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Research Note

Efficiency of Kisan Credit Card (KCC) Scheme in Karnataka: A Comparative Study of Commercial and Co-operative Banks§

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Abstract

To provide timely and adequate credit to the farmers in a cost-effective and flexible manner, the Kisan Credit Card (KCC) Scheme was introduced in 1998-99. The present study has analysed the efficiency of KCC scheme in the Bellary district of Karnataka among the designated financial institutions. The efficiency of KCC scheme has been estimated by two approaches: (i) cost of credit approach, and (ii) number of KCC cards renewed. The study has revealed that the cost as percentage of loan amount was higher in borrowing from commercial banks (8.54%) than from co-operative banks (2.81%). There is not much difference in the number of KCCs renewed and the percentage of recovered amount in both the financial institutions.

Key words: KCC, cost of credit, efficiency of credit, number of KCCs renewed, farm credit

JEL Classification: Q14, Q16, Q13

Introduction

The 12th Five-Year Plan seeks to achieve 4 per cent growth in the agricultural sector through development of new technologies. The introduction of new technologies has led to intensive use of inputs resulting in manifold increase in the requirement of credit. To address the credit needs of resource-poor farmers, the Government of India introduced Kisan Credit Card (KCC) Scheme in August 1998 with the objective of providing timely and adequate credit to the farmers in a cost-effective and flexible manner. Three agencies enstrusted to implement the KCC Scheme were commercial banks, cooperative banks and regional rural banks (RRBs). Among these three agencies, the commercial banks have issued highest KCCs (45.33%), followed by cooperative banks (40.30%) and RRBs (14.37%) up to March 2012. Among these states, Uttar Pradesh, Maharashtra and Andhra Pradesh are leading in the issue of KCCs. In Karnataka, the KCC Scheme is being implemented by all the three agencies since its inception and it stood 7th in the issuance of KCCs as at the end of March 2012. With this background, the present study was taken up with the objective of assessing the efficiency KCC scheme among the implementing institutions.

Data and Methodology

The study was conducted in the Bellary district wherein the density of KCCs distribution per operational holding was found to be highest among the districts of the north-east Karnataka region. From

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the district selected, 10 commercial and 10 cooperative (Primary Agricultural Cooperative Society) banks were selected based on the number of KCCs distribution. From the selected banks, top three branches each of commercial banks (SBI Sirguppa, SBI Sirgeri and SBI Kamalapur) and co-operative banks (PACS Sirguppa, PACS Sirgeri and PACS Kamalapur) were identified for selection of KCC card holders. From each seleceted bank branch, 30 farmers representing small and large categories were selected making the sample size of 180 farmers. For the study both primary and secondary data were used. The primary data relating to borrowing, repayments, interest cost of borrowing and non-interest costs were collected from 90 KCC holders of commercial banks and co-operative banks. The secondary data related to the number of KCCs issued, amount sanctioned, scale of finance for different crops and interest rate were collected from the concerned bank officers.

Analytical Techniques

To analyze the determinants and their influence on the performance of KCC scheme, the ordinary least square model was applied. To work out the efficiency of KCC scheme, data related to number of KCC issued and number of KCC renewed per branch were collected from 10 commercial bank branches and 10 co-operative bank branches. The tabular analysis was carried out to estimate the percentage share of transaction cost, interest cost, total cost of credit and recovery per cent.

Results and Discussion

The efficiency of KCC scheme was estimated by adopting two approaches, viz. cost of credit approach and number of KCC cards renewed in the particular year.

Cost of Credit

For calculating cost of credit, interest cost and transaction/non-interest cost (travel, documentation, contract, etc.) were taken into account. The interest cost was calculated based on the interest rate charged by different financial institutions and data are presented in Table 1. The average amount borrowed per farmer in the case of commercial banks varied from ₹ 1,10,587 (small farmers) to ₹ 2,51,830 (large farmers). In the case of co-operative banks, the credit range was found to be lower (₹ 55,971 for small farmers and ₹ 1,36.289 for large farmers) than the commercial banks. The overall interest cost for the commercial bank was higher 7.76 per cent (₹ 14,068) than these of co-operative banks, 1.22 per cent (₹ 1,168). The interest rate was lower in co-operative banks because of the state policy of providing subsidized credit to farmers through co-operative banks.

Different components of transaction cost, viz. travel, documentation, information, enforcement and contract are presented in Table 2. There was little variation among the category of farmers, but the variation was higher across the institutions. The average travel cost worked out to be higher for a commercial bank borrower (₹ 69.79) than for a co-operative bank borrower (₹ 29.10) as almost all villages have co-operative banks and commercial banks operate for a cluster of villages. Though travel cost was found less for a co-operative bank borrower, the average number of visits were more (4.33) compared to a commercial bank borrower (2.49).

In the case of documentation cost, the scenario was different. This cost was found to be almost 2.5 - times higher for a co-operative bank borrower (₹ 872) than a commercial bank borrower (₹ 355) due to the

Table 1. Interest cost of credit incurred by different categories of farmers

Particulars	Commercial banks			Co-operative banks		
	Small farmers (N*=45)	Large farmers (N*=45)	All farmers	Small farmers (N*=45)	Large farmers (N*=45)	All farmers
Average amount borrowed (₹)	1,10,587	2,51,830	1,81,209	55,971	1,36,289	96,130
Average interest cost (₹)	7,576	20,559	14,068	454	1,881	1,168
	(6.85)	(8.16)	(7.76)	(0.81)	(1.38)	(1.22)

Note: Figures within the parentheses indicate interest cost as per cent of amount borrowed.
*N is number of sample respondents in respective categories of farmers

Table 2. Components of transaction cost incurred by different categories of farmers in Karnataka

Sl. No.	Particulars	Commercial banks			Co-operative banks		
		Small farmers (N*=45)	Large farmers (N*=45)	All farmers	Small farmers (N*=45)	Large farmers (N*=45)	All farmers
1	Average amountborrowed (₹)	1,10,587	2,51,830	1,81,209	55,971	1,36,289	96,130
2	**Travel cost**						
	Average visits made (No.)	2.5	2.5	2.5	4.5	4.1	4.3
	Cost per visit (₹)	27	33	28	7	7	7
	Sub-total (₹)	69	80	70	30	29	30
3	**Documentation cost**						
	Cost of photo (₹)	8	8	8	8	8	8
	No dues certificate charges (₹)	248	256	252	370	390	380
	Membership fee (₹)	0	0	0	417	417	417
	Cost of record (Pani) (₹)	35	35	35	35	35	35
	Miscellaneous cost (Stationery) (₹)	54	67	60	29	35	32
	Sub-total	345	366	356	859	885	872
4	**Enforcement cost (₹)**	382	376	360	129	123	136
5	**Contractual cost**						
	Mortgage deed cost (₹)	526	538	532	411	433	422
	Expenses on food (₹)	84	86	85	54	94	74
	Contractual cost (₹)	610	624	617	465	527	496
Total transaction cost (₹)		1,406	1,446	1,403	1,483	1,564	1,534
		(1.27)	(0.57)	(0.77)	(2.65)	(1.15)	(1.59)

Note: Figures within the parentheses indicate transaction cost as per cent of amount borrowed

membership fee in the co-operative banks. The enforcement and contractual cost were higher for commercial bank borrowers than co-operative bank borrowers. None of the borrower incurred any cost on getting information about KCC scheme.

Table 3 presents details about transaction cost incurred by farmers in getting credit from commercial and cooperative banks. The percentage of the total transaction cost to loan amount borrowed was moderately higher in case of co-operative banks (1.59%, ₹ 1533) than commercial banks (0.77%, ₹ 1401). It was due to the fact that the overall average loan amount was less by co-operative (₹ 96,130) than commercial (₹ 1,81,209) banks.

In both, commercial as well as cooperative banks, the percentage of the transaction cost of credit to loan amount borrowed was little higher in the case of small (1.27% and 2.65%, respectively) than large (0.57% and 1.15%, respectively) farmers. The transaction cost was higher in co-operative than commercial banks because of two reasons, viz the additional cost of membership fee charged by the co-operatives banks and the higher amount charged by the cooperative banks to issue no dues certificate. The percentage of transaction cost to per acre loan amount was higher in small than large farmers because the number of documents required to get loan was the same irrespective of the loan amount. So, it was noticed that as size of the farm increased, the total transaction cost in absolute value also increased, but in terms of percentage of the total amount, it decreased. Similar observations were made by Sajane *et al*. (2011) who reported that the percentage of the total non-interest cost of credit in loan amount was slightly higher in small farmers as compared to medium and large farmers in both the KCC and non-KCC categories.

The total cost of credit, presented in Table 4, was higher in small than in large farmers in both commercial and cooperative banks. The overall total cost as a

Table 3. Transaction cost incurred by different categories of farmers in Karnataka

Particulars	Commercial bank			Co-operative bank		
	Small farmers (N*=45)	Large farmers (N*=45)	All farmers	Small farmers (N*=45)	Large farmers (N*=45)	All farmers
Average amountborrowed (₹)	1,10,587	2,51,830	1,81,209	55,971	1,36,289	96,130
Travel cost (₹)	69	81	70	30	28	29
	(0.06)	(0.03)	(0.04)	(0.05)	(0.02)	(0.03)
Documentation cost (₹)	344	365	355	859	885	872
	(0.31)	(0.15)	(0.20)	(1.53)	(0.65)	(0.91)
Enforcement cost (₹)	382	376	360	128	123	136
	(0.35)	(0.15)	(0.20)	(0.23)	(0.09)	(0.14)
Contractual cost (₹)	610	624	617	465	526	496
	(0.55)	(0.25)	(0.34)	(0.83)	(0.39)	(0.52)
Total transaction cost (₹)	1,406	1,446	1,402	1,483	1,563	1,533
	(1.27)	(0.57)	(0.77)	(2.65)	(1.15)	(1.59)

Note: Figures within the parentheses indicate per cent of amount borrowed

Table 4. Total cost of credit incurred by different categories of farmers

Particulars	Commercial bank			Co-operative bank		
	Small farmers (N*=45)	Large farmers (N*=45)	All farmers	Small farmers (N*=45)	Large farmers (N*=45)	All farmers
Average amount borrowed (₹)	1,10,587	2,51,830	1,81,209	55,971	1,36,289	96,130
Interest cost (₹)	7576	20559	14,068	454	1881	1168
Transaction cost (₹)	1,406	1,446	1,402	1483	1,563	1,533
Total cost (₹)	8,982	22,005	15,470	1,937	3,444	2,701
	(8.12)	(8.74)	(8.54)	(3.46)	(2.53)	(2.81)

Note: Figures within the parentheses indicate total cost as per cent of amount borrowed

percentage of borrowed amount was higher in commercial bank borrowing (8.54%) as compared to co-operative bank borrowing (2.81%). It was because of interest on loan amount being higher in commercial banks as compared to cooperative banks. This indicated that for borrowing one hundred rupees, a borrower had to incur ₹ 8.54 in case of commercial banks and ₹ 2.81 in case of co-operative banks. This clearly indicates that the efficiency of KCC scheme is higher in the case of cooperative banks as compared to commercial banks. Singh *et al*. (2009) have also observed that the cost of credit was more from commercial banks (5%) than co-operative banks (1.2%).

Renewal of KCCs

To find the efficiency of KCC scheme, the number of KCCs issued and the number of KCCs renewed per bank branch were taken into account. Table 5 presents the efficiency of KCC scheme based on renewal of KCCs in the study area from 2005-06 to 2008-09. The number of cards issued per branch was 7947 and the total number of cards renewed was 7941 in a commercial bank. The corresponding number of cards issued and renewed was 12363 and 12362, respectively in a co-operative bank. More than 95 per cent renewal of KCCs in both the financial institutions is an indication of popularity of KCCs in the farming

Table 5. Number of KCCs renewed in the Bellary district of Karnataka, 2005-06 to 2008-09

Year	Commercial banks (N=10*)			Co-operative banks (N=10*)		
	No. of KCCs issued	No. of KCCs renewed	Percentage KCCs renewed	No. of KCCs issued	No. of KCCs renewed	Percentage KCCs renewed
2005-06	120	—	—	1894	—	—
2006-07	534	—	—	3407	—	—
2007-08	4394	—	—	3292	—	—
2008-09	2899	119	99.17	3770	1893	99.95
2009-10	4598	532	99.63	4475	3407	100.00
2010-11	6536	4392	99.95	3969	3292	100.00
2011-12	5094	2898	99.97	3536	3770	100.00
2005-06to2008-09	7947	7941	99.92	12363	12362	99.99

*The data collected from 10 branches of commercial and cooperative bank in study area

Table 6. Utility of KCC scheme to financial institutions

Particulars	Co-operative banks (N=10*)		Commercial banks (N=10*)	
	Frequency	%	Frequency	%
Transaction cost of banks reduced in KCC scheme	8	80.0	9	90.0
Time saving in processing and verification of documents	9	90.0	10	100.0
Saving in manpower	7	70.0	8	80.0
Increase in staff efficiency	6	60.0	5	50.0
Client-Bank relation increased	6	60.0	9	90.0
Recovery of loan in KCC scheme				
Less than 80%	0	0.0	6	60.0
80-95%	8	80.0	2	20.0
More than 95%	2	20.0	2	20.0

*The data collected from 10 branches of commercial and cooperative banks in study area

community and also shows the high efficiency of KCCs.

Utility of KCC Scheme

The perceptions of officials of both the financial institutions were also taken into account to find the efficiency of KCC scheme (Table 6). The officials of both the banks responded positively on the benefits of the KCC scheme to financial institutions. There was a reduction in transaction cost of banks and saving in time in processing of documents as expressed by 90 per cent and 100 per cent of officials in a commercial bank, respectively. Similarly, 80 per cent of cooperative bank officials reported was reduction in transaction cost and 90 per cent expressed saving in time in processing of documents. The recovery percentage in KCC scheme was found higher in both the financial institutions, through it was slightly more in co-operative banks than in commercial banks. It might be due to the subsidy subvention scheme attached with cooperative banks, which leads to a reduced rate of interest on loan.

Factors Behind Better Performances of KCC Scheme in Financial Institutions

The regression results presented in Table 7, depict the factors behind better performance of KCC Scheme in financial institutions. In the case of commercial banks, the factors like family size, land size and membership to VSS were positively significant, whereas age and education were negatively significant.

Table 7. Factors behind the better performance of KCC scheme in financial institutions

Particulars	Commercial bank KCC holders		Co-operative bank KCC holders	
	Coefficients	t-stat	Coefficients	t-stat
Intercept	10.46*	17.81	9.95*	7.53
	(0.59)		(1.32)	
Age	-0.04**	-0.27	0.03**	0.08
	(0.15)		(0.35)	
Education	-0.03**	-0.81	0.09**	1.08
	(0.04)		(0.08)	
Family size	0.11**	1.23	-0.29**	-1.63
	(0.09)		(0.18)	
Land size	0.78*	14.19	0.98*	9.16
	(0.06)		(0.11)	
Membership#	0.05**	1.41	—	—
	(0.04)			
R^2	0.79		0.52	
Adjusted R^2	0.77		0.48	

Note: Figures within the parentheses indicate the respective standard errors
#Membership to Vevasaya Sangh (farmers group)

The regression coefficient of commercial bank KCC holders showed that one year increase in the age of farmers would lead to 0.4 per cent decrease in loan amount under KCC scheme. Similarly, one per cent increase in education of farmers would lead to 0.3 per cent decrease in loan amount under KCC scheme.

In the case of cooperative bank KCC holders, the regression results are opposite to that of commercial bank KCC holders. The age, education and land size were found positively significant, whereas family size was negatively significant. The regression coefficients of cooperative bank KCC holders show that one per cent increase in education of farmers would lead to 0.9 per cent increase in the loan amount. The regression coefficient of land size has shown a positive significance in both the financial institutions. It indicates that one per cent increase in land size would lead to an increase in loan amount by about 7.8 per cent in commercial banks and 9.8 per cent in cooperative banks borrowed under KCC scheme. Based on these results, we may conclude that the performance of KCC scheme was better in cooperative banks than in commercial banks.

Conclusions and Policy Implications

For sustainable development of agriculture, credit is a crucial input but access of resource-poor farmers to credit is limited. Hence, the Government of India has taken several steps to increase the flow of credit to the agricultural sector. One such measure was introduction of KCC scheme in the year 1998. This paper has evaluated the efficiency of KCC scheme in Karnataka. The study has revealed that the cost as percentage of loan amount was higher in borrowing from commercial banks than from co-operative banks. The number of KCCs renewed and recovery percentage of KCC loan was found to be slightly higher in co-operative banks as compared to commercial banks. It indicated that the efficiency of KCC scheme was higher in the case of cooperative banks than commercial banks. It was due to lower cost of credit and marginally higher renewal of KCCs. The study has also revealed that the recovery percentage was slightly higher in co-operative banks than in commercial banks. It could be due to the subsidy subvention scheme attached with co-operative banks.

Policy Implications

Although the efficiency of KCC scheme has been found higher in cooperative banks, the loan amount was lower than by commercial banks in absolute value and even less than the scale of finance fixed by the district level technical committee. It may due to weak resource position of cooperative banks which does not

allow to provide adequate loan amount to the farmers. Hence, there is a strong need to strengthen the cooperative banking system by infusing more resources.

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