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Price spread and marketing efficiency of soybean marketing channels in district Sagar, Madhya Pradesh

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Abstract

The purpose of the study was to identify marketing channels, price spreads, marketing margins and marketing efficiency of soybean Sagar district of Madhya Pradesh, India. The primary data were collected only for soybean by survey method. The study was focused on 80 soybean farmers. It was conducted in Sagar district of Madhya Pradesh having highest area under cultivation and production. The selection of channel actors was made using two stage stratified random sampling technique. Three major marketing channels identified in the study were (I) producer-wholesaler- processor- Retailer - consumer (II) producer- village trader- wholesaler - processor (III) producer - village trader- wholesaler- processor the farmers had to incur high expenses towards packing material and transportations whereas for other intermediaries in all the channels, weight loss and spoilage followed by transportation were the major marketing cost. The price spread was low in channel II as the produce was sold to the retailer directly by the farmer. The channel I had the highest marketing efficiency. Comparing channel I, II and III it was revealed that relatively lower marketing efficiency of channel II was due to one additional intermediary (commission agent). The paper provides the information for selecting right marketing channel for soybean marketing. The paper also provides empirical information that serves as a source to adopt market options for increased benefits to various chain actors.

Keywords: Marketing cost, marketing efficiency, price spread, soybean

Introduction

Soybean is known as “Golden bean” of 21st century. Soybean is grown in India for dual purposes that oilseed as well as legume crop. It is important natural source of protein with the number of amino acids essential for good health. Agricultural marketing plays a crucial role not only in stimulating production and computation, but in accelerating the space of economic development. The agricultural marketing system plays important role in economic development in countries where resources are primarily agricultural. In India Marketing of Soybean is in developing stage. The development of marketing is an important as that of increasing production. Farmers always desire to get fair price for their farm product. There are 3 entities involved in the marketing system. They are producer, the middlemen and the consumer. The producer after making a lot of investment and putting hard labour, would look forward to get the largest possible returns for this produce. Therefore, aim at balancing these confliction of interest in such a way that each entity gets fair deal. The objectives of the present study were to estimate the marketing cost and price spread under various marketing channels and to analysis of marketing efficiency and farmer’s share in consumer’s rupee in various marketing channels.

Materials and Methods

Marketing channels and price spread

Marketable and Marketed Surplus

Marketable Surplus was worked out by deducting the total quantity required for family consumption, for seeds, payment of wages to labours in kind, home consumption, relatives etc. from the total quantity available.

$$MS = P - C$$

Where, MS = Marketable surplus.

P = Total production.

C = Total requirement for family and farm.

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Price-Spread

The producer’s share, marketing costs and margins of different middle-men in the marketing of Soybean crop were worked out for the adopted channels using the formula.

$$Ps = \frac{Pf}{Pc} \times 100$$

Where;

- Ps = Producer’s share in consumer’s rupee
- Pf = Price of the produce received by the farmer
- Pc = Price of the produce paid by the consumer

Total cost of marketing

The total cost incurred on marketing of soybean by the farmers and the intermediaries involved in the process of marketing was calculated as:

Where;

- $C = CF + Cm1 + Cm2 + Cm3 + \dots + Cmn$
- C = Total cost of marketing
- CF = Cost borne by the producer (farmer) in marketing of soybean
- Cmi = Cost incurred by the ith middle men in the process of marketing.

Marketing Efficiency

- Marketing Efficiency = $(V/I) - 1$
- V = Total marketing cost
- I = Consumer’s price

Results and Discussion

Marketing channel

The difference between the price paid by the ultimate consumer and the price received by the farmer for an equivalent quantity of produce is known as price spread. It includes cost of performing various marketing function and margins of different agencies associated in the marketing process of the commodity. The extent of price spread helps policy makers in devising suitable policies for increasing marketing efficiency either by way of reducing the marketing costs or eliminating unwanted middlemen from the marketing process of by both. The marketing costs, margins and price spread in marketing of soybean through major channel have been presented based on the data collected from farmers and market functionaries. The channels identified in the study area were:

Channel I: Producer – Wholesaler – Processor – Retailer – Consumer

Channel II: Producer – Village Trader – Wholesaler – Retailer – Consumer

Channel III: Producer – Village Trader - Wholesaler – Processor

Marketing cost, Marketing margin and Price spread in Sagar district

The channels of marketing of Agricultural produce from producer to consumer vary from commodity to commodity and area to area. The average price spread was worked out on per quintal basis. Marketing cost, marketing margin and price spread were calculated for two channels separately and are presented in Table 1 and 2.

Table 1: Marketing cost and margins in channel- I in sagar district

Sr. No.	Particulars	Rs. Per quintal	Per cent of consumer’s purchase price
1.	Producer net price	3166.00	91.70
2.	Cost incurred by producer		
I	Packing cost	11	0.32
II	Transport cost	55	1.59
III	Market charges	10	0.29
IV	labour charges	8	0.23
V	Miscellaneous costs	2.75	0.08
	Total cost	86.75	
3.	Producer’s selling price to wholesaler	3252.75	
4.	Cost incurred by wholesaler		
I	Labour cost	2	0.06
II	Weighing charges	1.5	0.04
III	Market charges	10	0.29
IV	Miscellaneous costs	3	0.09
V	Commission cost	35	1.01
	Total cost	51.50	
5.	Wholesaler’s net margin	148.50	4.30
6.	Wholesaler’s selling price to consumer	3452.75	100.00

The table 1 revealed that highest marketing cost incurred was Rs.86.75 by producers followed by Rs.51.50 for wholesaler thus the total marketing cost of soybean was Rs 138.25 in Sagar. The percent share of total marketing cost was 2.51 and 1.49 percent for producer and wholesaler respectively. The profit earned by wholesaler was Rs.148.50 from marketing of one quintal soybean. In Sagar market, producer average received Rs. 3166 per quintal price for soybean. The producers share in consumer’s rupee of first channel in Sagar district was 91.70 per cent, while marketing cost per quintal

was 4.00 per cent.

Channel II: Producer – Village Trader – Wholesaler – Retailer – Consumer

Marketing cost and net margin of wholesaler are presented in table 2. The average cost incurred by the producer was Rs. 91 per quintal. Among that transportation cost was the highest cost which shared 1.58 per cent per quintal. The cost incurred by village trader on per quintal of soybean was Rs. 101.50 in

which storage charges were maximum (1.32%) followed by commission charges, market charges, miscellaneous costs, labour costs and weighing charges. The village trader net margin was Rs. 104.41 per quintal of soybean. The cost incurred by wholesaler on per quintal of soybean was Rs. 16.50 in which, market charges was the (0.26%), followed by miscellaneous costs, labour costs and weighing charges. The wholesaler net margin was Rs. 113.50 per quintal of soybean.

The cost incurred by retailer on per quintal of soybean was Rs. 66 in which, transport cost was 1.32 per cent followed by market charges, miscellaneous costs and labour costs. The retailer net margin was Rs. 154 per quintal of soybean. The producers share in consumer's rupee of second channel in sagar district was 82.98 per cent while marketing cost per quintal was 7.24 per cent.

Table 2: Marketing cost and margins in Channel –II in Sagar district

Sr. No.	Particulars	Rs. Per quintal	Per cent of consumer's purchase price
1.	Producer net price	3153.09	82.98
2.	Cost incurred by producer		
I	Packing cost	8	0.21
II	Transport cost	60	1.58
III	Market charges	10	0.26
IV	labour charges	10	0.26
V	Miscellaneous costs	3	0.08
	Total cost	91	
3.	Producer's selling price to village trader	3244.09	
4.	Cost incurred through village trader		
I	Labour cost	2	0.05
II	Weighing cost	1.5	0.04
III	Market charges	10	0.26
IV	Storage charges	50	1.32
V	Commission charge	35	0.92
VI	Miscellaneous costs	3	0.08
	Total cost	101.5	
5.	Village trader net margin	104.41	2.75
6.	Village trader selling price to wholesaler	3450	
7.	Cost incurred by wholesaler		
I	Labour cost	2	0.05
II	Weighing charges	1.5	0.04
III	Market charges	10	0.26
IV	Miscellaneous costs	3	0.08
	Total cost	16.5	
8.	Wholesaler's net margin	113.5	2.99
9.	Wholesaler's selling price to retailer	3580	
	Cost incurred by retailer		
I	Labour cost	2	0.05
II	Market charges	10	0.26
III	Transport cost	50	1.32
IV	Miscellaneous costs	4	0.11
10.	Total costs	66	
11.	Retailer's net margins	154	4.05
12.	Consumer's paid price to retailers	3800	100

Table 3: Marketing cost and margins in channel-III in sagar district

Sr. No.	Particulars	Rs. Per quintal	Per cent of consumer's purchase price
1	Net price received by producer	3569.46	87.06
2	Marketing cost incurred by producer	23.04	0.56
3	Price paid by village trader	3592.50	87.62
4	Expenses incurred by village trader	71.65	1.74
5	Margin of village trader	55.85	1.36
6	Price paid by wholesaler	3720	90.73
7	Expenses incurred by wholesaler	44.36	1.08
8	Margin of wholesaler	335.64	8.18
9	Price paid by processor	4100	100
10	Total marketing cost	139.05	3.39
11	Total Marketing margin	391.49	9.54
12	Price spread	530.54	12.94

Table 4: Price spread in marketing of soybean in different marketing channels in Sagar market

Sr. No.	Particulars	Channel – I		Channel – II		Channel – III	
		Rs / Qt.	Per cent share in consumer's rupee	Rs / Qt.	Per cent share in consumer's rupee	Rs/Qt.	Per cent share in consumer's rupee
1.	Producer's net price	3166.00	91.70	3153.09	81.41	3569.46	87.06
2.	Cost incurred by						
A	Producer	86.75	2.51	91.00	2.39	23.04	0.56
B	Village trader	-	-	101.50	2.67	3592.50	87.62
C	Wholesaler	51.50	1.49	16.50	0.43	3720	90.73
D	Retailer	-	-	66.00	1.74		
	Total cost	138.25	4.00	275.00	7.24	139.05	3.39
3.	Margin earned by						
A	Village trader	-	-	104.41	4.31	55.85	1.36
B	Wholesaler	148.50	4.30	113.50	2.99	335.64	8.18
C	Retailer	-	-	154.00	4.05		
	Total margin	148.50	4.30	371.91	11.35	391.49	9.54
4.	Consumer's price	3452.75*	100	3800	100	3569.46	100

* Value is processor buying price

The table 4 indicates that the total marketing cost was highest in channel II (₹ 275) and in channel I it was ₹138.25 which was 7.24 and 4 per cent of consumer rupees. The highest marketing cost was born by village trader (2.67%) in channel II, whereas 2.51 per cent by producer in channel- I. The producer share in consumer rupee was 91.70 and 81.41 per cent in channel I and II respectively. The share of net margin earned by other intermediaries as wholesaler 4.30 and 2.99 per cent in channels I and II respectively. Village trader 4.31 and retailer 4.05 in channel II. In channels I there are less intermediaries involved because the wholesaler are sale the directly to the processor.

Thus channel first considered as efficient channel compared to first channel.

Marketing Efficiency

The Consumer's Price was calculated for the above mentioned Two Marketing Channels and was found out to be 66.04 for Channel 1 and 36.43 for Channel 2 and for channel III is 28.48.

Marketing Efficiency	Channel 1	Channel 2	Channel3
		66.04	36.43

Summary and conclusion

The Three different channels of marketing of soybean were identified in the study area.

Channel I: Producer – Wholesaler – Processor – Retailer– Consumer

Channel II: Producer – Village Trader – Wholesaler – Retailer – Consumer

Channel III: Producer – Village Trader - Wholesaler – Processor

There were three channel found in each market. The channel I was more efficient than the II because producer share in consumer rupee was more (91.70%) in channel I, than channel II (81.41%) in Sagar market for channel III is (28%). The present investigation was intended to depict the picture of the soybean growing enterprise in Sagar district. The enterprise has assumed a pride place in the economy of the tract as it is an important oilseed crop of the tract. The foregoing discussion on various aspects of the study led to

draw the following conclusions.

- (1) The marketing practices followed by the farmers were assembling of produce, processing, grading, packaging, transportation, storage, selling etc. The cultivators not carried out the practices like grading and processing effectively, processing was carried out only for home purpose and the grades were given on the basis of variety and foreign materials like soils and dried leaves in the produce.
- (2) Per quintal cost of marketing, the total marketing cost, the item such as commission, transport, packaging material and other cost were observed to be most important items of the cost. These costs can be minimized through certain measures like efficient transport facilities, cheap packaging material. It also further indicated for minimizing the commission to be paid by the producers.
- (3) It is seen that with increased in farm size the quantity of marketable as well as marketed surplus increased. It is concluded that the cash requirement of farmers were comparatively higher. It can also found that soybean is not consumed directly so the marketed surplus is higher. It can be used negligible in direct consumption.
- (4) Prices and high commission charges problem at marketing level. High cost of pesticide and high cost of seed material constraints at economic level of soybean cultivation and technical level constraints are lack of knowledge about identifying the disease and pest and lack of technical knowledge about soybean cultivation.

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