Price Spread for Capsicum in Akola District of Maharashtra

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Author’s contribution
The sole author designed, analysed, interpreted and prepared the manuscript.

ABSTRACT

The price spread refers to the difference between the price received by the growers and the price paid by the consumers. It was observed that there were wide variations of price received by the growers and the price paid by the ultimate consumer. This study was conducted for estimation of marketing cost, marketing margin and price spread through different marketing channels of capsicum in Akola district. The study was based on primary data and secondary data for the year 2016-17, collected from the vegetable market of Patur, Barshitakli, Akola and Murtizapur tehsils in Akola districts of Maharashtra, the total 120 producers, 10 wholesaler, 10 retailers were selected for the study. Two major marketing channels were identified for the capsicum i.e. channel-I: Producer→Wholesaler→Retailer→Consumer, Channel-II: Producer→Retailer →Consumer. The channel-I was found most important channel of distribution. Producer’s share in consumer’s rupees was highest in channel II as compared to channel I were worked out 68.11 and 56.79 per cent. Wide variation were observed in the constraints of capsicum growers. Price spread of capsicum 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 capsicum. Wide variation were observed in the problems faced by the capsicum growers. Lack of processing facilities, lack of storage facility, high commission charges, lack of financial facility etc. Thus establishment of modern regulated market
along with proper storage facilities in nearby areas will go a long way in enhancing the income of the farmers. Higher marketing efficiency and better return to producers through direct marketing. This is a clear indicator for developing farmers market in the region and As such establishment of producers co-operation to reap the benefit from cultivation on marketing of capsicum crop is suggested.

Keywords: Capsicum; marketing channels; marketing cost; marketing margin; price spread.

1. INTRODUCTION

Capsicum (Capsicum annuum L. var. grossum Sendt) is also called as bell pepper or sweet pepper and is one of the most popular and highly remunerative annual herbaceous vegetable crop. Capsicum is cultivated in most parts of the world, especially in temperate regions of Central and South America and European countries, tropical and subtropical regions of Asian continent mainly in India and China. India contributes one fourth of world production of capsicum .It is newly entrant into our country and is one of the cash crop in India, that crop earns higher income to the growers. The current production of capsicum in the country is being done over 24,000 hectares of land with an annual production of 3.21 lakh metric tonnes. With the increasing demand for different varieties of capsicum in the market, it is expected that there would be a scope for expanding the area under production of these fruits. India ranks fourth in the production of capsicum. The plant is extensively cultivated in the states of Uttar Pradesh, Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu and Himachal Pradesh. The export market for capsicum is also very high and it demands fruits with good size, longer shelf life, attractive colour, etc [1]. The Capsicum generally seen in India and Maharashtra under open condition through the same can be cultivated under green house condition for boosting productivity. In Maharashtra it is cultivated in Pune, Thane, Sangli, Kolhapur districts and some other few districts. It is likely to increase in the future because of heavy demand. In Vidarbha, Capsicum is grown in neglected areas. It is one of the important cash crops grown under open condition and green house condition. Capsicum growing is also helpful areas wherever irrigation facilities is available [2,1]. Therefore, Capsicum grown in small areas as compared to cereals and pulses because of this area is rainfed area and less irrigation facility is available. Most of the Capsicum crops grown areas where nearer to the major market i.e. Nagpur, Amravati, Akola, Buldana and Washim district. Capsicum (Sweet Pepper) grown in India is of recent interest due to high demand for fast food dishes in hotels and modern restaurant, it recognized as a rich source of nutrients like a,b,c and calcium. Hence it has important position in human diet. Cultivation of Capsicum is an art and knowledge of quality product for export market and to capture international market [2,3,1].

The agricultural marketing system plays an dual role in economic development in countries whose resources are primary agricultural. An efficient marketing system can be an effective agent of change and important means for raising the income level of farmers and satisfaction level of the consumers. In India marketing of vegetable crops is in a developing stage. The development of marketing is as that of increasing production. Farmers always desire to get handsome price for their produce. Therefore, for profitable transaction, a careful planning of marketing is a must. Much of marketing of vegetable belongs the yield of efficient and successful farm management, the process agricultural production cannot be regarded as complete without sale of produce. The price spread refers to the difference between the price received by the growers and the price paid by the consumers. It was observed that there were wide variations of price received by the growers and the price paid by the ultimate consumer. The aim of marketing is that the production should realize a suitable net return from his produce improvement of marketing condition is unable the farmers to secure a farm share of the consumers price is of almost importance. Therefore different aspects of marketing such as, marketing function, marketing channels, marketing cost, margins etc. were studied and results were presented. For the purpose of this investigation it is hypothesized that there is scope for increasing the marketing of Capsicum producers share in consumers rupee is satisfactory. Till there is a few constraints faced by a farmers in marketing. Price spread of capsicum 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. It also gives some idea about the efficiency of the marketing system.
and thereby helps to judge whether the services of intermediary agencies are provided at a reasonable cost \[4,5\].

2. MATERIALS AND METHODS

The study on price spread and problem faced in marketing of capsicum in Akola District of Maharashtra was undertaken with the following objectives

- To study the price spread in marketing of Capsicum.
- To identify the constraints by growers in marketing of capsicum.

These study was conducted in Akola district and the following four tahsils were selected for the study, namely Patur, Barshitakli, Akola and Murtizapur were selected purposefully by considering the maximum area under capsicum cultivation in district and these markets are near to the production area. The data needed for the study was collected from capsicum growers by the personal interview method using pre tested schedule for the purpose in the year 2016 and 17. For the marketing analysis like marketing cost, margins, channels of no. of functionaries such as 10 wholesalers, 10 retailers were selected according to the major channel found in marketing of capsicum by the 120 farmers. The producer’s share, marketing cost and margins of different middlemen in the marketing of capsicum was worked out for the identified channels opinions of the respondents regarding the problems of capsicum vegetable marketing were collected. A simple tabular analysis has been done.

2.1 Tools of Analysis

2.1.1 Producer’s price

This is the net price received by the farmer at the time of first sale the producers price \((P_F)\) was calculated as:

\[
P_F = P_A + C_F
\]

Where,

\[
P_F = \text{Producers price of capsicum} \\
P_A = \text{Wholesale price/selling price of the producer} \\
C_F = \text{Cost paid by the producer in the marketing of capsicum. \[4\]}
\]

2.1.2 Marketing cost

The total marketing cost \((MC)\) incurred by producer seller and by various intermediaries involved in the process of marketing was calculated as

\[
MC = C_F + C_{M1} + C_{M2} + C_{M3} + \ldots \ldots \ldots \ldots + C_{Mi}
\]

Where,

\[
MC = \text{Total marketing cost} \\
C_F = \text{Cost paid by the producer in the marketing of capsicum.} \\
C_{Mi} = \text{Cost incurred by the } i^{th} \text{ middlemen in the process of marketing. \[4\]}
\]

2.1.3 Marketing margin

The absolute margin of middlemen involved in the marketing of capsicum were be calculated as Absolute margin of \(i^{th}\) middlemen \((A_{mi})\)

\[
A_{mi} = P_{Ri} - (P_{Pi} + C_{mi})
\]

Where,

\[
A_{mi} = \text{Absolute marketing margin of } i^{th} \text{ middlemen} \\
P_{Ri} = \text{selling price of } i^{th} \text{ middlemen} \\
P_{Pi} = \text{purchase price of } i^{th} \text{ middlemen} \\
C_{mi} = \text{marketing cost incurred by } i^{th} \text{ middlemen \[4\]}
\]

2.1.4 Price spread

Price spread indicates shares of various agencies involved in the marketing along with the cost incurred by them. 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 \[4\].

2.1.5 Producer’s 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:

\[
P_F = \frac{P_S}{P_C} \times 100
\]
Where,

\[ P_S = \text{Producers share in consumer rupee} \]
\[ P_F = \text{Price of the produce received by the farmer} \]
\[ P_C = \text{Price of the produce paid by the consumer} \]

2.1.6 Garret ranking

Technique was used to rank the preference of the respondents on different identity constraints in capsicum marketing [6]. The farmers were asked to rank some of the identified reasons. The orders of merit given by the respondents were converted into ranks by using the following formula.

\[ \text{Percentage Position} = \frac{100 \left( R_j - 0.5 \right)}{N} \]

Where,

\[ R_j \] stands for the rank given for the \( i \)th suggestion \((i=1, 2, \ldots, 10)\) by the \( j \)th individual and \( N \) stands for total number of ranks assigned by \( j \)th individual.

The percentage position of each rank thus obtained into scores by referring to the table given by Henry E. Garret. Then for each constraints were scored from individual respondents were added together and divided by the total number of the respondents for whom the scores are added. These mean scores for all constraints were arranged in the descending order, ranks given and most important constraints identified. The rank 1 meant most important constraints and rank 6 meant least important constraints.

3. RESULTS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads:

3.1 Price Spread

The cost, margin and price spread I marketing of capsicum vegetable through channel-I and channel -II were presented in Table 1.

Channel – I

In case of market channel- I where the produce sell their produce through the channel of producer to wholesaler to retailer to consumer in market, has been worked out and presented in Table 1. The result indicates that the total marketing cost incurred by different functionaries was accounted to Rs 498.85 which was 28.22 per cent of the consumers price. The similar phenomenon was also observed in the study.

### Table 1. Price spread in marketing of capsicum through various channel Rs/Qtl

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Particulars</th>
<th>Channel I</th>
<th>Percentage</th>
<th>Channel II</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Producer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Gross price received</td>
<td>1268.00</td>
<td>71.72</td>
<td>1468.00</td>
<td>83.03</td>
</tr>
<tr>
<td>2</td>
<td>Cost incurred</td>
<td>263.85</td>
<td>14.92</td>
<td>263.86</td>
<td>14.92</td>
</tr>
<tr>
<td>3</td>
<td>Net price received</td>
<td>1004.15</td>
<td>56.79</td>
<td>1204.14</td>
<td>68.11</td>
</tr>
<tr>
<td>B</td>
<td>Wholesaler</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Purchase price</td>
<td>1268.00</td>
<td>71.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cost incurred</td>
<td>115.00</td>
<td>6.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Net margin</td>
<td>85.00</td>
<td>4.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Selling price</td>
<td>1468.00</td>
<td>83.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Retailer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Purchase price</td>
<td>1468.00</td>
<td>83.03</td>
<td>1468.00</td>
<td>83.03</td>
</tr>
<tr>
<td>2</td>
<td>Cost incurred</td>
<td>120.00</td>
<td>6.79</td>
<td>120.00</td>
<td>6.79</td>
</tr>
<tr>
<td>3</td>
<td>Net margin</td>
<td>180.00</td>
<td>10.18</td>
<td>180.00</td>
<td>10.18</td>
</tr>
<tr>
<td>4</td>
<td>Selling price for price paid by consumer</td>
<td>1768.00</td>
<td>100.00</td>
<td>1768.00</td>
<td>100.00</td>
</tr>
<tr>
<td>D</td>
<td>Consumer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Purchase price</td>
<td>1768.00</td>
<td></td>
<td>1768.00</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Net price received by producer</td>
<td>1004.15</td>
<td>56.79</td>
<td>1204.14</td>
<td>68.11</td>
</tr>
<tr>
<td>3</td>
<td>Total marketing cost</td>
<td>498.85</td>
<td>28.22</td>
<td>383.86</td>
<td>21.71</td>
</tr>
<tr>
<td>4</td>
<td>Total marketing margins</td>
<td>265</td>
<td>14.99</td>
<td>120</td>
<td>6.79</td>
</tr>
<tr>
<td>5</td>
<td>Producers shared in consumers rupee</td>
<td>56.79</td>
<td>100</td>
<td>68.11</td>
<td>100</td>
</tr>
</tbody>
</table>
conducted by [7,2]. Total marketing margin received by various functionaries was accounted to Rs 265 per qtl which was 14.99 per cent. The net price received by producer was 1004.15 Rs/Qtl and producers share in consumers rupee was 56.79 per cent respectively [8,9,10].

Channel - II

In case of market channel II where the producer was sold their produce directly to retailers, through the channel producer to retailer to consumer in market, has been worked out and presented in Table1. The result indicated that the total marketing cost incurred by different functionaries was accounted to Rs 383.86 per qtl which was 21.71 per cent of the consumers price. Total marketing margin received by various functionaries was accounted to Rs 120 per qtl which was 6.79 per cent. The net price received by producer was 1204.14 Rs/Qtl and producer’s share in consumers rupee was 68.11 per cent respectively [5,11].

The forgoing analysis as seen from Table 1 indicated that the net price received by capsicum growers was higher i.e. Rs. 1204.14 per quintal in channel II as compared to Rs. 1004.15 in channel I [12], the producers share in consumers rupee was also high i.e. 68.10 per cent in channel- II as compared to 56.79 per cent in channel-I [13]. This was mainly due to Marketing channel -I with the marketing channel- II where in capsicum producer instead of selling their produce to wholesale, sold their produce directly to the retailer [6], under study in capsicum marketing and the producer’s share in consumer rupee was maximum in channel-II than the other channels mainly because of less number of market intermediaries. Similar findings were noticed in the studies of [14,15,16]. Price spread of capsicum 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 capsicum [17,18].

3.2 Constraints Faced by the Respondents in Marketing of Capsicum

All the selected capsicum growers were interviewed for the problems they are faced in marketing of the capsicum. The information regarding that the important problems faced by the growers was calculated by the garret ranking technique presented in Table 2 which revealed that a higher 110 farmers were problem faced Low prices was ranked 1\textsuperscript{st} followed by 98 farmers were problem faced lack of processing facilities was ranked 2\textsuperscript{nd}, 93 farmers were problem faced lack of storage facilities was ranked 3\textsuperscript{rd} and about 90 farmers were problem faced high commission charges was ranked 4\textsuperscript{th}, 65 farmers were problem faced lack of market intelligence was ranked 5\textsuperscript{th} and 42 farmers were problem faced lack of transportation facilities was ranked 6\textsuperscript{th}. These results are in conformity with the study conducted by [6,16].

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Particular</th>
<th>Total position</th>
<th>Percentage</th>
<th>Total score</th>
<th>Mean score</th>
<th>Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low prices</td>
<td>110</td>
<td>8.33</td>
<td>77</td>
<td>8470</td>
<td>70.58</td>
</tr>
<tr>
<td>2</td>
<td>Lack of processing facilities</td>
<td>98</td>
<td>25</td>
<td>63</td>
<td>6174</td>
<td>51.45</td>
</tr>
<tr>
<td>3</td>
<td>Lack of storage facilities</td>
<td>93</td>
<td>41.67</td>
<td>54</td>
<td>5022</td>
<td>41.85</td>
</tr>
<tr>
<td>4</td>
<td>High commission charges</td>
<td>90</td>
<td>58.33</td>
<td>46</td>
<td>4140</td>
<td>34.5</td>
</tr>
<tr>
<td>5</td>
<td>Lack of market intelligence</td>
<td>65</td>
<td>75</td>
<td>37</td>
<td>2405</td>
<td>20.04</td>
</tr>
<tr>
<td>6</td>
<td>Lack of transportation facilities</td>
<td>42</td>
<td>91.67</td>
<td>23</td>
<td>966</td>
<td>8.05</td>
</tr>
</tbody>
</table>

Table 2. Constraints faced by growers in marketing of capsicum (n=120)
4. CONCLUSION

Among the two marketing channels the Channel I- Producer → Wholesaler → Retailer → Consumer and Channel II- Producer → Retailer → Consumer. Producer's share in consumer’s rupees was highest in channel II as compared to channel I were worked out 68.11 and 56.79 per cent., the channel II was found more popular in marketing of capsicum. Wide variation were observed in the constraints of capsicum growers. However, the major problems faced in marketing of capsicum were low prices of capsicum followed by lack of processing facilities, lack of storage facilities, high commission charges, lack of market intelligence and lack of transportation facilities. The study recommends that the steps should be taken at the government level by fixing the support price as well as selling prices and it should be fair for both producer and consumer. The government level to regularize the transport charges for this purpose. The monopoly of the transport agencies should be broken. Thus establishment of modern regulated market along with proper storage facilities in nearby areas will go a long way in enhancing the income of the farmers. 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 capsicum marketing for benefit of both producers and consumers.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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