



Price Spread of *Kharif* Maize in Solapur District of Maharashtra

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ABSTRACT

In our country, maize is mainly grown for grain purpose, which is consumed either as food or feed. Utilization of maize for specialized purpose, good feed for poultry, piggery and other animals. The study was conducted to understand the nature of the marketing channels, marketing costs, margins, price spread and producer's share in the consumer's price of maize in Solapur district of Maharashtra. The data base consists of producer, wholesalers, and retailers of maize from whom primary data were collected by personal interviews with the help of pretested schedule during 2017-18. Three marketing channels were identified in case of maize i.e. I. Producer-Consumer. II .Producer-Retailer-Consumer, III. Producer-Wholesaler-Retailer-Consumer). Per farm total production of maize was 57.16 qtl/ha. Out of the total production 2.03 per cent was retained for family consumption and left was marketed through different channels. Among marketing cost incurred by different intermediaries marketing cost of wholesaler was highest and cost incurred by producer was lowest. Channel I was most efficient with 59.09 price spread and 96.50 per cent producer's share in consumer rupee. And price spread was highest in the channel III where number of intermediaries was also more.

Key words: Maize, Marketing channel, Marketing cost, Price spread

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INTRODUCTION

Cornstarch (maize flour) is a major ingredient in home cooking and in many industrialized food products. Maize is also a major source of cooking oil (corn oil) and of maize gluten. Maize starch can be hydrolyzed and enzymatically treated to produce syrups, particularly high fructose corn syrup, a sweetener; and also fermented and distilled to produce grain alcohol. Grain alcohol from maize is traditionally the source of bourbon whiskey. Maize is sometimes used as the starch source for beer. It is also nutritive for adults of different ages [1].

Maize among the cereals ranks third, both in terms of area and production in the world. The major maize producing countries are the USA, China, India, South Africa, Brazil, and Mexico (Source: Foreign Agricultural services/USDA). It occupies a prominent place in the humid tropics; maize in fact is the most extensively distributed cereal crop. In India important maize growing states are Rajasthan, Punjab, Maharashtra, West Bengal, Uttar Pradesh, Karnataka and Andhra Pradesh Telangana [2-4].

Maize being important cereal grown in India. The area under maize was about 96.33 lakh hectares in, with production of 258.8 lakh tonnes. The average yield of maize in India was 26.89 quintals per hectare in 2016-17 (Agricultural Statistics at a glance, 2016-17). The area under maize was about 9500 (000Ha) with production 25000 (000MT) and productivity was 2.63 (Mt/Ha) in 2017-18 [5,6].

MATERIAL AND METHODS

Market channels for maize were identified by primary data from farmers, wholesalers, and retailers. A sample of 90 respondents including 60 farmers, 20 wholesalers, 10 retailers and were randomly selected and interviewed based on pretested schedule in Malshiras taluka of Solapur district. Primary data regarding purchase price, marketing cost incurred, sale price and other related information were collected from the respondents. The data, thus collected was subjected to tabular analysis obtaining percentages.

RESULTS AND DISCUSSION

Major marketing channel in the study area.

Marketing channels reveal that how produce passes through different agencies from producer to final consumer. In the study area following prominent channels were observed in the marketing,

- Producer-- Consumer
- Producer--Retailer--Consumer
- Producer--Wholesaler--Retailer—Consumer

Production, retention and marketed surplus of maize

Per farm production, retention, marketed surplus and marketing of maize through different marketing channels were calculated and presented in Table 1. The result revealed that, the average maize farm was 0.65 hectares. It was clear from the result that, maize production on farm was 57.16 quintals. It was also observed that, the quantity of maize retained for home consumption was 2.03 quintals. Quantity of maize sold through channels-I, Channel-II and channel-III were quintals per farm 11.93, 18.90 and 24.30 quintals, respectively. Total marketed surplus was 55.13. It was observed from the result that, the highest quantities of maize were marketed through channel-III.

Sr. No.	Particulars	Maize farm
1	Maize farm size (ha)	0.65
2	Production of maize(q)	57.16
3	Retention of maize for consumption(q)	2.03
4	Marketed surplus in channel-I(q) (Producer-Consumer)	11.93 (21.63)
5	Marketed surplus in channel-II(q) (Producer-Retailer-Consumer)	18.90 (34.28)
6	Marketed surplus in channel-III(q) (Producer-Wholesaler-Retailer-Consumer)	24.30 (44.07)
7	Total marketed surplus(q)	55.13 (100)

(Figure in parenthesis is the percentage to the marketed surplus in different channel)

Marketing cost of maize incurred by different intermediaries.

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 presented in Table 2.

S. No	Particulars	Channel-I (Producer-Consumer)	Channel-II (Producer-Retailer-Consumer)	Channel-III (Producer-Wholesaler Retailer-(Consumer)
1.	Packaging charge	45.14 (76.39)	46.12 (57.17)	46.57 (53.80)
2.	Loading charges	2.48 (4.19)	2.50 (3.09)	2.13 (2.45)
3.	Transport charges	8.91 (15.07)	9.75 (12.08)	15.24 (17.58)
4.	unloading charges	2.56 (4.33)	2.00 (2.47)	2.26 (2.65)
5.	Weighing charges	-	1.40 (1.73)	1.31 (1.51)
6.	Commission charges	-	18.90 (23.42)	18.15 (20.94)
	TOTAL	59.09 (100)	80.67 (100)	86.66 (100)

(Figure in parenthesis is the percentage to the cost incurred by producer)

The result revealed that, in channel-III, cost incurred by producer was higher as Rs 86.66 followed by Rs 80.67 in channel II and Rs 59.09 in channel I. Proportionate expenditure on individual items showed that, packaging charges was the highest as (76.39 per cent) followed by transportation charges (15.07 per cent), unloading charges (4.33 per cent), loading charges (4.19 per cent) in channel-I. Similarly, proportionate expenditure on packaging charges was the highest as (57.17 per cent) followed by

commission charges (23.42 per cent), transportation charges (12.08 per cent), loading charges (3.09 per cent), unloading charges (2.47 per cent) and weighing charges (1.73 per cent) in channel-II. Similarly, proportionate expenditure on packaging charges was (53.80 per cent) followed by commission charges (20.94 per cent), transportation charges (17.58 per cent), unloading charges (2.65 per cent), loading charges (2.45 per cent) and weighing charges (1.51 per cent) in channel-III.

Marketing cost incurred by wholesaler

Per quintal marketing cost of maize incurred by wholesaler with respect to various items in different marketing channels were calculated and presented in Table 3. In regard to marketing cost incurred by wholesaler in channel-III, it was Rs 94.33 per quintals. Proportionate expenditure on packaging charges was the highest as (52.15 per cent) followed by commission charges (19.79 per cent), transportation charges (17.91 per cent), loading charges (2.65 per cent), unloading charges (2.50 per cent), losses (2.49 per cent) weighing charges (1.53 per cent), license charges (0.63 per cent) and market fee (0.31 per cent) in channel-III.

Sr. No	Particulars	Channel-III
1.	Packaging charge	49.20 (52.15)
2.	Loading charges	2.50 (2.65)
3.	Transport charges	16.90 (17.91)
4.	unloading charges	2.36 (2.50)
5.	License charges	0.60 (0.63)
6.	Weighing charges	1.45 (1.53)
7.	Commission charges	18.67 (19.79)
8.	Market fee	0.30 (0.31)
9.	Losses	2.35 (2.49)
	TOTAL	94.33 (100)

(Figure in parenthesis is the percentage to the cost incurred by wholesaler)

Marketing cost incurred by retailer

Per quintal marketing cost of maize incurred by retailer was calculated and presented in Table 4. Cost incurred by retailer in channel-III was higher as Rs 26.33 followed Rs 24.20 in channel-II. Proportionate expenditure on transportation charges was highest as (74.58 per cent) followed by losses in marketing (11.15 per cent), license charges (5.16 per cent), storage charges (4.95 per cent), market fee (2.47 per cent) and shop tax (1.65 per cent) in channel-II. Proportionate expenditure on transportation charges was the highest as 74.21 per cent followed by losses 11.77 per cent, license charges 4.93 per cent, storage charges 4.74 per cent, market fee charges 2.46 per cent and shop tax 1.86 per cent in channel-III.

Sr. No	Particulars	Channel-II	Channel-III
1.	Transport charges	18.05 (74.58)	19.54 (74.21)
2.	License charge	1.25 (5.16)	1.30 (4.93)
3.	Shop tax	0.40 (1.65)	0.49 (1.86)
4.	Storage charges	1.20 (4.95)	1.25 (4.74)
5.	Market fees	0.60 (2.47)	0.65 (2.46)
6.	Losses	2.70 (11.15)	3.10 (11.77)
	TOTAL COST	24.20 (100)	26.33 (100)

(Figure in parenthesis is the percentage to the cost incurred by retailer)

Price spread in maize marketing

Per quintal marketing cost, marketing margin and price spread in marketing of maize with respect to different channels were calculated and presented in Table 5. The result revealed that, in regard to channel-I net price received by producer from consumer was Rs 1700.40 while cost incurred by producer was Rs 59.09. The price paid by consumer was Rs 1759.49, thus price spread was found to be Rs.59.09. In channel-I producers share in consumer's rupee was found to be 96.66 per cent.

In regard to channel-II price received by producer from retailer was Rs. 1650.35 while cost incurred by producer was Rs 80.67. The cost incurred by retailer and margin of retailer was Rs 24.20 and Rs 185.54, respectively. The price paid by consumer was Rs 1940.76. Thus, price spread was found to be Rs 287.10. In channel-II producer's share in consumer's rupee was found to be 85.03 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 59.09. Thus price spread was found to be Rs 59.09. In Channel-II marketing cost was 101.56 and margin was Rs 185.54. Thus price spread was found to be Rs.287.10

In channel-III, that the price paid by consumer in this channel was Rs 2090.60. It was clear that, the price received by the producer from wholesaler was Rs1570.30 while cost incurred by producer was Rs 86.66. In next order, cost incurred by the wholesaler was Rs. 94.33 while marketing margin of wholesaler was Rs 90.50. The wholesaler had sold the produce to retailer at Rs.1760.79. Next order, cost incurred by retailer was Rs 26.33 while marketing margin was 303.48 and thus it inferred that, in this channel the marketing cost was Rs 112.99 while marketing margin was Rs 303.48 and the price spread was found to be Rs 416.47. It inferred that, price spread was found higher in channel-III as compared to channel-I and channel-II.

Table 5. Per quintal marketing cost, margin and price spread in maize (Rs/q)

Sr. No	Particulars	Channel-I	Channel-II	Channel-III
1	Net price received by producer (producer share in consumer rupee)	1700.40 (96.66)	1650.35 (85.03)	1570.30 (75.00)
2	Cost incurred by producer	59.09 (3.35)	80.67 (4.15)	86.66 (4.00)
3	Price paid by wholesaler	-	-	1656.96 (79.00)
4	Cost incurred by wholesaler	-	-	94.33 (3.65)
5	Margin of wholesaler	-	-	90.50 (3.10)
6	Price paid by retailer	-	1731.02 (89.18)	1760.79 (85.75)
7	Cost incurred by retailer	-	24.20 (1.24)	26.33 (1.25)
8	Margin of retailer	-	185.54 (9.56)	303.48 (13.00)
9	Price paid by consumer	1759.49 (100)	1940.76 (100)	2090.60 (100)
10	Marketing cost	59.09 (3.35)	101.56 (5.23)	112.99 (5.40)
11	Marketing margin	-	185.54 (9.56)	303.48 (13.00)
12	Price Spread	59.09 (3.35)	287.10 (14.79)	416.47 (18.40)

(Figure in parenthesis is the percentage to the marketing cost, margin and price spread)

CONCLUSIONS

Three marketing channels were identified in case of maize (i.e. I. Producer-Consumer. II. Producer-Retailer-Consumer, and III. Producer-Wholesaler-Retailer-Consumer). Among marketing cost incurred by different intermediaries marketing cost of wholesaler was highest and cost incurred by producer was lowest. Channel I was most efficient with 59.09 price spread and 96.58 per cent producer's share in consumer rupee because the produce was directly marketed from producer to consumer. And price spread was highest in the channel III where number of intermediaries was also more.

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