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An Investigation of Crop Insurance Disbursement and Satisfaction of Farmers in Mehkar Region

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Abstract: ***This study analyses crop insurance disbursement and farmer satisfaction in the Mehkar region of Maharashtra. Agriculture in India is highly exposed to risks such as climatic uncertainties, pests, and natural disasters, making crop insurance a vital risk management tool. The research focuses on farmers' awareness, the efficiency and timeliness of claim disbursement, and overall satisfaction with insurance services. Despite initiatives like the Pradhan Mantri Fasal Bima Yojana, issues such as delayed payments, complex procedures, and inadequate compensation continue to affect effectiveness. The study identifies gaps in implementation and provides suggestions to improve service delivery, enhance farmer participation, and strengthen the overall performance of crop insurance schemes.***
Keywords: Crop Insurance; Farmer Satisfaction; Claim Disbursement; Agricultural Risk; Awareness;

I. INTRODUCTION

This study titled *"Investigation of Crop Insurance Disbursement and Farmer Satisfaction in Mehkar Region"* examines the effectiveness of crop insurance schemes with a focus on claim disbursement and farmer satisfaction. Agriculture plays a vital role in the Indian economy, supporting livelihoods, food security, and rural development, but it is highly vulnerable to risks such as droughts, floods, pests, and market fluctuations (Singh & Agrawal, 2020). Crop insurance serves as an important risk management tool by providing financial protection against crop losses caused by natural calamities and uncertainties (Ghosh et al., 2021). India has introduced several schemes such as the Comprehensive Crop Insurance Scheme (CCIS), National Agricultural Insurance Scheme (NAIS), and Pradhan Mantri Fasal Bima Yojana to improve coverage, affordability, and claim settlement efficiency (Raju et al., 2016). Despite these initiatives, challenges such as low awareness among farmers, delays in claim settlements, procedural complexities, and dissatisfaction with compensation persist (Goudappa et al., 2012; Jamanal et al., 2019; Sharma et al., 2024). These issues are particularly significant in Mehkar region of Buldhana district, where agriculture is largely rain-dependent and risk-prone. Limited region-specific studies highlight the need to examine crop insurance disbursement and farmer satisfaction at the local level (Cariappa et al., 2021; Awasthi & Godara, 2025).

A. Research Problem

Despite available crop insurance, farmers in Mehkar face delays, low awareness, and poor service. This study addresses the lack of region-specific research to bridge the gap in understanding local scheme effectiveness.

B. Aims and Objectives of the Study:

1) To study different crop insurance schemes implemented by Government and Private Institutions.
2) To Study the Awareness level of Farmers about crop insurance schemes in Mehkar region.
3) To analyse the process and timeliness of crop insurance disbursement to farmers.
4) To examine the satisfaction level of farmers regarding crop insurance services with respect to various parameters.
5) To identify the challenges and problems faced by farmers in availing crop insurance benefits.
6) To provide recommendations and suggestions for improving the effectiveness and farmer satisfaction in crop insurance schemes.

C. Scope of the Study

The study is limited to farmers in the Mehkar region of Buldhana district, Maharashtra, focusing on crop insurance disbursement and satisfaction over recent agricultural seasons. It does not cover other aspects such as crop production or marketing.

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II. LITERATURE REVIEW

Previous studies highlight that crop insurance plays a crucial role in reducing agricultural risk, yet its effectiveness is limited by several operational challenges. Research by Sundar and Ramakrishnan (2015) and Jamanal et al. (2019) found low awareness among farmers and dissatisfaction due to delays and complex claim procedures. Similarly, studies across India and other countries (Ghimire & Chapagain, 2023; Ankrah et al., 2021) reported issues such as lack of trust, poor communication, and procedural difficulties affecting adoption and satisfaction.

Other researchers emphasized that timely claim settlement, transparency, and service quality are key determinants of farmer satisfaction (Sharma et al., 2024; Drejeris & Rusteika, 2024). Studies on weather-index insurance (Shirsath et al., 2019; Raju et al., 2016) suggested that simplified and faster claim processes can improve efficiency, though field-level challenges remain underexplored. Additionally, factors such as awareness, income, education, and institutional support significantly influence farmers' participation in crop insurance schemes (Ghosh et al., 2021; Kumar et al., 2011; Singh & Agrawal, 2020).

III. RESEARCH METHODOLOGY

A. Research Design

The study follows a descriptive research design to examine crop insurance disbursement and farmer satisfaction in the Mehkar region.

B. Data Sources

Data Sources: This study utilizes primary data collected via farmer questionnaires and interviews, supplemented by secondary data from official reports, research articles, and institutional sources.

C. Tools of Data Collection

Data are collected using structured questionnaires, interviews, and observation methods, supported by secondary literature review.

D. Sample Design and Size

The study includes a sample of 100 farmers from the Mehkar region who have availed crop insurance in recent agricultural seasons.

E. Sampling Technique

A convenience sampling method is used, selecting farmers who are accessible and willing to participate.

F. Data Analysis Tools

Data are analyzed using quantitative (statistical methods) and qualitative (thematic analysis) techniques with the help of Excel/SPSS software.

IV. DATA ANALYSIS AND INTERPRETATION

This section analyses respondent perceptions of crop insurance using Mean, Standard Deviation, One-sample T-test, and Pearson Correlation. All variables were measured on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), with a neutral midpoint of 3.0.

A. Consolidated Summary of Objectives

The table below provides a comprehensive overview of the mean scores and variability for each of the five research objectives.

Table I: Summary Of Descriptive And Inferential Statistics For Research Objectives

Objective	Description	Mean Score	Std. Deviation	T-Value	P-Value	Result (H0 at 3.0)
Objective 1	Awareness of Crop Insurance Schemes	3.763	1.112	8.779	<.001	Significant
Objective 2	Process and Timeliness of Disbursement	3.023	1.073	0.255	.799	Not Significant

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Objective 3	Satisfaction with Insurance Services	2.982	1.221	-0.215	.830	Not Significant
Objective 4	Challenges in Availing Benefits	3.780	0.851	13.234	<.001	Significant

B. Interpretation of Findings

Awareness (Obj 1): With a mean of 3.763 ($p < .001$), farmers show high awareness of eligibility and benefits, significantly rejecting the null hypothesis. Execution vs. Perception (Obj 2 & 3): Means for disbursement (3.023) and satisfaction (2.982) show neutrality ($p > .05$). Satisfaction remains statistically unproven, hindered primarily by delayed compensation (Mean: 2.656). Critical Barriers (Obj 4): A high mean of 3.780 ($p < .05$) confirms significant challenges, primarily driven by untimely information and high premium rates. Need for Reform (Obj 5): Recording the study's highest mean (4.076), results show a significant demand for reform. Specifically, there is an urgent call for simplified documentation and digital/mobile platforms (Mean: 4.740) to improve accessibility.

C. Hypothesis Testing

- Null Hypothesis (H0): Crop insurance disbursement (in terms of process, timeliness, and adequacy) is not significantly related to the level of satisfaction of farmers in the Mehkar region.
- Alternative Hypothesis (H1): Crop insurance disbursement (in terms of process, timeliness and adequacy) and the level of satisfaction of the farmers in Mehkar region are significantly related.

Table II:
Statistical Analysis And Hypothesis Decisions

Hypothesis (H0)	Mean	T-Value	P-Value	Result
H0{01}: Awareness of schemes is not significant.	3.763	8.779	< .001	Rejected
H0{02}: Disbursement process is efficient.	3.023	0.255	.799	Accepted
H0{03}: Farmers are satisfied with services.	2.982	-0.215	.830	Accepted
H0{04}: Farmers face no significant challenges.	3.780	13.234	< .001	Rejected

D. Correlation Analysis Hypothesis Testing

A primary focus of this study was to determine if the efficiency of the disbursement process directly affects the satisfaction of the farmers.

Table III.
Correlation analysis hypothesis testing

Variable Pair	Pearson Correlation (r)	Significance (2-tailed)	Outcome
Disbursement Process vs Farmer Satisfaction	0.851	<.001	Reject Null Hypothesis

Correlation is significant at the 0.01 level.

Interpretation: A strong correlation ($r = 0.851$) confirms that faster and simpler insurance disbursement significantly increases farmer satisfaction.

IV. CONCLUSION

The analysis concludes that while awareness levels are high, the practical experience of farmers is hampered by procedural delays and information gaps. The strong correlation between process and satisfaction suggests that the most effective way to improve the success of crop insurance schemes is to focus on digital transformation and reducing the time-lag in claim settlements.

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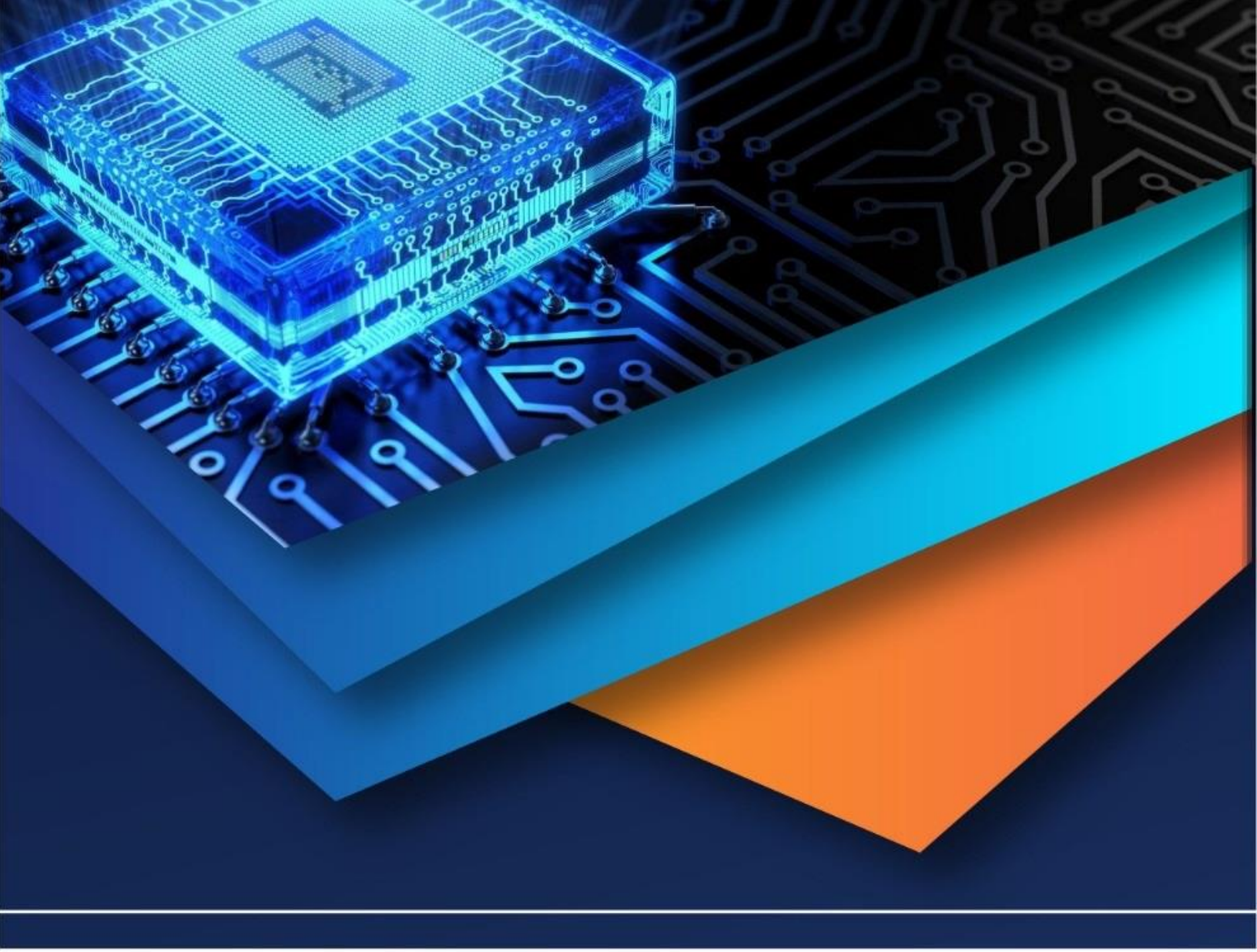

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