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Study on marketing of Soyabean (macs 1520) in Indore district of Madhya Pradesh

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Abstract

The present study was conducted to analyse the marketing cost, marketing margin, price spread, and marketing efficiency of Soybean (MACS 1520) in Indore district of Madhya Pradesh during the agricultural year 2025–2026. A purposive-cum-random sampling technique was adopted for the selection of the study area and respondents. Mhow block of Indore district was purposively selected due to the predominance of Soybean (MACS 1520) cultivation. A total of 100 soybean growers were selected through proportionate random sampling, along with 10 wholesalers, 5 retailers, and 10 consumers. Primary data were collected through personal interviews using a pre-tested schedule, while secondary data were obtained from various published and unpublished sources. Two marketing channels were identified in the study area, namely Channel-I (Producer–Wholesaler–Consumer) and Channel-II (Producer–Wholesaler–Retailer–Consumer). The results revealed that 57.00 per cent of the respondents preferred Channel-II, whereas 43.00 per cent preferred Channel-I. The total marketing cost, marketing margin, and price spread were estimated at ₹185, ₹156, and ₹341 per 20 kg bag, respectively, in Channel-I, whereas the corresponding values in Channel-II were ₹225, ₹245, and ₹470 per 20 kg bag. The marketing efficiency was found to be higher in Channel-I (5.80) compared to Channel-II (4.21). The study indicated that the involvement of additional intermediaries increased marketing costs and margins, resulting in a wider price spread and lower marketing efficiency. Therefore, Channel-I emerged as the most efficient and economical marketing channel for Soybean (MACS 1520), ensuring higher benefits to producers and lower prices for consumers.

Keywords: Soybean (MACS 1520), marketing cost, marketing margin, price spread, marketing efficiency

Introduction

Soybean variety MACS 1520 had been developed as a high-yielding and improved cultivar to meet the increasing demand for soybean production in India. The variety had been released by the researchers of the Maharashtra Agricultural Universities and had gained considerable attention due to its superior agronomic performance, adaptability, and yield potential under diverse agro-climatic conditions. MACS 1520 had been characterised by its medium maturity duration, making it suitable for cultivation in soybean-growing regions where timely harvesting and crop rotation practices were important. The variety had exhibited vigorous plant growth, good branching ability, and uniform pod development, which had contributed significantly to enhanced productivity. It had been recognised for its tolerance to major biotic and abiotic stresses, thereby reducing production risks and ensuring stable yields under varying environmental conditions. The grains of MACS 1520 had possessed desirable quality characteristics, including higher protein and oil content, which had enhanced its acceptability among farmers, processors, and consumers. Furthermore, the variety had demonstrated better resistance against prevalent diseases and pests affecting soybean cultivation, resulting in reduced expenditure on plant protection measures and increased economic returns to farmers. The adoption of MACS 1520 had been promoted through various agricultural extension programmes owing to

its suitability for mechanised farming operations and its potential to improve farm income. The variety had also contributed towards strengthening the soybean value chain by providing quality raw material for the edible oil and feed industries. In regions where soybean cultivation formed a major component of agricultural production systems, MACS 1520 had emerged as a promising variety due to its yield stability, adaptability, and market-oriented traits. Consequently, it had played an important role in enhancing soybean productivity, profitability, and sustainability, thereby supporting the broader objectives of agricultural development and food security in India.

Research Methodology

The study employed a purposive-cum-random sampling technique for the selection of the district, block, villages, and respondents. Indore district of Madhya Pradesh was purposively selected for the investigation owing to considerations of accessibility, convenience, and time constraints faced by the researcher. Among the various blocks within the district, Mhow block was selected purposively due to the predominance of farmers engaged in the cultivation of Soyabean (MACS 1520). A comprehensive list of villages within the selected block was prepared, from which five per cent of the villages having a comparatively higher concentration of Soyabean (MACS 1520) cultivators were selected through random sampling. Subsequently, a

complete list of Soyabean (MACS 1520) growers in the selected villages was compiled and classified into five categories based on operational landholding size, namely marginal (below 1 hectare), small (1–2 hectares), semi-medium (2–4 hectares), medium (4–10 hectares), and large (above 10 hectares). A total sample of 100 Soyabean (MACS 1520) farmers was selected using the proportionate random sampling method. In addition, 10 wholesalers, 5 retailers, and 10 consumers were selected to analyse marketing costs, marketing margins, price spread, and marketing efficiency within the study area. Primary data were collected through a well-structured and pre-tested interview schedule using the personal interview method. Secondary data were obtained from various published and unpublished sources, including books, journals, reports, and records maintained at district and block headquarters. The collected data were analysed using appropriate statistical tools and techniques, and the findings were presented systematically. The study was based on data pertaining to the agricultural year 2025–2026.

Analytical Tools

- Marketing Cost:** $C = C_f + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$

- Market Margin:** $AMI = Pri - (P_{pi} + C_{mi})$

- Price Spread:** Marketing Cost + Marketing Margin

$$\text{Marketing Efficiency} = \frac{\text{Price received by producer}}{\text{Marketing Cost} + \text{Marketing Margin}}$$

Results and Discussion

Table 1: Reveals the preferred marketing channel by the respondents.

Sr. No.	Channel Type	No of respondent	Percentage
1	Channel – I	43	43.00
2	Channel -II	57	57.00
Total		100	100.00

Channel-I: Producer-Wholesaler-Consumer Channel-II: Producer-Wholesaler-Retailer-Consumer

Table 1 Reveals during the study that among 100 sample 43(43.00%) were preferring channel 1 to buy and sell Soybean (MACS 1520) through channel- I, and left 57(57.00%) respondents were preferring channel -II to buy or sell Soybean (MACS 1520) in the study area.

Table 2: Marketing cost, Marketing margin, Price Spread and Marketing Efficiency of Soybean (MACS 1520) in channel-I.

S. No.	Particulars	Soybean (MACS 1520)
		Value (₹/20 kg Bag)
1	Producer sale price to Wholesaler	2,100
A. Cost incurred by Producer		
i	Packing cost	20
ii	Packing material cost	25
iii	Transportation cost	30
iv	Market fee/charges	15
v	Labour cost	10
vi	Loading & unloading cost	10
vii	Weighing charges	5
viii	Miscellaneous charges	5
Total Producer Cost (i-viii)		120
2	Net price received by Producer	1,980
3	Sale price of Wholesaler to Consumer	2,321
B. Cost incurred by Wholesaler		
i	Loading & unloading charges	10
ii	Transportation cost	20
iii	Storage charges	15
iv	Labour charges	10
v	Miscellaneous charges	10
Total Wholesaler Cost (i-v)		65
4	Margin of Wholesaler	156
5	Consumer's paid price	2,321
A	Total Marketing Cost	185
B	Total Marketing Margin	156
C	Price Spread	341
D	Marketing Efficiency	5.80%

Channel I: Producer-wholesaler-consumer

Table 2: Revealed the marketing cost, marketing margin, price spread, and marketing efficiency of soybean (MACS 1520) marketed through Channel-I (Producer–Wholesaler–Consumer). The producer sold a 20 kg bag of soybean to the wholesaler at ₹2,100 and incurred a total marketing cost of ₹120, which included expenses on packing, packing materials, transportation, market fees, labour, loading and unloading, weighing, and miscellaneous charges. After

deducting these expenses, the net price received by the producer was ₹1,980 per bag. The wholesaler sold the soybean directly to the consumer at ₹2,321 per bag and incurred a total marketing cost of ₹65 towards transportation, storage, labour, loading and unloading, and miscellaneous expenses. The wholesaler earned a marketing margin of ₹156 per bag. The consumer ultimately paid ₹2,321 for the product. The total marketing cost in the channel was estimated at ₹185 per bag, while the total marketing margin

amounted to ₹156 per bag. The price spread, representing the difference between the consumer's paid price and the net price received by the producer, was calculated at ₹341 per bag. The marketing efficiency was recorded at 5.80, indicating that the channel functioned efficiently with comparatively lower marketing costs and margins. The findings suggested that the direct movement of produce from producer to wholesaler and then to consumer minimized intermediary involvement, reduced the price spread, and enhanced marketing efficiency. Therefore, Channel-I proved to be an economically efficient marketing channel for soybean (MACS 1520), ensuring a higher return to producers and a relatively lower purchase price for consumers.

Table 3: Marketing cost, Marketing margin, Price Spread and Marketing Efficiency of Soybean (MACS 1520) in channel-II.

S. No.	Particulars	Soybean (MACS 1520) Value (₹/20 kg Bag)
1	Producer sale price to Wholesaler	2,100
A. Cost incurred by Producer		
i	Packing cost	20
ii	Packing material cost	25
iii	Transportation cost	30
iv	Market fee/charges	15
v	Labour cost	10
vi	Loading & unloading cost	10
vii	Weighing charges	5
viii	Miscellaneous charges	5
	Total Producer Cost (i-viii)	120
2	Net price received by Producer	1,980
3	Sale price of Wholesaler to Retailer	2,250
B. Cost incurred by Wholesaler		
i	Loading & unloading charges	10
ii	Transportation cost	20
iii	Storage charges	15
iv	Labour charges	10
v	Miscellaneous charges	10
	Total Wholesaler Cost (i-v)	65
4	Margin of Wholesaler	85
5	Sale price of Retailer to Consumer	2,450
C. Cost incurred by Retailer		
i	Transportation cost	10
ii	Shop rent and storage	15
iii	Labour charges	10
iv	Miscellaneous charges	5
	Total Retailer Cost (i-iv)	40
6	Margin of Retailer	160
7	Consumer's paid price	2,450
A	Total Marketing Cost	225
B	Total Marketing Margin	245
C	Price Spread	470
D	Marketing Efficiency	4.21%

Channel II: Producer –wholesaler – retailer – consumer

Table 3 Depicted the marketing cost, marketing margin, price spread, and marketing efficiency of soybean (MACS 1520) marketed through Channel-II (Producer–Wholesaler–Retailer– Consumer). The producer sold a 20 kg bag of soybean to the wholesaler at ₹2,100 and incurred a total marketing cost of ₹120, comprising expenses on packing, packing materials, transportation, market fees, labour, loading and unloading, weighing, and miscellaneous charges. After deducting these expenses, the net price received by the producer was ₹1,980 per bag. The wholesaler sold the

produce to the retailer at ₹2,250 per bag and incurred a total marketing cost of ₹65. The wholesaler earned a marketing margin of ₹85 per bag. The retailer subsequently sold the soybean to the final consumer at ₹2,450 per bag. In carrying out marketing activities, the retailer incurred a total cost of ₹40 on transportation, shop rent and storage, labour, and miscellaneous expenses, and earned a marketing margin of ₹160 per bag. The consumer ultimately paid ₹2,450 for the product. The total marketing cost in the channel amounted to ₹225 per bag, while the total marketing margin was ₹245 per bag. The price spread was estimated at ₹470 per bag, indicating a wider gap between the consumer's paid price and the net price received by the producer. The marketing efficiency was recorded at 4.21, which was lower than that observed in Channel-I. The findings indicated that the involvement of an additional intermediary increased both marketing costs and margins, resulting in a higher consumer price and lower marketing efficiency. Therefore, Channel-II was found to be comparatively less efficient due to the greater price spread and higher marketing expenses associated with the longer marketing channel.

Table 4: Comparison between Marketing cost, Marketing margin, Marketing efficiency and Price Spread of Soybean (MACS 1520) in Channel I and Channel II in marketing of Soybean (MACS 1520)

S. No.	Particulars	Value in Rupees / Soybean (MACS 1520) 20 Kg bag	Value in Rupees / Soybean (MACS 1520) 20 Kg bag
		Channel-I	Channel-II
1	Net Price Received by the Producer	1980	1980
2	Consumer Paid Price	2321	2450
3	Total Marketing Cost	185	225
4	Total Marketing Margin	156	245
5	Price Spread	341	470
6	Marketing Efficiency	5.80%	4.21%

Table 4 Highlighted the differences in marketing cost, marketing margin, price spread, and marketing efficiency of soybean (MACS 1520) under two marketing channels. The net price received by the producer remained the same in both channels at ₹1,980 per 20 kg bag, indicating that the producer's earnings were unaffected by the choice of marketing channel. However, the consumer paid a lower price of ₹2,321 in Channel-I (Producer–Wholesaler–Consumer) compared to ₹2,450 in Channel-II (Producer–Wholesaler–Retailer–Consumer). The total marketing cost was lower in Channel-I (₹185) than in Channel-II (₹225), primarily due to the absence of a retailer in the former channel. Similarly, the total marketing margin was significantly lower in Channel-I (₹156) compared to Channel-II (₹245), reflecting the additional profit earned by the retailer in the longer marketing channel. Consequently, the price spread was found to be ₹341 in Channel-I and ₹470 in Channel-II, indicating that a larger portion of the consumer's rupee was absorbed by marketing expenses and intermediary margins in Channel-II. The marketing efficiency was recorded at 5.80 in Channel-I, whereas it was only 4.21 in Channel-II. The results clearly demonstrated that Channel-I was more efficient than Channel-II, as it involved fewer intermediaries, lower marketing costs and margins, a

smaller price spread, and a lower consumer price. Therefore, Channel-I was identified as the more economical and efficient marketing channel for soybean (MACS 1520), benefiting both producers and consumers.

Conclusion

The study concluded that the marketing system of Soybean (MACS 1520) in Indore district of Madhya Pradesh was characterised by the presence of two major marketing channels, namely Producer–Wholesaler–Consumer and Producer–Wholesaler–Retailer–Consumer. The analysis revealed significant variations in marketing cost, marketing margin, price spread, and marketing efficiency between the two channels. Although a majority of the respondents preferred Channel-II due to its wider market accessibility and established trading practices, Channel-I was found to be more efficient from an economic perspective. The net price received by producers remained identical in both channels at ₹1,980 per 20 kg bag; however, the final price paid by consumers was considerably lower in Channel-I than in Channel-II. The total marketing cost and marketing margin were also lower in Channel-I, indicating that the shorter marketing chain reduced operational expenses and intermediary profits. Consequently, the price spread in Channel-I was substantially smaller than that in Channel-II, enabling a larger share of the consumer's expenditure to reach the producer. The marketing efficiency index further confirmed the superiority of Channel-I, which recorded a value of 5.80 compared with 4.21 in Channel-II. The findings demonstrated that the inclusion of an additional intermediary in Channel-II increased marketing expenses, widened the price spread, and reduced overall marketing efficiency. The study therefore established that a reduction in the number of intermediaries could enhance marketing performance and improve the distribution of returns among market participants. The results also highlighted the importance of efficient transportation, storage, handling, and market infrastructure in reducing marketing costs and improving market outcomes. Strengthening direct marketing arrangements, promoting farmer collectives and Farmer Producer Organisations, expanding market information services, and improving access to regulated markets could further enhance marketing efficiency and producer profitability. The study emphasised that efficient marketing channels play a crucial role in ensuring fair returns to farmers while maintaining reasonable prices for consumers. Overall, the Producer–Wholesaler–Consumer channel emerged as the most economical and efficient marketing pathway for Soybean (MACS 1520) in the study area. Therefore, policies and programmes aimed at minimising unnecessary intermediaries and strengthening direct market linkages would contribute significantly towards improving the profitability, competitiveness, and sustainability of soybean marketing in Madhya Pradesh.

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