



Price Spread of Soybean in Amravati District of Maharashtra, India

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

India rank fourth in respect of production of soybean in the world. Maharashtra and Madhya Pradesh are the two major soybean producing states in India. In India Marketing of Soybean crop is in developing stage. The development of marketing is as important as that of increasing production. Farmers always desire to get reasonable price for their farm product. Therefore, for profitable transaction a careful planning of marketing of Soybean is must with this view it is essential to study the marketing of Soybean in Amravati district of Maharashtra. In Maharashtra, soybean is mainly grown in the districts of Amravati, Akola, Washim and Nagpur. This study was conducted for estimation of marketing cost, marketing margin and price spread through different marketing channels of soybean in Amravati district. The study was based on primary data and secondary data for the year 2022-23, collected from the APMC market of Amravati district of Maharashtra, the total

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120 producers, 10 village traders, 10 wholesaler were selected for the study. Three major marketing channels were identified for the soybean i.e. channel-I: Producer- village trader-wholesaler- oil processor (consumer), Channel-II: Producer→ Wholesale →oil Processor (consumer), Channel-III: → Producer→ oil Processor (consumer). The channel -I was found most important channel of distribution. Producer's share in consumer's rupees was highest in channel III as compared to channel II and channel I. The comparison between costs incurred by different market intermediaries in the marketing channel shows that Channel-III incurred lowest cost and it was also observed that the producers share in consumer price was 98.81 percent. Farmers always desire to get reasonable price for their farm product. Consequently for profitable transactions a careful planning of marketing of Soybean is must. For this purpose present study has been done.

Keywords: Soybean; marketing cost; marketing margin; price spread.

1. INTRODUCTION

"Soybean (*Glycine max*) is known as the —Golden bean and —Miracle crop of the 20th century because of its varied uses. Brazil ranks first in soybean production with 121.80 million tonnes followed by United States of America (112.55 million tonnes), Argentina (48.80 million tonnes), China (19.60 million tonnes) and India (11.23 million tonnes) accounting for 34, 32, 14, 6 and 3 percent of world production. India ranks fourth in area with 12.12 million hectares accounting for 8.86% of the world area and fifth in production with 11.23 million tonnes in 2020-21. The major soybean growing states are Madhya Pradesh, Maharashtra, Rajasthan, Karnataka, and Telangana. According to the first advance estimates 2022-23, Government of India soybean crop is estimated at 128.92 lakh tonnes as compared to 129.95 lakh tonnes in 2021-22" [1]. "Soybean is a temperate origin crop introduced in India in the late sixties. It has a prominent place among modern agricultural commodities as the world's most important seed legume, and contributes about 25% and 65% to the global edible oil and protein concentrate for livestock feeding, respectively most important crop grown in India for dual purposes that is oil seed as well as pulse crop. It is important natural source of protein with number of amino acids essential for good health [2,3]. Soybean contains 40 per cent protein, 18-20 per cent oil and other essential amino acids and vitamins. The major soybean growing states are Madhya Pradesh, Maharashtra, Rajasthan, Karnataka, and Telangana. Agricultural Market Intelligence Centre, PJTSAU-soybean outlook 2022,2023) Soybean is a Major Oilseed crop in Vidarbha region of Maharashtra. Agricultural marketing plays a crucial role. It has been describe as the most important multiplier of agricultural development [4,5]. The agricultural marketing system plays a dual role in economic

development in countries where resources are primarily agricultural. In India Marketing of Soybean crop is in developing stage. The development of marketing is as important as that of increasing production [6,7]. Farmers always desire to get reasonable price for their farm product. Therefore, for profitable transaction a careful planning of marketing of Soybean is must with this view it is essential to study the marketing of Soybean in Vidarbha region of Maharashtra" [8,1].

1.1 Objectives

1. To study the price spread of Soybean.
2. To study the marketing cost of Soybean.
3. To study the marketing channel of Soybean.

2. METHODOLOGY

Area under soybean is highest reported in Amravati district of Maharashtra state.

Hence Amravati district was selected for present study. The study was based on primary data and secondary data for the year 2022-23, collected from the APMC market of Amravati district of Maharashtra, the total 120 producers, 10 village traders, 10 wholesaler were selected for the study.

2.1 Marketing Channels

Three major marketing channels were identified for the soybean i.e.

Channel-I: Producer→ Village trader→ Wholesaler→ oil Processor (consumer)
Channel-II: Producer→ Wholesaler→ oil Processor (consumer),
Channel-III: → Producer→ oil Processor (consumer)

2.2 Price Spread

“To study the price spread in marketing channels of Soybean, It refers to the difference between price paid by the consumer and price received by the producer for an equivalent quantity of the farm product. This price spread consists of marketing costs and margins of the intermediaries. It gives fair idea about relative efficiency of various marketing system and channels were worked out as under” (Acharya and Agrawal, [9]).

2.3 Marketing Cost

Total cost of marketing was calculated as under:

$$C = C_F + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$$

Where,

C = Total cost of marketing
 C_F = Cost incurred by the farmers in marketing his produce
 C_m = Cost incurred by the middlemen in the process of buying and selling

$$l = 1, 2, 3, \dots, n$$

n is the number of middlemen involved in the channels.

2.4 Producers Share in Consumer's Rupee

It is the ratio of net price received by producer to the price paid by consumer and can be calculated as:

$$P_s = \frac{P_f}{P_r} \times 100$$

Where,

P_s = Producers share in consumer's rupee
 P_f = Net price received by the farmers
 P_r = Price of the produce paid by the consumer (consumers price) (Acharya & Agrawal [9]).

3. RESULTS AND DISCUSSION

In the study of marketing of soybean, it was found that farmers adopt following three important channels for marketing of soybean, where, processor was the ultimate consumer.

Channel-I – Producer- village trader- wholesaler- oil processor (consumer)
 Channel- II- Producer- wholesaler- oil processor (consumer)
 Channel-III- Producer- oil processor (consumer)

The findings of the present study as well as relevant discussion have been presented under following heads:

3.1 Marketing Cost of Soybean Incurred by Producer

The per quintal marketing cost of soybean incurred by producer in different channels was calculated and is presented in Table 1. The cost incurred by the producer was the highest with Rs. 163.52 per quintal in channel-II followed by Rs.65.5in channel-III and Rs.47per quintal in channel-I. It was observed that the proportionate expenditure in the total cost was the highest on transportation in channel-I Rs. 20 (42.55%) followed by loading/unloading charges Rs. 15 (31.91%). In channel-II share was highest on commission charges Rs .95.69 (58.69%), followed by transportation charges Rs.32 (19.57%). In channel-III share was highest on transportation charges Rs. 31.5 (48.09%), followed by loading/unloading charges Rs. 19 (29.01%) and weighing and cleaning charges Rs.15 (22.9%) respectively. The findings coincide with those of Chavhal et al. [10] and Wankhade et al. [11].

3.2 Marketing Cost of Soybean Incurred by Village Trader

Per quintal marketing cost of soybean incurred by village trader were calculated and presented in Table 1. The total cost incurred by village trader accounted for Rs.156 per quintal. The share of expenditure in the total cost was the highest on commission charges Rs. 93.02 (58.33%) followed by transportation charges Rs. 30(19.23%), labour charges Rs. 20 (12.82%) and weighing charges Rs.15(9.61%) respectively. (Wankhade et.al. [11], Chavhal et al. [9] and Kausadikar et al. [12].

3.3 Marketing Cost of Soybean Incurred by Wholesaler

Per quintal marketing cost of soybean incurred by wholesaler in channel-I and channel II was calculated and is presented in Table 1. The results revealed that the total cost was Rs.

158.33 in channel-I and channel II Rs. 165.37, It was observed that the proportionate expenditure in the total cost was the highest on commission charges in channel-I Rs. 93.08 (58.79%) followed by transportation charges Rs 31.2 (19.71) Labour charges Rs. 22 (13.9%). In channel-II share was highest on commission charges RS.95.97 (58.03%), followed by transportation charges Rs.32.5 (19.65%), labour charges Rs.22.35 (13.52%) respectively (Chavhal et al. [10] and Hazari et al. [13]).

3.4 Price Spread in Soybean Marketing

It was clear that processor in Amravati market was final consumer with respect to all marketing channel. In channel-I, village traders and wholesaler were the two intermediaries while in channel-II, wholesaler was only one intermediaries. But in channel-III producer was directly selling his produce to the oil processor in this oil processor is final consumer hence, the forgoing analysis as seen from Table 2 indicated

Table 1. Marketing cost of soybean incurred by different intermediaries (Rs./q)

Sr.no	Particulars	Channel I	Channel II	Channel III
A	Producer			
1	Loading/Unloading charges	15(31.91)	20(12.23)	19(29.01)
2	Transport charges	20(42.55)	32(19.57)	31.5(48.09)
3	Weighing and cleaning charges	12(25.53)	14.5(8.87)	15(22.9)
4	Commission charges	-	95.97(58.69)	-
5	Market fee	-	1.05(0.642)	-
	Total marketing cost incurred by producer	47(100)	163.52(100)	65.5(100)
B	Village Trader			
1	Labour charges	20(12.82)	-	-
2	Transport charges	30(19.23)	-	-
3	Commission charges	91(58.33)	-	-
4	Weighing charges	15(9.61)	-	-
	Total marketing cost incurred by village trader	156(100)	-	-
C	Wholesaler			
1	Labour charges	22(13.9)	22.35(13.52)	-
2	Transportation charges	31.2(19.71)	32.5(19.65)	-
3	Market fee	1.05(0.66)	1.05(0.63)	-
4	Commission charges	93.08(58.79)	95.97(58.03)	-
5	Godown charges	3(1.89)	3.5(2.12)	-
6	Other	8(5.05)	10(6.05)	-
	Total marketing cost incurred by wholesaler	158.33(100)	165.37(100)	-
	Total marketing cost	361.33	328.89	65.5

Table 2. Price spread in soybean marketing (Rs./q)

Sr.no	Particulars	Channel I	Channel II	Channel III
1	Net price received by Producer (Producer's share in consumer's rupee)	5153(87.04)	5320.48(88.16)	5449.5(98.81)
2	Total marketing cost incurred by Producer	47(0.794)	163.52(2.71)	65.50(1.19)
3	Price paid by Village Trader	5200(87.84)	-	-
4	Total marketing cost incurred by Village trader	156(2.63)	-	-
5	Market margin of Village trader	104(1.76)	-	-
6	Price paid by Wholesaler	5460(92.23)	5484(90.87)	-
7	Total marketing cost incurred by Wholesaler	158.33(2.67)	165.37(2.74)	-
8	Market margin of Wholesaler	301.67(5.10)	385.63(6.39)	-
9	Price paid by Processor(consumer's price)	5920(100)	6035(100)	5515(100)
10	Total marketing cost	361.33(6.10)	328.89(5.45)	65.5(1.19)
11	Total market margin	405.67(6.85)	385.63(6.39)	-

(Figure in parentheses indicates per cent to the consumer's rupee)

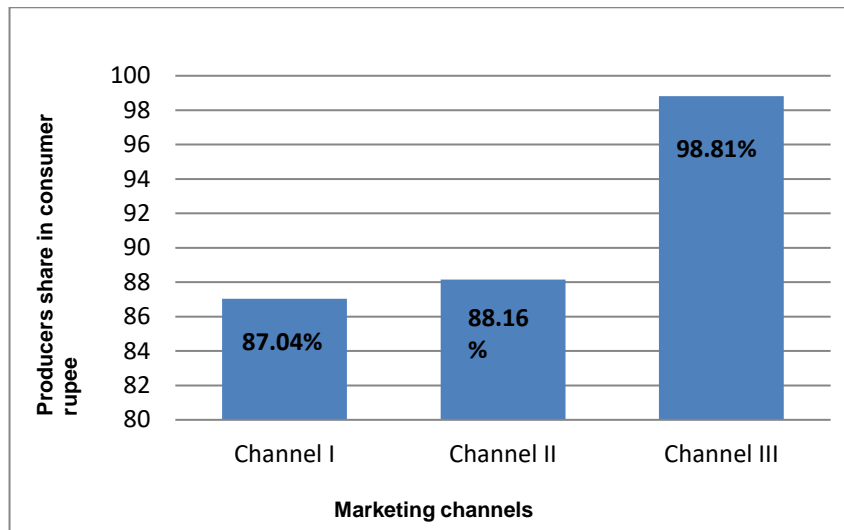


Image 1. Producers share in consumer rupee

that the net price received by soybean farmers was higher i.e. Rs. 5449.5 per quintal in channel III as compared to Rs. 5320.48 in channel II and Rs. 5153 in channel I (Chavhal, et al. [10] and Wankhade, et al. [11]), as seen in image 1 “the producers share in consumers rupee was also high i.e. 98.81 per cent in channel III as compared to 88.16 per cent in channel- II and 87.04 per cent in channel-I” . This was mainly due to Marketing channel –I, channel- II with the channel III where in soybean producer instead of selling their produce to wholesale, sold their produce directly to the processor (consumer) (Farkade et al. [4]), under “study in soybean marketing and the producer’s share in consumer rupee was maximum in channel-III than the other channels mainly because of less number of market intermediaries”. Similar findings were noticed in the studies of (Chavhal et al. [10] Mana Solanki et al. [5]). “Price spread of soybean not only show the cost and margins at different levels of marketing by different agencies but also show a clear picture of entire system of marketing of soybean” Hazari & Khobarkar [13].

4. CONCLUSIONS

With regard to marketing and price spread of soybean study, three types of marketing channels were Observed viz., producer- village traders -wholesaler- oil processor- (channel-I), producer- wholesaler - oil processor- (channel-II) and producer-oil processor – (channel- II). Channel II was found to sold maximum quantity of soybean .Marketing cost was higher in channel - I and minimum in channel-III. Producers share in consumer rupee was

maximum in channel-III (98.81%) while it was minimum in channel-I (87.04%).The study on price spread in marketing of soybean in channel - I and Channel II has shown significant differences in margins of intermediaries, In this study shown higher marketing efficiency and better return to producers through direct marketing. This is a clear indicator for developing farmers market in the region and this would also increases the competition and better price in soybean marketing for benefit of both producers and processors (consumers)

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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