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Constraints faced by the farmers in marketing of maize in Tirupur district of Tamil Nadu

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Abstract

Maize, the queen of cereals, is an important commercial product in India. The key obstacles faced by farmers in marketing maize in the Tirupur area of Tamil Nadu are detailed in this study. Purposive sampling and snowball sampling approaches were used to gather the information from respondents. Garrett ranking looked into the limits that farmers encounter in the study. The most common income level among the farmers who replied (56 percent) was in the range of 68000-136000. The study region's maize growers believed that market price fluctuations were the most significant constraint they faced, hence it ranked first with a Garrett score of 70.57. When it came to marketing maize, the lack of governmental procurement was a problem for the majority of farmers, however a simple procurement system might solve the issue. According to the survey, the bulk of the products reach the feed industry. As a result, farmers can sell their products directly to the feed industries as an individual or as a group.

Keywords: Maize, marketing, constraints, Garretts' ranking

Introduction

Maize is a commodity with high economic significance in India. Increase in demand and production of maize is rapid when compared to other crops (Yadav *et al.* 2015) [1]. Maize has its origin in America and is called as "Queen of cereals. It is the third most important cereal after rice and wheat in terms of area and productivity in the world. It is grown in about 160 countries and has a wide diversity adapted to a variety of management practices and soil, water, and climatic conditions (K Thomas Felix *et al.*, 2018). India ranks fourth in terms of area and seventh in terms of production among maize-growing countries, accounting for roughly 4% of global maize area and 2% of total production. In India, the maize area increased to 9.2 million hectares in 2018-19. (Siddavatam, R. P, 2021) [4]. By 2025, India's population will require 300 MT of food grain, posing a severe threat to food security. Not only as a human feed, it also has the diversified uses such as animal feed, poultry feed, industrial inputs etc., (V.K. Choudhary *et al.*, 2013) [3]. The major maize producing states in India are Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu, Madhya Pradesh, Rajasthan and Uttar Pradesh. Even though there are many researches regarding doubling the production and area coverage of maize in India there are many lags in marketing side of the maize from farmer point of view. This study elaborates the major constraints faced by the farmers in marketing in the maize in Tirupur district of Tamil Nadu.

The main objective of the study is to identify the major constraints faced by the maize farmers in Tirupur district of Tamil Nadu.

Research Methodology

Selection of Study area

The district of Tirupur was chosen for the study on purpose. Tirupur is one of Tamil Nadu's most important maize-producing districts. It has a significant Maize sink in the form of the Feed Industry for Dairy and Poultry. There are thirteen blocks in the Tirupur district. Based on the area under maize cultivation, three blocks were chosen for the study. Dharapuram, Gudimangalam, and Madathukulam are the three blocks chosen for the research.

Selection of sample respondents and data collection

The respondents were selected using purposive sampling and snowball sampling methods. Purposively, the maize cultivating farmers are selected in the sample villages of the study area.

In addition to this, snowball sampling was also used. For example, the data were collected from a farmer, then with his reference, data were collected from another farmer, then it continued until the desired number of samples was reached. In Table 1, the details regarding the study's sample villages and respondents were given.

Table 1: Sample farmers in the study area

District	Blocks	Name of the Revenue villages	Number of sample farmers
Tirupur	Madathukulam	Thungavi	10
		Metrathi	10
		Echipatti	10
		Panathampatti	10
	Dharapuram	Dhasarpatti	10
		Ponnapuram	10
		Munduveelanpatti	10
	Gudimanhgalam	Gudimangalam	10
		Kottamangalam	10
		Poolavadi	10
Total			100

Period of the study

During May and June 2022, the primary data was collected from the sample respondents of the study area. The information gathered on Maize production, processing, and marketing is for the 2021-22 agricultural year.

Analysis

The characteristics of sample farm families were examined using percentages, including age, educational status, size of operational holdings, maize production, and marketing.

$$\text{Percentage analysis} = \frac{\text{Number of respondents}}{\text{Total number of samples}} \times 100$$

In the study, the constraints faced by the farmers were also studied. The major constrains were Fluctuation in market price, Lack of regulated market and co-operative marketing societies, Lack of awareness about market news and intelligence, Lack of storage facilities in growing area, Low price paid to farmers due to high marketing margin, Delay in cash payment, Monopolistic position of Intermediates, Lack of information about foreign markets, The government procurement system is not much effective. These constrains were selected based on the previous study by Saravanan, 2013 [6].

Silambarasan (2016) [5] used Garrett's ranking technique to rank the constraints faced by the onion farmers in marketing. In this technique, the respondents were asked to rank the constraints in the marketing of Maize. These ranks were converted into percent position by using the formula

$$\text{Percent position} = (100 \times (R_{ij} - 0.5))/N_j$$

Where,

R_{ij} = Rank given to the ith attribute by the jth individual

N_j = Number of attributes ranked by the jth individual.

Results and Discussions

The Table 2 shows the demographic characteristics of respondent farmers. Among the respondent farmers, 38 percent of the farmers were in the group of age 45-54 years, then it was followed by above 55 years age group, which accounts for 29 percent, followed by 35-44 years (19 percent).

Out of 100 farmers, 11 respondents were in the age category of 25-34 (11 percent). This survey also included 3 young farmers, who were in the age category of 15-24 (Adesuyi *et al.*, 2018) [7]. Male farmers cultivating maize had a higher percentage of male respondents (97%) than female farmers.

Table 2: Demographic characteristics of respondent's farmers

Demographic characteristics of respondent's farmers	
Characteristics	Percentage (100%)
Age (Years)	
15-24	3
25-34	11
35-44	19
45-54	38
55< (above)	29
Gender	
Male	97
Female	3
Family type	
Nuclear	75
Joint	25
Family size	
Small (<4)	60
Medium (5-6)	34
Big (>7)	6
Educational status	
Illiterate	22
Primary school	35
Higher secondary	27
Graduation	12
Post graduate	4
Annual Income (in Rs.)	
Low (0-68000)	20
Medium (68001-136000)	56
High (136001-206000)	24
Farming experience (Years)	
Below 10	29
11-20	24
Above 20	47
Farm size (in ha)	
Marginal farmer (Below 1)	21
Small farmer (1-2)	44
Semi-Medium farmer (2-4)	28
Medium farmer (4-10)	7
Large Farmer (Above 10)	0
Occupation type	
Agriculture	52
Agriculture + other	48

Primary education was the most common educational level among the respondents (Azam and Banumathi, 2015) [8]. The range of 68000-136000 was the most common income level (56%) among the farmers that responded (Satyanarayan *et al.*, 2010) [9]. Similarly, when it came to family type, joint families (25 percent) were less common than nuclear families (75 percent). Small families (60 percent) were the most common, followed by medium-sized families (34 percent). In terms of farming experience, the majority of respondents (47%) had more than 20 years of experience (Silambarasan, 2016) [5]. Small farmers were the most common under the farm size category (44 percent), followed by Semi-Medium and Marginal farmers (Ministry of Agriculture, 2019) [10]. Finally, agriculture was the sole source of revenue for the 52 percent of farmers who responded.

Table 3 presents the ranking of major marketing constrains faced by the farmers of the survey region. The maize growers in the study region felt that fluctuation in market price was the

primary constrain they were facing so, it ranks first with the Garrett score of 70.57. Compared to other agricultural

commodities, Maize has more fluctuation in price in day-to-day manner.

Table 3: Marketing constrains faced by farmers in study area

S. No	Marketing constraints	Garrett score	Ranking
1	Fluctuation in market price	70.57	I
2	Low price paid to farmers due to high marketing margin	68.36	II
3	The government procurement system is not much effective	62.01	III
4	Delay in cash payment	59.1	IV
5	Monopolistic position of Intermediates	57.57	V
6	Lack of awareness about market news and intelligence	53.5	VI
7	Lack of storage facilities in growing area	38.9	VII
8	Lack of regulated market and co-operative marketing societies	37.03	VIII
9	Lack of information about foreign markets	36.96	IX

Fluctuation in market price was followed by Low price paid to farmers due to high market margin of the intermediates. It is followed by government procurement system and was not much effective as the government only helped the farmers in marketing through various training. There was no direct procurement by the government like paddy and other food crops. Delay in cash payment, Monopolistic position of intermediates, lack of awareness about market news and intelligence and Lack of storage facilities occupied the next position respectively. Lack of foreign markets hold the least Garrett score and farmers were not really interested towards the foreign markets due to several factors such as high demand in local markets, high transportation costs, intermediation costs along the value chains (Mango, 2018) ^[11].

Conclusion

Like other cash crops, maize crop also has the potential to fetch high income for the farmers. But it was hindered mainly by the intermediates and other factors like other agricultural commodities. Among the constrains quoted by the respondent farmers, government procurement system was not much effective, which resulted in increased level of price fluctuations. Much like staple foods such as rice and wheat, a basic procurement can reduce the price fluctuations up to a certain level. In the study area, the major consumer of the maize is the feed industry in the marketing channel. So, farmers as an individual or a group can sell their products to the feed industries directly. By doing so, the high market margin in the market channel can be cutdown and the farmers can get more profit (Gohain, 2018) ^[12].

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