



Farmer's Satisfaction towards PMFBY Scheme in Trichy District of Tamil Nadu, India

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Authors' contributions

This work was carried out in collaboration among all authors. All authors contributed valuable feedback, helped develop the research and analysis and approved the final manuscript.

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ABSTRACT

Crop insurance is one of the risk management strategies that can help farmers manage hazards more effectively. The third-largest crop insurance plan, PMFBY (Pradhan Mantri Fasal Bima Yojana), serves as a relief programme for farmers whose crops have been affected by a natural calamity. The aim of the study was to determine the satisfaction level of farmers regarding PMFBY scheme in Trichy district. The research was conducted during the year 2022 by using the "ex-post facto" research design. Three villages from each block of the Thuraiyur and Uppiliyapuram were

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purposefully chosen for the study based on having a higher percentage of insured farmers. Respondents were selected by proportionate sampling from each village, and the sample size was 120. The data were collected using structured interview schedule and the primary data was analysed using descriptive statistics, cumulative frequency method and chi-square test. The study's findings revealed that most of the insured farmers (65.00%) were middle-aged, 77% male had a middle-school education, owned small amounts of land (60.83%), had a medium level of information (65.78%), had crop loans from cooperative banks (50%) and had medium level of risk orientation and economic motivation. Regarding satisfaction, more than half of the respondents (68.33%) of the insured farmers reported a medium level of satisfaction with the PMFBY scheme. The factors viz., risk orientation, farm size, information sources, educational attainment, and the frequency of disaster occurrence all revealed a positive significant relationship with the satisfaction level of insured farmers at a 5% level of probability. Farmers' satisfaction was found to be modest in the study. As a result, accountable officials must conduct awareness campaigns, educate farmers before to or during crop cutting experiments, make the loss assessment process flexible and straightforward, and distribute claims prior to the start of the following season.

Keywords: Crop insurance; PMFBY (Pradhan Mantri Fasal Bima Yojana); insured farmers; satisfaction.

1. INTRODUCTION

Crop yield uncertainty is one of the most significant issues that every farmer faces Sundar, J. and Ramakrishnan, L. [1]. Drought, floods, cyclones, storms, landslides, earthquakes, and other natural calamities frequently have an impact on India's agricultural output and farm revenue Sushree et al., [2]. The development of illnesses, man-made disasters such as fires, the sale of counterfeit seeds, fertilizers, and pesticides, price drops, and other factors make people more vulnerable to these disasters. Farmers suffer as a result of diminished revenue and output caused by unpredictable events. Crop insurance encourages improved resource management and increased productivity while also assisting farmers in dealing with the shock of unpredictable conditions. It aids in the stabilization of farm income and agricultural productivity Chakraborty et al., [3]. As a result, the Indian government and insurance companies recognized the need of safeguarding farmers from various hazards and perils.

In June 2016, the government launched PMFBY (Prime Minister Fasal Bima Yojana) as part of its "one nation, one scheme" initiative. The proposal has attempted to partially lower insurance premiums and expand insurance coverage by taking into consideration more crops and risk variables. The Pradhan Mantri Fasal Bima Yojana protects government-advertised food crops, oilseeds, horticulture, and commercial crops. Every year, around 5 crore farmer applications are received for the Pradhan Mantri

Fasal Bima Yojana (PMFBY), the world's third largest crop insurance scheme. This comprehensive crop insurance policy was designed to protect farmers Senthil Kumar, K and Anantharaj, P. [4].

This programme contributes to the flow of funds to the agricultural sector and other connected industries, hence promoting crop variety and food security. It also entails protecting farmers from production hazards and promoting the sector's development and competitiveness Swain, M and Hembran, BR. [5]. The effectiveness of these programmes is dependent on farmers as well as government policies and organisational frameworks. Because of the importance of this, the satisfaction level in the current study related to the degree of farmer satisfaction connected with the benefits of the PMFBY programme. The study's main goal was to measure farmers' satisfaction with the PMFBY initiative and see how it connected to their socioeconomic level.

2. MATERIALS AND METHODS

2.1 Research Area

The current study was carried out in the Trichy district of Tamil Nadu. The ex-post-facto research design was employed for the study. Trichy district comprises of 14 blocks, out of which Thuraiyur and Uppiliyapuram block as shown in Fig. 1, from which three villages each were purposively selected since they had a greater number of beneficiaries under the PMFBY scheme.

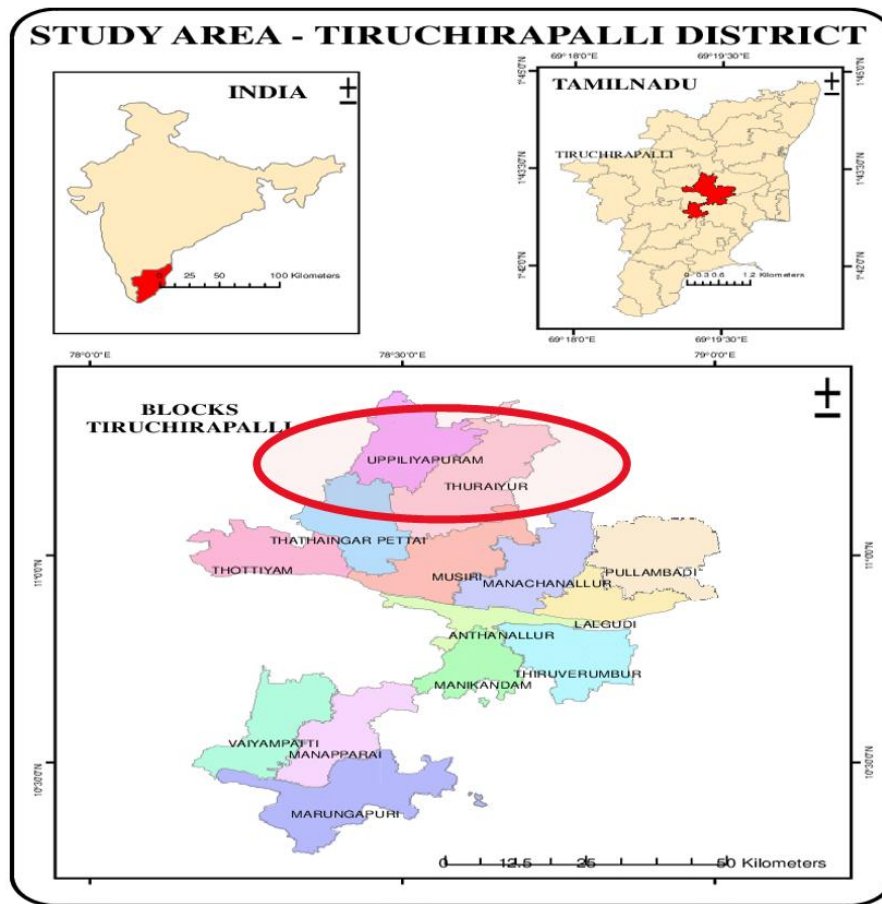


Fig. 1. Map depicting the district and the blocks selected for the study

The proportionate random sampling technique was used to tally the number of respondents from each of the selected villages; the sample size was 120, and a total sample of 120 people were randomly contacted. The data was gathered using a structured interview schedule, and its viability and applicability were prior assessed in a non-sample area during pilot survey. Using relevant statistical methods such as descriptive statistics, mean, standard deviation and Chi-Square analysis, the data collected from the respondents were tabulated. Software viz., SPSS and MS Excel were used to analyse the data. The respondents were asked to rate their level of satisfaction on a three-point scale, with satisfied, neutral and dissatisfied receiving scores of 3, 2 and 1, respectively, for positive remarks. The scale had 17 statements, and the maximum and minimum scores, the person could receive were 51 and 17 respectively. The respondents' satisfaction is classified as low, medium, high using the mean and standard deviation based on the scores received.

2.2 Statistical Method

2.2.1 Chi-square analysis

This method was used to assess the significant relationship between independent variables and dependent variable of the study.

Chi-Square, is a non-parametric test symbolically written as χ^2 , when categorical data is employed, it can be used to compare theoretical population and actual data to see if there is dependency between the two classifications or if they are independent. It is given as,

$$\chi^2 = E [(O - E)^2 / E] \text{ with d.f } (r-1) (c-1)$$

Where,

O = Observed frequencies

E = Expected frequencies

r = Number of rows

c = Number of columns

3. RESULTS AND DISCUSSION

3.1 Profile of the Respondents

According to the respondent's profile (Table 1), in comparison to older and younger farmers, the majority of farmers (65%) belonged to the medium age group (36-45 years), were enthusiastic, actively engaged in agricultural operations and had higher work efficiency. 47.5% of farmers had upto middle schooling, while only 5% had a degree. This could be a result of their ignorance of the value of education in their lives (Nagesha et al.,[6]). Male farmers made up three-fourths of the respondents (77.50%). The fact that the majority of farmers (60.83%) were small farmers may account for the majority's (56.67%) annual income of less than one lakh rupees. Since, the majority of farmers fell into the category of middle-aged people, having a farming background of six to ten years (46.67%) is natural. 65.83% of farmers had access to medium level information on the Pradhan Mantri Fasal Bima Yojana, and 47.5% of farmers were members of one organisation, mainly cooperative societies. 50.83% of farmers have high disaster incidence patterns, indicating that they are prepared to obtain crop insurance (PMFBY) to avert significant crop loss and monetary loss.

Because agricultural cooperative societies were more freely available for acquiring loans than other commercial banks, 50% of farmers who decided to purchase crop insurance did so without consulting anyone else, and 45% did so. The study found that 66.67% of respondents have a medium risk orientation, 70.83% have a medium scientific orientation, 72.50% have a medium category of innovativeness, and 69.17% have a medium economic motivation. The results are in accordance with findings of Suresh, N and Sreedaya, GS [7].

3.2 Overall Satisfaction Level of Farmers about PMFBY Scheme

According to Table 2, 68.33% of insured farmers were satisfied with the PMFBY scheme, with low (19.17%) and high (12.50%) satisfaction levels following. The most likely causes are, among others, a lack of comprehensive information about the programme, discontent with the program's terms and conditions, complaints addressed during claim settlement, inadequate claims received, and how crop cutting studies were conducted. The results were similar to findings of Mehrad, A and Prabhu, M. [8].

Table 1. Profile of the respondents (n =120)

Profile	Category	Frequency (n)	Percent (%)
Age	Young (upto 35 years)	17	14.17
	Middle (36 to 45 years)	78	65.00
	Old (Above 45 years)	25	20.83
Educational Status	Illiterate	19	15.83
	Functionally literate	18	15.00
	Primary school (1 st -5 th)	28	23.33
	Middle school (5 th -8 th)	29	24.17
	Secondary school (9 th - 10 th)	12	10.00
	Higher secondary (11 th -12 th)	8	6.67
	Graduation	6	5.00
Gender	Male	93	77.50
	Female	27	22.50
Farm size	Marginal (< 2.50 acres)	32	26.67
	Small (2.50 – 5.00 acres)	73	60.83
	Big (>5.00 acres)	15	12.50
Annual income	Low (<50,000)	35	29.17
	Medium (50,000-1,00,000)	68	56.67
	High (> 1,00,000)	17	14.17
Farming experience	Low (upto 5 years)	18	15.00
	Medium (6 to 10 years)	56	46.67
	High (above 10 years)	46	38.33
Source of information	Low (less than 25)	20	16.67
	Medium (between 25-45)	79	65.83
	High (more than 45)	21	17.50

Profile	Category	Frequency (n)	Percent (%)
Social participation	No participation in any organization	51	42.50
	Member in one organization	57	47.50
	Member in more than one organization	8	6.67
	Office bearer in one organization	4	3.33
	Office bearer in more than one organization	0	0.00
Disaster occurrence frequency	Low (less than 6)	20	16.67
	Medium (between 6 to 10)	39	32.50
	High (more than 10)	61	50.83
Decision making behaviour	Self (without consulting others)	54	45.00
	Consulting with Spouse /Elders	33	27.50
	Consulting all the family members	19	15.83
	Helps others in decision making	14	11.67
Crop loan availed	No participation	0	0.00
	Commercial banks	35	29.17
	Co – operative banks	60	50.00
Risk orientation	Regional rural banks	25	20.83
	Low (less than 17)	22	18.33
	Medium (between 17 to 27)	80	66.67
Scientific orientation	High (more than 27)	18	15.00
	Low (less than 17)	19	15.83
	Medium (between 17 to 27)	85	70.83
Innovativeness	High (more than 27)	16	13.33
	Low (less than 16)	16	13.33
	Medium (between 16 to 26)	87	72.50
Economic motivation	High (more than 26)	17	14.17
	Low (less than 17)	18	15.00
	Medium (between 17 to 27)	83	69.17
	High (more than 27)	19	15.83

Table 2. Overall satisfaction level of insured farmers about PMFBY scheme (n=120)

Category	Frequency (n)	Per cent (%)
Low (less than 25)	23	19.17
Medium (between 25 to 43)	82	68.33
High (more than 43)	15	12.50

Table 3. Farmers profile and level of satisfaction (n=120)

Factors	χ^2 value	Table value	Remarks
Age	4.714	9.487	NS
Educational status	21.309	21.026	S
Gender	2.463	5.991	NS
Farm size	11.107	9.487	S
Annual income	1.008	9.487	NS
Farming experience	2.012	9.487	NS
Sources of information	14.874	9.487	S
Social participation	8.950	12.591	NS
Disaster occurrence frequency	10.239	9.487	S
Decision making behaviour	5.242	12.591	NS
Crop loan availed	1.927	9.487	NS
Risk orientation	18.332	9.487	S
Scientific orientation	6.307	9.487	NS
Innovativeness	3.733	9.487	NS
Economic motivation	12.972	9.487	S

*S= Significant at 5% level, NS – Not Significant

3.3 Relationship between Independent Variables with Satisfaction Level of Crop Insured Farmers

Table 3 displays the relationship between independent variables and the respondents' level of satisfaction. The chi-square analysis results revealed that, at the 5% level of probability, the following variables, educational status, farm size, information sources, the frequency of disaster occurrence, risk orientation, and economic motivation, had a positive significant relationship with satisfaction level of insured farmers. Farmers' levels of satisfaction rise with formal education. Families with more land often have higher incomes and social standing, allowing them to implement the necessary risk-reduction measures. Farmers may have had frequent interactions with bank officials and extension employees from development departments. This may have improved their understanding of the benefits of crop insurance and boosted their satisfaction with crop insurance programmes. Disasters that occur on a regular basis may persuade farmers to obtain crop insurance to cover crop losses, as well as indicate their proclivity for taking risks, thereby broadening the farmers' mental frontiers to accept and use the crop insurance plan.

The findings of this study is in line with the study of Fazil, Mohamed, K.N., [9] and Jamanal et al. [10].

4. CONCLUSION

Farmers' satisfaction was determined to be modest in the current study. The following variables had a significant association with the degree of satisfaction of insured farmers at a 5% level of probability: educational status, farm size, information sources, the frequency of catastrophe incidence, risk orientation, and financial incentive. The reason for moderate level of satisfaction might be due to the scheme's provision of financial protection to farmers in the case of crop losses due to natural calamities and unanticipated situations. However, some difficulties and shortfalls were found, which had an impact on farmers' overall satisfaction with the programme. Concerns included how their complaints were handled, the program's terms and conditions, the length of the claim procedure, the number of claims paid out, and the methods used to conduct crop cutting tests. Concerned officials, decision-makers, administrators, policy-makers, and the agencies concerned should take

proactive initiatives to increase the effectiveness of the PMFBY programme and the pleasure of farmers. These include raising farmers' awareness of the programme and educating them about it, streamlining the program's processes, accelerating the resolution of claim disputes and assuring an honest and accurate evaluation of crop losses. Furthermore, in order to address farmers' concerns and take their proposals for improving the programme into consideration, the government should promote stakeholder involvement and routinely solicit their comments. The Pradhan Mantri Fasal Bima Yojana has the potential to substantially assist farmers and reduce the risks related to crop failures. The PMFBY scheme can more effectively achieve its goal of protecting the livelihoods of farmers involved in the agriculture sector by addressing the identified weaknesses and building on its strengths.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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