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# Marketing of selected vegetables in Dapoli tahsil of Ratnagiri district

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**Abstract**
Vegetables play an important role both in the regional and national economy of the agricultural sector. The area selected for study was Dapoli tahsil. The factors like availability of quick and easy transport facilities, continuous demand for vegetables and input facilities have created a growing incentive among the farmers to follow vegetable cultivation. Marketing of vegetables is important as production and now a days farmers are aware of the marketing. An efficient marketing help the producer in profitable returns. Marketing of fresh vegetables faces a number of constraints due to bulky nature, seasonality and high degree of perishability. Keeping these points in the view the present investigation was proposed to be under taken. The main channels of marketing of okra, radish, math and brinjal identified in the study area were 1) Producer- Consumer 2) Producer- Retailer- Consumer 3) Producer-Wholesaler-Retailer-Consumer. It is found that Channel-I was most efficient channel in all the vegetables while channel- III, was the least efficient channel in marketing of selected vegetables. The producer's share in consumer's rupee of okra, radish, math and brinjal was highest in channel-I followed by channel-II and channel-III.

**Keywords:** Vegetable, marketing channel, cost incurred, price spread etc.

## Introduction
Vegetables play an important role both in the regional and national economy of the agricultural sector. In India, vegetable crops are generally grown in open field, therefore, the cost of cultivation is lower as compared to protected cultivation followed in the western countries. Among the cash crops, vegetables acquired significance over other crop due to qualities like short duration, low cost and greater returns. The area selected for study was Dapoli tahsil. The factors like availability of quick and easy transport facilities, continuous demand for vegetables and input facilities have created a growing incentive among the farmers to follow vegetable cultivation. Marketing of vegetables is important as production and now a days farmers are aware of the marketing. An efficient marketing help the producer in profitable returns. Marketing of fresh vegetables faces a number of constraints due to bulky nature, seasonality and high degree of perishability. Keeping these points in the view the present investigation was proposed to be under taken.

## Methodology
The present investigation was carried out in Ratnagiri district. From the Ratnagiri district. Dapoli tahsil was selected for study. Four important vegetables *viz*., Okra, Radish and Math (Amaranthus tricolor), Brinjal were selected for this study since these vegetable crops are mainly grown by the farmer in this tahsil. The list of farmers growing vegetables in the tahsil was obtained from the taluka agricultural officer and clusters of villages growing vegetables was identified. From the available clusters six clusters were selected randomly. From each cluster six cultivators each growing selected vegetables were selected randomly. Thus the final sample consist of six clusters of vegetables and 30 farmers of each selected vegetables. The data were collected by survey method with the help of specially designed schedules separately for vegetable cultivators. The data were analyzed by using simple statistical tools like arithmetic mean and percentage, price spread, producer share in consumer rupee and market efficiency.

## Result and Discussion

The main channels of marketing of okra, radish, math and brinjal identified in the study area were 1) Producer- Consumer 2) Producer- Retailer- Consumer 3) Producer- Wholesaler-Retailer- Consumer.

It is observed from table 1 that, maximum number of okra cultivators 45 and maximum proportion of marketed surplus (35.38%) distributed through the third channel. It is observed from Table 2 that, the per quintal marketing expenses were highest in channel-III (Rs.92.00), followed by channel II (Rs.71.00) and minimum in channel-I (Rs.33.00). The producer's share in consumer's rupee was highest 97.36 per cent in channel-I followed by 96.02 per cent in channel-II and 94.13 per cent in channel-III. Thus it can be concluded that, involvement of the intermediaries has decreased the producer's share in consumer' rupee. Marketing efficiency was highest in channel-I (37.82), while it was less in channel-II (11.96) and channel-III (6.40). This concluded that the channel-I was the most efficient channel for okra in study area**.**

It is observed from the Table 4 that, maximum number of radish cultivators 55 and maximum proportion of marketed surplus (53.97%) distributed through the third channel. the per quintal marketing expenses were highest in channel-III (Rs 84.00), followed by channel-II (Rs.63.00) and minimum in channel-I (Rs.40.00). The producer's share in consumer's rupee was 93.57 per cent in channel-I followed by 95.02 per cent in channel-II and 95.13 per cent in channel-III. Marketing efficiency was highest in channel-I (15.55), while it was less in channel-II (6.77) and channel-III (3.68). This concluded that the channel-I was as the most efficient channel for radish in study area.

It was observed that, maximum number of math (*Amarathus tricolor*) cultivators 45 and maximum proportion of marketable surplus (55.97%) distributed through the third channel. the per quintal marketing expenses were highest in channel-III (Rs.70.00), followed by channel- II (Rs.62.00) and minimum in channel-I (Rs.41.00). The producer's share in consumer's rupee was 93.57 per cent in channel-I followed by 94.78 per cent in channel-II and 71.60 per cent in channel-III. Marketing efficiency was highest in channel-I (13.32), while it was less in channel-II (6.53) and channel-III (3.87). This concluded that the, channel-I was found as the most efficient channel for math (Amaranthus tricolor) in study area.

It is observed that, maximum number of brinjal cultivators 49 and maximum proportion of marketable surplus (50.51%) distributed through the third channel. It is observed from that, the per quintal marketing expenses were highest in channel-III (Rs.98.00), followed by channel -II (Rs.76.00) and minimum in channel -I (Rs.51.00). The producer's share in consumer's rupee was highest 92.51 per cent in channel-I followed by 91.04 per cent in channel-II and 80.41 per cent in channel-III. Marketing efficiency was highest in channel-I (13.35), while it was less in channel-II (5.15) and channel-III (3.16).

**Table 1:** Channel-wise marketing of okra

| Sr. No. | Channels of marketing | Number of cultivators | Average quantity of marketed surplus (qtl.) |
|---|---|---|---|
| 1 | Producer – consumer | 23 | 30.84 (30.21) |
| 2 | Producer – retailer – consumer | 28 | 35.11 (34.40) |
| 3 | Producer – commission agent cum wholesaler – retailer – consumer | 45 | 36.11 (35.38) |
| | Total | 96 | 102.05 (100.00) |

(Figures in the parentheses indicate percentages to the total)

**Table 2:** Marketing expenses incurred in different channel of marketing of okra (Figures in Rs.)

| Sr. No | Items of cost | Producer | Retailer | Wholesaler/comm. Agent |
|---|---|---|---|---|
| 1 | Grading charges | - | 3.12 | 3.28 |
| 2 | Packaging charges | 10.03 | 10.14 | 20.12 |
| 3 | Transport cost | 16.04 | 40.08 | 41.15 |
| 4 | Estimated losses in transit | 6.00 | 15.19 | 20.16 |
| 5 | Hamali and tolai charges | - | - | 3.14 |
| 6 | Licences fee | - | 0.20 | 0.20 |
| 7 | Other charges (rent of stall, market fees, electricity charges) | 1.22 | 2.67 | 3.98 |
| | Total | 33 | 71 | 92 |

**Table 3:** Channel-wise per quintal price spread and marketing efficiency in marketing of okra

| Sr. No. | Particulars | Channel I | Channel II | Channel III |
|---|---|---|---|---|
| 1 | Net price received by producer | 1216 | 1206 | 1186 |
| 2 | Cost incurred by producer | 33 (2.64) | 34 (2.71) | 34 (2.70) |
| 3 | Purchase Price by wholesaler/commission agent | - | - | 1220 |
| 4 | Cost incurred by wholesaler/commission agent | - | - | 92 (7.30) |
| 5 | Marketing margin by wholesaler/commission agent | - | - | 157 (12.46) |
| 6 | Purchase Price by retailer | - | 1240 | 1260 |
| 7 | Cost incurred by retailer | - | 71 (5.65) | 71 (5.63) |
| 8 | Marketing margin by retailer | - | 89 (7.09) | 197 (15.63) |
| 9 | Total marketing cost | 33 (2.64) | 105 (8.36) | 197 (15.63) |
| 10 | Total marketing margin | - | 89 (7.09) | 354 (28.10) |
| 11 | Consumers price | 1248 (100.00) | 1256 (100.00) | 1260 (100.00) |
| 12 | Producer share in consumer rupee (%) | 97.36 | 96.02 | 94.13 |
| 13 | Marketing efficiency (ME) (%) | 37.82 | 11.96 | 6.40 |

(Figures in the parentheses indicate percentages to the consumer purchase price)

**Table 4:** Channel-wise marketing of radish

| Sr. No | Channels of Marketing | Number of cultivators | Average quantity of marketed surplus passed through the channel (qtl.) |
|---|---|---|---|
| 1 | Producer – consumer | 28 | 22.11 (18.29) |
| 2 | Producer – retailer – consumer | 31 | 33.52 (27.73) |
| 3 | Producer – commission agent cum wholesaler – retailer – consumer | 55 | 65.23 (53.97) |
| | Total | 114 | 120.86 (100.00) |

(Figures in parentheses indicate percentages to the total)

**Table 5:** Marketing expenses incurred in different channel of marketing of radish.

| Sr. No | Items of cost | Producer | Retailer | Wholesaler/comm. Agent |
|---|---|---|---|---|
| 1 | Grading charges | - | 2.13 | 3.25 |
| 2 | Packaging charges | 8.20 | 8.48 | 10.16 |
| 3 | Transport cost | 21.12 | 25.10 | 38.10 |
| 4 | Estimated losses in transit | 9.12 | 24.17 | 25.22 |
| 5 | Hamali and tolai charges | - | - | 3.14 |
| 6 | Licence fee | - | 0.20 | 0.20 |
| 7 | Other charges (rent of stall, market fees, electricity charges) | 1.22 | 2.67 | 3.98 |
| | Total | 40 | 63 | 84 |

**Table 6:** Channel-wise per quintal price spread and marketing efficiency in marketing of radish. (Figures in Rs./qtl)

| Sr. No. | Particulars | Channel I | Channel II | Channel III |
|---|---|---|---|---|
| 1 | Net price received by producer | 586 | 611 | 626 |
| 2 | Cost incurred by producer | 40 (6.43) | 32 (4.98) | 32 (4.86) |
| 3 | Purchase Price by wholesaler/commission agent | - | - | 644 |
| 4 | Cost incurred by wholesaler/commission agent | - | - | 84 (12.77) |
| 5 | Marketing margin by wholesaler/commission agent | - | - | 181 (27.51) |
| 6 | Purchase Price by retailer | - | 635 | 642 |
| 7 | Cost incurred by retailer | - | 63 (9.80) | 63 (9,57) |
| 8 | Marketing margin by retailer | - | 87 (13.53) | 163 (24.77) |
| 9 | Total marketing cost | 40 (6.43) | 95 (14.77) | 179 (27.20) |
| 10 | Total marketing margin | - | 87 (13.53) | 344 (52.28) |
| 11 | Consumers price | 622 (100.00) | 643 (100.00) | 658 (100.00) |
| 12 | Producer share in consumer rupee (%) | 93.57 | 95.02 | 95.13 |
| 13 | Marketing efficiency (ME) (%) | 15.55 | 6.77 | 3.68 |

(Figures in parentheses indicate percentages to the price paid by consumer)

**Table 7:** Channel-wise marketing of Math (*Amaranthus tricolor*)

| Sr. No. | Channels of marketing | Number of cultivators | Average quantity of marketed surplus (qt.) |
|---|---|---|---|
| 1 | Producer – consumer | 28 | 18.72 (16.87) |
| 2 | Producer – retailer – consumer | 33 | 30.12 (27.15) |
| 3 | Producer – commission agent cum wholesaler – retailer – consumer | 45 | 62.09 (55.97) |
| | Total | 106 | 110.93 (100.00) |

(Figures in the parentheses indicate percentages to the total)

**Table 8:** Marketing expenses incurred in different channel of marketing of Math (*Amaranthus tricolor*) (Figures in Rs.)

| Sr. No. | Items of cost | Producer | Retailer | Wholesaler/comm. agent |
|---|---|---|---|---|
| 1 | Grading charges | - | 3.17 | 3.29 |
| 2 | Packaging charges | 7.12 | 8.12 | 10.23 |
| 3 | Transport cost | 15.13 | 26.18 | 24.10 |
| 4 | Estimated losses in transit | 18.00 | 22.12 | 25.43 |
| 5 | Hamali and tolai charges | - | - | 3.14 |
| 6 | Licence fee | - | 0.20 | 0.20 |
| 7 | Other charges (rent of stall, market fees, electricity charges) | 1.22 | 2.67 | 3.98 |
| | Total | 41 | 62 | 70 |

**Table 9:** Channel-wise per quintal price spread and marketing efficiency in marketing of Math *(Amaranthus tricolor)*

| Sr. No | Particulars | Channel I | Channel II | Channel III |
|---|---|---|---|---|
| 1 | Net price received by producer | 510 | 582 | 454 |
| 2 | Cost incurred by producer | 41 (7.51) | 32 (5.21) | 32 (11.04) |
| 3 | Purchase Price by wholesaler/commission agent | - | - | 486 |
| 4 | Cost incurred by wholesaler/commission agent | - | - | 70 (83.91) (9.78) |
| 5 | Marketing margin by wholesaler/commission agent | - | - | 118 |
| 6 | Purchase Price by retailer | - | 495 | 532 |

| | | | | |
|---|---|---|---|---|
| 7 | Cost incurred by retailer | - | 62 (15.31) | 62 (25.87) |
| 8 | Marketing margin by retailer | - | 25 (4.07) | 62 (28.39) |
| 9 | Total marketing cost | 41 (7.51) | 94 (15.31) | 164 (25.87) |
| 10 | Total marketing margin | - | 25 (15.44) | 180 (11.29) |
| 11 | Consumers price | 546 (100.00) | 614 (100.00) | 634 (100.00) |
| 12 | Producer share in consumer rupee (%) | 93.57 | 94.78 | 71.60 |
| 13 | Marketing efficiency (ME) (%) | 13.32 | 6.53 | 3.87 |

(Figures in the parentheses percentage indicate to the total)

**Table 10:** Channel-wise marketing of Brinjal

| Sr. No. | Channels of marketing | Number of cultivators | Average quantity of marketed surplus passed through the channel (qt) |
|---|---|---|---|
| 1 | Producer – consumer | 33 | (19.94) (16.54) |
| 2 | Producer - retailer - consumer | 36 | 29.14 (24.18) |
| 3 | Producer - commission agent cum wholesaler -retailer -consumer | 49 | (61.36) (50.51) |
| | Total | 118 | 120.51 (100.00) |

(Figures in the parentheses indicated percentage to the total)

**Table 11:** Marketing expenses incurred in different channel of marketing of brinjal (Figures in Rs./qtl.)

| Sr. No. | Particulars | Group | | |
|---|---|---|---|---|
| | | Channel I | Channel II | Channel III |
| 1 | Grading charges | - | 3.12 | 3.28 |
| 2 | Packaging charges | 5.99 | 10.12 | 21.11 |
| 3 | Transport cost | 30.00 | 40.12 | 43.12 |
| 4 | Estimated losses in transit | 14.00 | 20.14 | 23.12 |
| 5 | Hamali and tolai charges | - | - | 3.13 |
| 6 | Licences fee | - | 0.20 | 0.20 |
| 7 | Other charges (rent of stall, market fees, electricity charges) | 1.01 | 2.67 | 3.98 |
| | Total | 51 | 76 | 98 |

**Table 12:** Channel-wise per quintal price spread and marketing efficiency in marketing of brinjal (Figures in Rs. / qtl)

| Sr. No. | Particulars | Channel I | Channel II | Channel III |
|---|---|---|---|---|
| 1 | Net price received by producer | 635 | 610 | 579 |
| 2 | Cost incurred by producer | 51 (7.48) | 54 (8.06) | 54 (7.50) |
| 3 | Purchase Price by wholesaler/commission agent | - | - | 633 |
| 4 | Cost incurred by wholesaler/commission agent | - | - | 98 (13.61) |
| 5 | Marketing margin by wholesaler/commission agent | - | - | 47 (6.53) |
| 6 | Purchase Price by retailer | - | 664 | 814 |
| 7 | Cost incurred by retailer | - | 76 (11.34) | 76 (10.56) |
| 8 | Marketing margin by retailer | - | 124 (18.51) | 322 (44.72) |
| 9 | Total marketing cost | 51 (7.48) | 130 (19.40) | 228 (31.67) |
| 10 | Total marketing margin | - | 124 (18.51) | 369 (51.25) |
| 11 | Consumers price | 681 (100.00) | 670 (100.00) | 720 (100.00) |
| 12 | Producer share in consumer rupee (%) | 92.51 | 91.04 | 80.41 |
| 13 | Marketing efficiency (ME) (%) | 13.35 | 5.15 | 3.16 |

(Figures in the parentheses indicate percentages to consumer's purchase price)

## Conclusion

The producer's share in consumer's rupee of okra, math, radish and brinjal was highest in channel-I followed by channel-II and channel-III. Thus it can be concluded that, involvement of the intermediaries has decreased the producer's share in consumer' rupee. Marketing efficiency of okra, radish, math and brinjal was highest in channel-I, while it was less in channel-II and channel-III. This concluded that the channel-I was the most efficient channel for okra in study area.

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