A COMPARATIVE ANALYSIS OF MARKETING OF ORGANIC AND INORGANIC COTTON IN TAMIL NADU

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ABSTRACT

The study was conducted to estimate the price spread and marketing efficiency in organic and inorganic cotton marketing in Erode district of Tamil Nadu. Three marketing channels were identified in the district. In all the channels, price spread of organic turmeric was less than inorganic turmeric since the marketing cost was lower in organic turmeric. Marketing channel II namely Farmer- Regulated Market- Retailer- Consumer was the efficient marketing channel for both organic and inorganic farmers. Organic farmers had highest farmer's share of 78.93 per cent and lowest price spread of 21.07 per cent which might be due to absence of wholesaler. Also, inorganic farmers had highest farmer's share78.37 per cent and lowest price spread of 21.63 per cent. The results of marketing efficiency also revealed that the marketing efficiency was highest in marketing channel II for both organic and inorganic turmeric. The state government should provide separate green channel and premium price for organic growers to tide over the low price and price fluctuations.

Key Words: Marketing Cost, Marketing Margin, Price Spread, Marketing Channel and Marketing Efficiency

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INTRODUCTION

In Tamil Nadu, 4006.20 hectares of cultivated land were under certified organic and this constituted 0.20 per cent of net cultivated area of the state. In Erode district, cotton was grown in 1421. 01 hectares in the year 2009-2010 and hence the study was restricted to this crop. Despite the attention which has been paid to organic farming over the last few years, very little accessible information actually exists on organic farming in India, especially in Tamil Nadu that too on marketing aspects. A study on the marketing of organic cotton would be useful to the producers to make appropriate and specific marketing decisions to get better income from their produce. It will also explain the extent of exploitation by the middleman and helps formulation of meaningful policy interventions by the government to protect the interest of growers.

METHODOLOGY

Sampling method

Erode district was purposively selected for the present study since it formed 65 per cent of organic cotton growing districts in the state. Intermediaries involved in marketing of cotton namely wholesaler-cum-commission agent, retailer alone and commission agent were selected at the rate of ten from each category making the total sample size 30.

Price Spread Analysis

Information on prices prevailed and the cost involved in marketing of cotton at different stages of marketing channel were collected from the farmers and traders. The cost of marketing includes transport, loading and unloading, storage and other incidental expenses incurred for marketing the produce. In the process of marketing of cotton, the difference between price paid by the consumer and the price received by the cotton producer for an equivalent quantity of turmeric and cotton was defined as "price spread". Data on profits of the various market functionaries involved in moving the produce from the initial point of production till it reached the ultimate consumer were collected. In this study, sum-of-average gross margin method was used in the estimation of price spread.

a. Sum-of-Average Gross Margin Method

The average gross margins of all the intermediaries were added to obtain the total marketing margin as well as the breakup of the consumer's rupee.

$$MT = \sum_{i=1}^{n} \frac{S_i - P_i}{Q_i}$$

Where,

MT = Total Marketing Margin

S_i = Sale value of a product for i^{th} intermediary

P_i = Purchase value paid by the i^{th} intermediary

Q_i = Quantity of the product handled by the i^{th} intermediary

i = 1, 2, 3 … N (Number of intermediaries involved)

b. Farmer's Share in Consumer Rupee

Further, the Farmer's share in consumer rupee was calculated with the help of the following formula.

Fs = (Fp/Cp) X 100

where,

Fs = Farmer's share in consumer rupee (percentage)

Fp = Farmer's price

Cp= consumer's price

Marketing Channel Identified for cotton in the study area

Cotton reaches the consumer from producer by passing through various intermediaries. In the study area, the following marketing channels were identified.

Marketing Channel I

Producer → Regulated market → Wholesaler cum commission agent → Retailer →Consumer

Marketing Channel II

Producer → Regulated Market → Retailer → Consumer

Marketing Channel III

Producer → Regulated market → commission agent → Retailer → Consumer

Marketing Efficiency

Marketing efficiency is a measure of market performance. The movement of goods from producers to the ultimate consumers at the lowest possible cost consistent with the provision of service desired by the consumers is termed as efficient marketing.

Shepherd's Formula

Shepherd (1965) suggested that the ratio of total value of goods marketed to the marketing cost could be used as a measure of marketing efficiency. The higher this ratio, higher would be the efficiency and vice versa. This can be expressed in the following form:

$$ME = [(V/I)-1]$$

where,

ME = Index of marketing efficiency

V = Value of goods sold

I = Total marketing cost and margins

Garrett's Ranking Technique

The respondents were asked to rank the problems in turmeric and cotton processing and marketing using Garrett's Ranking Technique**.**

RESULT AND DISCUSSION

Price spread analysis for organic and inorganic cotton

The information on price spread in the turmeric marketing channel are provided in the tables I through III for all the three marketing channels through which cotton were marketed.

Marketing channel I

It could be seen from Table 5.45 that in channel-I, the net price received by the organic and inorganic farmer were ₹ 4195 and ₹ 3895 per quintal which constituted about 68.50 per cent and 67.78 per cent of the consumer's price respectively. The marketing cost incurred by both organic and inorganic farmer in regulated market was of same with ₹ 105 per quintal, which constituted 1.71 per cent and 1.83 per cent respectively. The cost incurred by the wholesaler was worked out for both organic and inorganic cotton and it was ₹ 85 per quintal for both which accounted for 1.38 per cent and 1.48 per cent of the consumer price respectively. The marketing margin earned by the wholesaler was ₹ 945 and ₹ 885 which accounted for 15.43 per cent and 15.40 per cent respectively, of the price paid by the consumer. The cost incurred by the retailer for both organic and inorganic cotton was ₹ 250 and ₹ 275 which constituted of 4.08 per cent and 4.79 per cent of the consumer price respectively. Marketing margin of retailer constituted for organic and inorganic cotton were 14.36 per cent and 14.99 per cent to the consumer price respectively. Retailer sold the organic and inorganic cotton gin to the consumer for ₹ 6124.40 and ₹ 5746.20 per quintal. The producer's share in consumer rupee of both organic and inorganic cotton was 68.50 per cent and 67.78 per cent respectively. Price spread was worked out as 31.50 per cent and 32.22 per cent for organic and inorganic farmers respectively. Price spread

Table I Price Spread of cotton in Market channel I

S. No	Particulars	Organic Cotton (Amount ₹/quintal)	Inorganic Cotton (Amount ₹/quintal)
1	**Producer**		
A	Gross price received	4300 (70.21)	4000 (69.61)
i	Packing	10 (0.16)	10 (0.17)
ii	Loading/ unloading	15 (0.24)	15 (0.26)
iii	Transport cost	20 (0.33)	20 (0.35)
iv	Commission Charges	50 (0.82)	50 (0.87)
v	Weighing charges	10 (0.16)	10 (0.17)
B	Marketing cost	105 (1.71)	105 (1.83)
C	Net price received	4195 (68.50)	3895 (67.78)
2	**Regulated market**		
3	**Wholesaler cum Commission agent**		
A	Purchase price	4300 (70.21)	4000 (69.61)
i	Transport cost	70 (1.14)	70 (1.22)
ii	Weighing charges	15 (0.24)	15 (0.26)
B	Marketing cost	85 (1.38)	85 (1.48)
C	Profit Margin	860 (14.04)	800 (13.92)
D	Marketing Margin	945 (15.43)	885 (15.40)
E	Sale price	5245 (85.64)	4885 (85.01)
4	**Retailer**		
A	Purchase price	5245 (85.64)	4885 (85.01)
i	Sorting/Grading	0 (0.00)	25 (0.43)
ii	Transport cost	100 (1.63)	100 (1.74)
iii	Processing cost	150 (2.44)	150 (2.61)
B	Marketing cost	250 (4.08)	275 (4.79)
C	Profit Margin	629.40 (10.28)	586.20 (10.20)
D	Marketing Margin	879.40 (14.36)	861.20 (14.99)
E	Sale price	6124.40 (100.00)	5746.20 (100.00)
5	**Price paid by the Consumer**	6124.40 (100.00)	5746.20 (100.00)
6	**Price Spread**	1929.40 (31.50)	1851.20 (32.22)

for organic cotton was less than inorganic cotton as retailer's marketing cost incurred for inorganic cotton was higher than organic cotton.

Marketing Channel II

It could be seen from the Table 5.46 that the organic farmers and inorganic farmers had received net price of ₹ 4195 and ₹ 3895 per quintal which constituted 78.93 per cent and 78.37 per cent to consumer's price respectively. The marketing cost incurred by both organic and inorganic producer was same cost ₹105 per quintal which constituted 1.98 per cent and 2.11 per cent to consumer's price respectively.

The retailer who purchased from producer incurred expenditure for both organic and inorganic cotton was of same cost with ₹ 370 per quintal. He had earned also a marketing margin of ₹ 1015 and ₹ 970 which accounted for 19.10 per cent and 19.52 per cent of the consumer price respectively. The farmer's share in consumer rupee was worked out of both organic and inorganic cotton at 78.93 per cent and 78.37 per cent respectively. Price spread of both organic and inorganic turmeric was 21.07 per cent and 21.63 per cent respectively. This result indicated that price spread of organic turmeric is less than inorganic turmeric. Further, the price spread in this channel was lower as compared to marketing channel I because of the absence of wholesaler.

Marketing Channel III

The price spread analysis for marketing channel III is furnished in Table 5.47. It could be seen from the table that the organic farmers and inorganic farmers had received net price of ₹ 4195 and ₹ 3895 per quintal which accounted for 71.31 per cent and 70.65 per cent to consumer's price respectively. The commission charges incurred by the organic and inorganic farmers to the commission agent were 0.85 per cent and 0.91 per cent to the consumer's price respectively

Table II Price Spread of cotton in Market channel II

S.No	Particulars	Organic Cotton (Amount ₹/quintal)	Inorganic Cotton (Amount ₹/quintal)
1	**Producer**		
A	Gross price received	4300 (80.90)	4000 (80.48)
i	Packing	10 (0.19)	10 (0.20)
ii	Loading/ unloading	15 (0.28)	15 (0.30)
iii	Transport cost	20 (0.38)	20 (0.40)
iv	Commission Charges	50 (0.94)	50 (1.01)
v	Weighing charges	10 (0.19)	10 (0.20)
B	Marketing cost	105 (1.98)	105 (2.11)
C	Net price received	4195 (78.93)	3895 (78.37)
2	**Regulated Market**		
3	**Retailer**		
A	Purchase price	4300 (80.90)	4000 (80.48)
i	Transport cost	100 (1.88)	100 (2.01)
ii	Weighing charges	150 (2.82)	150 (3.02)
iii	Spoilage loss	0 (0.00)	0 (0.00)
iv	Processing cost	120 (2.26)	120 (2.41)
B	Marketing cost	370 (6.96)	370 (7.45)
C	Profit Margin	645 (12.14)	600 (12.07)
D	Marketing Margin	1015 (19.10)	970 (19.52)
E	Sale price	5315 (100.00)	4970 (100.00)
5	**Price paid by the Consumer**	5315 (100.00)	4970 (100.00)
6	**Price Spread**	1120 (21.07)	1075 (21.63)

The commission agent, who purchased from producer, incurred an expenditure for both organic and inorganic cotton was of same cost with ₹ 130. He had earned a marketing margin of ₹ 775 and ₹ 730 which accounted for 26.74 per cent and 30.64 per cent of the consumer price respectively. The cost incurred by retailer for both organic and inorganic cotton ₹ 300 and ₹ 310 per quintal respectively. He had earned a marketing margin for both organic and inorganic cotton of ₹ 807.50 and ₹ 783 which accounted for 13.72 per cent and 14.20 per cent respectively. The farmer's share in consumer rupee was worked out of both organic and inorganic cotton at 71.31 per cent and 70.65 per cent respectively. Price spread of both organic and inorganic cotton was 28.69 per cent and 29.35 per cent respectively. This result is shown that price spread of organic turmeric was slightly less than inorganic turmeric as marketing cost of organic cotton was lower than inorganic cotton.

Thus it could be inferred from the analysis that the marketing channel II namely Farmer- Regulated Market- Retailer- Consumer was the efficient marketing channel for both organic and inorganic farmers. Organic farmers had highest farmer's share of 78.93 per cent and lowest price spread of 21.07 per cent which might be due to absence of wholesaler. Also, inorganic farmers had highest farmer's share78.37 per cent and lowest price spread of 21.63 per cent. The result also indicated that organic cotton was efficient than inorganic cotton because marketing cost was lower than inorganic cotton in all the marketing channels.

Table III Price Spread of cotton in Market channel III

S.No	Particulars	Organic Cotton (Amount ₹/quintal)	Inorganic Cotton (Amount ₹/quintal)
1	**Producer**		
A	Gross price received	4300 (73.10)	4000 (72.56)
i	Packing	10 (0.17)	10 (0.18)
ii	Loading/ unloading	15 (0.25)	15 (0.27)
iii	Transport cost	20 (0.33)	20 (0.36)
iv	Commission Charges	50 (0.85)	50 (0.91)
v	Weighing charges	10 (0.17)	10 (0.18)
vi	Spoilage loss	0 (0.00)	0 (0.00)
B	Marketing cost	105 (1.79)	105 (1.91)
C	Net price received	4195 (71.31)	3895 (70.65)
2	**Regulated market**		
3	**Commission agent**		
A	Purchase price	4300 (73.10)	4000 (72.56)
i	Transport cost	120 (2.04)	120 (2.18)
ii	Weighing charges	10 (0.17)	10 (0.18)
iii	Spoilage loss	0 (0.00)	0 (0.00)
B	Marketing cost	130 (2.21)	130 (2.36)
C	Profit Margin	645 (10.97)	600 (10.88)
D	Marketing Margin	775 (13.17)	730 (13.24)
E	Sale price	5075 (86.27)	4730 (85.80)
4	**Retailer**		
A	Purchase price	5075 (86.27)	4730 (85.80)
I	Sorting/Grading	0 (0.00)	0 (0.00)
ii	Transport cost	150 (2.55)	160 (2.90)
iii	Spoilage loss	0 (0.00)	0 (0.00)
iv	Processing cost	150 (2.55)	150 (2.72)
B	Marketing cost	300 (5.10)	310 (5.62)
C	Profit Margin	507.50 (8.63)	473 (8.58)
D	Marketing Margin	807.50 (13.72)	783 (14.20)
E	Sale price	5882.50 (100.00)	5513 (100.00)
5	**Price paid by the Consumer**	5882.50 (100.00)	5513 (100.00)
6	**Price Spread**	1687.5 (28.69)	1618 (29.35)

Marketing Efficiency for organic and inorganic cotton

The marketing efficiency of different marketing channels for cotton was estimated by shepherd index method. It could be seen from table IV that efficiency in marketing channel II was highest in both organic and inorganic cotton followed by marketing channel III and last was marketing channel I as already discussed. Also, organic cotton was efficient than inorganic cotton. From above the results of marketing efficiency for organic turmeric and cotton, that marketing efficiency of organic cotton was more efficient than marketing efficiency of organic turmeric in all marketing channels.

Table IV Marketing Efficiency of Cotton through Shepherd method

S.No	Market Channel	Marketing Efficiency	
		OC*	IOC*
1	Market Channel I	3.17	3.10
2	Market Channel II	4.75	4.62
3	Market Channel III	3.49	3.41

OC* - Organic cotton, **IOC*** - Inorganic cotton

Marketing constraints faced by Organic farmers

The organic growers in the study area faced marketing constraints. Three major marketing constraints were identified and they were ranked using Garrett's' ranking technique and the results are presented in Table V. The most important constraint identified by the organic growers got low prices in turmeric and cotton market (70.56) to quality products as the organic growers got slightly higher price (₹ 250 - ₹ 300 per quintal) than inorganic growers. The second important constraint was price fluctuation in turmeric market (65.24) as the price varied from ₹ 4000 to ₹ 10000 per Quintal. The third major constraint ranked by the sample farmers were late payment by commission agent (46.02) as they paid 2-3 weeks after selling. The results indicated the provision of premium price and separate marketing channels for organic growers.

Table V Problems faced in organic cotton marketing by sample farmers

S.No	Problems	Score	Rank
1	Low prices	70.56	I
2	Price fluctuation	65.24	II
3	Late payment by commission agents	46.02	III

Marketing constraints faced by Inorganic farmers

Four major marketing constraints were identified and they were ranked using Garrett's' ranking technique and the results are presented in Table VI. The most important constraint identified by the turmeric growers was price fluctuation in turmeric market (69.25) as the price varied between ₹ 4000 and ₹ 10000 per quintal. The second major constraint ranked by the sample farmers were late payment by commission agent (63.14) as they paid 2-3 weeks after selling. Perishability of turmeric and cotton (53.56) and low price (45.09) were the other constraints faced by the inorganic growers. The results indicated the need for development and promotion of storage facilities which would stabilize the prices.

Table VI Problems faced in inorganic cotton marketing by sample farmers

S. No.	Problems	Score	Rank
1	Price fluctuation	69.25	I
2	Late payment by commission agents	63.14	II
3	Perishability of turmeric and cotton	53.56	III
4	Low prices	45.09	IV

Problems Faced by Intermediaries

The problem faced by the intermediaries were ranked using Garrett's' ranking technique and the results are presented in Table VII. The intermediaries expressed that the lack of storage facility was the most important problem (56.42) as they are having only small godown facilities. The second major constraint ranked by intermediaries was high handling cost (48.56) and

followed by financial constraints (40.23). The last important problem was poor quality of products (38.01) which had resulted in losses for intermediaries.

Table VII Problems faced by intermediaries

S. No.	Problems	Score	Rank
1	Lack of storage facility	56.42	I
2	High handling cost	48.56	II
3	Financial constraints	40.23	III
4	Poor quality of products	38.01	IV

Policy Implications

1. The main problem forced by organic growers in production was the difficulty in organic certification. Hence cheap and quick certification process should be promoted by certification agencies and government should also come to the farmers rescue in this regard.

2. The main problem faced by organic growers in marketing is low price and price fluctuations in turmeric and cotton. Hence, the agriculture department of the state government and the marketing institutions should provide separate green channel and premium price facilities for organic growers. It should also create more demand for organic products among consumers by conducting awareness programmes.

3. The intermediaries expressed that the lack of storage facility was the most important constraint during peak season. Hence the State Government should provide appropriate storage facilities to the intermediaries.

REFERENCES

Balasubramanian, M and R. Eswaran. 2008. "Marketing Practices and Problems of Cotton culitivators in Virudhunagar district of Tamil Nadu", **Indian Journal of Agricultural Marketing**, 37(7): 27-32.

Chidambaram, K and L. Natarajan. 2002. "Marketing efficiency of channels used for Grey Cotton Fabrics", **Indian Journal of Agricultural Marketing**, 11(2):1-10

Satpute, T. G., S. S. More and D. J. Sanap. 2009. "Organic and inorganic cotton farming in Parbhani district of Maharashtra state - an economic analysis", **Journal of Cotton Research and Development** 23(2):338-342.