



ASSESSING PM-KISAN AWARENESS, UTILISATION AND IMPACT AMONG FARMERS IN RURAL KERALA

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Abstract:

The study examines the impact of the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme for the rural farmer beneficiaries and highlights about their awareness, utilisation of financial assistance, perceived agricultural impact, and implementation challenges. The primary data used in the study is obtained through direct observation of the beneficiaries in the study area using structured questionnaire with 130 beneficiaries. Descriptive statistics were used to analyse the socio-economic characteristics, sources of information, utilisation patterns, perceived benefits and constraints. The hypotheses were tested using one sample t-test and one-way ANOVA. The results indicate that awareness of PM-KISAN is in the moderate to high range, and the extent of financial assistance for agricultural operations such as fertilisers and seeds is also in the moderate to high range. People expressed positive perceptions about agricultural productivity, financial stability and decrease in reliance on informal credit. A t-test shows that the perceived positive effect on agricultural productivity is statistically significant. But there were no significant differences between the different categories of landholding. There is a significant difference in awareness as per education. Major implementation challenges were also identified, such as documentation and bank-related challenges. The results have significance for the policy makers, implementing agencies, and farmers who benefit from the scheme.

Keywords: PM-KISAN; Farmer Welfare; Agricultural Productivity; Awareness; Direct Benefit Transfer

1. Introduction

A significant portion of the rural population in India still relies on the agriculture sector as a primary means of livelihood, but small and marginal farmers often struggle with low and unpredictable farm income, high input costs, limited access to formal credit, and seasonal cash flow challenges. These challenges can limit their access to financial resources needed for farm inputs and can push them to take on informal credit. In this context, the government of India launched the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN), a direct income support measure for the eligible farmer families in terms of holding land ownership. The scheme was launched from December 2018 and officially opened under the name on 24 February 2019. The scheme provides ₹6000 per year to eligible farmer families which are given in three equal instalments directly to farmers through bank transfer (Ministry of Agriculture & Farmers Welfare, 2019). The primary objective of PM-KISAN is to offset farmers' agricultural input and household expenses. The direct transfer mechanism is designed to make the funds more readily available and to enable prompt spending on inputs like seed, fertilizers and farm equipment. The scheme has since emerged as one of India's larger direct-benefit-transfer schemes.

As of June 2026, the government's data indicates that over ₹4.46 lakh crore has been distributed so far under the scheme since its inception, of which the 23rd instalment was distributed to over 9.44 crore farmers (Indian Council of Agricultural Research [ICAR], 2026). However, previous studies have shown evidence that income support leads to better availability of farmers' agricultural inputs and alleviates liquidity constraints. For instance, Varshney et al. (2020) showed that PM-KISAN had a positive impact on the farmers who were relatively more dependent on agriculture and lacked access to better credit facilities. Their study also revealed that there was a correlation between the scheme and the modern agricultural technologies. Likewise, the findings from the studies reviewed during the present research show that beneficiaries use PM-KISAN funds for providing inputs for the agricultural activities and use it for household needs. The literature provided with the study also highlights issues of low awareness, procedural challenges, delays, as well as financial support. The present study offers a localized measurement of PM-KISAN by analysing the responses of a sample of 130 beneficiary farmers. The empirical results show that awareness is moderate to a certain extent: 43.08% of respondents reported that they had moderate awareness while 26.92% of respondents reported to have high awareness. The study also reveals that the most frequent use of the scheme funds is for fertilizer purchase (31.54%), household consumption (26.15%) and then purchase of seeds (20%). The overall mean score for the statement on the scheme's impact on agricultural productivity was 4.00, indicating a generally positive perception of this. But, there are still challenges with implementation. Over half of the respondents reported that registration was very difficult and all the respondents indicated some difficulty in accessing benefits. The key constraints identified were to be bank related problems, documents related problems, delay in payment, Aadhaar linking problems and technical issues. These results indicate the need to assess the availability of income support, as well as the farmers' access to it and their use of it and the agricultural benefits that they derive from it.

1.1 Research Problem

The financial support provided under PM-KISAN has raised several questions about the sufficiency and effective utilisation of the support, its impact on agricultural productivity and the availability of benefits for the farmers who differ in their socio-economic characteristics. It is therefore important that the study area assess on the ground the achievement of the scheme's target beneficiaries. The specific research problem is to evaluate the impact of PM-KISAN on agricultural productivity and farmer welfare, if there is any difference in perception of impact by different land holding categories and if there is any difference in the awareness according to different education category. This is an important problem as the current research reveals significant procedural issues, although the overall attitudes to the scheme are positive.

1.2 Objectives of the study

The study formulated four main objectives to fill the prevailing research gap.

1. To examine the effect of PM-KISAN Samman Nidhi on the productivity of the beneficiary farmers.
2. To analyse the difference in perceived impact of PM Kissan Samman Nidhi on agricultural productivity based on landholdings size.
3. To examine the awareness level about PM-KISAN Samman Nidhi across educational status of beneficiary farmers.
4. To trace the problems and challenges faced by beneficiaries regarding PM-KISAN.

1.3 Hypotheses

Based on the first three objectives, there are three hypotheses set for the study

1. **H₀₁:** PM-KISAN Samman Nidhi Scheme has no significant positive impact on agricultural productivity.
2. **H₀₂:** There is no significant difference in the perceived impact of PM-KISAN on agricultural productivity among farmers with different sizes of landholding.

3. **H₃:** There is no significant difference in the awareness level regarding PM-KISAN among beneficiaries with different educational statuses.

2. Review of literature and Research gap

A review of the literature shows that the four themes that are interrelated are awareness and accessibility, utilisation of financial assistance, agricultural and economic impact, and implementation constraints.

Kumar and Phougat (2021), based on secondary data available on Haryana, applied descriptive statistical analysis to PM-KISAN and found that it is a significant scheme of the government for helping and stabilizing farmers' incomes. Their work highlights the importance of studying PM-KISAN not just as a transfer programme but as a means of providing income support. Varshney et al (2020) offer more empirical support on the consequence of PM-KISAN in agriculture. They studied targeting and expenditure pattern using the data from 1406 farmers from Uttar Pradesh and used matching-based estimation techniques. Their results showed that PM-KISAN had a positive impact on the more agriculture dependent farmers and the farmers who have a relatively low access to credit. The study additionally identified the link between the scheme and the use of modern cultivars via the agricultural extension system (Varshney et al., 2020). It implies that the impact of direct income support could have an indirect effect on agriculture by easing liquidity constraints.

Gulati et al. (2020) analysed the PM-KISAN in relation to farm income enhancement and noted that while the scheme can help farm households boost their short-term liquidity, the benefits of the scheme may not be enough to bring about marked improvement in farm income in the long-term. This is crucial as income support must also be complimented by production costs, credit access, agricultural infrastructure and market prices towards its effectiveness. Tiwari (2022) analysed the implementation, use and effects of direct cash transfers and found PM-KISAN had benefits for beneficiaries in terms of covering agricultural input and household expenditure. Concurrently, limited awareness and a lack of timely processes, along with doubts about the quality of support, were deemed significant constraints. Likewise, Nasik et al. (2022) analysed the awareness and constraints, beneficiary coverage, fund disbursement, and utilisation and highlighted the need to have both financial and implementation perspective of the scheme.

There are some useful pieces of evidence provided by Bradawl and Kumar (2022) about real-time use of funds pertaining to PM-KISAN. Their study revealed that those farmers who were benefiting during the peak period of agriculture were more likely to invest in agriculture, while those who were receiving benefits during the non-peak period tended to spend the funds on consumption expenditure. They also noted that there was disparity in utilisation between marginal farmers and small farmers. This finding reinforces the importance of studying how the demographics of the beneficiaries affect the use and impact of PM-KISAN support.

More recent studies continue to report mainly positive effects. Using propensity-score matching and regression adjustment, Prajapati (2025) investigated beneficiaries and non-beneficiaries in Bundelkhand and arrived at positive and significant findings of PM-KISAN on the input expenditure, cost of cultivation and agricultural income. Similarly, Singh and Stephen (2025) found that the benefits of the scheme led to enhanced financial stability for beneficiaries, and Rajput et al. (2025) concluded that the scheme helped farmers to address their agricultural and domestic needs and increased their interest in adopting new farming methods. Another dimension of awareness and accessibility is also crucial. The findings of Sihag & Malik (2024) indicate that the awareness level of the beneficiaries in Haryana was medium to high and there was a positive perception towards the effectiveness of DBT. In the meantime, Kaleeswaran et al. (2024) found that, based on a sample of 1900 farmers in five southern states in India – including Kerala – farmers face problems with grant size, eligibility, transparency and awareness of grant distribution. The findings are relevant to localised studies in southern part of India, in particular.

2.1 Research Gap

While there are already several studies that cover a significant aspect of the implementation, awareness, use and economic impacts of PM-KISAN, there are three lacunae that exist. First of all, a great deal of literature comes from a state, regional or national scale; relatively fewer studies, on the other hand, focus on the local level of beneficiary perception. Second, previous studies frequently focus on the utilisation or economic impact but not at the same time on awareness, perceived agricultural productivity and implementation challenges. Third, little has been done to evaluate if the impact of perceived agriculture is different based on size of land and if there is a significant difference in awareness based on educational status.

This study aims to fill these gaps by conducting a primary survey on 130 PM-KISAN beneficiaries on a localized basis. It incorporates descriptive information about awareness, use, constraints, and satisfaction, and inferential analysis of the awareness of the agricultural impact, landholding difference and educational difference in awareness. Hence, the study provides micro level evidence on effectiveness and access of PM-KISAN among the beneficiary farmers in the study area. This local level approach is in line with the identified gap in the source study, which highlights that there are few local-level studies that have specifically explored the concerns of small and marginal farmers.

3. Research Methodology

The study used a descriptive and analytical research design to explore the awareness, utilisation, perceived agricultural impact, and implementation challenges of PM-KISAN for the beneficiary farmers. The study is conducted with the primary and secondary data. A structured questionnaire/interview schedule was used for collecting primary data from PM-KISAN beneficiaries and secondary data was collected from government report, official PM-KISAN portal, and journals and published source. The empirical study was done with 130 farmers in the rural area (Kuttiady Panchayath-Kerala). The source document includes simple random sampling and convenience sampling, which do not agree; the sampling method actually used in collecting field data should be reported if possible. This survey lasted about a month. The descriptive findings were presented using tables and charts; and the inferential analysis was conducted using one-sample t-test and one-way ANOVA.

The data gathered through the questionnaire covered the following information: Demographic characteristics, awareness about PM-KISAN, methods of obtaining information, amount of assistance received, use of the funds, benefits of agriculture, problems in registration, problems in accessing benefits, and satisfaction. Frequencies and percentages were used for the descriptive analysis. A series of statements were presented in Likert scale and presented as weighted mean scores to evaluate the respondents' perceptions about crop yield, financial stability, agricultural productivity and overall farmer support. For instance, the data reveal an average score for the item on improvement in agricultural productivity of 4.00. A one-sample t-test was used for hypothesis testing to determine if there was a significant difference between the perceived agricultural impact score and the neutral score of 3.00. The differences in the perceived agricultural impact were tested with a one-way ANOVA and differences in awareness were tested with a one-way ANOVA with the landholding-size categories as the grouping variable and the educational-status categories as the grouping variable, respectively. The first test produced $t = 12.208$, $p < .001$; the landholding ANOVA produced $F = 2.328$, $p = .0548$; and the education-awareness ANOVA produced $F = 9.1645$, $p = .000002$. The 5% level of significance ($\alpha = .05$) was used for all inferential tests. The major methodological drawback in the study is that it is limited to a small sample of 130 respondents in the selected study area, which limits the generalizability of the study's findings.

4. Results and Discussion

The analysis and results part of the study consist of analysing the demographic profile of the respondent beneficiary farmers, and the detailed analysis of the data to test the hypotheses which were framed in tune with the objectives of the study.

4.1 Analysis of Demographic profile

Table 1 Demographic profile of beneficiary farmers (N=130)

Demographic Variable	Category	Frequency	Percentage
Gender	Male	100	76.98
	Female	30	23.08
	Other	0	0.00
Age	Below 30 years	3	2.31
	31–40 years	20	15.38
	41–50 years	34	26.15
	51–60 years	49	37.69
	Above 60 years	24	18.46
Educational Status	Illiterate	1	0.77
	Primary	45	34.62
	Secondary	48	36.92
	Higher Secondary	30	23.08
	Graduate	6	4.62
	Above Graduate	0	0.00
Primary Occupation	Business	10	7.69
	Profession	6	4.62
	Agriculture	47	36.15
	Coolie/Wage Labour	50	38.46
	Other	17	13.08
Landholding Size	Below 5 cents	4	3.08
	5–15 cents	32	24.62
	16–25 cents	54	41.54
	26–35 cents	33	25.38
	Above 35 cents	7	5.38

Source: Primary data

Interpretation

The demographic profile shows that the sample is mainly male with a total of 76.98% male and 23.08% female. The age distribution indicates that most of the respondents were in their middle ages and above with 51-60 years age group accounting for a large number (37.69%), followed by 41-50 years age group (26.15%). Therefore, the very young farmers are relatively under-represented. Regarding education, the secondary education group is the major group (36.92%) followed by the primary education group (34.62%), which shows that most of the respondents have the basic education or secondary education level. Only 4.62% are graduates. The majority of workers are coolie/wage labourers (38.46%) and agricultural workers (36.15%), indicating significant reliance on agriculture and manual labour for livelihoods. Regarding landholding, the largest proportion (41.54%) owns 16–25 cents, while 25.38% possess 26–35 cents and 24.62% possess 5–15 cents. In general, the profile shows that a majority of the respondents are from small land holdings and relatively low socio-economic strata indicating that PM-KISAN's income support is highly relevant to their agricultural and household livelihoods.

4.2 Analysis of Scheme's effect on agricultural productivity (Objective 1)

To examine the effect of the PM-KISAN Nidhi Scheme on the agricultural productivity of beneficiaries, a one-sample t-test is most appropriate as the responses concerning the agricultural productivity are measured on a five-point Likert's scale and are compared with the neutral value of 3.00.

Table 2. One Samplet-Test: Impact of PM-KSN on agricultural productivity

Particulars	Value
Number of respondents (N)	130
Test value	3.00
Mean score	3.86
Standard error	0.0706
t-value	12.208
Degrees of freedom	129
p-value (one-tailed)	< 0.001
Level of significance	0.05
Decision	Reject H ₀
Inference	<i>PM-KISAN has a significant positive impact on agricultural productivity</i>

Interpretation: Since the p-value is less than 0.05, H₀ is rejected. The mean score of 3.86 is significantly higher than the neutral test value of 3.00, indicating a significant positive perceived effect of PM-KISAN on the agricultural productivity.

4.3 Analysis of Land size and Agricultural impact of PMKSN (Objective 2)

To examine whether the impact of PM-KISAN on agricultural productivity varies across the size of landholding, a one-way ANOVA is appropriate as the respondents are categorised into different landholding categories: below 5 cents, 5–15 cents, 16–25 cents, 26–35 cents, and above 35 cents.

Table 3. One-Way ANOVA: Difference in agricultural impact across landholding Size

Source of Variation	Sum of Squares	df	Mean Square	F-value	p-value	Decision
Between Groups	5.48	4	1.37	2.328	0.0548	Fail to reject H_0
Within Groups	73.52	125	0.59	—	—	—
Total	78.99	129	—	—	—	—

Interpretation: The calculated F-value is 2.328 and the p-value is 0.0548. Since $p > 0.05$, H_0 is failed to be rejected. Thus, the perceived impact of PM-KISAN on agricultural productivity **does not differ significantly across landholding-size groups**.

4.4 Analysis of Educational status effect on PMKSN Awareness (objective 3)

To examine whether the awareness level on PM-KISAN differs according to the educational status of beneficiary farmers, a one-way ANOVA is seems to be appropriate as the awareness is compared across different educational categories such as illiterate, primary, secondary, higher secondary, and graduate. The educational status distribution is clearly presented in the data.

Table 4. One-Way ANOVA: Difference in awareness across educational Status

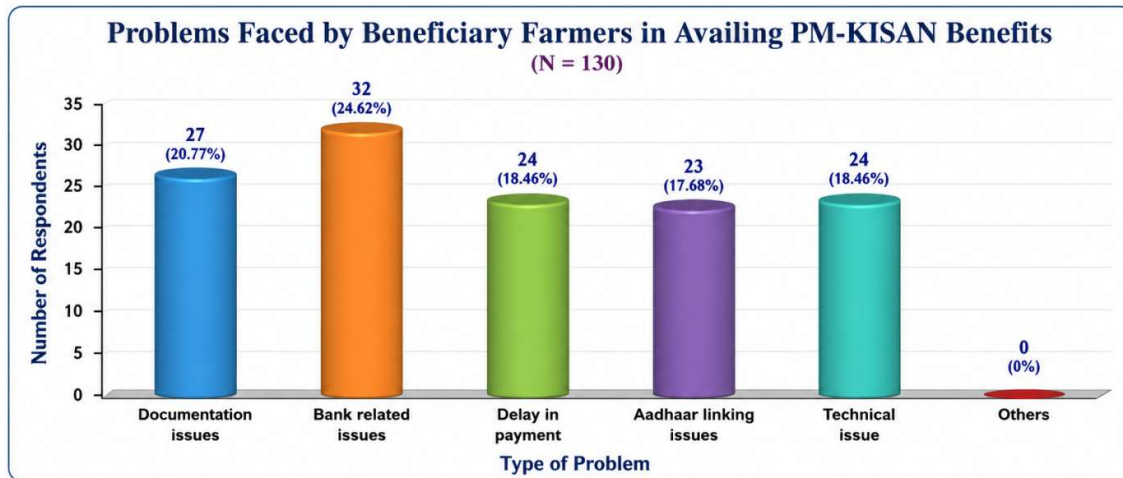
Source of Variation	Sum of Squares	df	Mean Square	F-value	p-value	Decision
Between Groups	11.01	4	2.75	9.1645	0.000002	Reject H_0
Within Groups	37.53	124	0.30	—	—	—
Total	48.53	129	—	—	—	—

Interpretation: The calculated F-value is 9.1645 and the p-value is 0.000002. Since $p < 0.05$, H_0 is rejected. Therefore, the awareness on PM-KISAN Samman Nidhi varied significantly across the educational status of the beneficiary farmers.

4.5 Basic Challenges regarding PM-KISAN (objective 4)

The following figure presents intensity of various problems and challenges faced by beneficiary farmers while they availing and utilising PM KISAN

Figure 1. Problems and challenges regarding PM KISAN



This figure 1 shows the key issues that the beneficiary farmers encounter while availing PM-KISAN benefit. The most frequent issue reported was bank related, with 32 respondents (24.62%) reporting this problem. This means that the primary challenge faced in accessing PM-KISAN benefits is related to the banking issue. Documentation issues was the second most reported issue, with 27 respondents (20.77%) reporting. This implies that the difficulties faced by beneficiaries in documentation and related procedures are significant. 24 respondents (18.46%) reported delays in payment, suggesting some concerns about timely receipt of financial assistance. Twenty-four beneficiaries (18.46%) also reported technical issues, highlighting that there is a high proportion of beneficiaries who experience technical or portal related difficulty. Twenty-three respondents (17.68%) mentioned Aadhaar linking problems, which is an area of concern in the context of identity verification and Aadhaar-related processes. There were no other problems reported by any of the respondents, indicating that the problems indicated in the chart are the big constraint faced by the beneficiaries. In general, the results reveal that the most common challenges faced by beneficiaries of PM-KISAN include issues with banks and documentation, followed by delays in payments, technical issues and Aadhaar linking. The results show that there is a need for streamlining procedures, enhanced banking facilities, timely processing of payment and assistance from technical experts to the beneficiaries.

4.6 Discussion on the results

The analysis of the study along with other pertained data collected from the respondents reveals that the PM-KISAN scheme has been generally beneficial for the farmers, however implementation issues are identified. The socio-economic profile suggests that most of the respondents are middle-aged farmers, a high proportion of the farmers who were older have only primary or secondary education, while the amount of land held is not that much. The results reveal that the awareness about PM-KISAN is moderate to high, with the source of awareness being mainly from friends and relatives. Use pattern suggests that the financial support is more likely to be directed towards agricultural needs. Fertiliser purchase is the highest utilisation followed by household consumption and seeds purchase. This indicates that PM-KISAN scheme is able to offer valuable liquidity for urgent agricultural and domestic needs. The positive perceptions of the respondents about the contribution of the scheme to crop yield, reduction in dependence on moneylenders, financial stability and agricultural productivity are also positive.

Agricultural productivity had the highest mean score, which suggests that the scheme has been perceived as having a particularly positive role in the sense of productivity. The results for inference support these descriptive results. The one sample t-test sets a significant positive perceived effect on agricultural productivity. The ANOVA, however, indicates that there is no significant difference between the perceived impact of these landholding categories. However, it is clear that there is a great disparity in awareness across different levels of education. While these are positive results, there is a concern with implementation. Many respondents reported problems with registering and 100% said they had problems availing benefits. The main constraints were bank related issues, delays in documentation, Aadhaar linking and technical issues. Thus, it is inferred that the impact of PM-KISAN is not only based on the amount of financial transfer, but also on the awareness, accessibility, and efficient delivery systems.

5. Conclusion

The study concludes that the contribution of PM-KISAN Samman Nidhi is perceived as positive to the farmers in terms of agriculture productivity and economic status. The general attitude of the respondents towards the scheme is generally positive in terms of agricultural productivity, financial stability, lower dependence on informal money lenders, support for farming activities etc. The use pattern also shows that the financial support is mainly channelled to inputs such as fertilizers, seeds, etc. for agricultural production, while a significant proportion is also spent on household consumption. The hypothesis testing also supports the idea that the scheme is perceived to be making a positive contribution to agriculture, with the one-sample t-test showing this effect is statistically significant. The perceived impact isn't much different by land holding size, however, meaning that the benefits are widely recognised by various types of farmers. Awareness, however, is very different depending on educational level and therefore education is important for understanding and for accessing government welfare programmes. Meanwhile the study shows significant problems with the registration process and with accessing benefits. Beneficiaries are still facing problems related to the banks, documentations, delays in payments, Aadhaar related issues and technical issues. Overall, PM-KISAN seems to be a crucial support scheme, but delivery, access and beneficiary assistance needs to be enhanced to ensure effective implementation.

6. Implications of the Study

The results have significance for policy makers, implementing agencies, and farmers who benefit from the policy. First, the strong positive perception of the contribution of PM-KISAN towards productivity of agriculture shows that direct income support can be a source of financial liquidity for the agricultural expenditure. So, improving the continuity and availability of direct transfers will help farmers to fulfil the time constraints of cultivation. Secondly, the strong correlation between educational level and awareness shows the importance of awareness programs targeted to specific groups. Relying mainly on personal networks is not a good way to get information, since friends and family members were the major source of information for respondents. Communication structures should, therefore, be strengthened by government departments, local bodies and agricultural extension agencies in the form of simple, accessible and locally relevant communication structures. Third, the fact that difficulties in availing benefits were experienced by all respondents has administrative implications. Efforts including the de-duplication of documentation, better co-ordination with banks, tackling issues of linking Aadhaar, cutting payments delays, and offering sound technical support and monitoring, could significantly enhance the availability of the programme. Lastly, the study indicates that benevolent support through finances alone may be inadequate in delivering lasting benefits of welfare improvement in agriculture. Agricultural extension, institutional credit at affordable rates, input support, technology support and market related interventions should complement PM-KISAN. This holistic approach can amplify the impact of PM-KISAN in the long-term and improve its role in sustainable farmer livelihoods.

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