of borrowers, *i.e.*, 54.17 per cent borrowers belonged to low amount borrowed category followed by 36.67 per cent who were found to be in the category of medium amount borrowed and 9.16 per cent were found to be of large amount borrowed category. This result was found similar to Dadhich (1971) [2].

#### Cropping Intensity

It was found that the acreage distribution of crop in a unit land on annual basis is changing according to specific situation and area. The change (increases or decrease) in crop area under a specific crop in a particular interval of time is shown in terms of percentage so one can refer cropping intensity as the ratio of allocation of area under crops in a year with available cropped area. The detailed description as per the cropping intensity of the borrowers has been described in the Table 8.

**Table 8:** Distribution of Borrowers on the Basis of their Cropping Intensity

Sr. No.	Cropping intensity level	Frequency (n=120)	Per cent
1	Low level of cropping intensity (up to 100 percent)	11	9.16
2	Medium level of cropping intensity (100 to 150 percent)	71	59.17
3	Large level of cropping intensity (more than 150 percent)	38	31.67

The study revealed that maximum number of borrowers, *i.e.*, 59.17 per cent was found to have medium level of cropping intensity, followed by 31.67 per cent borrowers who had large level of cropping intensity while 9.16 per cent borrowers had low level of cropping intensity.

#### Irrigation potential

The irrigation potential differs from farmer to farmer due to many factors. The detailed description as per the irrigation potential of the borrowers has been described in the Table 9.

**Table 9:** Distribution of borrowers on the basis of irrigation potential

Sr. No.	Irrigation potential	Frequency (n=120)	Per cent
1	Low level of irrigation potential (up to 50 percent)	29	24.16
2	Medium level of irrigation potential (51 to 75 percent)	53	44.17
3	Large level of irrigation potential (more than 75 percent)	38	31.67

The study showed that maximum number of borrowers, *i.e.*, 44.17 per cent was found to have medium level of irrigation potential followed by 31.67 per cent borrowers who had large level of irrigation potential. Only 24.16 per cent borrowers had low level of irrigation potential.

The level of credit need in crop production was found to be different due to the nature of crop production and input utilization pattern with irrigated and unirrigated land holdings. This result was found similar to Patel (1995) [6].

#### Agrarian Structure of Borrowers

The basic requirement for farming is land. The basic unit of the study for the farmers is operational land holding which is the wealth of the borrower. The action and interaction of land use pattern depends upon various factors *viz.*, physical characteristics of land, institutional framework and other sources like capital, labour *etc.* The irrigation pattern and land utilization of borrowers has been presented in Table 10.



**Table 10:** Irrigation pattern and Land Utilization pattern of borrowers

Sr. No	Particular	ha./farm	Per cent
1	Size of holding	3.49	-
2	Operated area	3.26	-
3	Irrigated area	2.01	-
4	Area under <i>kharif</i>	3.16	96.93
5	Area under <i>rabi</i>	2.56	78.52
6	Area under summer	1.33	40.79
7	Gross cropped area	6.95	-
8	Area under maize	2.85	90.18
9	Area under wheat	1.90	74.21
10	Area under groundnut	0.80	60.15

As per Table 10, the land use pattern showed that while comparing operated area *kharif* crops were dominant. The area under *kharif*, *rabi* and summer crops was found to be 3.16, 2.56 and 1.33 hectare per farm which was 96.93, 78.52 and 40.79 per cent of total operated area, respectively.

The perusal of data focuses on maize, wheat and groundnut as the major crops under *kharif*, *rabi* and summer seasons. The break-up of the data showed that major *kharif* crop was maize which was considered to be on an average area of 2.85 hectare per farm occupying 90.18 per cent of area. Whereas, wheat was the main *rabi* crop which accounted on an average area of 1.90 hectare per farm *i.e.*, 74.21 per cent to total *rabi* area. The next important crop was groundnut which was mostly grown under summer season in semi irrigated and rainfed conditions. Groundnut attributed on an average area of 0.80 hectare per farm *i.e.*, 60.15 per cent of summer crop area. The remaining cultivated crops which were grown under *kharif*, *rabi* and summer area observed very nominal distribution and hence was not considered for the study.

### Repayment capacity of the borrowers

Now days, the agriculture has become capital intensive due to standpoint with business. On the other hand, the farmers are capital starved necessitating the institutional agencies to provide the needed capital base through credit in Gujarat. In view of the bankers, when a farmer approaches an institutional agency with a proposal for loan, the banker wants to become convinced about the economic viability of the farmer and one of the important tools for it is repayment capacity. The simple means of repayment capacity is the ability of the farmers to clear off the loan obtained for production purpose within the time fixed by the bank. The loan amount should be productive enough to generate additional income to the borrowers. It should be concluded that credit should have the potential for effecting repayment not only it should be profitable. Taking this in consideration, the repayment capacity of borrowers under study have been calculated and indicated in Table 11.

**Table 11:** Repayment capacity of borrower's crop loan lent for maize, wheat and groundnut production

Sr. No.	Particular	Amount (₹/farm)
1	Gross returns	2,36,426
2	Variable cost (excluding loan)	44,862
3	Family living expenses	48,000
4	Other loans due	2,137
5	Miscellaneous expenditure	3,190
6	Loan taken	1,03,034
7	Repayment capacity	35,203

It is evaluated from the data that the farmers have generated gross return of ₹ 2, 36, 426 per farm in production of maize, wheat and groundnut. The farmer (credit need) took loan with ₹ 1, 03, 034 per farm for the same purpose. After clearing the loan which indicates his credit worthiness the repayment capacity stood at ₹ 35,203.

**Table 12:** Reasons for repayment of loan.

Sr. No.	Particular	Rank
1	Timely availability of credit	I
2	Avoiding indebtedness	II
3	Avoiding misutilization of loan	III
4	Shortage of credit	IV
5	Maintain social reputation	V

The study revealed that maximum number of borrowers gave rank I for timely availability of credit. Followed by rank II for avoiding indebtedness. Followed by rank III for avoiding misutilization of loan then after gave rank IV and V for shortage of credit and to maintain social reputation.

### Conclusions

- The *kharif* crops were dominant over operated area in land use pattern. The area under *kharif* crops was found to be 3.16 hectare per farm with magnitude of 96.93 per cent of operated area. Due to low irrigation facility with borrowers the *rabi* crop was totally dependent upon availability of irrigation area and it occupied 2.56 hectare per farm which was 78.52 per cent of total operated area and the area under summer crop was found to be 1.33 ha per farm which was 40.79 per cent of total operated area.
- The break-up of data revealed that maize was the main *kharif* crop which accounted average area of 2.85 hectare per farm with 90.18 per cent of *kharif* crop area. While, main *rabi* crop was wheat which accounted average area of 1.90 hectare per farm and *i.e.*, 74.21 per cent in total *rabi* area. Groundnut was the next important summer crop which was mostly grown in semi irrigated and irrigated conditions which accounted average area of 0.80 hectare per farm and 60.15 per cent in total summer area. The remaining *kharif* and *rabi* areas recorded very minimum area and was distributed among several other crops. Therefore, those crops were not considered for study.
- It is obvious from the data that the farmers generated gross return of ₹ 2, 36, 426 per farm in production of maize, wheat and groundnut. For the same purpose the loan taken by farmer (credit need) was ₹ 1, 03, 034 per farm. In consequence his repayment capacity stood at ₹ 35,203 after clearing the loan which indicates his credit worthiness.

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