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ANALYZING THE ROLE OF THE KISAN CREDIT CARD (KCC) SCHEME IN REDUCING AGRICULTURAL INDEBTEDNESS AMONG FARMERS

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ABSTRACT

This paper studies the Kisan Credit Card (KCC) scheme and its contribution in reducing agricultural indebtedness of farmers in Jharkhand. As the awareness of rural indebtedness and farmers' dependence on informal credit sources is mounting, the KCC scheme was designed as an institutional mechanism to provide timely, affordable credit to agricultural needs. The first objective of this research is to determine if the progress of the KCC scheme has reduced farmers' debt burdens significantly. Structured questionnaires was used to collect data of 385 randomly selected farmers from the region. The SPSS was used to analyze the data and regression analysis was performed to determine the relationship between the independent variable, progress of KCC scheme and the dependent variable, agricultural indebtedness. Results showed statistically significant relationship with an R square value of 0.106 which means that the scheme explains 10.6 percent of the variance in debt levels. The impact is moderate, but it proves that institutional credit from the KCC scheme helps to reduce farmers' financial stress. The ANOVA results and regression coefficients also show that the scheme has a significant and positive effect. Finally, the KCC scheme is a good tool for rural credit needs and reducing debt but its potential can only be fully realized when other policy measures like improved market access, financial literacy and income stabilization measures are in place. Expanding and strengthening the KCC scheme and other reforms could result in outcome for farmers that are more sustainable yet, suggests the study.

Keywords: Kisan Credit Card (KCC) Scheme, Agricultural Indebtedness, Farmers, Institutional Credit

1. INTRODUCTION

Indian economy depends very much on agriculture as it is the major source of employment for a large number of people and also makes a significant contribution to the GDP of the country. Yet, Indian agriculture continues to be vulnerable with respect to low productivity, fragmented land holdings, uncontrollable weather condition and critically, the weight of agricultural indebtedness (Kumar et al, 2011). A major reason for this chronic debt cycle among farmers is the absence of institutional credit, and hence many have no other option but to turn to informal moneylenders who charge exorbitant interest rates. In this context, the Kisan Credit Card (KCC) scheme was introduced by the Government of India in 1998 to provide timely and adequate credit support to the farmers in order to reduce their dependence on informal credit sources (Namboodiri, 2005). The KCC scheme was created for the convenience of availing credit and also to ensure that the farmers get access to a flexible and hassle free loan facility at a lower interest rate (Venkatesh, 2015). The scheme has evolved over the years with features such as personal accident insurance, coverage of allied agricultural activities such as animal husbandry and fisheries and use of smart cards and debit cards for transaction.

The core of the KCC scheme is in meeting the financial requirements of farmers at different stages of cultivation from buying seeds and fertilizers, to post harvest expenses and household consumption. The scheme provides formal credit line to farmers in order to tackle them from the claws of non-institutional lenders and thus decrease the total debt of farmers. Millions of farmers across the country have been issued credit cards through cooperative banks, regional rural banks and commercial banks (Singh & Sekhon, 2005). Still, the actual effect of the scheme on reducing agricultural indebtedness is a matter of debate. Several other studies, however, indicate positive impact on availability of credit and reduction in borrowing from informal sources (Viswanath, 2007), but also indicate that procedural complexities, lack of awareness and inadequate loan limit have inhibited its effectiveness.

The purpose of this study is to critically analyze the role of Kisan Credit Card scheme in reducing the burden of agricultural debt on the farmers. The paper sets out to find whether the scheme has been implemented in the ground effectively, if it has reached the beneficiaries it was intended for and to what extent it has decreased the dependence on the high interest informal loans (Nigade & Deshmukh, 2023). Additionally, the study examines the socio-economic background of the beneficiaries to get an idea about the extent and inclusivity of the scheme (Beriya, 2020). The research attempts to learn something about the operational strengths and weaknesses of the KCC scheme and to suggest policy interventions that will improve its impact (Sharma et al., 2018). The study adds to the larger discourse on rural credit reforms and financial inclusion in the agricultural sector towards empowering the farmers and supporting sustainable agricultural practices (Gandhimathi, 2014).

2. BACKGROUND OF THE STUDY

This problem of agricultural indebtedness has been persistent for a long time in the Indian farming community. Yet, despite a range of policy measures and financial reforms that were supposed to help improve the situation of farmers, the number of farmers who are trapped in debt is still high. Lack of timely and affordable access to institutional credit is one of the main reasons why farmers are indebted and forced to borrow from informal sources like local moneylenders who charge very high interest rates. This itself deepens the debt trap, which in turn might result into financial and psychological distress of farmers (Bista et al., 2012). To solve this problem and to strengthen the rural credit delivery system, the Government of India has introduced the Kisan Credit Card (KCC) scheme in 1998-99 on the basis of the recommendations of the R.V. Gupta Committee. The main aim of this scheme was for providing short term credit to farmers for crop production and allied activities through a simplified procedure to meet their financial requirements in time and to reduce their dependence over non institutional source of credit (Chatterjee, 2019).

The KCC scheme was implemented through the network of commercial banks, cooperative banks and regional rural banks on the basis of provision of credit limits according to cropping pattern and scale of finance. During the years, the scheme has been many times revised and expanded to include various agricultural and allied activities like animal husbandry, fisheries and horticulture. It has also introduced smart cards and ATM enabled debit cards for the purpose of improving accessibility and ease of transactions for farmers. Additionally, interest subvention schemes have been introduced to further make the loan affordable. Nevertheless, the KCC scheme has not solved the core issue of agricultural indebtedness, and its effectiveness is still being debated. While the scheme has certainly enhanced access to institutional credit for many farmers, challenges such as the lack of awareness, the delays in the procedural processes, the inadequate credit limits and the exclusion of marginal and tenant farmers (Nigade et al., 2022).

In this regard, it is important to analyze how far has the Kisan Credit Card scheme been successful in its purpose of reducing agricultural indebtedness. It can also aid in understanding the real effect of the scheme at the grass root level and identify the gaps in implementation and areas where improvement is required (Das & Sharma, 2023). Thus, this study aims to examine the role of the KCC scheme in reality in reducing the debt burden of the farmers particularly in the light of replacement of informal credit by formal credit, in improving the credit utilization pattern and in contributing to the overall financial well being of the farming community (Sheela and Rajashekar, 1998). The study seeks to provide evidence based insights which can be used to help strengthen the framework of rural credit delivery by focusing on the experiences of farmers who have availed the scheme (Samantara, 2013). The background of this study ultimately stems from the objective of advancing inclusive and sustainable agricultural development by making certain that financial instruments such as the KCC are effectively reaching and benefiting those that need them the most (Sidhu & Gill, 2006).

2.1. OBJECTIVE

To analyse the role of Kisan Credit Card (KCC) scheme to reduce the agricultural indebtedness among the farmers.

HYPOTHESIS

NH. The role of Kisan Credit Card (KCC) scheme is not significant in reducing the Agricultural indebtedness among the farmers of Dhanbad district.

AH. The role of Kisan Credit Card (KCC) scheme is significant in reducing the Agricultural indebtedness among the farmers of Dhanbad district.

3. LITERATURE REVIEW

In 1998-1999, the Government of India introduced the Kisan Credit Card (KCC) to provide farmers with adequate and timely credit through a single window system with flexible procedures for short term, medium term, and long term agricultural credit needs as stated by Sharma, M. P. (2016). The KCC was designed by NABARD to help farmers in meeting their credit requirements for crop cultivation and input purchases in an efficient manner. An applicant was issued a credit card cum passbook containing the details of name, address, land holdings, borrowing limit, validity period, etc. It was a card that functioned as an identity card as well as a financial transaction tool. The credit limit was calculated on the basis of operational holding, cropping pattern and recommendations made by the DLTC and SLTC. In 1998, R.V. Gupta Committee recommended that apart from total credit needs, 20% of Peak Level Credit Requirement (PLCR) be earmarked for contingent needs to the extent of Rs. 20,000. KCC was generally valid for 5 years and would be considered as a non performing asset (NPA) if it remained inactive for two successive crop seasons.

S. Chatterjee (2015) studies the impact of the Kisan Credit Card (KCC) scheme, a major agricultural credit reform in India, which aimed at simplifying the delivery of the credit in the agricultural sector. The study applies the program to the exploitation of causal effects of the program on agricultural output, on technology adoption, and on household outcomes, using district level panel data and a household dataset. The analysis shows that the KCC scheme increased agricultural output, especially for rice which is the country's principal crop. The study also finds an increase in the use of the high yielding variety (HYV) seeds, implying that the technology seems to have been successfully taken up at a district level. Further corroborating the district level findings, increases in sales revenue and output for rice farmers at the household level also occur. The study also reveals that farm income of agrarian households has increased which shows that the KCC scheme has had a positive impact on the financial well being of poor farmers. The findings indicate that consumption patterns and borrowing behaviour have changed considerably, as is suggested by previous works on positive effects of credit relaxation. In addition, it was found that households increased bank borrowing, with higher impacts on income and production for the borrowers, which is strong evidence of the program's effectiveness in improving economic conditions for rural households and enhancing agricultural productivity.

Mishra et al. (2021) analyze the Kisan Credit Card (KCC) scheme, a unique initiative of the Indian government initiated in 1998–1999 to provide short term agricultural credit to the farmers through nationalized financial institutions. The KCC provides an opportunity for farmers to buy agricultural inputs like seeds, pesticides, fertilizers and withdraw cash, thereby increasing financial inclusion in India. The impacts of the KCC scheme are positive, but the credit growth under the scheme is quite high across districts and varies significantly. The KCC scheme is systematically evaluated in this article with respect to its role in helping agricultural credit and financial inclusion. The authors argue that credit accessibility for farmers and regions should be increased for the sake of agricultural output, debt recovery as well as the sustainable growth of credit access, and that local governments and financial institutions should create an environment that supports credit accessibility to farmers and regions. The study calls for targeted interventions to address regional disparities and rapid flow of agricultural credit to bring about the benefits of KCC scheme to all the farmers.

Kumar et al. (2023) examine the determinants of access to the Kisan Credit Card (KCC) program and the effect on farmers' use of agricultural inputs and farm household income in eastern India, focusing on Bihar, Eastern Uttar Pradesh, Jharkhand, Odisha and West Bengal. The study also looks into whether having a KCC helps farmers avoid moneylenders for borrowing. The causal effects for the study are estimated with the help of data from a large survey of rural farming households using the Coarsened Exact Matching (CEM) approach. Results suggest that farm households with greater socioeconomic and demographic characteristics have strong access to KCC. Findings demonstrate that KCC contributes to the increased use of agricultural inputs and higher farm and household incomes, more so to marginal and small farmers. In addition, through KCC access, the program reduces farmer reliance on moneylenders by 25% not only improving financial inclusion, but also supporting rural agricultural development.

Chanda (2020) critically looks at the determinants of Kisan Credit Card (KCC) lending across Indian states and districts in Bihar in 2005–2006 to 2009–2010. Introduced in 1998–1999, the KCC scheme has since become a flagship program providing short term credit to the agricultural sector with some 100 million cards issued in 2011. The study examines whether states providing more initial access to agricultural credit experienced augmented KCC lending in later periods, and finds that that did occur. It is worth noting that Bihar and other BIMARU states adopted faster than would be expected just based on recent economic growth. In Bihar, districts that lent more in KCC initially also increased the gap with other districts, but convergence was observed in the number of account holders. The study also finds no clear evidence that KCC lending has boosted state or district level agricultural productivity, the program has expanded access to credit but its direct effect on agricultural growth is unclear.

4. METHODOLOGY

The present study is a quantitative and analytical research design that is used to evaluate the role of Kisan Credit Card (KCC) scheme in reducing agricultural indebtedness among farmers in Jharkhand. The data used for the study is the primary data collected from a random sample of 385 farmers across different agricultural regions of Jharkhand. To minimize selection bias and enhance the representativeness of the findings, random sampling was adopted to ensure that all the farmers had an equal chance to be included in the sample. The respondents selected for the study are farmers who have taken up the KCC facility and are spread across the categories of small, marginal and medium landholders.

Structured questionnaires were used to collect data on respondents' demographic profile, usage and awareness of the KCC scheme, sources of credit before and after the scheme, loan repayment behavior, interest rates and indebtedness. Further specific questions that were asked in the questionnaire were to assess the perceived progress and effectiveness of the KCC scheme in terms of accessibility, ease of credit and utility in meeting farming and allied expenses. The tool was pre tested and refined before final administration to ensure clarity and consistency.

The study's independent variable is the Progress of the KCC Scheme, which consists of parameters such as awareness, accessibility, timely credit provision and satisfaction level. The dependent variable Agricultural Indebtedness is measured by amount of debt, sources of credit (formal vs. informal), interest burden, and frequency of borrowing. Regression analysis is used to examine the relationship between these variables so as to statistically determine the impact of the progress of the KCC scheme on the level of indebtedness among farmers.

Data was collected, entered, coded and analyzed by SPSS (Statistical Package for the Social Sciences). First, the demographic and credit related information of the respondents was summarized by descriptive statistics such as frequencies, percentages, and mean values. In inferential statistical tests, we applied principally regression analysis to test the hypothesis and assess the strength and direction of the relationship between the variables of the independent and dependent types.

This methodology provides an effective means to study how the KCC scheme resolves one of the biggest problems confronting Indian farmers agricultural indebtedness. The study seeks to generate evidence based insights by focusing on the real experiences of the farmers in Jharkhand and using scientific tools for data analysis to help the policymakers and stakeholders guide the outreach and impact of the KCC scheme..

5. RESULT AND ANALYSIS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.326[a]	.106	.102	1.11924

a. Predictors: (Constant), Progress of the KCC Scheme

The model summary indicates that Kisan Credit Card (KCC) scheme progress shows a moderate connection to agricultural indebtedness through an R-value of 0.326. The KCC progress variable explains 10.6% of changes in agricultural indebtedness according to the R-square value of 0.106. The percentage of impact is small but indicates an observable connection between these two variables. The model maintains its ability to explain the data through its adjusted R-square value of 0.102 after adding the total number of predictors into account.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.419	1	29.419	23.484	.000[b]
	Residual	248.036	198	1.253		
	Total	277.455	199			
a. Dependent Variable: Agricultural indebtedness						
b. Predictors: (Constant), Progress of the KCC Scheme						

ANOVA results demonstrate that the statistical significance of the model exists. The regression model demonstrates statistical significance in explaining agricultural indebtedness variations based on the F-statistic value of 23.484 together with its p-value of 0.000 ($p < 0.05$).

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.338	.349		3.835	.000
	Progress of the KCC Scheme	.451	.093	.326	4.846	.000
a. Dependent Variable: Agricultural indebtedness						

The KCC scheme advancement demonstrates a positive relationship with agricultural indebtedness reduction through its coefficient value of 0.451. Statistical significance exists between the variables because their t-value reaches 4.846 and their p-value remains at 0.000. The p-value below 0.05 leads us to reject NH2 thereby proving that the KCC scheme has a substantial impact on agricultural indebtedness.

Research data confirms that the KCC scheme effectively alleviates financial strain among farmers operating in Dhanbad district. The KCC scheme has shown a statistically meaningful effect on decreasing agricultural debt levels even though the variance explanation (R^2 = 10.6%) remains moderate. Other elements beyond the KCC scheme might help farmers decrease their debt obligations including public assistance and different funding avenues and better economic understanding. More research should explore supplementary factors that affect debt reduction among farmers to establish a better understanding of this phenomenon.

6. DISCUSSION

The study findings indicate that the progress of Kisan Credit Card (KCC) scheme has a statistically significant though modest impact on reduction in agricultural indebtedness of farmers in the Dhanbad district of Jharkhand. The R value of 0.326 suggests that there is a moderate correlation between progress of the KCC scheme and agricultural indebtedness. The relationship is not very strong but it is worth noting and indicates how KCC initiative plays a role in the financial life of a farmer. The KCC scheme explains about 10.6% of the variation in agricultural indebtedness as measured by the R-square of 0.106. While this percentage is not high, it confirms that the scheme helps to reduce farmers' financial burden. This is further validated by the adjusted R square value of 0.102, which indicates the explanatory power of the model after accounting for number of predictors involved.

The statistical significance of the regression model is supported by the ANOVA table. The model passes the criteria for significance at the 5% level with an F-value of 23.484 and a p-value of 0.000. This means that the KCC scheme's progress is not only associated with changes in agricultural indebtedness but also explains part of the variation in the dependent variable. These findings support the use of the KCC scheme as a policy tool to alleviate the financial pressure on farmers through their increased access to institutional credit.

The coefficients table gives you additional information about the nature of the relationship. The unstandardized coefficient (B) on the KCC scheme progress of 0.451 was significant, positive and indicates a positive and significant impact on reducing indebtedness; that is, the more the progress or accessibility of the KCC scheme, the lower the severity of the agricultural debt. The level of statistical significance of this relationship is very high, shown by the t value of 4.846 and a p value of 0.000. This null hypothesis (NH2), that is, the null hypothesis that the KCC scheme has no significant relationship with agricultural indebtedness, is rejected. These results provide solid evidence that the KCC scheme is an appropriate financial intervention for the farmers in the region.

Nevertheless, it is necessary to point out that although the scheme is associated with a significant impact, the small R square value indicates that a considerable variation in agricultural indebtedness is explained by factors beyond the scope of the KCC scheme. They may include other government subsidies, informal credit channels, farmers' income levels from agriculture, market access, crop insurance coverage, and farmers' financial literacy. Thus, the KCC scheme is a key instrument in dealing with rural credit issues but should be complemented by other measures such as improving productivity in agriculture, stabilizing income and giving financial education.

7. CONCLUSION

Finally, it has been proved beyond doubt that the Kisan Credit Card (KCC) scheme has contributed greatly in reducing the agricultural indebtedness of the farmers in Jharkhand. The statistical analysis confirms the positive relationship between the progress of the KCC scheme and the fall in farmers' debt levels. The scheme explains only moderate proportion of variance, but it illustrates how institutional credit helps to reduce the financial burden on the agricultural community. They also find that as farmers have better access to the benefits of the KCC scheme (timeously and affordably) they become less reliant on informal sources of finance—and often chronic indebtedness. Furthermore, the regression analysis, with a significant p-value, supports the rejection of the null hypothesis and affirms the meaningful impact of the KCC scheme. Nevertheless, the low R square value also indicates that agricultural indebtedness is determined by other factors, such as income volatility, weather conditions, market access and financial literacy. As a result, the KCC scheme is useful but as part of a broader, coordinated effort to reform rural finance. The study finds that the KCC scheme is valuable and effective intervention and that for a bigger impact, it must be complemented with other policies to improve agricultural productivity, expand financial awareness, and additional institutional support for farmers.

CONFLICT OF INTERESTS

None.

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