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### Marketing channels, price spread and marketing efficiency of rajma (*Phaseolus vulgaris* L.) in Beed district of Maharashtra

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#### Abstract

The study was carried out to examine the marketing channels, marketing costs, price spread and marketing efficiency of rajma in Beed district of Maharashtra during 2024–25. A multistage purposive-cum-random sampling method was followed for selecting 90 rajma growers from three talukas and nine villages. Primary information was collected through a pre-tested interview schedule, while secondary information was obtained from relevant government agencies, APMCs and published sources. The collected data were analysed using marketing cost, marketing margin, price spread, producer's share and marketing efficiency measures. Two major marketing channels were identified in the study area. Channel II, consisting of Producer–Wholesaler–Commission Agent–Consumer, accounted for the largest share of marketed produce (56.80%), whereas Channel I, consisting of Producer–Wholesaler–Retailer–Consumer, accounted for 43.20 per cent. The marketing cost borne by growers was ₹120.00 per quintal in Channel I and ₹118.00 per quintal in Channel II. The net price received by growers was ₹8,300.00 per quintal in Channel I and ₹8,563.43 per quintal in Channel II. The corresponding consumer prices were ₹11,030.00 and ₹15,452.43 per quintal, resulting in price spreads of ₹2,730.00 and ₹6,889.00 per quintal, respectively. Channel II involved a considerably higher intermediary margin, particularly at the commission-agent level. The calculated marketing-efficiency indices were 3.04 for Channel I and 5.07 for Channel II as reported in the study. The findings suggest the need to strengthen market linkages, improve access to market information, promote grading and standardization, enhance storage and transportation facilities, and encourage collective marketing so that rajma growers can obtain better price realization and participate more effectively in the marketing process.

**Keywords:** Rajma, marketing channels, marketing cost, marketing margin, price spread, marketing efficiency, Beed district

#### Introduction

Agriculture continues to play an important role in the Indian economy by providing employment, income and livelihood opportunities to a large proportion of the rural population. Increasing commercialization and diversification of agriculture have encouraged farmers to adopt crops that provide better economic returns and offer favourable market opportunities. Among the important pulse crops, Rajma (*Phaseolus vulgaris* L.), commonly known as kidney bean, has gained economic importance due to its nutritional value, consumer demand and relatively attractive market price. Rajma is an important source of plant-based protein, carbohydrates, dietary fibre and minerals and is consumed in different regions of the country. Apart from its role in human nutrition, Rajma contributes to economic activity through production, harvesting, cleaning, grading, transportation, storage, trading, processing and other post-harvest operations. The cultivation of Rajma has also expanded from its traditional production areas to several non-traditional regions, including Maharashtra, creating new opportunities for agricultural diversification and farm income. India has a diverse pulse economy, in which Rajma forms an

important component of the group of food legumes. Traditionally, Rajma cultivation has been concentrated in the Himalayan and sub-Himalayan regions; however, the adoption of suitable varieties and improved production practices has facilitated its spread to central and other parts of the country. In Maharashtra, Rajma is emerging as a commercial crop in selected areas as farmers seek remunerative alternatives to conventional crops. Beed district of the Marathwada region has also witnessed increasing interest in Rajma cultivation in selected pockets. The expansion of this crop has created opportunities for farmers to improve their income, but the economic benefits obtained from Rajma depend not only on the quantity and quality of production but also on the manner in which the produce is marketed.

The returns obtained by Rajma growers are influenced considerably by the efficiency of the marketing system. Agricultural marketing provides the necessary link between production and consumption and includes various activities such as assembling, cleaning, grading, sorting, packing, transportation, storage, financing, price discovery, processing, wholesaling and retailing. These activities

facilitate the movement of produce from farmers to the final consumers and involve different types of costs and services. The marketing channel followed by the producer and the number of intermediaries involved can influence the price received by the farmer as well as the price paid by the consumer. Therefore, an efficient marketing system is essential for reducing avoidable costs, improving price realization and ensuring a reasonable share of the consumer's expenditure to the producer.

After harvesting, Rajma undergoes several operations before reaching the final consumer. These operations may include threshing, cleaning, drying, grading, sorting, packing, transportation and storage. The nature and extent of these activities may differ according to the quality and quantity of produce, market destination and marketing channel selected by the farmer. Quality characteristics such as grain size, colour, appearance, variety, taste and cooking quality influence consumer preference and consequently affect market prices. Proper cleaning, grading and standardization can improve the acceptability of Rajma in the market and may provide opportunities for better price realization. On the other hand, inadequate storage facilities, high transportation expenditure and insufficient market information may adversely affect the marketing returns obtained by producers. Rajma may be marketed through different channels involving producers, village traders, wholesalers, commission agents, processors, retailers and consumers. The choice of a marketing channel depends upon several factors, including the quantity of produce available for sale, prevailing market prices, distance from the market, transportation facilities, availability of buyers and the immediate financial requirements of farmers. Each channel involves different marketing functions, costs and margins. A longer channel may involve more intermediaries and additional marketing services, whereas a shorter channel may provide direct access to consumers or larger buyers. Hence, the identification and comparison of existing marketing channels are important for understanding their relative economic performance and their effect on the net price received by Rajma growers.

Price realization is another important aspect of Rajma marketing. Agricultural commodity prices are affected by production levels, market arrivals, consumer demand, quality, seasonality, storage conditions and movement of produce between different markets. Rajma prices may therefore fluctuate considerably over time and across markets. Such price variation creates uncertainty for producers and may influence their decision regarding the time and place of sale. In an emerging production area, an increase in market arrivals without a corresponding increase in demand, storage or processing facilities may also put downward pressure on prices. Thus, access to reliable market information and efficient market linkages becomes important for improving the selling decisions and income of Rajma producers.

The economic assessment of marketing requires the estimation of marketing cost, marketing margin and price spread. Marketing cost represents the expenditure incurred in performing various marketing functions, whereas marketing margin indicates the return obtained by different market intermediaries. Price spread refers to the difference between the price paid by the final consumer and the net price received by the producer. A part of this difference is accounted for by

genuine marketing expenses such as transportation, handling, grading, storage and other services, while the remaining component may represent margins earned by intermediaries. Therefore, analysis of these components is necessary to understand how the consumer's price is distributed among the various participants in the marketing chain.

Marketing efficiency provides a broader measure for evaluating the performance of different marketing channels. It considers the value of the marketed produce in relation to the costs and margins associated with its movement from producer to consumer. Comparison of marketing channels on the basis of marketing efficiency and producer's share in the consumer's rupee can help identify relatively advantageous channels for farmers. Such analysis is particularly relevant for Rajma in Beed district because the crop is gaining importance as a commercial alternative and its marketing system is still developing. Major marketing-related difficulties may include price fluctuations, dependence on traders, inadequate market information, lack of grading and standardization, high transportation costs, limited storage facilities and insufficient collective marketing arrangements. In view of the above considerations, the present study was undertaken to analyse the marketing system of Rajma in Beed district of Maharashtra, with particular emphasis on marketing channels, marketing cost, marketing margin and price spread. The study also aims to compare the identified marketing channels in terms of marketing efficiency and producer's share in the consumer's rupee. The findings are expected to provide useful information for Rajma growers, market intermediaries and policy makers in developing more efficient, transparent and remunerative marketing arrangements.

### **Objective of the Study**

To Study Marketing channel, price spread and marketing efficiency of rajma in the study area.

### **Materials and Methods**

The study was conducted in Beed district of the Marathwada region of Maharashtra, where rajma is cultivated as an important pulse crop. The district was purposively selected considering the area and importance of rajma cultivation in the district. The study area has an agricultural marketing network comprising Agricultural Produce Market Committees (APMCs), village traders, wholesalers, commission agents and retailers, which facilitates the marketing and distribution of agricultural produce.

A multistage purposive-cum-random sampling procedure was adopted for the selection of rajma growers. In the first stage, Beed district was purposively selected based on the area under rajma cultivation. In the second stage, three talukas having comparatively higher area under rajma cultivation were purposively selected. In the third stage, three villages with higher acreage under rajma cultivation were selected from each selected taluka. In the final stage, ten rajma growers were randomly selected from each selected village, resulting in a total sample of 90 rajma growers from three talukas and nine villages. Additionally, 10–15 market intermediaries, including village traders, wholesalers and commission agents, were interviewed to obtain information related to marketing channels and price spread. methodology Primary data were collected from the selected respondents for

the 2024–25 agricultural season using a pre-tested structured interview schedule. Information relating to marketing channels, quantity marketed, prices received by farmers, marketing costs and the role of intermediaries was collected from the respondents. Secondary information was obtained from relevant government departments, APMC records and published sources. The collected data were analysed to identify the existing marketing channels and to estimate marketing cost, marketing margin, price spread and marketing efficiency for the identified channels. Marketing efficiency was estimated using the ratio of net price received by the producer to the sum of total marketing cost and total marketing margin.

### Estimation of Marketing Cost, Marketing Margin and Price Spread of Rajma

To analyse the marketing dynamics of rajma, different marketing tools were employed to examine the movement of produce, marketing costs, margins, price spread and marketing efficiency. The analysis was carried out to assess the role of various market intermediaries and the efficiency of different marketing channels.

#### (a) Marketing Channels

The marketing channels for rajma were identified by tracing the movement of produce from the producer to the ultimate consumer. The channels were classified according to the intermediaries involved in the marketing process, such as village traders, commission agents, wholesalers and retailers. The identified channels were used for analysing the distribution of rajma and the price received by farmers at different stages of marketing.

#### (b) Marketing Cost

Marketing cost refers to the expenses incurred by the producer and various intermediaries in transferring rajma from the farm to the final consumer. It included expenses such as transportation, loading and unloading, packing, weighing, market fees, commission charges, storage and other miscellaneous marketing expenses. The total marketing cost was estimated for each identified marketing channel.

$$\text{Marketing Cost (MC)} = \sum C_i$$

Where

MC = Total marketing cost

$C_i$  = Individual marketing cost incurred at different stages of marketing

#### (c) Marketing Margin

Marketing margin represents the difference between the purchase price and sale price of rajma at each intermediary level, after accounting for the marketing expenses incurred by the respective intermediary. It indicates the share retained by different market intermediaries in the final consumer's price.

Where:

$MM_i$  = Marketing margin of the  $i$ th intermediary

$SP_i$  = Selling price of the  $i$ th intermediary

$PP_i$  = Purchase price of the  $i$ th intermediary

$MC_i$  = Marketing cost incurred by the  $i$ th intermediary

#### (d) Price Spread

Price spread was estimated as the difference between the

price paid by the ultimate consumer and the net price received by the rajma producer. It was calculated for each identified marketing channel to determine the distribution of the consumer's rupee among the producer and various marketing intermediaries.

$$\text{Price Spread (PS)} = CP - NP_p$$

Where

PS = Price spread

CP = Price paid by the final consumer

$NP_p$  = Net price received by the producer

#### (e) Marketing Efficiency

Marketing efficiency was estimated to evaluate the relative performance of the different marketing channels followed by rajma growers. It was measured by relating the net price received by the producer to the total marketing cost and the marketing margins incurred by various intermediaries in each channel. The marketing efficiency of each channel was calculated using the following formula:

$$\text{Marketing Efficiency (ME)} = FP / (MC + MM)$$

Where,

ME = Marketing efficiency index

FP = Net price received by the farmer/producer

MC = Total marketing cost incurred in the channel

MM = Total marketing margin of market intermediaries

The marketing efficiency index provides an indication of the relative effectiveness of alternative marketing channels. A higher value of the index indicates greater marketing efficiency, implying that the producer receives a relatively higher net return in relation to the costs and margins associated with the marketing process. The estimated marketing efficiency values were therefore used to compare the performance of the identified rajma marketing channels.

#### (f) Producer's Share in Consumer's Rupee:

The producer's share in the consumer's rupee was estimated to determine the proportion of the final consumer price received by the rajma grower.

$$\text{Producer's Share (\%)} = (NP_p / CP) \times 100$$

Where:

$NP_p$  = Net price received by the producer

CP = Price paid by the final consumer

The estimated marketing cost, marketing margins, price spread and producer's share were compared across the identified marketing channels to assess their relative efficiency and determine the most advantageous marketing channel for rajma growers in Beed district.

## Results and Discussion

### Channel-wise Quantity Sold of Rajma

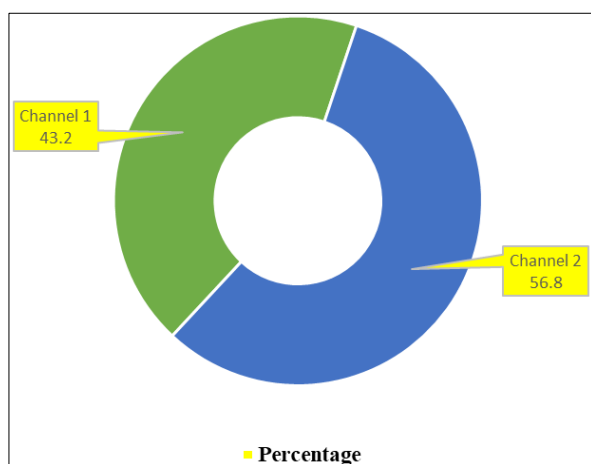
The channel-wise quantity sold of rajma was analysed to identify the major marketing channels and their respective share in the total quantity marketed. The results are presented in Table 1.

**Table 1:** Channel-wise Quantity Sold of Rajma

| Sr. No. | Marketing channels                                           | Marketed Quantity (qt/ha) | Per cent (%) |
|---------|--------------------------------------------------------------|---------------------------|--------------|
| 1       | Channel 1 (Producer – Wholesaler – Retailer – Consumer)      | 30.76                     | 43.20        |
| 2       | Channel 2 (Producer -Wholesaler – Commission agent of Delhi) | 40.43                     | 56.80        |
|         | Total                                                        | 71.19                     | 100.00       |

The marketing pattern of rajma indicated that farmers preferred marketing channels that provided better access to larger and distant markets. As shown in Table 1, the total quantity of rajma marketed through the identified channels was 71.19 qt/ha. Among the two channels, Channel II (Producer–Wholesaler–Commission Agent–Delhi) handled the largest quantity, accounting for 40.43 qt/ha (56.80 per cent) of the total marketed produce. In comparison, Channel I (Producer–Wholesaler–Retailer–Consumer) accounted for 30.76 qt/ha (43.20 per cent).

The higher share of Channel II suggests that a greater proportion of rajma produce was marketed through wholesalers and commission agents associated with the Delhi market. The preference for this channel may be related to the availability of a larger market, established trading networks and better opportunities for disposing of relatively larger quantities. The involvement of commission agents may further facilitate transactions between producers and distant wholesale buyers, particularly where farmers have limited access to terminal markets.

**Fig 1:** Channel-wise Quantity Sold of Rajma (Per hectare)

Channel I accounted for 30.76 qt/ha, representing 43.20 per cent of the total marketed quantity. This channel involved wholesalers, retailers and consumers and represented an important alternative route for disposing of rajma produce. The considerable share of this channel indicates that some farmers continued to depend on the conventional wholesale-retail marketing system to reach consumers.

Overall, the findings demonstrate that Channel II was the predominant marketing channel, accounting for 56.80 per cent of the total marketed quantity, whereas Channel I accounted for 43.20 per cent. The greater proportion of produce handled through Channel II indicates the importance of established wholesale and commission-agent networks in facilitating the marketing of rajma from the study area to distant markets.

### Channel -Wise Marketing Cost Incurred by Rajma growers (Rs/qt)

The marketing cost incurred by rajma growers was analysed channel-wise to assess the expenditure involved in moving the produce from the farm to the market. The major components of marketing cost and their respective contributions in each channel are presented in Table 2.

**Table 2:** Channel -Wise Marketing Cost Incurred by Rajma growers (Rs/qt)

| Sr. No. | Items of Cost        | Channel I | Channel II |
|---------|----------------------|-----------|------------|
| 1       | Packaging charges    | 25        | 30         |
| 2       | Transport charges    | 70        | 46.71      |
| 3       | Loading unloading    | 25        | 41.29      |
|         | Total Marketing Cost | 120       | 118        |

Table 2 presents the channel-wise marketing cost incurred by rajma growers. The total marketing cost was ₹120.00 per quintal in Channel I and ₹118.00 per quintal in Channel II, indicating only a marginal difference of ₹2.00 per quintal between the two channels.

In Channel I, transportation was the major cost component at ₹70.00/q, followed by packaging and loading-unloading charges of ₹25.00/q each. In Channel II, transportation accounted for ₹46.71/q, followed by loading-unloading charges of ₹41.29/q and packaging charges of ₹30.00/q. Thus, transportation constituted the major marketing expense in Channel I, while the three cost components were relatively more evenly distributed in Channel II.

Overall, the marketing cost incurred by growers was nearly similar in both channels, with Channel II showing a slightly lower total cost. The absence of commission charges in both channels further reduced the direct marketing burden on rajma growers.

### Channel -Wise Marketing Cost Incurred by Wholesaler (Rs/qt)

Wholesale marketing costs for rajma generally vary by channel structure, increasing in channels with more intermediaries due to cumulative expenses like long-distance transportation, bulk storage, and handling. Wholesalers typically incur major expenditures on grading, packaging, loading/unloading, and transport, which constitute a notable portion of the overall price spread.

**Table 3:** Channel -Wise Marketing Cost Incurred by Wholesaler (Rs/qt)

| Sr. No. | Items of Cost        | Channel I | Channel II |
|---------|----------------------|-----------|------------|
| 1       | Packaging charges    | 23        | 25         |
| 2       | Transport charges    | 130       | 140        |
| 3       | Loading unloading    | 45        | 45         |
| 4       | Grading              | 180       | 180        |
|         | Total Marketing Cost | 378       | 390        |

Table 3 presents the channel-wise marketing cost incurred by wholesalers in the identified rajma marketing channels. The total marketing cost was ₹378 per quintal in Channel I and ₹390 per quintal in Channel II, indicating that wholesalers incurred ₹12 per quintal higher cost in Channel II.

In Channel I, grading was the major cost component at ₹180/q, followed by transportation (₹130/q), loading and unloading (₹45/q) and packaging (₹23/q). Their respective shares were 47.62, 34.39, 11.90 and 6.08 per cent. In Channel II, grading remained the largest component (₹180/q), followed by transportation (₹140/q), loading and unloading (₹45/q) and packaging (₹25/q), accounting for 46.15, 35.90, 11.54 and 6.41 per cent, respectively.

The comparison shows that grading constituted the largest share of wholesaler marketing cost in both channels, followed by transportation. The slightly higher cost in Channel II was mainly due to increased transportation and packaging expenses, while grading and loading-unloading costs remained unchanged. Overall, wholesalers incurred substantial expenditure in performing essential marketing functions such as grading, transportation, packaging and handling of rajma.

#### Channel -Wise Marketing Cost Incurred by Retailer (Rs/qt)

The marketing cost incurred by retailers was analysed to assess the expenditure involved in various marketing operations of rajma. The different components of retailer marketing cost and their respective shares are presented in Table 4.

**Table 4:** Channel -Wise Marketing Cost Incurred by Retailer (Rs/qt)

| Sr. No | Items of Cost        | Channel I |
|--------|----------------------|-----------|
| 1      | Packaging charges    | 17        |
| 2      | Transport charges    | 155       |
| 3      | Loading unloading    | 65        |
| 4      | Grading              | 130       |
| 5      | Other                | 65        |
|        | Total Marketing Cost | 432       |

Table 4 presents the channel-wise marketing cost incurred by retailers in the marketing of rajma. The total marketing cost incurred by the retailer was ₹432 per quintal in Channel I. Among the different cost components, transportation constituted the major expenditure at ₹155/q, followed by grading charges of ₹130/q. Loading and unloading and miscellaneous expenses were ₹65/q each, while packaging accounted for ₹17/q. In percentage terms, transportation contributed 35.88 per cent, grading 30.09 per cent, loading and unloading and miscellaneous expenses 15.05 per cent each, and packaging 3.94 per cent of the total marketing cost. Thus, transportation and grading together accounted for 65.97 per cent of the retailer's total marketing cost, making them the two major components of expenditure. The relatively higher transportation cost indicates the importance of produce movement in the retailer's marketing operations, while the grading expenditure reflects the cost associated with improving the quality and marketability of rajma. Overall, these two activities constituted the major share of the retailer's marketing expenditure.

#### Price Spread Analysis of Different Channels (Rs/q).

Price spread represents the difference between the price paid by the final consumer and the net price received by the producer for the same quantity of agricultural produce. It includes the various marketing costs incurred during the movement of produce, such as transportation, grading, handling, packaging and storage, as well as the margins earned by market intermediaries. The extent of price spread provides an indication of the efficiency of the marketing system. Generally, a lower price spread reflects a relatively more efficient marketing channel, as it enables a larger proportion of the consumer's expenditure to reach the producer.

**Table 5:** Price Spread Analysis of Different Channels (Rs/q)

| Sr. No. | Particulars                        | Channel I          | Channel II         |
|---------|------------------------------------|--------------------|--------------------|
| 1       | <b>Producer</b>                    |                    |                    |
|         | Gross Price received by the farmer | 8420.00            | 8681.43            |
|         | Marketing cost                     | 120.00<br>(1.43)   | 118.00<br>(1.36)   |
|         | Net Price received                 | 8300.00<br>(98.48) | 8563.43<br>(98.64) |
| 2       | <b>Wholesaler</b>                  |                    |                    |
|         | Purchase price                     | 8420.00            | 8681.43            |
|         | Marketing cost                     | 378.00             | 400.00             |
|         | Marketing margin                   | 600.00             | 800.00             |
|         | Selling Price                      | 9398.00            | 9881.43            |
| 3       | <b>Commission agent</b>            |                    |                    |
|         | Purchase price                     | -                  | 9881.43            |
|         | Marketing cost                     | -                  | 0                  |
|         | Marketing margin                   | -                  | 371.40             |
|         | Selling Price                      | -                  | 10252.83           |
| 4       | <b>Retailer</b>                    |                    |                    |
|         | Purchase price                     | 9398.00            | -                  |
|         | Marketing cost                     | 432.00             | -                  |
|         | Marketing margin                   | 1200.00            | -                  |
|         | Selling Price                      | 11030.00           | -                  |
| 5       | <b>Consumer</b>                    |                    |                    |
|         | Consumer Purchase Price            | 11030.00           | 10252.83           |
|         | Price spread                       | 2730.00            | 1689.40            |
|         | Marketing Efficiency               | 3.04               | 5.07               |

Table 5 presents the price spread, marketing costs, marketing margins and marketing efficiency of the two identified marketing channels, namely Channel I (Producer–Wholesaler–Retailer–Consumer) and Channel II (Producer–Wholesaler–Commission Agent–Consumer), expressed in ₹ per quintal.

In Channel I, the producer received a gross price of ₹8,420.00/q and incurred a marketing cost of ₹120.00/q, resulting in a net price of ₹8,300.00/q. The wholesaler incurred a marketing cost of ₹378.00/q and earned a margin of ₹600.00/q, selling the produce to the retailer at ₹9,398.00/q. The retailer incurred a further marketing cost of ₹432.00/q and obtained a margin of ₹1,200.00/q. Consequently, the final consumer paid ₹11,030.00/q for the produce. The resulting price spread was ₹2,730.00/q.

In Channel II, the producer received a gross price of ₹8,681.43/q and incurred a marketing cost of ₹118.00/q, giving a net price of ₹8,563.43/q. The wholesaler incurred a marketing cost of ₹400.00/q and earned a margin of ₹800.00/q, selling the produce to the commission agent at

₹9,881.43/q. The commission agent did not incur any direct marketing cost but earned a substantial margin of ₹371.40/q, resulting in a consumer price of ₹10252.83/q. Accordingly, the price spread in Channel II was ₹1689.40/q.

A comparison of the two channels shows considerable differences in consumer price and price spread. The consumer price was substantially higher in Channel I (₹11030.00/q) than in Channel II (₹10252.83/q). Similarly, the price spread in Channel I (₹2730.00/q) was more than that of Channel II (₹1689.40/q). The wider spread in Channel I was mainly attributable to the high margin earned by the Retailer. Although Channel II provided a slightly higher net price to the producer, Channel II involved a considerably lower price spread and consumer price.

The marketing efficiency index was 3.04 in Channel I and 5.07 in Channel II, based on the specified efficiency formula. However, the interpretation of this index should be made alongside the price spread and marketing cost, as Channel II involved a substantially higher intermediary margin and consumer price. Overall, Channel I represented a shorter and comparatively less costly marketing route, while Channel II involved a larger intermediary margin and a wider difference between the producer's net price and the consumer's purchase price.

### Marketing Efficiency of Rajma

Marketing efficiency was analysed to assess the relative performance of the identified marketing channels of rajma. It indicates how effectively the marketing system transfers the produce from producer to consumer in relation to the costs and margins involved. The marketing efficiency of the identified channels is presented in Table 6.

**Table 6:** Marketing Efficiency of Rajma

| Sr. No. | Particulars                       | Channel I | Channel II |
|---------|-----------------------------------|-----------|------------|
| 1       | Price received by Consumer        | 11030.00  | 10252.83   |
| 2       | Total Marketing cost              | 930       | 518        |
| 3       | Total Marketing of Intermediaries | 1800      | 1171.40    |
| 4       | Price Received by farmer          | 8300.00   | 8563.43    |
| 5       | Marketing Efficiency              | 3.04      | 5.07       |

Table 6 presents the comparative marketing efficiency, price realization, marketing costs, and margins of intermediaries in the two identified marketing channels of rajma, namely Channel I (Producer–Wholesaler–Retailer–Consumer) and Channel II (Producer–Wholesaler–Commission Agent–Consumer). The consumer price was ₹11,030.00/q in Channel I compared with ₹10,252.83/q in Channel II. The net price received by the producer was higher in Channel II (₹8,563.43/q) than in Channel I (₹8,300.00/q), showing an advantage of ₹263.43/q to the producer.

The total marketing cost incurred by market functionaries was ₹930.00/q in Channel I and ₹518.00/q in Channel II. Similarly, the total marketing margin of intermediaries was ₹1,800.00/q in Channel I and ₹1,171.40/q in Channel II. Based on the modified Acharya approach, the marketing efficiency index was estimated at 3.04 for Channel I and 5.07 for Channel II.

The comparison indicates that Channel II involved lower aggregate marketing costs, lower intermediary margins, and a lower consumer price while providing a higher net price to the producer. Consequently, Channel II achieved a higher

marketing efficiency index, making it clearly more favourable and efficient from both the producer's and the consumer's perspectives.

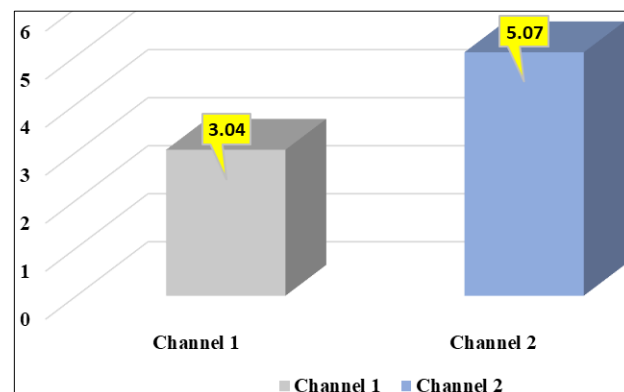


**Fig 2:** Marketing Efficiency Comparison of Rajma

### Conclusion

The present study was undertaken to analyse the marketing channels, marketing costs, price spread and marketing efficiency of rajma in Beed district of Maharashtra. A total of 90 rajma growers were selected from three talukas and nine villages, and information was collected for the agricultural year 2024–25. Two major marketing channels were identified, namely Channel I (Producer–Wholesaler–Retailer–Consumer) and Channel II (Producer–Wholesaler–Commission Agent–Consumer).

The findings revealed that Channel II was the predominant marketing channel, accounting for 56.80 per cent (40.43 qt/ha) of the total marketed quantity, while Channel I accounted for 43.20 per cent (30.76 qt/ha). This indicated the importance of the wholesaler–commission agent network, particularly for linking growers with distant markets such as Delhi.

The marketing cost incurred by rajma growers was relatively similar in both channels, amounting to ₹120/q in Channel I and ₹118/q in Channel II. Transportation was the major component of grower-level marketing cost. At the wholesaler level, the marketing cost was ₹378/q in Channel I and ₹390/q in Channel II, with grading constituting the largest component. In Channel I, the retailer incurred a total marketing cost of ₹432/q, of which transportation and grading represented the major components.

The price spread analysis showed considerable variation between the two channels. The net price received by the producer was ₹8,300/q in Channel I and ₹8,563.43/q in Channel II. However, the consumer price was considerably higher in Channel I (₹11,030/q) than in Channel II (₹10,252.83/q). Consequently, the price spread was ₹2,730/q in Channel I compared with ₹1,689.40/q in Channel II. The wider price spread in Channel I was mainly associated with the substantially higher margin retained by the retailer.

According to the specified marketing-efficiency measure, the efficiency index was 3.04 for Channel I and 5.07 for Channel II. Thus, Channel II recorded a higher numerical marketing-efficiency index and provided a higher net price to the producer. Furthermore, it involved a substantially lower consumer price and a lower intermediary margin. Therefore, the findings highlight that Channel II is clearly more favourable and efficient from both the producer's and the

consumer's perspectives.

Overall, the study indicates that rajma marketing in Beed district is largely dependent on intermediary-based channels, with Channel II being more prominent among growers. Strengthening direct market linkages, improving access to market information, promoting grading and standardization, reducing avoidable marketing costs, improving storage and transportation facilities, and encouraging collective marketing through farmer groups or producer organizations could help improve the marketing system. Such measures would enable rajma growers to obtain better price realization while reducing unnecessary costs and excessive intermediary margins, thereby contributing to a more transparent and remunerative rajma marketing system in the study area.

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