



Assessment of farmer's perception towards Pradhan Mantri Fasal Bima Yojana (PMFBY) as a Risk management strategy in Tamil Nadu

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Abstract

Crop insurance is an inevitable insurance cover to be purchased by farmers to protect against the financial losses raised out of loss of crops due to natural disasters. The study was made to analyse the perception of the insured farmers who had taken crop insurance by availing loan (Loanee farmers) and without availing loan (non-loanee farmers) towards crop insurance scheme, Pradhan Mantri Fasal Bima Yojana (PMFBY) in Tamil Nadu. The respondents were interviewed using a pre-tested questionnaire for their opinion and data obtained were analysed using descriptive statistics and four point Likert type of scale.

They perceived that PMFBY helped in adopting the modern technologies in crop production and can sustain safely in calamity years. The study revealed that there is need to create awareness about technical issues on PMFBY about claim settlement among the farmers and facilitate the farmers for trouble-free purchase of crop insurance scheme.

Keywords: PMFBY, insured farmers, perception, Likert scale

1. Introduction

Agricultural insurance has evolved as one of the most important means of indemnifying the losses in crop yields, and hence crop income among the farming community. Agricultural Insurance brings in security and stability in farm income. Agricultural insurance protects farmers' investment in crop production and thus, improves their risk bearing capacity, facilitating the adoption of improved technologies and, encourages higher investment resulting in higher agricultural production^[3]. Farmers are always confronted with fluctuation of expected price and yield variability, natural calamities and other outcomes that affect their financial returns and overall family welfare. The consequences of decisions or events of the farmers are often not known with certainty until long after such decisions were made by them. Risk is believed to play an important role in the investment decisions of individual farmers. Risk is the act of providing financial protection for property and life against death, loss or damage, while insurance is the equitable transfer of a risk or loss from one entity to another in exchange for a premium or a guaranteed and quantifiable small loss to prevent a large and possibly devastating loss^[2]. The new crop insurance scheme namely Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme was launched by the Government of India on January 13, 2016 and was subsequently implemented in the Kharif season of 2016. The scheme is operational in 22 out of the 30 Indian states. It employs an area approach for the calculation of losses due to risk faced by the farmers and crop losses are assessed on the basis of a yield-based index. The scheme covers crops grown across Kharif, Rabi and summer seasons in India. The coverage includes cereals, millets and pulses, oil seeds and annual commercial and horticultural crops such as banana,

turmeric, tapioca. In this paper, attempt was made to analyse the perception of the insured farmers who had taken crop insurance by availing loan (loanee farmers) and without availing loan (non-loanee farmers) towards crop insurance scheme.

2. Methodology

The study involved farmers who have been covered under crop insurance schemes such as PMFBY in the two districts of Tamil Nadu namely Thiruvavur and Erode districts. The Agriculture Insurance Company of India Ltd was implementing Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme in the study districts. The percentage of claim amount paid to total claim amount of Tamil Nadu was found to be higher for Paddy crop in Thiruvavur district. Erode district was purposively selected to study the effectiveness of crop insurance schemes in various crops in the district including horticultural crops. Hence, paddy crop in Thiruvavur district and horticultural crops such as banana and turmeric in Erode district were selected for study. From those selected 3 crops, 30 farmers each from Insured loanee (farmers who availed crop loan and compulsorily covered under PMFBY), insured-non-loanee (farmers who were not availed crop loan but purchased crop insurance voluntarily) were selected randomly. Thus the total sample for the study was 180 insured farmers involving of 90 loanee and 90 non-loanee farmers. Primary data from the sample farmers were collected with the help of a pre-tested interview schedule through personal interviews during the months from September-November, 2017. The results were analyzed with the help of different statistical tools such as percentage analysis, count and Likert Scale approach.

Table 1: Perception and Points

Perception or Opinion	Point
Strongly Disagree (SD)	1
Disagree (D)	2
Agree (A)	3
Strongly Agree (SA)	4

Likert scale was developed by Rensis Likert in the 1930s (Coolican, 2009). The scale was used to assess the perception of rural farmers to agricultural insurance scheme as specified below in Table.1.

The mean response to each item was calculated using the following formula:

Where:

$$\bar{x} = \frac{\sum FX}{N}$$

Where

x= means response,

Σ = summation,

F = number of respondents choosing a particular scale point,

X = numerical value of the scale point; and

N = total number of respondents to the item.

3. Results and Discussion

3.1 Perception of Insured (Loanee) farmers towards PMFBY

It was inferred from the Table 2 that 20 per cent of the loanee farmers strongly agreed that they can sustain safely in calamity years (M=3.00) by availing crop insurance scheme. Thus, famers were provided with financial support by crop insurance based on extent of crop loss due to adverse conditions such as drought, flood and cyclone (Nandhini and

Paramasivam, 2014). Since, most of the farmers were small and marginal farmers, they agreed that premium amount paid for purchasing crop insurance was high (61.11 per cent) with mean score of M=2.91. This was observed by farmers especially for horticultural crops such as banana and Turmeric in Erode district.

About 61 per cent of the respondents agreed that compensation received from insurance were less compared to actual crop occurred in the farm (M=2.90). This was because of compensation was worked on the basis of area approach and claim was calculated based on threshold yield. Similarly around 79 per cent of farmers agreed that there was a lengthy procedure in availing PMFBY through bank channel (M= 2.90). The respondents perceived that there was need to include more crops under PMFBY (M=2.89). The majority of the fruits, vegetables and flowers were not covered under crop insurance scheme PMFBY. About 60 per cent of the farmers agreed that PMFBY helped in adopting the modern technologies in crop production and 23.33 per cent of the farmers stated that they disagreed the same with the mean score of 2.83. This implied that PMFBY scheme had helped farmers in adopting modern technologies in cultivation of crops.

The study revealed that 54.44 per cent of the farmers were agreed the perception that PMFBY helped to credit claim amount to their bank account directly (M=2.67). In case of NAIS, total compensation was sent to nodal bank and bank in turn credit the claim amount to individual beneficiary farmers within stipulated time period through bank branches. It was inferred from the table that there were opinion of strong disagreement (28.89 per cent) and disagree (55.56 per cent) among the farmers for involvement of private insurance company for coverage under PMFBY with mean score of 1.87.

Table 2: Perception of Insured (Loanee) farmers towards PMFBY (n=90)

Particulars	Frequency				Total	Mean Score (M)
	Strongly Agree (SA)	Agree (A)	Disagree (D)	Strongly Disagree (SD)		
Farmers can sustain safely during calamity year	18(20.00)	56(62.22)	14(15.56)	2(2.22)	90(100.00)	3.00
Premium amount is high	14(15.56)	55(61.11)	20(22.22)	1(1.11)	90(100.00)	2.91
Compensation is less compared to actual loss	13(14.44)	55(61.11)	22(24.44)	0(0.00)	90(100.00)	2.90
Lengthy procedures for availing PMFBY in the bank	6(6.67)	71(78.89)	11(12.22)	2(2.22)	90(100.00)	2.90
Need to include more crops under PMFBY	13(14.44)	55(61.11)	21(23.33)	1(1.11)	90(100.00)	2.89
Helps in adopting the modern technologies	12(13.33)	54(60.00)	21(23.33)	3(3.33)	90(100.00)	2.83
Helps to credit claim amount to bank account directly	8(8.89)	49(54.44)	28(31.11)	5(5.56)	90(100.00)	2.67
Poor awareness about the scheme and its provisions	5(5.56)	50(55.56)	32(35.56)	3(3.33)	90(100.00)	2.63
Involvement of private Insurer for better coverage	0(0.00)	14(15.56)	50(55.56)	26(28.89)	90(100.00)	1.87

Figures in the parentheses indicate percentage to total (n=90)

3.2 Perception of Insured Non-loanee farmers towards PMFBY

It was inferred from the Table.3 that about 69 per cent of the

non-loanee farmers agreed that compensation received from insurance was less compared to actual crop loss occurred in the farm (M=3.04).

Table 3: Perception of Insured (Non-Loanee) farmers towards PMFBY (n=90)

Particulars	Frequency				Total	Mean Score
	Strongly Agree (SA)	Agree (A)	Disagree (D)	Strongly Disagree (SD)		
Premium amount is high	19(21.11)	56(62.22)	15(16.67)	0(0.00)	90(100.00)	3.04
Compensation is less compared to actual loss	16(17.78)	62(68.89)	12(13.33)	0(0.00)	90(100.00)	3.04
Lengthy procedures for availing PMFBY in the bank	12(13.33)	67(74.44)	11(12.22)	0(0.00)	90(100.00)	3.01
Need to include more crops under PMFBY	15(16.67)	61(67.78)	14(15.56)	0(0.00)	90(100.00)	3.01
Farmers can sustain safely during calamity year	10(11.11)	64(71.11)	15(16.67)	1(1.11)	90(100.00)	2.92
Poor awareness about the scheme and its provisions	5(5.56)	59(65.56)	25(27.78)	1(1.11)	90(100.00)	2.76
Helps in adopting the modern technologies	4(4.44)	52(57.78)	32(35.56)	2(2.22)	90(100.00)	2.64
Helps to credit claim amount to bank account directly	4(4.44)	43(47.78)	38(42.22)	5(5.56)	90(100.00)	2.51
Involvement of private Insurer for better coverage	0(0.00)	10(11.11)	57(63.33)	23(25.56)	90(100.00)	1.86

Figures in the parentheses indicate percentage to total. (n=90) Since, the non-loanee farmers incurred expenditure by lending money from non-institutional sector such as money lender, usually expecting more compensation as claim. It was inferred that non-loanee farmers stated their opinion of need to include more crops under PMFBY (m=3.01) and similarly around 74 per cent of farmers agreed that there was a lengthy procedure in availing PMFBY through bank channel (M=3.01). About 57.78 per cent of the farmers agreed that PMFBY helped in adopting the modern technologies in crop production and 23.33 per cent of the farmers stated that they disagreed the same with the mean score of 2.64. It was inferred that non-loanee farmers showed strong disagreement (25.56 per cent) and disagree (63.36 per cent) for involvement of private insurance company for insurance coverage under PMFBY with mean score of 1.86.

4. Conclusions

The study assessed perceptions of farmers towards PMFBY scheme in Tamil Nadu. It revealed that farmers could sustain safely during calamity year with help of crop insurance scheme. But, in general farmers also felt negatively that payment of crop insurance premium towards purchase of PMFBY was high and compensation received was less compared to actual loss incurred by farmers due to uncertainties. Hence, the earnest efforts should be taken to make the farmers realize the real purpose of the scheme, beyond perceiving it as a mere fund granting developmental programme by creating the awareness about PMFBY at grass root level. To make the scheme more administratively efficient and successful, the steps should be taken up for proper monitoring and implementing the crop insurance schemes effectively.

5. References

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