

Kisan Credit Card Scheme and Its Influence on Farmers: A Comparative Analysis of Participants and Non-Participant

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Abstract

This study analyses the impact of the Kisan Credit Card Scheme by comparing 150 farmers, including 75 KCC holders and 75 non-holders. Data were collected through questionnaires and interviews. The results show that KCC farmers are generally more educated, have higher incomes, and use more agricultural inputs than non-KCC farmers. A larger proportion of KCC farmers reported positive outcomes, and statistical analysis confirms a significant difference between the two groups. Overall, the study concludes that access to institutional credit through KCC improves agricultural productivity and farmers' economic conditions.

Keywords: *Kisan Credit Card, Farmers, Economic, Agriculture, Employment.*

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I. Introduction

Many Indians rely on agriculture for their living, and the sector has traditionally been a major source of revenue for the country. Food security, job creation, and rural development are all areas where agriculture remains vital, even in the face of fast industrialization and expansion in other areas. Limited access to cheap and timely finance is one of the most crucial of the many difficulties that the industry confronts. Seeds, fertilizer, pesticides, equipment, and other cultivation-related expenditures may be expensive, thus farmers often need financial assistance. Due to a lack of sufficient institutional credit, many farmers turn to unofficial sources like moneylenders. These individuals often demand exorbitant interest rates, trapping farmers in a never-ending cycle of debt and financial instability. The Indian government launched the Kisan Credit Card Scheme in 1998 to fix these problems and make the credit system better for farmers. The program's goal was to streamline and adaptably allow farmers access to short-term loans when they needed it. Farmers rely on it to cover their post-harvest costs, as well as those associated with agricultural cultivation, dairy, fishing, and animal husbandry. This program streamlines processes and increases accessibility by providing farmers with a credit card they may use to withdraw monies as needed, up to a predetermined limit. An essential instrument for fostering financial inclusion in rural communities, the plan provides perks including insurance coverage, cheaper interest rates, and flexible repayment alternatives. As the Kisan Credit Card program has grown in popularity, more and more farmers have been able to take use of it. It was a major factor in getting farmers to use modern farming techniques and lessen their reliance on non-institutional lenders. Farmers may enhance their investment in high-yielding crops, fertilizers, irrigation systems, and agricultural equipment when they have greater access to capital. Consequently, this helps boost agricultural revenue and production. In addition, the plan helps farmers deal with agricultural risks by giving them a safety net in the event of crop failure or price swings. The Kisan Credit Card plan has several benefits, but its reach and efficacy varied by area and by kind of farmer. Although the program has helped many farmers, many more do not qualify because they are unaware of it, have trouble following the necessary procedures, or do not have access to financial services. These farmers who don't take part in the program generally still use unofficial lending sources, which limits their capital for farming. Consequently, there may be differences in input utilization, productivity, and revenue levels between farmers who participate in the system and those who do not.

Therefore, it is crucial to compare farmers who were enrolled in the Kisan Credit Card program with those who were not in order to determine the plan's true

effect on farmers. The question of whether or not access to institutional financing improves agricultural practices and economic results may be better understood by doing a comparative study. It also reveals interesting socioeconomic details about the farmers who are eligible for the plan and those who aren't. In order to determine the scheme's efficacy and pinpoint its weak spots, this kind of study is necessary. By comparing and contrasting KCC holders (participants) with non-KCC farmers (non-participants), this research aims to evaluate the impact of the Kisan Credit Card system. A number of variables are taken into account in the research, including demographics, input consumption, and the perceived advantages of the program. Through an analysis of these factors, the study intends to bring attention to the function of institutional credit in raising agricultural yields and bettering farmers' living conditions. The research also aims to find out whether the differences between the two groups are statistically significant so that conclusions may be made with greater confidence. Having access to financing is crucial for agricultural growth since it allows for the effective utilization of resources. If farmers have enough money, they can buy better inputs and embrace new technology, which can increase their yields and make them more money. Conversely, farmers that are strapped for cash could cut corners on input quality or quantity, which lowers their yields. In order to create efficient agricultural policies and programs, it is essential to comprehend the connection between the availability of financing and the usage of inputs.

Additionally, it is impossible to exaggerate the significance of financial inclusion in rural development. Financial inclusion for farmers is a dual goal of programs like the Kisan Credit Card. With this connectivity, additional banking services including savings accounts, insurance, and subsidies may be accessed. Furthermore, it promotes fiscal responsibility by raising farmers' level of financial literacy. The plan helps the agricultural industry as a whole by making it less reliant on informal finance and more dependent on institutional funding. In order to fortify India's credit system for farmers, the government launched the Kisan Credit Card program. But only by comparing and analyzing beneficiaries and non-beneficiaries systematically can its real effect be established. This research aims to address that knowledge vacuum by collecting data on how the plan affected farmers' input consumption, output, and economic circumstances. Policymakers, academics, and stakeholders in rural development should anticipate useful insights from the study's results, which should help shed light on the function of institutional credit in agriculture.

Objectives of the study

- To analyze the impact of the Kisan Credit Card Scheme on farmers' agricultural practices and income.

- To compare the impact of the scheme between beneficiary (KCC holders) and non-beneficiary farmers.

II. Review of Literature

Singhai, Mahendra. (2025). Several programs are being launched by the Indian government to help farmers become more self-reliant, boost their productivity, and make their agricultural practices more efficient and environmentally friendly. Examining the impact of the Kisan Credit Card (KCC) Scheme on alleviating poverty in Sehore District, Madhya Pradesh, this research contrasts the outcomes of farmers who have benefited from the program with those who have not. Research in this research included 120 farmers from the Sehore district in Madhya Pradesh. In order to alleviate poverty, the findings show that KCC users have more access to resources, more revenue, and greater yields. Conversely, those who aren't recipients of the benefits nonetheless face financial difficulties and lower productivity due to their reliance on unofficial borrowing.

Shekhar, Chandra. (2025). A crucial financial intervention, the Kisan Credit Card (KCC) plan was established in 1998 by the Indian government to meet the credit needs of farmers. Access to institutional credit in rural India has been transformed by the plan, which offers simple, fast, and affordable loans for crop production, post-harvest operations, and related agricultural pursuits. In this study, we look at how the KCC plan affected farmers in Uttar Pradesh's Ballia area financially, specifically how it helped them become more self-sufficient, how much more productive their farms were, and how much less they needed to rely on informal lenders. The research takes a look at primary and secondary data to see how KCC has helped small and marginal farmers with things like income growth, investment optimization in farming, and financial inclusion. Furthermore, the study highlights important difficulties that farmers have when trying to use the KCC plan, including complicated procedures, inadequate financing, and obstacles related to digital literacy. It also emphasizes the need of addressing disparities in credit distribution, the inefficiencies of bureaucracy, and the shortcomings of current regulatory frameworks in guaranteeing fair access to financial resources. This research sheds light on the KCC initiative's merits and flaws by offering a comprehensive effect evaluation. Additionally, it provides legislative suggestions to make the plan more efficient, easier to use, and long-lasting so that it can support India's agricultural industry financially.

Jaisheela, Dr. (2025). Commercial banks, regional rural banks, and cooperative banks make up the bulk of Karnataka's agricultural credit, with assistance from government programs that subsidize interest and provide loans for a range of

agricultural and related endeavors. Crop loans, loans for animal husbandry and fisheries, and irrigation projects like Ganga Kalyana are the core offerings of the Karnataka government's Kisan Credit Card (KCC). Agricultural lending in India, particularly in the Kalyana Karnataka area, has historically relied heavily on government assistance. In order to help farmers with their difficulties and create a sustainable financing system for the future, this empirical research aims to look at how banks provide financing for agriculture and propose some improvements to the current framework.

Nigade, Dhanshri et al., (2022) The current study was carried out in the Latur and Osmanabad districts of the Marathwada area in 2020 and 2021. These districts were chosen intentionally based on the number of farmers who benefited from the Kisan Credit Card Scheme. This study's research design was ex-post-facto. Researchers used a pre-tested interview schedule to gather data, which was then analyzed using multiple regression, path analysis, and Pearson's correlation coefficient. The results of the correlation analysis showed that there was a positive and statistically significant relationship between the impact of the KCC Scheme and factors such as education, yearly income, occupation, land holding, social participation, and extension contact. On the other hand, there was a highly significant relationship between factors such as knowledge, economic motivation, sources of information, and risk orientation. The effects of the KCC Scheme were not significantly related to the variables of age, family size, or family type. The independent variables have a coefficient of determination (R^2) of 0.778, as shown by the multiple regression analysis. Education, yearly income, employment, land ownership, extension contact, information sources, economic motivation, risk orientation, and knowledge were all strongly correlated with the effect of the KCC Scheme, as shown by the value of 't'. Using path analysis as a guide, we found that the following independent variables—information sources, extension contacts, education, knowledge, land holding, yearly income, social participation, age, occupation, and risk orientation—were crucial to understanding how the KCC Scheme affected its recipients.

III. Research Methodology

The current study examines the effects of the Kisan Credit Card Scheme on farmers using a descriptive and comparative research approach. A total of 150 people were surveyed for the research; 75 of them were farmers who held KCCs (the participants) and 75 were farmers who did not. To make sure that all types of farmers are adequately represented, a stratified random sample method is used. The research relies on primary and secondary sources for its data. Journal articles, government

reports, and archival research comprise the secondary data set, while interviews and structured surveys with farmers provide the primary data set. Several statistical procedures, including percentage analysis, mean comparison, and the t-test (where needed), are used for the study to determine the significance of differences between the two groups.

IV. Data Analysis and Interpretations

Demographic profile of the respondents

Table 1: Demographic Table

Particulars	Category	KCC Farmers (n=75)	Non-KCC Farmers (n=75)	Total (n=150)
Age Group (Years)	Below 30	12	15	27
	30–50	40	38	78
	Above 50	23	22	45
Education Level	Illiterate	10	18	28
	Primary	20	25	45
	Secondary	30	22	52
	Higher Education	15	10	25
Land Holding	Small (<2 ha)	45	50	95
	Medium (2–5 ha)	22	18	40
	Large (>5 ha)	8	7	15
Annual Income	Below ₹50,000	15	28	43
	₹50,000–₹1,00,000	30	27	57
	Above ₹1,00,000	30	20	50
Farming Experience	Below 10 years	18	22	40
	10–20 years	32	30	62
	Above 20 years	25	23	48

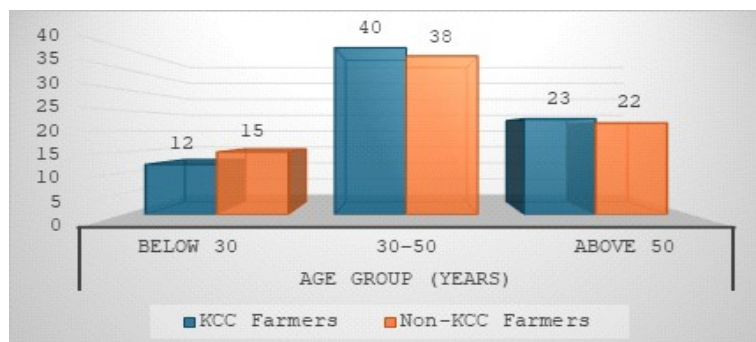


Figure 1: Age Group of respondents

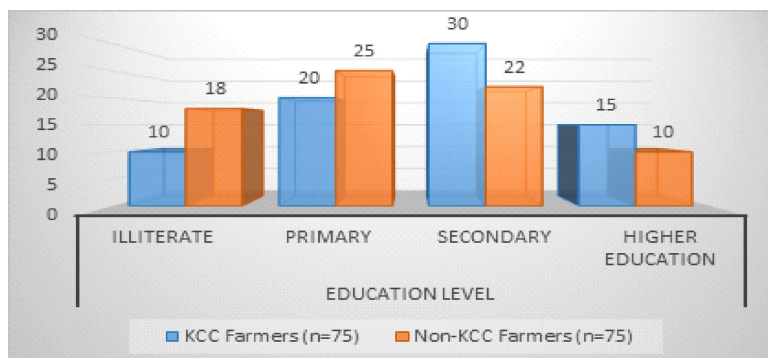


Figure 2: Level of education of respondents

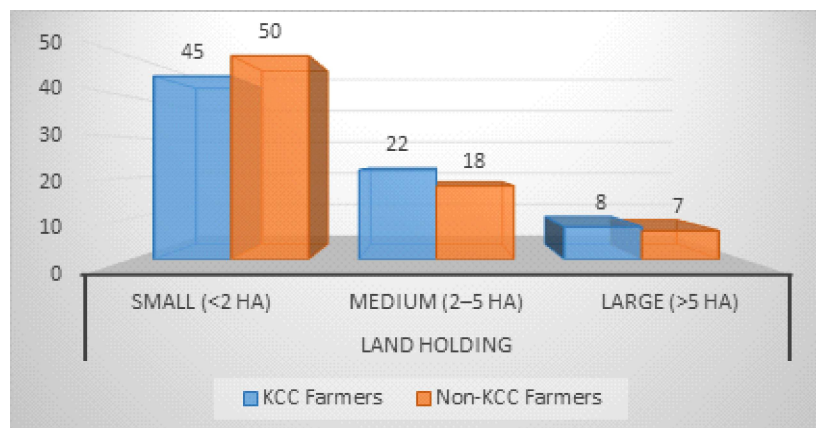


Figure 3: Land Holding of respondents



Figure 4: Annual Income of respondents

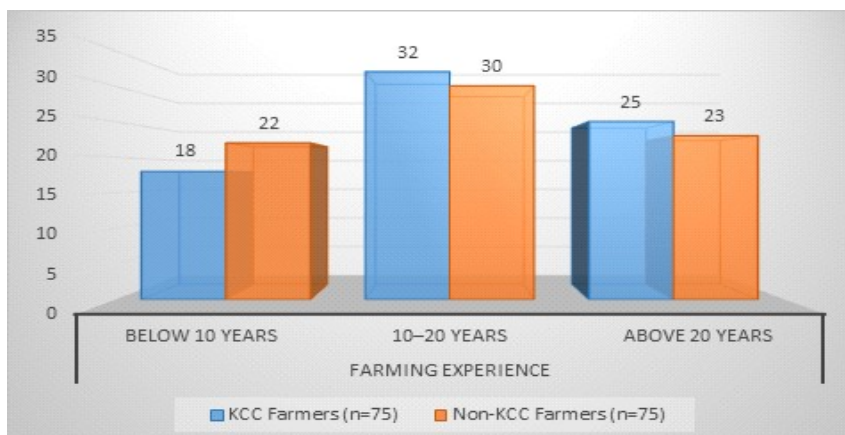


Figure 5: Farming Experience of respondents

Among the 78 farmers who took part in the survey, 40 were from KCC and 38 were from non-KCC. The bulk of these farmers (78 in total) are in the 30–50 age bracket. The majority of responders seem to be in the prime of their working lives, according to this data. Twelve KCC farmers and fifteen non-KCC farmers are under the age of thirty, but there is a reasonable representation of farmers over the age of fifty in both categories, with twenty-three KCC and twenty-two non-KCC farmers, indicating a balanced age distribution.

One clear distinction between the two sets of people is their degree of formal schooling. Compared to non-KCC farmers, more KCC farmers have completed secondary education (30) and higher education (15). The percentages of illiterate respondents (18) and primary-level educated respondents (25) among non-KCC farmers are greater than those of KCC farmers (10 and 20, respectively). This suggests that farmers with higher levels of education are more likely to have access to and make use of KCC services.

Of the 95 respondents (45 from KCC and 50 from non-KCC), the vast majority are small-scale farmers with holdings of less than 2 hectares. There are 22 KCC farmers and 18 non-KCC farmers who are medium landholders; the percentage of big farmers is negligible in both categories. It seems that small-scale farming is the main agricultural structure in the research region, with KCC use being common even among small landholders.

According to the income distribution, KCC farmers have it better than others. Thirty KCC farmers are in the income bracket of more than ₹ 1,00,000, compared to twenty non-KCC farmers. Interestingly, there are 28 non-KCC farmers who fall into the income bracket below ₹ 50,000, whereas only 15 KCC farmers fall into this

category. Thus, it seems that KCC's access to institutional financing may help raise incomes.

With 32 KCC and 30 non-KCC farmers, the majority of responders had 10–20 years of experience in farming. Also present in substantial numbers in both categories are farmers who have been at it for over 20 years. Nevertheless, a little larger proportion of non-KCC farmers are in the group with fewer than ten years of experience, which may indicate that farmers with less experience are less likely to participate in the KCC plan.

Input Use by Beneficiary and Non-Beneficiary Farmers

Table 2: Crop-wise Input Use Pattern of KCC and Non-KCC Farmers

Items	Paddy (non-KCC)	Paddy (KCC)	Sugarcane (non-KCC)	Sugarcane (KCC)	Groundnut (non-KCC)	Groundnut (KCC)
Seeds (kg)	31.3	70.1	2.7	3.0	71.8	111.2
Inorganic Fertilizer (kg)	142.4	250.0	440.4	601.6	94.7	186.9
Organic Fertilizer (kg)	1.3	1.5	2.3	2.8	0.4	0.7
Irrigation (hours)	70.0	72.5	157.5	182.5	7.5	16.0
Machine Power (hours)	11.6	16.9	9.6	12.6	3.1	3.6
Human Labour (No.)	10	18	23	31	14	17
Plant Protection Chemicals (kg)	0.1	4.6	2.1	3.9	0.7	1.9
Total	266.7	433.6	637.6	837.4	192.2	337.3

In this table, we can see how inputs for three main crops—paddy, sugarcane, and groundnut—are used by farmers who are and are not participating in the Kisan Credit Card Scheme. The numbers show that across the board, KCC farmers utilize more agricultural inputs than non-KCC farmers.

While growing paddy, KCC farmers utilize substantially more seeds (70.1 kg) than non-KCC farmers (31.3 kg), suggesting that the former have easier access to higher-quality inputs. Also, compared to non-KCC farmers, KCC farmers use a lot more inorganic fertilizers (250.0 kg vs. 142.4 kg). When comparing the usage of plant protection chemicals, there is a clear difference between KCC farmers (4.6 kg) and non-KCC farmers (0.1 kg). This suggests that KCC farmers are better at managing their crops. Because they have more capital to spend, KCC farmers use a lot more inputs (433.6 vs. 266.7) in their operations.

The situation is quite similar when it comes to sugarcane farming. KCC farmers use 601.6 kg of fertilizer, more irrigation hours (182.5 vs. 157.5), and more

human labor (31 vs. 23) than non-KCC farmers (440.4 kg). Overall, KCC farmers use more inputs (837.4) than non-KCC farmers (637.6), suggesting that farmers with access to financing are able to use more intensive and fruitful agricultural techniques.

Also, there are major distinctions in groundnut farming. Farmers who participate in KCC use more seeds (111.2 kg) and more fertilizer and irrigation water than farmers who do not participate in KCC (71.8 kg). Additionally, compared to non-KCC farmers, KCC farmers use 1.9 kg of plant protection chemicals, whereas non-KCC farmers use 0.7 kg. Farmers that use KCC had a much greater total input utilization (337.3) compared to farmers who do not use KCC (192.2).

Beneficiaries of KCC spend more on agricultural inputs overall, as shown in the table. modern access to institutional financing has allowed farmers to adopt modern agricultural methods, boost production, and lessen rely on conventional and less efficient practices, resulting in enhanced input utilization.

Hypothesis Testing

H_0 : There is no significant difference between KCC and non-KCC farmers.

H_1 : There is a significant difference between KCC and non-KCC farmers

Table 3: Observed Data

Category	Yes	No	Total
Non-KCC Farmers	45	30	75
KCC Farmers	60	15	75
Total	105	45	150

The table shows how many farmers who were part of the Kisan Credit Card Scheme and those who were not responded to questions on the scheme's effects. Only 45 farmers gave a negative reaction ("No") out of 150 total responders, whereas 105 gave a favorable response ("Yes").

Of the 75 farmers surveyed, 60 gave a favorable response, suggesting that they saw the initiative as having a considerable beneficial impact on their lives. Fifteen farmers out of the whole group said they got the cold shoulder. This shows that the scheme's beneficiaries are quite satisfied with it and think it works.

While 45 out of 75 non-KCC farmers reported a favorable reaction, 30 out of 75 reported a negative response, which is a considerably greater number. This suggests that those who do not take part in the plan either do not gain from it at all or do not have the opportunity to take advantage of it.

When comparing KCC farmers to non-KCC farmers, it is evident that the former had a larger percentage of favorable comments. This variation exemplifies

how farmers' perspectives, output, and financial security may be affected by their capacity to get institutional finance.

Table 4: Chi-Square Analysis

Category	O	E	O-E	(O-E) ²	(O-E) ² /E
Non-KCC (Yes)	45	52.5	-7.5	56.25	1.071
Non-KCC (No)	30	22.5	7.5	56.25	2.5
KCC (Yes)	60	52.5	7.5	56.25	1.071
KCC (No)	15	22.5	-7.5	56.25	2.5

In order to determine whether the Kisan Credit Card Scheme has a significant effect on farmers who are part of KCC and those who are not, the table shows the results of calculating the chi-square (χ^2) statistic. There are clear discrepancies between the predicted (E) and observed (O) values across all categories. For example, a negative deviation (-7.5) occurs when the observed value (45) is less than the predicted value (52.5) for non-KCC farmers (Yes). In a similar vein, among KCC farmers (Yes), there is a positive variance between the anticipated value (52.5) and the actual value (60). These discrepancies indicate that the two groups' replies are not uniform. Each category's computed $(O-E)^2/E$ values add up to the total chi-square statistic. The variance in negative replies is a major factor in the total difference, as the "No" responses for both groups had the largest contributions (2.5 each). The table yields a total chi-square value of 7.142. At a 5% level of significance and with 1 degree of freedom, the estimated value (7.142) is more than the critical table value (3.841). So, there's a statistically significant gap between KCC and non-KCC farmers.

V. Conclusion

The study concludes that the Kisan Credit Card Scheme has a significant and positive influence on farmers. Farmers who are part of the scheme are able to access timely and adequate credit, which helps them invest more in agricultural inputs and adopt better farming practices. As a result, they achieve higher productivity and improved income levels compared to non-participants. The comparison between KCC and non-KCC farmers clearly shows that lack of access to institutional credit limits the ability of non-participants to invest in agriculture. This often results in lower input use and reduced productivity. On the other hand, KCC farmers benefit from financial support, which reduces their dependence on informal credit sources. The statistical analysis further supports that the differences between the two groups are significant. Therefore, the scheme plays an important role in promoting agricultural development and improving farmers' livelihoods. It is suggested that

efforts should be made to increase awareness and accessibility of the scheme so that more farmers can benefit from it.

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