

Marketed surplus and price spread in different channels of maize marketing

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ABSTRACT

Marketed surplus and price spread in case of maize were studied in the year 2010-2011 in Aurangabad district of Maharashtra. For the study, 60 maize growers were selected from Kannad and Sillod tehsils. Wholesaler and retailer, from Aurangabad market were selected to investigate the cost, margin and price spread in maize marketing. The results revealed that, the size of maize farm was 0.84 hectare. Maize production on farm was 46.15 quintals. Price paid by consumer was Rs. 1010.00 per quintal in channel-I in which producer's share in consumer's rupee was 94.20 per cent. In case of Channel-II, price paid by consumer was Rs.1035.00 per quintal in which the producer's share in consumer's rupee was 87.69 per cent. In regard to Channel-III, price paid by consumer was Rs.1155.00 per quintal in which the producer's share in consumer's rupee was 76.02 per cent. The producer's share in consumer's rupee was highest in Channel-I than that of Channel-II and Channel-III. Net price received by producer was highest in Channel-I and price spread was higher in Channel-III which was Rs.269.29 followed by Rs.127.42 in Channel-II and Rs.58.58 in Channel-I. It was found that, the Channel-I was benefited to producers.

KEY WORDS : Maize, Marketing cost, Margin, Price spread, Producers share in consumer's rupee

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Maize (*Zea mays* L.) is one of the most important cereal crops in the world's agricultural economy. Among the cereal grain crops, maize ranks third in production in the world. Maize belongs to the genus 'Zea' family Gramineae. Maize grain contains about 10 per cent protein, 4 per cent oil, 70 per cent carbohydrates and 2.3 per cent crude fibre, 10.4 per cent albuminoids and 1.4 per cent ash.

It provides nutrients for humans and animals and also serves as a basic raw material for the production of starch, oil, protein, alcoholic beverages and food sweeteners. It is also a versatile crop, allowing it to grow across a range of agro-

ecological zones. Maize grain has significant quantities of vitamin A, nicotinic acid, riboflavin and vitamin E. Maize crop is grown in warm weather condition and it is grown in wide range of climatic conditions. It is an important staple food in the world.

METHODOLOGY

Aurangabad district was purposively selected on the basis of the highest area under maize crop. From Kannad and Sillod tehsils of Aurangabad district were selected and from each selected tehsil five villages were selected on the basis of highest area under maize cultivation. Thus, from 10 villages, 60 maize growers were selected for the present study. Sixty maize growers were selected for determination of marketed surplus of maize. Data pertained to the year 2010-2011. Market cost and market margin was worked out from actual data collected from market intermediaries, marketing cost incurred by producer was estimated from the data collected from selected cultivators for the present study. Price spread of the

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producer showed the difference between net price received by the producer in the assembling market and price paid by ultimate consumer to producer in the retail market. It includes all the market charges incurred by the producer, wholesaler, retailer. Producer's share in consumer's rupee is very helpful in deciding the appropriate strategies for reducing the marketing cost in the present study. It is price received by the farmer expressed as a percentage of the retail price, *i.e.* price paid by the consumer. If price is retail price, the producer's share in consumer's rupee (P_s) be expressed as follows:

$$P_s = \frac{\text{Net price received by producer}}{\text{Price paid by consumer}} \times 100$$

where,

P_s = Producers share in consumer's rupee

ANALYSIS AND DISCUSSION

The findings obtained from the present study are presented below:

Marketed surplus and marketing of maize:

Production, retention, marketed surplus and marketing of maize through different channels were calculated and presented in Table 1. The result revealed that, maize farm size was 0.84 hectares. It is clear from the result that, maize production on farm was 46.15 quintals. Share of maize sold through channels-I, Channel-II and channel-III were marketed as 3.15, 15.33 and 26.04 quintals, respectively. It was observed from the results that, the highest quantities of maize production

were marketed through channel-III. Retention of maize for home consumption was 3.53 per cent:

Marketing cost incurred by producer:

Per quintal marketing cost of maize with respect to various items incurred by producer in different marketing channels were calculated and are presented in Table 2. The results revealed that, in channel-III, cost incurred by producer was higher as Rs. 89.29 followed by Rs. 82.42 in channel-II and Rs. 58.58 in channel-I. Proportionate expenditure on individual items showed that packaging charge was the highest as (76.94 %) followed by transportation charge (12.43 %), loading charge (4.21 %), unloading charge (4.15 %) and weighing charge (2.27 %) in channel-I. Similarly, proportionate expenditure on packaging charge was the highest as (56.67 %) followed by commission charges (22.73 %), transportation charge (12.90 %), loading charge (3.14 %), unloading charge (2.91 %) and weighing charge (1.65 %) in channel-II. Similarly, proportionate expenditure on packaging charge was the highest as (53.45 %) followed by commission charges (21.25 %), transportation charge (18.24 %), loading charge (2.86 %), unloading charge (2.71 %) and weighing charge (1.49 %) in channel-III. The results were at par with the findings of Nannaware (2010) in regards to percentage expenditure on packaging charge and transportation charge.

Marketing cost incurred by wholesaler:

Per quintal marketing cost of maize incurred by wholesaler with respect to various items in different marketing

Table 1 : Per farm production, retention and marketed surplus of maize		(q/farm)
Sr. No.	Particulars	Maize farm
1.	Maize farm size (ha)	0.84
2.	Production of maize (q)	46.15 (100.00)
3.	Retention for consumption (q)	1.63 (3.53)
4.	Marketed surplus in channel-I (q) (Producer-consumer)	3.15 (6.83)
5.	Marketed surplus in channel-II (q) (Producer-retailer-consumer)	15.33 (33.22)
6.	Marketed surplus in channel-III (q) (Producer-wholesaler-retailer-consumer)	26.04 (56.42)
7.	Total marketed surplus (q)	44.52 (96.47)

Figures in parenthesis are the percentage to the total marketed surplus

Table 2 : Marketing cost incurred by maize procedure		(Rs./q)		
Sr. No.	Particulars	Channel-I	Channel-II	Channel-III
1.	Packaging charge	45.07 (76.94)	46.71 (56.67)	47.73 (53.45)
2.	Loading charge	2.47 (4.21)	2.59 (3.14)	2.55 (2.86)
3.	Transportation charge	7.28 (12.43)	10.63 (12.90)	16.29 (18.24)
4.	Unloading charge	2.43 (4.15)	2.40 (2.91)	2.42 (2.71)
5.	Weighing charge	1.33 (2.27)	1.36 (1.65)	1.33 (1.49)
6.	Commission charge	-	18.73 (22.73)	18.97 (21.25)
	Total cost	58.58 (100)	82.42 (100)	89.29 (100)

Figures in parenthesis are the percentage to the cost incurred by producer

channels were calculated and are presented in Table 3. In regard to cost incurred by wholesaler in channel-III was Rs 95.08. Proportionate expenditure on packaging charge was the highest as 51.11 per cent followed by commission charge (19.67 %), transportation charge (18.20 %), losses (3.58 %), loading charge (2.63 %), unloading (2.42 %), weighing charge (1.47 %), license charge (0.62 %) and market fee (0.30 %) in channel-III.

Marketing cost incurred by retailer:

Per quintal marketing cost of maize with respect to retailer was calculated and is presented in Table 4. In regard to cost incurred by retailer in channel-III was higher as Rs. 22.75 followed Rs. 20.48 in channel-II. Proportionate expenditure on transportation charges was the highest as 74.22 per cent followed by losses (16.11 %), storage charge (4.15 %), market fees (2.44 %), license charge (1.66 %) and shop tax (1.42 %) in

Sr. No.	Particulars	Channel-III
1.	Packaging charge	48.60 (50.11)
2.	Loading charge	2.50 (2.63)
3.	Transportation charge	17.30 (18.20)
4.	Unloading charge	2.30 (2.42)
5.	License charge	0.59 (0.62)
6.	Weighing charge	1.40 (1.47)
7.	Commission charge	18.70 (19.67)
8.	Market fee	0.29 (0.30)
9.	Losses	3.40 (3.58)
	Total cost	95.08 (100)

Sr. No.	Particulars	Retailer Channel-II	Retailer Channel-III
1.	Transportation charges	15.20 (74.22)	17.00 (74.73)
2.	License charges	0.34 (1.66)	0.42 (1.85)
3.	Shop tax	0.29 (1.42)	0.47 (2.06)
4.	Storage charges	0.85 (4.15)	0.91 (4.00)
5.	Market fees	0.50 (2.44)	0.65 (2.86)
6.	Losses	3.30 (16.11)	3.30 (14.50)
	Total marketing cost	20.48 (100.00)	22.75 (100.00)

Sr. No.	Particulars	Channel-I	Channel-II	Channel-III
1.	Net price received by producer (Producer's share in consumer's rupee)	951.42 (94.20)	907.58 (87.69)	885.71 (76.02)
2.	Cost incurred by producer	58.58 (5.80)	82.42 (7.96)	89.29 (7.73)
3.	Price received by producer	1010 (100.00)	990.00 (95.65)	975.00 (84.41)
4.	Price paid by wholesaler	-	-	975.00 (84.41)
5.	Cost incurred by wholesaler	-	-	95.08 (8.23)
6.	Margin of wholesaler	-	-	39.92 (3.46)
7.	Price paid by retailer	-	990.00 (95.68)	1110.00 (96.10)
8.	Cost incurred by retailer	-	20.48 (1.98)	22.75 (1.97)
9.	Margin of retailer	-	24.52 (2.37)	22.25 (1.93)
10.	Price paid by consumer	1010.00 (100.00)	1035.00 (100.00)	1155.00 (100.00)
11.	Marketing cost	58.58 (5.80)	102.90 (9.94)	207.12 (17.93)
12.	Marketing margin	-	24.52 (2.37)	62.17 (5.38)
13.	Price spread	58.58 (5.80)	127.42 (12.31)	269.29 (23.31)

channel-II. Similarly, proportionate expenditure on transportation charge was highest as 74.73 per cent followed by losses in marketing (14.50 %), storage charge (4.00 %), market fees (2.86), shop tax (2.06 %) and license charge (1.85 %) in channel-III.

Price spread in maize marketing:

Per quintal marketing cost, marketing margin and price spread in maize marketing with respect to different channels were calculated and are presented in Table 5. The results revealed that, in regard to channel-I, price received by producer from consumer was Rs. 1010.00 while cost incurred by producer was Rs. 58.58 and hence net price received by producer was Rs. 951.42. The price paid by consumer was Rs. 1010.00, thus price spread was found to be Rs. 58.58. In channel-I producer's share in consumer's rupee was found to be 94.20 per cent.

In regard to channel-II, price received by producer from retailer was Rs 990.00 while cost incurred by producer was Rs. 82.42 and hence net price received by producer was Rs. 907.58. The cost incurred by retailer and margin of retailer was Rs. 20.48 and Rs. 24.52, respectively. The price paid by consumer was Rs. 1035.00. Thus, price spread was found to be Rs. 127.42. In channel-II producer's share in consumer's rupee was found to be 87.69 per cent. It was clear that, producer's share in consumer's rupee was maximum in channel-I. It was observed that, marketing cost in channel-I was 58.58. Price spread was found to be Rs. 58.58. In channel-II marketing cost was 102.90 and margin was Rs. 24.52. Thus, price spread was found to be Rs. 127.42 (Table 5).

In channel-III, the price paid by consumer was Rs. 1155.00. It was clear that the price received by the producer from wholesaler was Rs. 975.00 while cost incurred by producer was Rs. 89.29. Hence, net price received by the producer was Rs. 885.71. In next order, cost incurred by the wholesaler was Rs. 95.08 while marketing margin of wholesaler was Rs. 39.92. The wholesaler had sold that produce to retailer at Rs. 1110.00. Next order, cost incurred by retailer was Rs. 22.75 while marketing margin was 62.17 and thus it inferred that, in this channel the marketing cost was Rs. 207.12 while marketing margin was Rs. 62.17 and the price spread was found to be Rs. 269.29. It inferred that, price spread was found higher in channel-III as compared to channel-I and channel-II (Table 5). Pant and Hada (2004) and Kumar and Chahal (2011) have also made investigations on marketing of maize in Rajasthan and economic analysis of maize marketing in Punjab, respectively.

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