

An Identification of Marketing Channels and Estimation of Marketing Efficiency of Cluster Bean in Gird Region of Madhya Pradesh

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ABSTRACT

This research paper was carried out to identify the marketing channels and estimate the price spread, marketing cost, and marketing efficiency in various marketing channels of grid region of Madhya Pradesh and constraints faced by respondents in marketing of cluster bean for the year 2019-20. Multi-stage sampling was used for the selection of the farmers for the present research. Morena district of Madhya Pradesh was selected purposively as its first rank in the area and production of cluster bean in the state. Total 90 farmers were selected and the nearest organized grain *mandi* of Sabalgarh was selected purposively for this research. Two village traders from each village and two wholesalers from regulated market of Sabalgarh were selected on the basis of their responsiveness. Both the primary and secondary data were collected. In the movement of product highest cost is found in channel first followed by second and third. And the same trend follows in marketing margin. Highest marketing efficiency was of channel third after that second and first. In production major constraint was seed not available of quality seed while in marketing the major problem was the high cost of labor and high fluctuation of price.

Keywords: Cluster Bean, Constraints Marketing Channel, Marketing Cost, Marketing Efficiency, Marketing Margin and Price Spread

Cluster bean typically known as guar. It is the most essential crop of drought places it has a deep root system and excellent in surviving water stress condition. The beans are grown mainly throughout the *Kharif* season and inspired the temporary increase of conventional vegetation that grows absolutely in remote areas, especially for human beings and animal food. It has several business programs which include food, cosmetics, printing along side fabric companies. The houses of the rubber powder received from legume seeds make it a famous product inside the worldwide market. Asian nations are certainly considered one among the biggest manufacturers of inexperienced beans, accounting for 82% of the entire manufacturing of

the land. In India, cluster bean is grown on a place of 4.26 million hectares, with a manufacturing of 2.2 million tones and a median yield of 567 kg/ha. In M.P. it's far cultivated a place of 70,622 hectares as a sole crop in 70566 hectares and as a blended crop on 54,782 hectares. About 80% of the kingdom is with inside the Gild area (Anonymous, 2015). In Madhya Pradesh, it's far cultivated as a chief crop in 4 districts: Gwalior, Shivpuri, Morena, and Bhind.

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The cutting-edge vicinity of this crop is 2,500, 3,000, 3,500, and 2100, hectares, respectively. Therefore, the value and income shape of the cluster bean need to be considered. Remembering the importance of cluster bean crop, the examine on “the Economic investigation of Production and selling of Cluster Bean in Gird Region of Madhya Pradesh” turned into conducted with the subsequent objective

Research Methodology

Multi-stage sampling was used for the selection of the farmers for the present study. The sampling in the first three stages was purposive while the selection of farmers was random. Morena district of Madhya Pradesh was selected purposively as its first rank in the area and production of cluster bean in the state. Morena district comprises seven blocks namely Ambah (78), Morena (533), Porsa (161), Joura (2444), Kailshgrah (146), Pahargarh (466), and Sabalgarh (3828), ha. Out of which, Sabalgarh block has maximum area under of cluster bean so that Sabalgarh block was selected for this study. A list of cluster bean grower villages was prepared with the help of revenue department. Then (10) villages from the selected block were randomly selected for the present study. Separate list of all the cluster bean growers of each of the selected villages along with their size of operational holdings was prepared. After that 3 farmer from each category (small <2 ha, Medium 2-4 ha, large >4 ha) i.e. 9 farmers (3×3) from each village was selected randomly. So that total 90 farmers (10×9) were selected for present study.

The nearest organized grain *mandi* of Sabalgarh was selected purposively for present research purpose of marketing channels, marketing cost and price spread. Two village traders from each village and two wholesalers from regulated market of Sabalgarh were selected on the basis of their responsiveness.

The primary data was collected from selected farmers and market intermediaries through pre-structured schedule on cost of cultivation, marketing costs, price spread and constraints faced by respondents in marketing of cluster bean. The secondary data were collected from agriculture Mandi of Sabalgarh and from Government publication of the Directorate of Economics and Statistics Government of Madhya Pradesh. The primary data was collected for the year 2019-20.

Data Analysis

Marketing Channels and Price Spreads

The information of dispose of cluster bean in different channels was identified. Marketing cost, Marketing margin and price spread in different marketing channels was calculated to find out the profitable and suitable channel prevailing in the study area.

Marketing cost

Marketing cost is the actual expenses incurred in bringing the goods and services from the producer to the consumer marketing cost included, handling charges at local point, assembling charge, transport, handling by wholesalers and retailing charges to consumers.

$$MC = Cf + Cm_1 + Cm_2 + \dots + Cm_n$$

Where,

MC = Total Marketing Cost

Cf = Cost paid by the producers from the time the produce leaves the farm till he sell it, and

Cm_i = Cost incurred by the i^{th} middleman in the process of buying and selling the product.

Marketing margin

Actual income obtained in the marketing process.

Marketing margin (MM)

$$AM = SM - (BM + CM)$$

Where,

SM = Selling price of middle man

BM = Buying price of middle man

CM = Cost incurred by middleman

Price spread

This is the difference between price paid by the consumer and price received by the producer for an equivalent quantity of farm produce.

Producer's share in the consumer's rupees

Producer's share in consumer's rupee were calculated by using following formula;

Producer's share (PS) =

$$\frac{\text{Price received by the producer}}{\text{Price paid by the consumer}} \times 100$$

Marketing Efficiency

To study the Marketing Efficiency, Acharya's measure of Marketing Efficiency will be used:-

$$ME = FP (MC - MM)$$

Where,

ME = Marketing Efficiency

FP = Net price received by farmer (₹/qtl.)

MC = Total Marketing Cost (₹/qtl.)

MM = Total Marketing Margin of intermediaries (₹/qtl.)

Marketing channel of Cluster bean

Marketing channels are the route through which the agro product moves from the hands of the farmer to the ultimate consumers.

RESULTS AND DISCUSSION

Marketing channel of Cluster bean

In this research paper three Marketing channels are found through which the agro-product moves from the hands of the farmer to the ultimate consumers. In the study area cluster bean is marketed through three marketing channel. The identified channels are as follows:

- ♦ Channel (Farmer to Wholesale to Miller to Retailer to: Consumer)
- ♦ Channel- II (Farmer to Commission agent to Wholesaler to Retailer to Consumer)
- ♦ Channel- III (Producer to Wholesaler to Retailer to Consumer)

Table 1: Marketing cost under different marketing functionaries

Particular	Channel I		Channel II		Channel III	
	Cost	%	Cost	%	Cost	%
Price gained by producer	3695.00	77.97	3745.00	88.75	3720.00	91.17
Cost of loading	3.00	0.06	3.00	0.07	3.00	0.07
Cost of unloading	2.00	0.04	2.00	0.05	2.00	0.05
Shipping cost	20.00	0.42	20.00	0.47	20.00	0.49
Bagging cost	30.00	0.63	30.00	0.71	30.00	0.74
Total	55.00	1.16	55.00	1.30	55.00	1.35
Sale price of producer			3800.00	90.05		
The tax of Mandi 1.6 percent	—	—	60.8	1.44		
Cost of Weigh	—	—	0.10	0.00	—	—
Total	—	—	60.90	1.44	—	—
Margin of CA	—	—	76.00	1.80	—	—
Producers sold rate	3750.00	79.13	3936.80	93.29	3775.00	92.51
Tax of Mandi @ 1.6 percent"	60.00	1.27	—	—	60.40	1.48
Cot of Weighing 0.10 / qtl	0.10	0.00	—	—	37.75	0.93
Loading cost	—	—	3.00	0.07	—	—
Cost of unloading	—	—	2.00	0.05	—	—
Transportation cost	—	—	20.00	0.47	—	—
Tax of sale 1 percent"	—	—	39.36	0.93	0.10	0.00
Total	60.10	1.27	64.36	1.53	98.25	2.41
Profit of wholesaler	75.00	1.58	78.73	1.87	75.50	1.85
Sale price of whole seller	3885.10	81.98	—	—	—	—
Tax of sale 1 percent	38.85	0.82	—	—	—	—
Loading	3.00	0.06	—	—	—	—

Unloading	2.00	0.04	—	—	—	—
Transportation	20.00	0.42	—	—	—	—
Cost under storage	8.00	0.17	—	—	—	—
Processing cost	246.00	5.28	—	—	—	—
Total	321.85	6.79	—	—	—	—
Net margin of miller	388.51	8.20	—	—	—	—
Sale price of miller / purchase price of Retailer	4591.46	96.88	4079.89	96.68	3948.75	96.77
Cost on loading	3.00	0.06	3.00	0.07	3.00	0.07
Cos on unloading	2.00	0.04	2.00	0.05	2.00	0.05
Cost on transpiration	20.00	0.42	25.00	0.59	20.00	0.49
Storage cost	8.00	0.17	8.00	0.19	8.00	0.20
Total	33.00	0.70	38.00	0.90	33.00	0.81
Retailer's Net margin	114.78	2.41	101.99	2.41	98.71	2.42
Purchase price of consumer / retailer's selling price	4739.24	100.00	4219.88	100.00	4080.46	100.00

Table 2: Marketing cost in different marketing channel

Sl. No.	Particular	(Channe I)	(Channel II)	(Channel III)
	Total marketing cost	465.95 (100.00)	218.26 (100.00)	186.25 (100.00)
(a)	Transportation cost	60.00 (12.88)	65.00 (29.78)	40.00 (21.48)
(b)	Loading and unloading cost	15.00 (3.22)	15.00 (6.87)	10.00 (5.37)
(c)	Processing cost	246.00 (52.80)	—	—
(d)	Packaging cost	30.00 (6.44)	30.00 (13.75)	30.00 (16.11)
(e)	Storage cost	16.00 (3.43)	8.00 (3.67)	8.00 (4.30)
(f)	Mandi fee	60.00 (12.88)	60.80 (27.86)	60.40 (32.43)
(g)	Other	38.95 (8.30)	39.46 (18.08)	37.85 (20.32)

The cost involved in various marketing channels

Channel wise price spread, marketing cost, and marketing margin has been calculated and the results are presented in table 1. The table 1 reveals that per quintal price gained by the cluster bean farmer was ₹ 3695.00 in the channel I, ₹ 3745.00 in channel II and ₹ 3720.00 in channel III. The maximum cost accounted in consumer rupee in the Channel III was primarily due to the wholesaler sold their product directly to the retailer and sold in the local market, therefore, no processing fee was charged and other marketing costs such as loading-unloading, transportation, and others costs included in marketing.

It has been noted from the table 2 that in cluster bean sum of cost incurred on the movement of product from production to consumption was Rs 465.95, 218.26 and 186.25 under Channel I, II, and III respectively. In channel first highest cost-shared by processing (52.80 percent) followed by transportation cost (12.88 percent). While in channel-II analysis transportation share the maximum cost (9.78 per

cent) followed by mandi (27.86 percent) incased of channel third Mandi fee charge accounted major share (32.43) in channel III followed transportation cost (21.48).

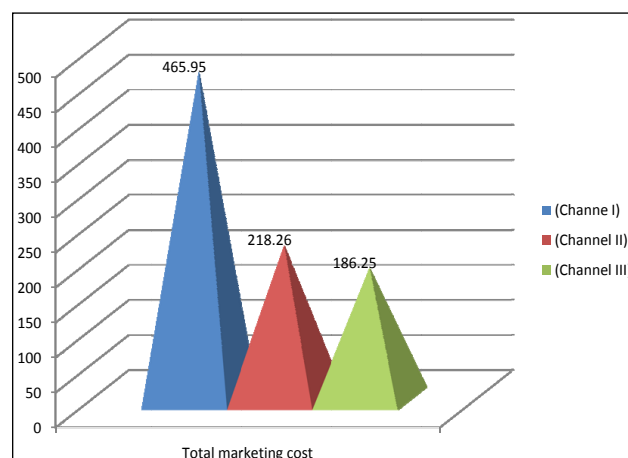


Fig. 1: Marketing cost in different marketing channel

The total marketing margins and margins of profit observed by the intermediaries in different

marketing channels is showing below. It was evident from the table highest marketing margin seen in channel I (578.29 ₹/qtl) followed by channel II and last in channel III (174.24 ₹/qtl). in channel-I highest margin shared by Millers 67.18 per cent, followed by retailers 19.85 percent wholesaler 12.97 per cent of the total marketing margin. Miller margin highest because they sell their produce after storage and processing while in channel II retailer's margin share maximum margin in total marketing margin (39.74 per) cent followed by Commission Agent (30.68 per cent) and margin of wholesaler (29.58 %) of sum selling margin. In the same way, in channel III, of cluster bean margin of retailer was maximum share (56.66 per cent) followed by a margin of wholesaler (43.34) per cent of the total marketing margin. Margin of the retailer was very high because reached the production retailer was very slow as compared to other intermediaries.

Table 3: Total marketing margin of various marketing functionaries

Sl. No.	Particular	Channel I ₹/qtl	Channel II ₹/qtl	Channel III ₹/qtl
	Total marketing margin	578.29 (100.00)	256.62 (100.00)	174.21 (100.00)
(a)	Wholesaler's margin	75.00 (12.97)	75.90 (29.58)	75.50 (43.34)
(b)	Commission Agent margin	—	78.73 (30.68)	—
(c)	Miller's margin	388.51 (67.18)	—	—
(d)	Retailers margin	114.78 (19.85)	101.99 (39.74)	98.71 (56.66)

Marketing Efficiency

Marketing efficiency of cluster bean production was workout under different channels like channels I, II, and III, and the results are presented in the Table 4. It is observed from the table that the highest marketing efficiency seen in channel third (10.32) theater after by channel second (7.88) and channel I (3.52). The main reason for the lowest marketing efficacy of channel I was the highest marketing cost and margin as compared to channel II and III.

Table 4: Index of Marketing Efficiency in identified marketing channel of cluster bean

Sl. No.	Description	Channel - I	Channel - II	Channel - III
1	Net price received by producer	3695.00	3745.00	3720.00
2	Total Marketing cost (MC)	469.95	218.26	186.25
3	Total marketing margin (MM)	578.29	256.72	174.21
4	MC + MM	1048.24	474.98	360.46
5	(ME)	3.52	7.88	10.32

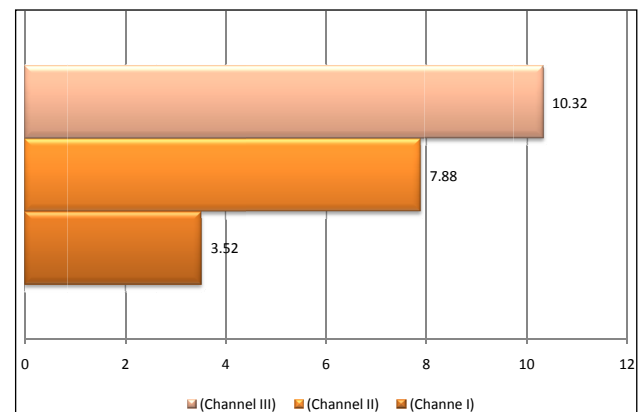


Fig. 2: Marketing Efficiency in different Marketing channel

Main constraints in production and marketing of cluster bean in the study area

The table 5 reveals the two types of problems faced by a farmer in the study area out of them first was production constraints, in these constraints major problem was quality seed not available followed by uneven rainfall distribution, shortage of hired human labor for sowing and harvesting.

Table 5: Constraints in the marketing of Cluster bean faced by farmers

Sl. No.	Constraints	Farmer's response pattern (in per cent)
(A) Production constraints		
1	Quality of seed not available (Drought resistance variety)	76
2	Uneven rainfall (Dependent upon rain)	76
3	Electricity supply" erratic for operating tube well	66

4	Shortage' of hired human labor for sowing/harvesting	40
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(B) Marketing constraints

1	Lack of storage facilities at farm level	54
2	Lack of transportation facilities	44
3	High cost of transportation	66
4	Malpractice by middleman	58
5	High fluctuation in prices	100
6	High cost of labor	100
7	Delay in cash payment	20
8	Lack of market intelligence	16

In marketing, the major problem was the high cost of labor and high fluctuations of price followed by the high cost of transportation, malpractices by middlemen, lack of storage facility at farm level, lack of transportation facility, and delay in cash payment, and lack of marketing intelligence.

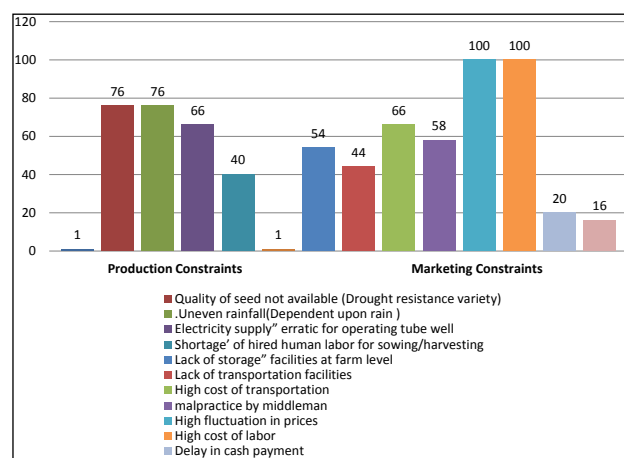


Fig. 3: Constraints in cluster bean production

CONCLUSION

In this research paper we found that per quintal price gained by the cluster, bean farmer was ₹ 3695.00 (in channel I) ₹ 3745.00 (channel II), ₹ 3720.00 (in channel III). In cluster bean, the total cost incurred on the movement of product from production point to consumption point was ₹ 465.95, 218.26, and 186.25 under Channel I, II, and III respectively. The highest margin seen in channel I (578.29 ₹/qtl) after that channel II and last in channel III (174.24 ₹/qtl). Highest marketing efficiency observed of channel third (10.32) then by channel II (7.88) and channel I (3.52). Major reason for the lowest marketing

efficiency of channel I was the highest marketing cost and margin as compared to channel II and III. In production constraints, the major problem was quality seed not available followed by uneven rainfall distribution, shortage of hired human labor for sowing and harvesting In the case of marketing, the major problems were the high cost of labor and high fluctuations of price followed by the high cost of transportation, malpractices by middlemen, lack of storage facility at farm level, lack of transportation facility, and delay in cash payment, and lack of marketing intelligence. In the movement of product highest cost is found in channel first followed by second and third. And the same trend follows in marketing margin. Highest marketing efficiency was of channel third after that second and first. In production major constraint was seed not available of quality seed while in marketing the major problem was the high cost of labor and high fluctuation of price.

Limitations and future studies

The study was based on a field survey with the farmers, village traders, wholesalers, and retailers. All attempts were made to collect the correct information. The study supported secondary knowledge obtained from reports and research papers. The condition of limited time, research has been conducted for 90 cluster bean grower from ten villages in Morena district. Researcher may analyses marketable and marketed surplus and factors affecting marketable surplus and also analyses factors affecting marketing channels and marketing cost.

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