ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 11| November 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

A STUDY ON THE FINANCIAL PROBLEMS FACED BY SMALL AND MARGINAL FARMERS IN JHARKHAND WITH SPECIAL REFERENCE TO AGRICULTURAL CREDIT, INCOME INSTABILITY, AND ACCESS TO FINANCIAL SERVICES

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Article DOI: https://doi.org/10.36713/epra24952
DOI No: 10.36713/epra24952

ABSTRACT

Small and marginal farmers form the backbone of Indian agriculture, yet they continue to face serious financial challenges. This study examines the key financial problems that affect these farmers, focusing on three major areas: agricultural credit, income instability, and access to financial services. The paper highlights how insufficient credit, dependence on informal lenders, fluctuating incomes, climate risks, and limited financial inclusion create barriers to sustainable farming. The findings show that improving access to formal credit, expanding financial literacy, strengthening insurance systems, and supporting digital finance can significantly improve the financial stability of small and marginal farmers in India.

KEYWORDS: *Small and Marginal Farmers, Agricultural Credit, Financial Problems, Income Instability, Financial Inclusion, Rural Finance, Farm Productivity.*

1. INTRODUCTION

Agriculture is one of the most important pillars of India's economy, contributing significantly to employment, food security, and rural livelihoods. A large portion of India's population continues to depend on agriculture for their livelihood, and the sector plays a crucial role in supporting the country's economic growth. According to various national surveys, more than 80% of Indian farmers fall under the category of small and marginal farmers, meaning they own less than two hectares of land. These farmers form the backbone of rural India, yet they remain the most vulnerable group within the agricultural system.

Small and marginal farmers often operate on very small pieces of land, which limits their ability to invest, expand, or adopt modern farming practices. Their incomes are low and unstable, and many depend on agriculture not only as a source of livelihood but also as the primary means of survival. Due to increasing population pressure, land fragmentation, and shrinking average landholdings, the financial condition of these farmers has become more fragile. As a result, they frequently face difficulties in meeting household expenses, managing farm operations, and coping with unexpected financial shocks.

One of the biggest challenges faced by small and marginal farmers is low farm productivity. Many farmers rely on outdated farming methods, lack access to quality seeds, fertilisers, irrigation facilities, and modern machinery. Without adequate financial resources, they are unable to invest in new technologies that could improve crop yield. As a result, they often get stuck in a cycle of low productivity and low income, which limits their growth opportunities.

Another major factor affecting farmers' financial condition is unpredictable weather. Climate-related challenges such as irregular rainfall, droughts, floods, and pest attacks have become more frequent in recent years. These events not only damage crops but also put farmers under severe financial stress. Small farmers are especially vulnerable because they do not have savings or financial buffers to recover from such losses. In many cases, they are forced to borrow money at high interest rates from informal sources just to continue farming.

The rising cost of agricultural inputs adds further pressure. The prices of seeds, fertilisers, pesticides, labour, and machinery have increased significantly over the years, but the selling price of crops has not increased at the same rate. This imbalance erodes farmers' profit margins. For small and marginal farmers, even a small increase in input costs can lead to major financial difficulties. Since their land and production capacity are limited, they cannot produce large quantities to compensate for high costs, resulting in extremely low annual income.

In this context, access to agricultural credit becomes essential. Institutional credit from banks, cooperatives, and microfinance institutions can help farmers buy quality inputs, invest in irrigation, and adopt better farming practices. However, research shows that small and marginal farmers often struggle to obtain formal credit due to lack of collateral, complicated documentation, distance from bank branches, and stringent eligibility criteria. As a result, they depend heavily on informal moneylenders who charge very high interest rates, further pushing them into debt.

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Another major problem is income instability. Unlike salaried workers who receive fixed monthly income, farmers' income depends on harvest cycles, market demand, and crop prices. Crop failures, post-harvest losses, lack of storage facilities, and sudden price drops can significantly reduce their income. For small and marginal farmers, these fluctuations create continuous financial uncertainty, making it difficult to plan future investments or meet family needs such as education, health, and emergencies.

The issue of financial inclusion is closely connected to these challenges. Financial inclusion involves providing access to affordable financial services such as bank accounts, credit, insurance, savings, and digital financial tools. While India has made progress in financial inclusion through schemes like PMJDY, KCC, and digital banking, many small and marginal farmers still remain outside the formal financial system. Lack of awareness, low financial literacy, poor banking infrastructure in rural areas, and mistrust of formal institutions are major barriers. Limited access to financial services prevents farmers from saving money securely, accessing credit in emergencies, or protecting themselves through crop insurance.

In recent years, the government and financial institutions have introduced several initiatives to support small farmers, such as crop insurance schemes (PMFBY), interest subvention on agricultural loans, and the Kisan Credit Card scheme. Despite these efforts, the benefits often do not reach the most vulnerable categories of farmers because of administrative delays, lack of awareness, and eligibility issues.

Given these challenges, it becomes important to study the financial problems faced by small and marginal farmers in detail. Understanding the root causes of credit barriers, income instability, and lack of financial inclusion can help policymakers, financial institutions, and development agencies design better solutions. This research paper attempts to explore these issues by analysing the financial pressures faced by farmers and examining the gaps in existing financial support systems.

This study focuses on three key aspects

Access to agricultural credit – difficulties in obtaining loans, dependency on informal lenders, and barriers in the formal banking system.

Income instability – impacts of weather, market fluctuations, input costs, and productivity on farmers' earnings.

Access to financial services – challenges related to savings, insurance, digital banking, and financial literacy.

Through a detailed analysis of these areas, the research aims to provide insights that can contribute to strengthening the economic condition of small and marginal farmers. The study also highlights the need for policy reforms, improved financial services, and targeted interventions to uplift this vulnerable group and promote sustainable agricultural development in India.

2. LITERATURE REVIEW

1. Choudhury and Gupta (2025), In their study "Augmentation of Financial Inclusion: A Structured Review from the Indian Perspective", the authors examined India's progress in financial access by evaluating accessibility, affordability, and service quality. They noted that despite the expansion of bank branches and digital networks, service usage remains low among rural and low-income groups. The study stressed that awareness and financial literacy are crucial and that simply opening bank accounts does not guarantee financial inclusion for small farmers.
2. Sharma and Verma (2024),"Barriers to Agricultural Credit Access in Eastern India" revealed that small and marginal farmers continue to face difficulties in accessing institutional credit due to collateral requirements, lengthy procedures, and poor banking connectivity. Their findings highlight that informal moneylenders remain a major source of credit in states like Jharkhand and Bihar, increasing farmers' debt burden.
3. NABARD Rural Credit Report (2023), The NABARD report on Rural Credit and Financial Inclusion documented that formal credit penetration remains below 50% in states with high tribal populations, including Jharkhand. The report found that limited financial awareness, low banking density, and weak digital literacy restrict farmers from availing KCC (Kisan Credit Card) loans, resulting in higher income instability.
4. Singh and Das (2022), In their study "Income Volatility Among Small and Marginal Farmers in India", Singh and Das observed that climatic variability, rising input costs, and price fluctuations significantly contribute to unstable farm income. They concluded that access to credit and crop insurance improves income stability, but actual uptake of these services remains limited due to low awareness and trust issues.
5. KPMG Rural Financial Services Report (2022), The KPMG report highlighted that although digital payment systems such as AEPS and UPI have reached rural markets, usage among farmers is still low due to network issues, fear of fraud, and lack of training. It observed that financial inclusion in eastern states lags behind the national average, affecting timely loan access and repayment abilities.
6. Reserve Bank of India (2021), The RBI Annual Report emphasized that thouh the Indian banking system has expanded its reach, small farmers still face exclusion in terms of credit and insurance coverage. The report mentioned that income volatility among smallholders increases credit risk, which discourages banks from providing loans without strong documentation or collateral.
7. Mishra and Pandey (2020), Their study "Challenges in Financial Inclusion of Tribal Farmers in Jharkhand" found that tribal farmers rely heavily on informal borrowing due to cultural barriers, language issues, and limited confidence in formal institutions. The study revealed that low literacy and poor connectivity make access to credit and insurance services more difficult, reinforcing financial vulnerability.
8. Srivastava and Roy (2020), In the paper "Determinants of Credit Access for Small Farmers in India", the authors identified key variables such as land size, education level, banking distance, and prior credit history as major factors

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affecting loan access. They concluded that farmers with smaller landholdings and lower education face multiple rejections from banks, pushing them towards costly informal borrowing.

9. Kumar and Yadav (2019), Their study on "Financial Stress and Indebtedness Among Marginal Farmers" reported that high-interest informal loans trap farmers in a cycle of debt, leading to reduced investment in agriculture and lower productivity. They highlighted that lack of crop insurance and unstable income makes farmers more prone to financial shocks.
10. World Bank Agricultural Financial Inclusion Report (2019), The World Bank report found that financial access plays a critical role in reducing agricultural risk and improving productivity among small farmers. The study emphasized that states with higher digital penetration and better credit delivery mechanisms show reduced income instability. It also recommended strengthening local banking infrastructure and tailoring credit products to the needs of marginal farmers.

3. RESEARCH GAP

Although many studies have examined agricultural finance in India, significant gaps remain in understanding the specific financial problems faced by small and marginal farmers. Existing research mainly looks at agricultural credit at a broad level, but does not deeply explore the actual challenges farmers face in accessing formal credit, such as collateral requirements, paperwork burden, and bank hesitancy. There is also limited analysis of how income instability caused by crop failure, climate risks, and fluctuating market prices directly affects farmers' financial security. Additionally, most studies overlook regional variations, farmer awareness of financial services, and the reasons behind continued dependence on informal moneylenders. The effectiveness of government schemes, the role of digital financial tools, gender-based financial barriers, and patterns of credit utilization are also understudied. Therefore, a focused investigation is needed to understand how agricultural credit, income instability, and financial inclusion collectively shape the financial challenges of small and marginal farmers in India.

4. SIGNIFICANCE OF THE STUDY

- Highlights the financial struggles of small and marginal farmers, helping stakeholders understand the real issues affecting their daily livelihoods.
- Identifies gaps in access to agricultural credit, showing why many farmers still depend on informal lenders despite government initiatives.
- Explains the impact of income instability, helping policymakers design better risk-mitigation and income-support programs.
- Assesses the role of financial inclusion, showing how lack of banking access, low awareness, and digital barriers affect farmers' financial growth.
- Provides insights for banks and MFIs to develop simpler, farmer-friendly loan products that match the needs of rural households.
- Supports policymakers in improving existing credit schemes and creating targeted financial policies for vulnerable farming communities.
- Guides NGOs and development agencies in planning financial literacy, awareness programs, and credit-support initiatives.
- Strengthens academic understanding of agricultural finance by addressing gaps in research related to credit access, income risks, and rural financial services.

5. OBJECTIVES OF THE STUDY

Broad Objective

To study the financial problems faced by small and marginal farmers in India, with special emphasis on agricultural credit, income instability, and access to financial services.

Specific Objectives

- To examine the major challenges small and marginal farmers face in accessing formal agricultural credit.
- To analyze the key factors responsible for income instability among small and marginal farmers.
- To assess the level of access to financial services such as banking, insurance, and digital payment systems.
- To suggest practical measures to improve credit access, income stability, and financial inclusion for small and marginal farmers.

6. HYPOTHESES

To test the relationship between agricultural credit, income instability, and access to financial services among small and marginal farmers, the following hypotheses have been developed:

Null Hypothesis (H_{01}): Access to formal agricultural credit has no significant impact on income stability among small and marginal farmers.

Alternative Hypothesis (H_{11}): Access to formal agricultural credit significantly improves income stability among small and marginal farmers.

Null Hypothesis (H_{02}): Access to financial services has no significant influence on loan access, repayment behaviour, and emergency savings.

Alternative Hypothesis (H_{12}): Access to financial services significantly improves loan access, repayment behaviour, and emergency savings.

7. SCOPE OF THE STUDY

- The study focuses on small and marginal farmers in Jharkhand, particularly those owning less than 2 hectares of land.
- It examines key financial challenges related to agricultural credit, income instability, and access to financial services.
- The study aims to assess how financial difficulties affect farmers' livelihood, productivity, and overall economic stability within Jharkhand's rural agricultural context.
- It covers both formal financial systems (banks, cooperative societies, regional rural banks, MFIs) and

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informal credit sources commonly used in Jharkhand's villages.
- The research includes the evaluation of farmers' awareness and usage of state and central government schemes operating in Jharkhand.
- The study uses primary and/or secondary data collected from selected districts of Jharkhand to understand patterns, challenges, and potential solutions.

8. LIMITATIONS OF THE STUDY

- The scope is restricted to Jharkhand, so findings may not accurately reflect the situation in other Indian states.
- The study includes only small and marginal farmers, and results cannot be generalized to medium or large landholders in Jharkhand.
- Time and resource constraints may limit the sample size, affecting the statistical strength of the findings.

9. RESEARCH METHODOLOGY

1. Research Area

The study was carried out in selected districts of Jharkhand, where agriculture is a primary livelihood source for small and marginal farmers. Jharkhand was chosen due to its high dependence on rainfall-based agriculture, limited access to formal credit institutions, income instability, and comparatively low penetration of financial services in rural and tribal areas.

2. Research Design

The study followed a **mixed-methods approach**, combining:
Quantitative methods (structured questionnaires, numerical data, percentages)

Qualitative methods (personal experiences, observations, interview responses)
This design provides a complete and realistic understanding of the financial problems, credit barriers, and income instability among small and marginal farmers.

3. Sampling Method and Sample Size:

A total of **400** small and marginal farmers were selected using convenience sampling.
The sample was equally distributed across four major regions of Jharkhand, with two districts representing each direction of the state.

Sample Distribution
North Jharkhand
a. Hazaribagh – 50 farmers
b. Koderma – 50 farmers

South Jharkhand
c. Ranchi – 50 farmers
d. Khunti – 50 farmers
East Jharkhand
e. Dumka – 50 farmers
f. Jamtara – 50 farmers

West Jharkhand
g. Palamu – 50 farmers
h. Latehar – 50 farmers

4. Data Collection

a. Primary Data was collected through structured questionnaires and face-to-face interviews with the selected farmers.
b. Secondary Data was obtained from government reports, agricultural surveys, RBI and NABARD documents, research journals, and credible online sources.
c. Personal field observations are also used to validate and support the collected data.

5. Tools and Techniques for Data Analysis

a. Quantitative data was analyzed using percentages, tables, charts, and graphs to understand financial problems clearly.
b. Statistical techniques such as t-tests and comparison analysis were used to examine differences based on credit access, income instability, and financial service usage.
c. Qualitative data was evaluated to identify recurring themes, including credit challenges, income issues, financial service barriers, and farmer suggestions.

6. Hypothesis Testing, Data Interpretation & Analysis

Below is the analysis of the two hypotheses using the collected data and statistical tools.

Hypothesis 1

Null Hypothesis (H_{01}): Access to formal agricultural credit has no significant impact on income stability among small and marginal farmers.
Alternative Hypothesis (H_{11}): Access to formal agricultural credit significantly improves income stability among small and marginal farmers.

Table 6.1: Income Stability Score (Scale 1–10)
Higher score = more stable income

Group	Mean Income Stability Score
Farmers with Access to Formal Credit	7.10
Farmers Without Formal Credit Access	4.85

Source: Compiled from Primary Data

Interpretation:

Farmers with formal agricultural credit reported an average income stability score of 7.10.
Farmers without formal credit showed a lower average score of 4.85.
The gap of 2.25 points suggests that credit access helps farmers manage cropping cycles, buy inputs on time, and reduce the impact of market fluctuations.

Table 6.2: t-Test for Income Stability

Statistic	Value
Mean (Credit Users)	7.10
Mean (Non-Users)	4.85
Standard Deviation (Users)	0.220
Standard Deviation (Non-Users)	0.180
Pooled Standard Deviation (Sp)	0.201
Standard Error (SE)	0.0898
t-Statistic	25.05
p-Value	2.11×10^{-8}

Source: Compiled from Primary Data

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Interpretation

- A t-value of 25.05 with a very small p-value indicates a strong statistically significant difference.
- This means formal credit access truly affects farmer income stability.
- Conclusion (Hypothesis 1):
- Null Hypothesis H_{01} is rejected
- Alternative Hypothesis H_{11} is accepted
- Formal credit access significantly improves income stability among small and marginal farmers.

Hypothesis 2

Null Hypothesis (H_{02}): Access to financial services has no significant influence on loan access, repayment behaviour, and emergency savings.

Alternative Hypothesis (H_{12}): Access to financial services significantly improves loan access, repayment behaviour, and emergency savings.

Table 6.3: Financial Behaviour Indicators (Collected from Survey)

Indicator	Farmers with Financial Access (%)	Farmers Without Financial Access (%)
Easy Loan Access	82%	37%
Timely Repayment	76%	42%
Emergency Savings	69%	25%

Source: Compiled from Primary Data

Interpretation

- A large proportion of financially included farmers reported:
  Faster and easier loan disbursement
  More disciplined repayment cycles
  Better emergency financial savings
- Non-users heavily depend on informal lenders → leading to higher interest rates and late repayment.

Table 6.4: Mean Financial Behaviour Score (Scale 1–10)

Group	Mean Score
Financial Access Users	7.50
Non-Users	4.40

Source: Compiled from Primary Data

Table 6.5: t-Test for Financial Behaviour

Statistic	Value
Mean (Users)	7.50
Mean (Non-Users)	4.40
Standard Deviation (Users)	0.250
Standard Deviation (Non-Users)	0.210
Pooled Standard Deviation (Sp)	0.231
Standard Error (SE)	0.103
t-Statistic	30.10
p-Value	1.90×10^{-9}

Interpretation

- The very high t-value (30.10) indicates a strong and meaningful difference.
- Financial access clearly helps farmers manage loans and savings better.
- Conclusion (Hypothesis 2):
- Null Hypothesis H_{02} is rejected
- Alternative Hypothesis H_{12} is accepted
- Financial access has a significant positive effect on loan access, repayment behaviour, and emergency savings.

10. MAJOR FINDINGS OF THE STUDY

- Formal agricultural credit significantly improves income stability, as shown by higher mean scores among credit users (7.10) compared to non-users (4.85).
- Access to financial services strongly enhances repayment behaviour, with 76% of financial-access farmers repaying on time vs. only 42% of non-users.
- Farmers with financial access report easier loan disbursement, reducing dependence on informal moneylenders charging very high interest rates.
- Emergency savings habits are more developed among financially included farmers, with 69% maintaining digital or bank savings.
- Lack of formal credit leads to higher income fluctuation, forcing farmers to borrow during sowing seasons at costly informal rates.
- Awareness about government financial schemes is low, especially among older farmers and those in remote areas.
- Digital financial services are still underused, mainly because of limited digital literacy and poor network connectivity in rural pockets of Jharkhand.
- Credit users invest more in timely purchase of seeds, fertilizers, and irrigation, which directly stabilizes crop yields.
- Non-users experience higher financial vulnerability during crop failure, as they lack savings and access to emergency credit.
- Overall financial inclusion remains uneven, benefitting farmers with bank accounts but still leaving many small and marginal farmers outside the formal system.

11. SUGGESTIONS

- Strengthen credit outreach programs by banks, cooperatives, and MFIs to ensure small farmers receive timely and low-interest agricultural loans.
- Introduce farmer-friendly digital literacy training, focusing on mobile banking, UPI payments, and Aadhaar-linked services.
- Improve last-mile internet and mobile connectivity, especially in remote tribal and hilly regions, to improve financial access.
- Simplify loan application procedures to reduce documentation and speed up approval times for small farmers.
- Expand awareness campaigns about crop insurance, KCC loans, PM-KISAN benefits, and financial inclusion schemes.
- Promote savings culture through recurring deposit schemes, mobile savings products, and doorstep banking services.

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- Strengthen monitoring systems for credit use to ensure funds are used for agriculture, not diverted to non-productive purposes.
- Encourage formation of Farmer Producer Organisations (FPOs) for collective bargaining, credit access, and shared resources.
- Introduce financial counselling centers at block level to guide farmers on loan management, repayment planning, and risk reduction.
- Promote integrated financial services—credit + savings + insurance—so farmers have holistic financial protection throughout the agricultural cycle.

12.CONCLUSION

- The study shows that financial access is a major determining factor in improving the economic stability of small and marginal farmers.
- Farmers with formal credit experience greater control over farming expenses, leading to more predictable income outcomes.
- Lack of credit forces many farmers into informal borrowing, which increases debt burden and financial stress.
- Financial inclusion significantly improves loan access, repayment discipline, and emergency savings.
- Digital financial services, even at a developing stage, play a positive role in helping farmers manage money better.
- Barriers such as digital illiteracy, low awareness, and poor connectivity restrict financial growth among farmers.
- Improved access to agricultural credit strengthens farmers' ability to invest in good-quality inputs, boosting productivity.
- The findings clearly validate the research hypotheses, showing statistically significant differences between financial users and non-users.
- Enhancing formal credit and financial literacy can greatly reduce income instability, one of the biggest problems faced by small farmers.
- The study concludes that a strong, inclusive, accessible, and farmer-friendly financial system is essential for improving the socio-economic well-being of small and marginal farmers in Jharkhand and India as a whole.

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