

ROLE OF BANKING SECTOR IN RURAL ECONOMIC DEVELOPMENT

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AN ASSESSMENT OF THE IMPACT OF KISAN CREDIT CARD ON FINANCIAL INCLUSION

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Agricultural credit is a crucial input for increasing agricultural production and productivity. Indian agriculture has undergone a rapid technological revolution during the past three decades with the adoption of new agricultural technology, the demand for farm credit has increased manifold. Credit acts as facilitator and it performs the important function of providing the farmers with the requisite control over resources affecting production.

Credit inaccessibility is posing a constraint in achieving inclusive growth in agriculture. While the large farmers had easy access to credit, small and marginal farmers face difficulty in obtaining necessary credit. The small and marginal farmers constitute 80 percent of the operational holdings and cultivate nearly 36 percent of the area in India. Due to their small holdings, they are disadvantaged with respect to their access to technology, capital, credit and other institutional support. (Siddiqui and Gill, 2006).

Financial sector reforms, ushered in as a part of the liberalization of the Indian economy in the beginning of nineties, has infused a spirit of competitiveness and enterprise among the banks in the endeavor for serving their customers in the best possible manner. National Bank for Agriculture and Rural Development (NABARD) has been playing a proactive and catalytic role in guiding the banks to meet the emerging challenges. Towards this end, several innovative strategies have been evolved by NABARD. The instrument of Kisan Credit Cards (KCC) is one of the key products developed to improve the farmer's accessibility to bank credit, simplify credit delivery mechanism and provide more flexibility in use of credit. Model scheme of KCC formulated by NABARD in 1998-99 is being implemented in all the States and Union territories.

As a pioneering credit delivery innovation, kisan credit card scheme aims at provision of adequate and timely support from the banking system to the farmers for their cultivation needs including purchase of inputs in a flexible, hassle free and cost effective manner. The scheme has been implemented by 27 commercial banks, 378 cooperative banks and 196 regional rural banks throughout the country. About 1.94 crore KCCs have been issued upto 31 October 2001 by the banks throughout the country.

Kisan credit card system provides various benefits to the farmers

1. It simplifies the disbursement procedures.
2. It assures availability of credit at any time enabling reduced interest burden for the farmers.
3. No need to apply for loan for every crop.

4. It provides credit facility for three years and there is no need for seasonal appraisal.
5. Maximum credit limit is based on the farm income.
6. It allows any of number of withdrawals subject to credit limit.
7. It removes rigidity regarding cash and kind.
8. It helps to buy seeds, fertilizers at farmer's convenience and choice.
9. Farmers can repay the loan after harvest. (Business Line, 2007).

In India some research studies Jamuna Rani (2010), Anjani kumar et al (2007) and Gupta Mishra et al (2007) were decided of availing the factors influencing the adopting Kisan Credit Card (kcc). But there had been fewer attempts formulated in analysing the impact of kisan credit card on financial inclusion. Hence the current study on 'An assessment of the impact of kisan credit card on financial inclusion' was formulated with following objectives.

1. To find out the socio economic profile of selected farmers.
2. To identify the factors influencing the use of kisan credit cards and
3. To find out the disparity in credit accessibility between small and large farmers for kcc and non kcc holders.

Methodology

The present study is related to Sultur block in Coimbatore district. The block is selected due to easy accessibility. The study adopts multi stage stratified random samplings. Sultur block has 23 villages. Of these villages, the study is confined to Semmandapalayam and Kangeyampalayam villages based on the availability of transport facilities. In the third stage, the list of borrowers was obtained from Indian Overseas Bank located in Sultur. From the list, 63 kisan credit card holders and 62 non kisan credit card holders were selected. The required data for the study were obtained from the respondents by administering an interview schedule. The study applied the following quantitative tools.

Tools applied

8. Theils inequality index

The value of the index varies from 0 to 1. The Theils index formula used in the study was

$$\text{Theil's inequality index} = \text{Log } N - \sum [x_i (\log 1/x_i)]$$

Where $x_i = X_i / \sum X_i$ and $N = \text{Number of observations}$

9. Logistic regression analysis

To identify the factors determining kcc adoption, logistic regression analysis was employed. The following form of the logistic regression equation was estimate.

$$Y = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5$$

$Y = 1$ if the farmer adopts $Y = 0$ if the farmer does not adopt kcc

X1 = Age of the farmer (in years)

X2= Educational status of the farmer (Illiterate = 1, Primary = 2, Secondary = 3, Higher secondary = 4 and Collegiate = 5)

X3=Type of the family (Joint =1, Nuclear = 2)

X4= Size of the family (in number)

X5= Area under cultivation (in acres)

Findings of the study

A) Socio economic profile of the selected farmers

The socio economic profile of the farm households is related to age structure, educational composition, type of family, size of family. Since kisan credit card is an innovative banking product introduced only in 1998-99, the young farmers tried to use the kisan credit card to a greater extent. Hence there is a link between the age of the farmers and the use of kisan credit card. Table -1 represents distribution of the age group of the farmers.

Table 1

Distribution of the age group of the farmers

Age (in year)	Kcc farmers	Non kcc farmers	Total
Below 30	0	2	2
Percentage	0	3.22	1.6
30-40	6	3	9
Percentage	9.52	4.84	7.2
40-50	26	28	54
Percentage	41.27	45.16	43.2
50-60	22	23	45
Percentage	34.92	37.1	36
60 & above	9	6	15
Percentage	14.29	9.68	12
Total	63	62	125

Source: Field survey 2010.

In the selected block, more than 40 percent of kcc and non kcc holders represented the age group of 40-50 years.

Since the educational status of the farmers have bearing on the use of kcc, the current study tried to find out the educational status of kcc and non kcc groups of farmers. Table 2 presents the educational composition of the farmers.

Table 2

Educational status of the selected farmers

Educational level	Kcc farmers	Non kcc farmers	Total
Illiterate	11	16	27
	-17.46	-25.81	-21.6
Primary education	33	25	58
	-52.38	-40.32	-46.4
Secondary education	18	19	37
	-28.57	-30.65	-29.6
Higher secondary education	1	1	2
	-1.59	-1.61	-1.6
Collegiate education	0	1	1
	0	-1.61	-0.8
Total	63	62	125

Source: Field survey 2010.

Figures in parenthesis indicates percentage to total. In Sulur block majority of the farmers (46.40 percent) had completed only primary education. While 17.46 percent of kcc farmers were illiterate 25.81 percent of non kcc farmers were illiterate.

As the process of cultivation involves the use of family labour to a great extent, it is essentially to find out the type of family for kcc and non kcc farmers.

Table 3
Type of family

Type of family	Kcc farmers	Non kcc farmers	Total
Joint	43	32	75
	-68.25	-51.61	-60
Nuclear	20	30	50
	-31.75	-48.39	-40
Total	63	62	125

Source: Field survey 2010.

Figures in parenthesis indicates percentage to total

In Sulur block majority of kcc farmers (68.25 percent) and non kcc farmers (51.61 percent) were belonging to joint family. Table 4 brings out the size of family pertaining to respondents.

Table 4
Size of the family

Size of the family	Kcc farmers	Non kcc farmers	Total
Up to 4	3	31	34
	-4.76	-50	-27.2
4 to 6	49	25	74
	-77.78	-40.32	-59.2
6 and above	11	6	17
	-17.46	-9.68	-13.6
Total	63	62	125

Source: Field survey 2010.

Figures in parenthesis indicates percentage to total

In this block of the selected households, 59.2 percent were medium sized.

B). Factors influencing the use of kisan credit card

Age of the farmer, educational status of the farmer, family size, type of family, area under cultivation were assumed to determine the kcc adoption. To identify the determinants of adoption of kcc, logistic regression was estimated by using the above set of factors. The estimated results of logistic regression analysis is given in Table 5

Table 5

Estimated Logistic co-efficients of kcc adoption related to the selected variables

Variables	Logistic co-efficients	Wald
Constant	-5.705	4.898
Age	0.016	0.2751
Education	0.846	10.218
Family size	0.089	0.04
Family type	0.09	0.033
Area under cultivation	0.097	1.887

The above estimated logistic regression equation reveals that the educational status of the farmer was found out to be the significant factor determining the kcc adoption. If the education of the farmers improved, the kcc adoption had also been improved. Other factors were found to be statistically insignificant. The Wald estimation for overall model was 6.348 and this indicated better fit of the model. The overall model was statistically significant at 5 percent level.

C) Details about cropping pattern and farm productivity

In the selected block, the major crops cultivated are coconut and Cholan. Table 6 brings out the details on cropping pattern and farm productivity respectively.

Table 6

Details of Cropping pattern for kcc and non kcc farmers

S.no	Name of the crop	Kcc farmers	Non kcc farmers
	Coconut		
1	1-5 acres	6	21
2	5-10 acres	28	17
3	Above 10 acres	20	6
	Total	54	44
	Average	9.78	6.39
	Cholam		
1	1-5 acres	8	10
2	5-10 acres	15	3
3	Above 10 acres	1	0
	Total	24	13
	Average	6.33	4.08

There exists difference in the area under cultivation of different crops for kcc and non kcc farmers. The average area under cultivation of coconut for kcc farmers (9.78 acres) was higher than that of non kcc farmers (6.39 acres). Similarly while on an average kcc farmers allot 6.33 acres for cultivating cholam the non kcc farmers had 4.08 acres for cultivating cholam.

Table 7

Details of farm productivity for the kcc and non kcc farmers

S.no	Farm productivity	Kcc farmers	Non kcc farmers
	Coconut (in number)		
1	Below 1000	2	0
2	1000-40000	6	14
3	4000-8000	27	19
	8000 & above	20	11
	Total	55	44
	Average	6509	5636
	Cholam (in quintals)		
1	Below 25	4	4
2	25-75	18	8
3	75 and above	2	1
	Total	24	13
	Average	47.92	42.31

While the average productivity of coconut was 6509 for kcc farmers, it was 5636 for non kcc farmers. Similarly the average productivity of cholam was higher for kcc farmers 47.92 quintals as compared to non kcc farmers 42.31 quintals.

D) Impact of kisan credit card on financial inclusion

The basic objective of kcc is to make credit accessible to all the categories of farmers. As such, the current study tried to find out whether kcc has brought about financial inclusion. Table 8 represents per acre credit obtained by the selected kcc and non kcc farmers.

Table 8

Credit accessibility and credit gap of kcc and non kcc farmers (in rupees)

Type of farmers	Demand		Supply		Credit gap	
	Kcc farmers	Non kcc farmers	Kcc farmers	Non kcc farmers	Kcc farmers	Non kcc farmers
Marginal	14607	12704	8678	8338	5929	4366
Small	11052	13085	7715	9489	3338	3596
Semi medium	12857	12500	9952	10833	2905	1667
Medium	8117	13173	6483	9338	1635	3835
Large	6926	15186	5282	10702	1644	4484

Source: Field survey 2010.

Figures in parenthesis indicates percentage to total

In Sulur block, among marginal farmers, the kcc holders availed an amount of crop loan of Rs. 8678 while the non kcc holders and availed only Rs. 8338 per acre. It shows that the kcc holders had availed higher amount of crop loan than the non kcc holders. But among other groups of farmers, the non kcc holders had availed higher amount of crop loan than the kcc holders. This implies the issue of kisan credit card failed to bring about inclusive growth in this block.

Among the kisan card holders, the marginal farmers demanded per acre crop loan of Rs. 14607, small farmers Rs. 11052, semi medium farmers Rs. 12857, medium farmers Rs. 8117 and large farmers Rs.6926. In case of kcc and non kcc holders, the marginal farmers demanded Rs. 12704, small farmers Rs. 13085, semi medium farmers Rs. 12500, medium farmers Rs. 13173 and large farmers Rs. 15186 per acre. It shows that among marginal farmers, semi medium and large farmers, the kcc holders had higher demand for crop loan than the non holders of kcc.

Credit gap is the excess of demand over availability of crop loan and it indicates the inaccessibility of credit. In sulur block, in case of marginal farmers, the amount of credit gap was Rs. 5929 for kcc holders while it was Rs. 4366 for non kcc holders. For remaining categories of farmers except semi medium farmers, higher amount of credit gap was found among non kcc holders than the kcc holders. As such, in the Sulur block, the issue of kcc had reduced the credit gap and credit inaccessibility of farmers.

By using Theils inequality index, the current study tried to find out the disparity in credit accessibility for kcc and non kcc farmers. The calculated Theils inequality index for kcc farmers (0.0233) was higher than the non kcc farmers (0.00458).

Conclusion

Educational level of the farmers is a significant determinant of the use of kisan credit card and Kisan credit card has benefited large farmers to a greater extent and has not brought about financial inclusion.

Recommendation

The farmers need to be educated about the use of kisan credit card

The maximum limit of loan for kcc farmers can be raised to Rs. 1, 00,000. and

Since the use of kcc is based on credit worthiness of the borrowers, efforts need to be made to improve the credit worthiness of the farmers.

Bibliography

1. Anjani kumar, Dhiraj Singh and Prabhat kumar (2007), "Performance of Rural Credit and Factors Affecting the Choice of Credit Sources, Indian Journal of Agricultural Economics, Vol.62, No.3, July – September, pp. 297-312.
2. Gupta ,Mishra et al (2007), "Flow of Credit to Small and Marginal Farmers in Mandasaur District of Madhya Pradesh, Indian Journal of Agricultural Economics, Vol.62, No.3, July – September, pp.370.
3. Jamuna Rani. N (2010), "User Expectations about Kisan Credit Card Scheme in PACBs", Southern Economist, January, pp.13-14.
4. Sidhu R.S. and Sucha Singh Gill (2006) "Agricultural Credit and Indebtedness in India: Some Issues", Indian Journal of Agricultural Economics, Vol.61, No.1, pp.11-35.
5. Umesh K.B. (2000), "Institutional credit to agriculture present status and future challenges", Financing Agriculture, Vol:32, No.3,pp. 12-16.
6. Yadav Subah Singh (2008), "Doubling the Credit Flow to Agriculture in Rajasthan", A National Journal of Agriculture and Rural Development, Vo.10, No.2, pp.24-25.
7. Report Annual credit plan, 2009-2010, (2010), Coimbatore district, Lead Bank, Canara Bank, Coimbatore.
8. Expert committee Report (2010), NABARD, Bombay.