



Impact of kisan credit card on rural development: An overview

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Abstract

This paper is an attempt to identify the determinants of access to the KCC program and empirically evaluate its impact on farmers' use of agricultural inputs and farm household incomes in India. It is also examined whether the possession of KCC reduces the farmer's dependence for borrowing on moneylenders. The study uses a large survey of rural/farming households in Uttar Pradesh. Findings reveal that access to KCC is strongly associated with the socioeconomic and demographic characteristic of farming households. We find that access to KCC increases farmers' use of the agricultural inputs and households and farm income especially for marginal and small farmers. Finally, access to KCC reduces farmer's dependency on moneylenders for borrowing credits by 30 percent.

Keywords: KCC, farmers, households, agricultural inputs, moneylenders, borrowings etc

Introduction

The Kisan Credit Card (KCC) scheme is a multipurpose credit card program for Indian farmers, which has provisions for crop loans, consumption credit, and term credit (GoI, 2017). The KCC scheme was introduced in 1998 to provide a single-window system of credit to the agricultural sector and to ensure that farmers have access to timely, hassle-free credit (Diwas *et al.*, 2012; Kumar *et al.*, 2011). The program also considerably reduces the amount of paperwork required to access credit. Once sanctioned, the credit card is valid for up to three to five years, subject to revision by banks. The credit limit of KCC is decided based on the cropping pattern and scale of finance as recommended by District Level Technical Committee (Mani, 2016). Though the program offers a host of benefits, data indicate that only 43% of agricultural households have an active KCC (RBI, 2018). KCC coverage is even lesser in India's eastern states, which are characterized by acute poverty and a higher dependence on agriculture (Diwas *et al.*, 2012; Kumar *et al.*, 2011). In this paper, we attempt to identify the determinants of access to the KCC program and its impact on farmers' use of agricultural inputs and farm household incomes in Eastern India. We have also examined whether the possession of KCC reduces the farmer's dependence for borrowing on moneylenders. The population of eastern India is highly dependent on agriculture as a source of income. The region is characterized by high poverty rates and small land-holding size. Due to resource constraints and limited savings, farmers often need credit to finance various agricultural operations. The time gap between investment and realization of returns also necessitates the use of credit (Aditya *et al.*, 2019; Kumar *et al.*, 2020; Giné, 2011). Though credit is not a direct agricultural input, it allows farmers to achieve an optimal level of inputs and facilitates adoption of modern technologies, and thus results in increased production and income (Akudugu, 2012; Asante-Addo *et al.*, 2017; Awunyo-Vitor *et al.*, 2014; Kumar *et al.*, 2017; 2 | Page Kumar *et al.*, 2020; Kinuthia, 2018; Narayanan, 2016; Rahman *et al.*, 2014; Tadesse, 2014;)^[10, 11, 12]. Farmers can access credit either through formal financing entities like commercial banks, cooperatives, and microfinance institutes or through informal lending agencies like moneylenders. Though formal credit is cheaper, it generally involves high transaction costs, including travel expenses associated with repeat visits to banks and subsequent opportunity costs stemming from lost wages. Thus, many farmers still depend on moneylenders as a primary source of credit (Chenaa, 2018; de Castro and Teixeira, 2012; Diwas *et al.*, 2012; Pal and Laha, 2015). In 1998, the Indian Government introduced the KCC scheme as an innovative credit delivery mechanism that would simplify the process of obtaining credit and ensure farmers had timely access to affordable financing (GoI, 2017; Kumar *et al.*, 2011; Singh and Sekhon, 2005). The KCC program bundles different types of credit into one multipurpose credit card; the credit limit comprises a crop loan (with terms that are based on the cropping pattern of the farmer), loans for post-harvest management and marketing, working capital for maintaining assets and dairy animals, consumption credit for other expenses, and term credit as needed. The program also gives farmers the option to access other financial products like crop insurance, asset insurance, and the Personal Accident Insurance Scheme (PAIS). The advantage of the KCC scheme is that it is a single-window system that addresses a wide variety of farmer credit needs and provides hassle-free credit access. A KCC also gives farmers financial flexibility. Kisan Credit Cards can be used to withdraw money at a bank branch or ATM or to make purchases from input shops via a point-of-sale (POS) machine. The crop loan component of the KCC program is also covered under the interest subvention scheme (to a ceiling of 3 lakh

rupees) and has a 12-month repayment period. Presently, the annual interest rate is 7% (on the maximum eligible amount); however, timely repayment is rewarded by a 3% interest rate reduction (GoI, 2017). Another advantage is that once the KCC is approved/issued, farmers do not need to provide any spending receipts to lenders. In other words, card usage is not 3 | Page monitored. In terms of collateral security, KCC limit up to 1 Lakh rupees, can be sanctioned by is hypothecating the crop farmer is growing without the need of additional collateral. With tie up mechanism for recovery (for example bank tie up with processor to recover the credit), banks have the discretion to sanction a credit limit up to 3 lakhs without any additional collateral. However, banks are insisting on land mortgage (mortgaging entire land which is recorded in the Land Possession Certificate (LPC)) for KCC limit above 1 Lakh rupees (Mani, 2016). Banks also have the discretionary powers to request collateral security in case of sanctioning a higher KCC limit. If the loan amount dispersed under the KCC is not repaid, banks can treat it like any other agricultural loan and recover them as per RBI guidelines. In spite of these advantages, KCC adoption still remains low, especially in the eastern part of India (GoI, 2018). Despite the importance of the KCC scheme as an innovative credit delivery channel, very few studies have attempted to explore the determinants of access to the program and its impact. Most existing literature looks at the progress of the program in terms of number of cards issued, with a focus on growth and regional issues (Diwas *et al.*, 2012; Kumar *et al.*, 2011). The few studies that do attempt to assess impact generally rely on small samples and do not use econometric methods to establish causation (Mani, 2016; Singh and Sekhon, 2005). We complement the literature by using detailed primary data from eastern India. Empirically estimating the impact of KCC access is difficult on account of self-selection and endogeneity issues, and most of the earlier studies do not account for those in their estimation strategies. In this study, we assess the determinants of access to a KCC and its impact on a number of outcomes, including amount of fertilizer used per hectare, per capita annual household income (PCAHI), farm income per hectare, and farmer dependency on moneylenders. We use rich data from farming household surveys conducted in five eastern states in India. 4 | Page The paper has two significant contributions. First, we use a detailed primary survey of 2,932 agricultural households across five eastern states to map the access of farming households to the KCC scheme and to identify the determinants of access. Primary studies on program access are important to understanding its prevalence, as secondary data on the number of cards issued are not very accurate. Secondly, we estimate the impact of KCC access on agricultural household incomes after accounting for self-selection and endogeneity. Our findings indicate that obtaining timely credit helped farmers to spend more on inputs and resulted in higher income. Results also show that farmers with access to a KCC are less dependent on moneylenders as a source of financing. Considering eastern India has the nation's highest poverty incidence, our findings on the clear income-enhancing effects of Kisan Credit Cards have important implications for poverty alleviation. Also, the Indian Government has launched a series of flagship programs for agricultural development in eastern India with stated goals that include „doubling farmers“ income“ and „Bringing Second Green Revolution to Eastern India“. The results of our study clearly demonstrate the effectiveness of the KCC scheme in particular and agricultural credit in general in increasing input use and farm income, thus advancing these objectives. The paper is organized as follows. Section 2 describes the sample data used for the study. Section 3 explains the approach and econometric models used to assess the determinants of access to KCC and the program's impact. Section 4 examines the growth and functioning of the KCC scheme in India. Section 5 discusses characteristics of KCC and non-KCC holders. Section 6 discusses the determinants of KCC access and Section 7 discusses the impact of holding a KCC as it relates to input use, farm income, household income, and dependence on moneylenders for loans. Finally, Section 8 concludes and discusses policy implications.

Agriculture sector is the mainstream of Indian economy and the most important sector of the Indian Economy. When any change in the agriculture sector- „positive or negative“- has multiple effect on the entire economy. Therefore; the sustainable development of agriculture is the most important for acceleration in the Indian economy. Agriculture development is influenced by several factors like as irrigation, market, infrastructure and credit. Out of these factors credit is crucial input for sustainable development of agriculture. Government of India has been taken several steps in context of agriculture credit. Kisan Credit Card is one of them. S. Rajamohan and K. Subha (2014). This scheme has facilitated the availability of credit in time and has simplified the procedure for availing loan from banks to a large extent (Nahatkar *et al.*, 2002). Credit is an important component in agriculture with crop loans constituting a major portion of disbursements. The Kisan Credit Card Scheme was introduced in India in 1998- 99 by then finance minister yashwant sinha. Kallur, M.S. (2005). Consequent to this NABARD has prepared a model kisan credit card scheme in consultation with the major banks on the basis of R V GUPTA Committee. Kisan credit card has emerged as a new and vital delivery mechanism to meet the credit requirements of the farmers in a suitable and hassle-free manner. The salient features of KCC are as each farmer will be sanctioned a revolving cash credit facility for meeting the expenses related to crop cultivation allowing any number of drawals and repayments within the limit. The farmer is provided with a Kisan Credit Card in the form of a passbook or an identity card cum-pass book. The KCC is not a electronic credit or debit card. The limit under KCC will cover (a) entire production credit needs for full year (on the basis of peak crop credit requirement), (b) credit for ancillary activities related to crop production and allied activities, (c) credit needs of nonfarm activities, if any and (d) certain percentage of production credit for consumption purposes. The KCC to be valid for 3 years subject to annual review by the financing bank. The KCC holder may make as any number of drawals and repayments in the account as feasible. However each drawal/disbursement to be repaid within 12 months. In case of damage to crops due to occurrence of natural calamities, conversion / re-scheduling of loans also permissible. If a farmer cultivates Kharif crop and Rabi crop

peak credit requirement will be the sum of the limits essential for the two seasons as the costs of the Rabi crop would have started much before the kharif crops are marketed. If a farmer has Kharif, Rabi and Perennial crop then the peak credit requirement will be arrived on the basis of the projected cash flows from farming operations. Notified crops cultivated by the farmer with credit support under KCC shall be covered by crop insurance. Banks may make arrangement with vendors to issue input on the basis of the KCC and seek reimbursement from the bank. The sustained and rapid growth in agriculture can be achieved mainly through an increase in productivity which is only possible through provision of adequate and timely credit, on the one hand, and accelerated development and dissemination of improved technologies, on the other (Singh, A and Sihag, S. (2018) In order to produce more, the farmers need to spend more on modern inputs, which must be financed either out of savings or through borrowings. Since the amount of savings by the farmers is very poor, an increased institutional credit flow is essential for faster agricultural growth. Sharma (2006) [6] revealed that higher percentage 45.00 percent of the respondents belonged to medium annual income category. Sowjanya (2007) [8] reported that majority (57.14%) of the respondents belonged to medium income groups, while 71.42 per cent of the respondents belonged to low income category groups. Parmar (2008) [4] reported that a higher percentage of the beneficiaries (43.33%) had medium level of annual income. The net profit was 24120.11 per hectare in case of KCC beneficiaries and ` 23551.34 per hectare in case of non-KCC beneficiaries. Hooda, V.S. (2011) [1].

Materials and Methods

The following stepwise procedure has been done to carry our research Study of background information of the location Banks, branches and types of farmers (on the basis of different classification such as age group, land holding, level of literacy, family type etc.), agriculture are in the villages will be used as source of information and it will make three stages of sample selection within the selected district (Budaun). Budaun district was purposively selected for the research study due to varied climatic conditions and different crop growing farmers were available as well as having good progress in implementing KCC scheme. The problem of the area regarding KCC Selection of samples: - Primary Data The basic information regarding the KCC's collected through in-depth interview from the by the help of Branch Manager and credit manager. Secondary Data NABARD and other bank's financial reports of last three years & Circulars of RBI 3) Variables used in study: the following mentioned variables will be studied for easy classification and understanding the cause of the constraints of the KCC Age Education Family Background Family Type Size of land holdings Annual income Attitude towards KCC` Knowledge about KCC Sampling design: multistage sampling design will be used for selection of sample for study. The data will be collected with the help of pre-tested questionnaires. Processing of data editing: - to detect errors and omissions coding and tabulation categorization of data Statistical tool: Mean, mode, percentage, standard deviation, range, percentage share and growth rate. Results and Discussion From the table 1, depicted above, it was clearly found that farmers who had availed KCC obtained higher gross return, family labour income and ultimately net return in all the crops. Also in the second table productivity of the crops for KCC holders farmers was found higher as compared to non KCC farmers for all categories of farmers i.e. small (2 hectares). In table 3 also the similar trend was observed. Here we have combined our sampling observations on all categories of farmers for both KCC and non KCC farmers.

Table 1: Returns over costs for KCC beneficiary and non KCC farmers in Budaun

Particulars	Small farmers	Medium farmers	Large farmers	Total
Beneficiary Farmer				
Area	90	90	90	270
Productivity	19.51	19.97	20.6	20.2
Non-Beneficiary Farmer				
Area	90	90	90	270
Productivity	17.8	19.16	19.4	18.82
% Change in productivity	9.61	9.97	6.19	8.59

Table 2: Impact of Kisan Credit Card Scheme on Agricultural Production and Productivity of Wheat Crop in District Budaun

Particulars	Paddy		Maize		Wheat		Potato	
	KCC HOLDER	NON KCC HOLDER	KCC HOLDER	NON KCC HOLDER	KCC HOLDER	NON KCC HOLDER	KCC HOLDER	NON KCC HOLDER
Gross Returns	24020	21044	21536	19366	21986	18876	56060	44836
Family Labour Income	7516	6209	6241	5678	7244	5688	28233	15938
Net Return	8420	7158	6679	6288	7211	4218	26112	16522

Table 3: Comparison of productivity and returns before and after taking KCC

Parameters	Before taking KCC	After taking KCC
Marginal farmers (0-2.5 acres)		
Productivity (q./ha.)	40	43.5
Gross income (Rs/ha.)	5145.5	68120.40
Net income (Rs/ha.)	16302	24800
Small farmers (2.5-5 acres)		
Productivity (q./ha.)	40.2	43.7
Gross income (Rs/ha.)	51707	68433.59
Net income (Rs/ha.)	16383.51	24914.02
Large farmers (>5 acres)		
Productivity (q./ha.)	40.73	44
Gross income (Rs/ha.)	52389.47	68903.39
Net income (Rs/ha.)	16599.51	25085.05

Conclusion

The results of the study would be useful to the farmers of BUDAUN in particular and of UP WEST in general, identifying the KCC scheme progress, impact, utility, constraints at the farmer level. The findings would be helpful to the farmers for making appropriate decisions and how best the available credit resources could be judiciously utilized for increased farm income. This study would be useful for financial institutes to assess the financial needs of the farmers and their constraints in availing loans. At the micro level this study also guides the farmers to depend upon financial sources of loans rather than no institutional sources and helpful to the planners, administrators and research workers for better planning and implementation. From this research the observed data could be utilized to know the various constraints responsible for the success of the KCC the observed data will help in understanding, what are the various changes that is needed at credit institutional level for the easy availment as well as repayment of the loan. Ultimately this research will be helpful in the betterment of the farmers as a unit and country as a whole.

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