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Research Article

MARKET AND CONSTRAINT ANALYSIS OF TAPIOCA PRODUCTION THROUGH MEMBER AND NON-MEMBER FARMERS OF FPO'S IN TAMIL NADU- A COMPARATIVE STUDY

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Abstract: The present study entitled, 'Comparative economic analysis of tapioca production through FPO's Member farmers Vs FPO's non- member farmers in Karur district of Tamil Nadu' is based on a sample of 120 tapioca growers comprises 60 member farmers and 60 non- member farmers of FPO drawn from Kulithalai and Aravakurichi tahsils of Karur district in order to estimate difference between marketing channels, marketing cost, margins, price spread and constraints in tapioca cultivation. At the overall level marketing cost incurred by the tapioca member farmers was Rs/qt 19.05 respectively. At the overall level marketing cost of tapioca non-member farmers was accounted to be 73.74 Rs/qt, 220.81 Rs/qt and 278.34 Rs/qt for producers of tapioca under Channel-I, Channel-II and Channel-III, respectively. Marketing efficiency ratio of the member farmers was 134.33 which is significantly higher than the non -member farmers of 35.30, 3.23, 2.98 in channel I, II and III respectively. Major constraint pertaining to the member farmers was high wage rate (0.26), lack of skilled labours (0.25) and electricity (0.24). Major constraints pertaining to cultivation of tapioca for non -member farmer was price fluctuation (0.31) in the market, high cost of labours (0.27) and lack of market intelligence (0.22).

Keywords: *Marketing Cost, Price Spread, Marketing Efficiency & Constraints*

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Introduction

Farmer Producer organization gives a robust framework for the small producers for organizing themselves for effective linkage with markets. It gives bargaining power to the small farmers, enable cost-effective delivery of extension services, and empower the members to influence the policies that affect their livelihoods. Farmer Producer organization (FPO) help to overcome the constraints imposed by the small size of individual farms, Farmer Producer organization members are able to leverage collective strength and bargaining power to access financial and non-financial inputs, services and appropriate technologies, reduce transaction costs, tap high value markets and enter into partnerships with private entities on more equitable terms. Major activities of Farmer Producer organization are supply of inputs such as Seed, fertilizer and machinery, market linkages, training & networking and financial & technical advice.

Objectives of study

To estimate marketing cost, price spread and marketing efficiency of member farmers and non -member farmers of FPO`s.

To study the problems faced by member farmers and non- member farmers of FPO's.

Material and Methods

As attempt has been made to stud the Price spread, Acharya market efficiency measures and Response-Priority Index (RPI) of members & non- members famers of FPOs in Tamil Nadu. One of the leading FPO's Nachalur Farmers Producer Organization, Karur district of Tamil Nadu was selected purposively. Major crops undertaken by this FPO are Paddy, Sesame, Sorghum, Pulses, Banana, Sugarcane and Tapioca.

From the above-mentioned crops, tapioca will be selected for the study, as the majority of tapioca growers are member of FPO. A sample of 120 tapioca growers comprises 60 member farmers and 60 non- member farmers of FPOs, Commission agents, Wholesalers, Retailers are drawn from Kulithalai and Aravakurichi Tahsils of Karur district during 2019-2020. In order to estimate difference between marketing channels, marketing cost, margins, price spread and constraints in tapioca cultivation of both member and non- member farmers of FPO's and Acharya market efficiency measures, Response-Priority Index (RPI) also were used for the analysis [1-5].

Result and Discussion

The cost involved in marketing of tapioca in all three channels prevailed in the study area *viz*., channel-I, channel-II and channel-III is estimated in Rs/q and it is given in channel wise on given sub- heads for non -member farmers and member farmers.

Marketing Cost of Tapioca

The per quintal total cost involved in the marketing of tapioca on channel I were to be found Rs 73.74. Self- involvement in marketing was the largest cost followed by mandi fee and transportation charges with 10.17 and 8.57 per cent, respectively [Table-1].

It is being observed from the [Table-1] that the average marketing cost of tapioca on channel II was found to be Rs 220.81 in which, Rs 103.55 incurred by producer and Rs 117.26 was incurred by the retailer. The commission agent got profit from both the side's *viz*., producer and retailer and contributes 77.95 per cent out of the total marketing cost.

Table- 1 *Marketing cost of Tapioca (Rs/qt)*

SNo	Particulars	Member farmers	Non- member farmers		
		FPO	Channel I	Channel II	Channel III
I.	Producer				
1	Loading / Unloading charge	5.00(30.24)	4.95(6.71)	5.20(2.35)	6.00(1.27)
2	Transportation charges	7.50(35.62)	6.32(8.57)	9.43(4.27)	9.62(3.22)
3	Mandi fee		7.50(10.17)	-	-
4	Cost of bags	7.00(34.14)	6.00(8.14)	5.08(2.58)	7.20(2.32)
5	Self -involve in selling charges	-	48.97(66.41)	-	-
6	Commission paid to commission agent	-	-	83.22(37.69)	190.76(70.98)
	Total cost	19.50(100.00)	73.74(100.00)	103.55(46.90)	213.58(78.40)
II.	Wholesaler				
1	Loading/Unloading charge	-	-	-	7.26(2.34)
2	Transportation charges	-	-	-	18.86(6.68)
3	Packing Charges	-	-	-	7.79(2.54)
	Sub total	-	-	-	33.91(11.57)
III	Retailer				
1	Loading/Unloading charge	-	-	7.79(3.52)	7.54(2.45)
2	Transportation charges	-	-	13.70(6.20)	12.09(4.15)
3	Packing Charges	-	-	6.87(3.11)	6.57(2.08)
4	Commission paid to commission agent	-	-	88.90(40.26)	4.65(1.37)
	Sub total	-	-	117.26(53.10)	30.85(10.04)
	Total Cost	19.50(100.00)	73.74(100.00)	220.81(100.00)	278.34(100.00)

Note: Figures in the parenthesis represent percentage to total cost.

Table-2 *Price spread analysis of Tapioca (Rs/qt)*

SNo	Particulars	Non- member farmers		
		Channel I	Channel II	Channel III
	Net price received by producer	2529.36(97.17)	1617.67(69.06)	1551.14(59.23)
I.	Total marketing cost	73.74(2.83)	103.55(4.42)	209.58(8.00)
II.	Wholesaler	-	-	
	Purchase price	-	-	1760.72(67.24)
	Sale price	-	-	2237.63(85.45)
	Marketing cost	-	-	30.91(1.18)
	Margin	-	-	446.00(17.03)
III.	Retailer			
	Purchase price	-	1721.22(73.48)	2237.63(85.45)
	Commission charges	-	88.90(3.76)	-
	Marketing cost	-	28.36(1.21)	26.85(1.03)
	Margin	-	504.06(21.52)	354.23(13.53)
	Consumer price	2603.10(100.00)	2342.54(100.00)	2618.71(100.00)

Note: Figures in the parenthesis represent percentage to consumer price

It is observed that there were three stages of marketing on channel III *viz*., producer, wholesaler and retailer and incurred total marketing cost of Rs 278.34 together. Marketing cost incurred by producer was the highest and shared 78.39 per cent followed by wholesaler and retailer with 11.56 and 10.04 per cent of total marketing cost. Commission agent contributes 70.98 per cent out of total marketing cost. The total cost involved in the marketing of tapioca through FPO were to be found Rs 19.50 [Table-1]. A transportation charge in marketing was the largest cost followed by cost of bags and loading / unloading charges respectively. The results of present findings are similar with the result reported by Ghumatkar *et. al*. (2007)

Price Spread Analysis of Tapioca

Price spread analysis of tapioca discloses that the producer share of consumer rupee has inverse relation with the increase in the size of marketing channels. In channel-I the producer share in consumer rupee was 97.17 per cent. The consumer price of tapioca per quintal in channel-I was noticed to be Rs 2603.10 [Table-2]. The producer's share of consumer rupee was 97.17 and the marketing cost was 2.83 per cent out of the total marketing cost. The price paid by consumer of tapioca per quintal was Rs 2342.54 in channel-II [Table-2].

The total marketing cost of tapioca was incurred 9.43 per cent. Net profit gained by producer was 69.06 per cent and 21.52 per cent profit gained by retailer after incurring all the marketing cost. The average price paid by consumer per quintal was Rs 2618.71 and share of producer in consumer rupee was found to be 59.23 per cent followed by wholesalers and retailers, which was noticed to be 17.03 and 13.53 per cent, respectively [Table-2]. Total marketing cost was 10.21 per cent of the consumer price.

Marketing Efficiency in Different Channels

Net price received by the farmers per quintal in channel I, channel II and channel III were Rs 2529.00, Rs 1617.67 and Rs 1551.14 respectively. Total marketing cost incurred by the farmers per quintal in channel I, channel II and channel III were Rs 73.74, Rs 220.81, Rs 278.34 respectively. Total market margin per quintal was Rs 504.06 in channel I and Rs 600.23 in channel II. Marketing efficiency ratio of channel I was 35.30 which is significantly high compared to channel II and channel III, which is 3.23 and 2.98 respectively.

Net price received by the member farmers per quintal was Rs 2600.00. Total marketing cost incurred by the member farmers per quintal was Rs 19.50. The price paid by the FPOs per quintal was Rs 2619.50 and the marketing efficiency was 134.33 which is significantly more than non- member farmers. This indicates that member farmers are comparatively more efficient than non -member farmers. FPOs are mainly formed to reduce the market margin earned by the middleman.

Identification of Major Constraints for Non- Member Farmers

The member farmers were asked to list priority-wise major constraints they were facing in tapioca cultivation. All these were sorted and screened and finally major constraints were identified. The major constraints faced by the member farmers of FPOs was high wage rate of labour (0.26) followed by lack of skilled labourers (0.25). Few management problems like accounts and shares maintaining became difficult due to lack of skilled labourers. The third major problem was electricity (0.24) and finally pest and disease problem (0.23).

Prioritization of Constraints in Tapioca Cultivation of Non -Member Farmers

The farmers were asked to list priority-wise major constraints they were facing in

Table-3 *Marketing efficiency in different channels*

SNo	Particulars	Member farmers	Non- member farmers		
		FPO	Channel I	Channel II	Channel III
1	Net price Received by the farmer	2600.00	2529.36	1617.67	1551.14
2	Total marketing cost	19.50	73.74	220.81	278.34
3	Total market margin	0	0	504.06	600.23
	MM+MC	19.50	73.74	724.87	878.57
4	Price paid by consumer	2619.50	2603.16	2342.54	2618.71
5	Marketing efficiency ratio	134.33	35.30	3.23	2.98

Table-4 *Prioritization of constraints in tapioca cultivation of member farmers*

SNo	Constraint	Number in respective priorities					Total Recorded Responses	RPI	Rank
		I	II	III	IV	V			
1	High wage rate of labour	19	17	15	16	11	78	0.26	I
2	Lack of skilled labour	15	16	12	14	20	77	0.25	II
3	Electricity	12	13	17	16	16	74	0.24	III
4	Problem of Pest and diseases	14	14	16	14	13	71	0.23	IV
	Total	60	60	60	60	60	300		

Table-5 *Prioritization of constraints in tapioca cultivation of non-member farmers*

SNo	Constraint	Number in Respective Priorities					Total Recorded Responses	RPI	Rank
		I	II	III	IV	V			
1	Lack of trainings on new production technology	4	3	4	4	6	20	0.19333	VII
2	High wage rate of labour	6	6	5	3	7	27	0.27333	II
3	Delay in sowing	4	2	2	3	4	15	0.14667	XII
4	Problem of pest and diseases	4	5	4	2	3	16	0.19667	XI
5	Lack of skilled labour	3	3	3	4	4	12	0.1600	XIII
6	Quality cuttings in time	2	3	2	2	1	10	0.1100	XIV
7	High cost of fertilizer	2	4	5	4	4	18	0.17667	IX
8	Lack of technology	4	4	4	3	5	19	0.19667	VIII
9	Irregularity in electric supply	5	4	5	6	3	23	0.23667	IV
10	Price fluctuation in the market	6	7	6	7	5	31	0.31667	I
11	High cost of transport	4	3	5	5	4	22	0.20333	V
12	Lack of market intelligence	5	5	3	4	5	24	0.22333	III
13	Delay in payment	2	3	4	5	6	17	0.16667	X
14	High commission rate	6	4	4	6	2	21	0.2400	VI

tapioca cultivation. All these were sorted and screened and finally major constraints were identified. The major constraints were price fluctuation in the market (0.31) followed by high wage rate of labours (0.27) and third major constraints was lack of market intelligence (0.22). These are the major constraints of non- member farmers of FPOs.

Conclusion

The marketing costs of non- member farmers are high as compared to member farmers which is almost meager. The Marketing efficiency of the member farmers was significantly higher than the non- member farmers. The problem faced by the member farmers was comparatively lower than the non-member farmers. Major constraints pertaining to cultivation of tapioca for non- member farmer were price fluctuation in the market, high cost of labours and lack of market intelligence.

Application of research: The policy implications like, Government should take efforts to initiate more FPO's. Awareness about FPOs should be spread among the non- member farmers. Proper guideline is needed towards marketing for non - member farmers which can be given by FPOs.

Research Category: Agribusiness Management

Abbreviations: RPI-Response-Priority Index
FPO-Farmer Producer organization

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Cultivar / Variety / Breed name: Tapioca

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