



STUDY ON MOTIVATIONAL FACTORS BEHIND THE CULTIVATION OF MAIZE IN PERAMBALUR DISTRICT

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ABSTRACT

Background of the study: Maize considered having great potential in improving the standards of living of the bulky of the rural population. The crop has maintained its supremacy as is evidenced by its contribution to total agricultural gross production. This made Government's Agricultural Policy components involves promotion of maize production in the country in an attempt to attain National Food Security and to improve the incomes of those engaged in its production especially the rural agricultural population, there by helps rural development. Evaluating the factors motivating maize cultivation has to be studied to support the farmers based on the motivational factors.

Objective of the study: This study attempted to find the demographic and agricultural related factors motivating the cultivation of maize in Perambalur District.

Methodology: This is a descriptive study based on primary data. 300 data were collected from the farmers of Perambalur District and the data was analyzed with the support of Chi-square and correlation analysis.

Findings: Nativity of maize cultivation and other agriculture related factors are found to have strong association with the level of motivation for maize cultivation and rest of the demographic factors found have no influence.

Conclusion: Since the agriculture related problems and the intensity of problems in maize cultivation has significant association with the level of motivation to cultivate maize, and it is recommended to give importance reducing the problems in cultivating maize.

Key words: Maize Cultivation, Motivation, Farmers Problems, Agriculture.

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1. INTRODUCTION

Agricultural products' marketing plays an important role not only in stimulating production and consumption, but in accelerating the pace of economic development. Efficient marketing system stimulates production and contributes to increased farm incomes. Increased production and farm incomes induce producers to invest in modern technologies which result in further increases in production and productivity. Despite the importance of agricultural products' marketing in rural development, the dominant farmers, in the context of maize, are still confronted by a number of marketing problems (Gopinath & Ganesan, 2014; Unnamalai, 2014). This might discourage maize production and contribute to low incomes in rural areas, and consequently retard rural development and attainment of food security.

In Global scenario Maize is one of the most important cereal crops in the World's agricultural economy both as food for human beings (33.3 per cent) and feed / fodder (66.6 per cent) for animals. It serves as basic raw material for the production of starch, oil, beverages, food sweeteners and more recently fuel on Green Marketing (Usharani & Gopinath, 2020). During the year 2016-17, the major producers of maize in the world are United States of America, China, Brazil, the European Union, Ukraine, Argentina, India, Mexico, Canada and South Africa. The major exporters of maize in the world are United States of America, Brazil, Argentina, Ukraine, India, the European Union, Russian Federation, South Africa, Paraguay and Serbia.

Maize is essentially a warm weather or kharif crop and as such largely depends upon rain. In Tamil Nadu, maize is sown by the end of October to mid-November. Maize is a non-traditional crop in Tamil Nadu. Farmers affected by price volatility in sugarcane, turmeric and vegetables were shifting to maize cultivation. The immediate liquidity in the market, store-and-sell facility and high demand has prompted Tamil Nadu farmers to increase maize cultivation in the recent seasons. Moreover, maize has gained popularity with farmers in Tamil Nadu as a more remunerative crop due to its lesser water requirement (Unnamalai, 2013); higher yield, a good market price and simple management practices and farmers have begun to cultivate 2-3 crops in a year (Gopinath, 2019 d). Even still the problems confronting during the time of marketing and storage has made the farmers to hesitate to maize cultivation (Gopinath, 2014). Similar Studies inferred that Business-Family Interface and the Capacity of Managing Challenges Faced by the Women Entrepreneurs of Informal Sector (Gopinath & Chitra, 2020).

2. REVIEW OF LITERATURE

Chahal & Poonam Kataria (2010) have examined constraints in the production and marketing of maize in Punjab. A representative sample of 300 maize growers was drawn from the three districts of Punjab by using multi-stage random sampling technique on the basis of concentration of area under maize. The findings of the study revealed that the selected maize growers faced constraints as the maize crop specific technology adoption was concerned. The institutional, marketing and socio-economic constraints were found to be impediments in the production of maize. More specifically the sample farmers suffered on account of non-availability of credit, poor marketing facilities, lack of storage facilities, and non-availability of seed suitable to the local needs, late sowing of crop etc. The detailed analysis of the constraints impediment to production and marketing of maize reflect the urgent need for overhauling of the entire marketing system. This in turn helps in the allocation of resources to maize crop in

the state like Punjab where groundwater is depleting very fast, needs to be diversified in favour of less water requiring crops like maize.

Jaisridhar *et al.* (2012) illustrate on Adoption and Marketing behavior of Maize growers, aimed to bring out a strategy to increase the adoption level of maize growers. The study was undertaken at three blocks viz. Udumalpet, Pollachi and Palladam blocks of Coimbatore district in Tamil Nadu. The analysis of extent of adoption indicated that the most favorable season for sowing was Adipattam by most of the farmers (54.44%). Majority of the farmers followed all the maize field practices like basal urea application (61.11%), top dressing (60%), micronutrient application (46.70%), seed treatment (34.50%), weed crop protection (78.90%) and water management (74.40%). Most of the farmers in the study area (53.33%) harvested the produce only when the seeds became dry and hard. The analysis of marketing behavior indicated that the farmers sold the cobs in nearby town transporting through tractor. Study also indicated that one half of the respondents sold the entire harvested produce immediately after harvest through wholesalers. Majority of the farmers did grading and weighing before marketing the produce. Most of the farmers did not follow the storage pest protection measures. The neighbor farmers living in the same village were the main sources of information to the vast majority of maize growers. The crucial characteristics of the maize growers towards marketing behavior were educational status, socioeconomic status, extension agency contact, storage facilities, market perception and market potential indicators.

Shashi Yadav (2016) concludes that Agriculture is the backbone of Indian economy as the economic development of this country is very much relied upon the agricultural activities. Agriculture provides not only food for the nation's population but also provides opportunities for employment generation, saving, contribution to industrial goods market and earning foreign exchange. Marketing of agricultural products means a series of activities involved in the movement of agricultural produces from the point of production to the point of consumption. Agriculture production system in India is characterized by small scale production and seasonality of production and demand and many more. This paper is an attempt to identify various problems faced by the Indian agricultural sector with solutions done by the government till today and still to do. Further, Gopinath & Kalpana (2019) focussed on that Consumer Perception towards fast food retail markets also discussed.

Objectives

- To study the association between demographic factors and agriculture related factors and the level of motivation behind cultivation of maize.
- To study the relationship between the level motivational factors and the problems of maize cultivation.

3. RESEARCH METHODOLOGY

To find solution to foresaid objectives the research has followed descriptive research design. Data related to the study was collected from primary source and structured questionnaire was used to collect information from the respondents. Totally 384 data was collected and they were analyzed with the chi-square and correlation techniques.

4. ANALYSIS

4.1 Demographic Factors and Level of Motivation Behind Cultivation of Maize

Table 1 explains the association between gender, age, educational qualification and nativity with the level of motivation to maize cultivation. Since the p value is greater than 0.05 there is no relationship between gender, age and educational qualification of the responded and level of

motivation at 5 per cent level of significance (Gopinath, 2019 a). Whereas, p value is less than 0.05 in case of nativity, hence there is a significant association between nativity of the respondent and level of motivation on maize cultivation (Unnamalai, 2016).

Table 1 Association between Demographic factors and level of Motivation behind Cultivation of Maize

Variable	Level of motivation for maize cultivator						Statistical Significance
	Low		High		Total		
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Gender							X ² =0.001 Df=1 p>0.05 Not Significant
Male	159	86.4%	173	86.5%	332	86.5%	
Female	25	13.6%	27	13.5%	52	13.5%	
Total	184	100.0%	200	100.0%	384	100.0%	
Age							X ² =4.558 Df=4 p>0.05 Not Significant
Below 25yrs	20	10.9%	27	13.5%	47	12.2%	
26 to 35yrs	18	9.8%	31	15.5%	49	12.8%	
36 to 45yrs	17	9.2%	20	10.0%	37	9.6%	
46 to 55yrs	108	58.7%	99	49.5%	207	53.9%	
56yrs & above	21	11.4%	23	11.5%	44	11.5%	
Total	184	100.0%	200	100.0%	384	100.0%	
Educational Qualification							X ² =6.202 Df=5 p>0.05 Not Significant
No formal education	23	12.5%	25	12.5%	48	12.5%	
Below High school	69	37.5%	79	39.5%	148	38.5%	
Higher Secondary	26	14.1%	31	15.5%	57	14.8%	
diploma	28	15.2%	29	14.5%	57	14.8%	
Graduate	16	8.7%	25	12.5%	41	10.7%	
Others	22	12.0%	11	5.5%	33	8.6%	
Total	184	100.0%	200	100.0%	384	100.0%	
Nativity							X ² =7.933 Df=1 P<0.05 Significant
Rural	135	73.4%	170	85.0%	305	79.4%	
Urban	49	26.6%	30	15.0%	79	20.6%	
Total	184	100.0%	200	100.0%	384	100.0%	

4.2 Agricultural Related Factors and Level of Motivation

Table 2 states the association of agricultural related factors namely method of farming, experience in maize cultivation, type of ownership of land and size of cultivable land. The p value for method of farming is greater than 0.05 and it found to have no association with level of motivation in maize cultivation. On the other hand p value for experience in maize cultivation, type of ownership of land and size of cultivable land are lesser than 0.05 therefore, these factors found to have prominent association with level of motivation for maize cultivation (Gopinath, 2019 b).

Table 2 Association between agricultural related factors and level of motivation

Variable	Level motivation for maize cultivator						statistical inference
	Low		High		Total		
	n	%	n	%	n	%	
Method of Farming							X ² =0.226 Df=1 p>0.05 Not Significant
Conventional farming	106	57.6%	120	60.0%	226	58.9%	
Modern farming	78	42.4%	80	40.0%	158	41.1%	
Total	184	100.0%	200	100.0%	384	100.0%	
Experience in Maize Cultivation							X ² =0.299 Df=2 P<0.05 Not Significant
Below 5 yrs	66	35.9%	76	38.0%	142	37.0%	
6 to 9yrs	52	28.3%	52	26.0%	104	27.1%	
Above 10 yrs	66	35.9%	72	36.0%	138	35.9%	
Total	184	100.0%	200	100.0%	384	100.0%	
Type of Ownership of Land							
Own	135	73.4%	148	74.0%	283	73.7%	
Lease	49	26.6%	52	26.0%	101	26.3%	
Total	184	100.0%	200	100.0%	384	100.0%	
Size of Cultivable Land							X ² =7.296 Df=4 p<0.05 Significant
Marginal (Up to 0.99.5)	10	5.4%	22	11.0%	32	8.3%	
Small (1.00.0 to 1.99.5)	40	21.7%	56	28.0%	96	25.0%	
Small-medium (2.00.0 to 3.99.5)	32	17.4%	28	14.0%	60	15.6%	
Medium (4.00.0 to 9.99.5)	89	48.4%	80	40.0%	169	44.0%	
Large (10.00.0 & above)	13	7.1%	14	7.0%	27	7.0%	
Total	184	100.0%	200	100.0%	384	100.0%	

4.3 Relationship Between Level of Motivation and Problems in Maize Cultivation

Table 3 Correlation between level of motivation and problems in Maize cultivation

Problems and level of motivation for Maize Cultivation	Low	Medium	High
Low	1.000	0.657	0.667**
Medium		1.000	0.577
High			1.000

Table 3 portrays the relationship between intensity of problems and level of motivation in maize cultivation. The intensity of the problems has positive association with the level of motivation to cultivate Maize (Gopinath, 2019 c).

5. FINDINGS

- Chi-square test indicates that 83.4 per cent of males are low level and 89.7 per cent are high level problems of maize cultivation. Therefore, there is no significant association between gender of the respondents and their overall problems of maize cultivation.
- Chi-square test indicates that 52.8 per cent of 46 to 55 yrs are low level and 55.1 per cent are high level problems of maize cultivation. Therefore, there is no significant association between age of the respondents and their level of motivational factors.

- Chi-square test indicates that 36.7 per cent of below high school are low level and 40.5 per cent are high level problems of maize cultivation. Therefore, there is no significant association between educational qualification of the respondents and their level of motivational factors (Gopinath *et al.*, 2016).
- Chi-square test indicates that 80.9 per cent of rural are low level and 77.8 per cent are high level problems of maize cultivation. Therefore, there is a significant association between nativity of the respondents and their level of motivational factors.
- Chi-square test indicates that 58.3 per cent of accepted are low level and 59.5 per cent are high level problems of maize cultivation. Therefore, there is no significant association between Methods farming (traditional and Modern) and their overall problems of maize cultivation.
- Chi-square test indicates that 40.2 per cent of below 5yrs are low level and 40 per cent are above 10yrs high level problems of maize cultivation. Therefore, there is no significant association between number of years farming and their overall problems of maize cultivation
- Chi-square test indicates that 77.4 per cent of own are low level and 69.7 per cent are high level problems of maize cultivation. Therefore, there is no significant association between ownership of land and their overall problems of maize cultivation.

6. CONCLUSION

Even though the government is attempting to promote increased maize production among farmers through provision of inputs (particularly chemical fertilizers) and producer price support schemes may not yield positive results if not complemented by a good maize marketing system to remove problems facing the farmers in marketing maize. Especially, during this pandemic condition, the problems like shortage of labor, inadequate transportation and marketing facilities has complicated the farmer's life (Karthik *et al.*, 2020). Certain demographic and agriculture rated factors motivate the formers to cultivate maize, the problems associated with cultivation and marketing are the major threats ceases them form cultivation (Rajalakshmi & Unnamalai, 2016).

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