



E-ISSN: 2278-4136
P-ISSN: 2349-8234
JPP 2019; SP2: 241-243

Dwarikadhish Churpal
Ph.D., Scholar, Department of
Agricultural Economics IGKV,
Raipur, Chhattisgarh, India

Dr. AK Koshta
HOD and Professor, Major Guide
Department of Agril. Economics
IGKV, Raipur, Chhattisgarh

Dhirendra Kumar
Ph.D., Scholar, Department of
Agricultural Economics IGKV,
Raipur, Chhattisgarh, India

Value chain analysis of flakes rice in Dhamtari district of Chhattisgarh

Dwarikadhish Churpal, Dr. AK Koshta and Dhirendra Kumar

Abstract

Rice being a prominent agriculture produce, the state has more than 600 rice mills. The state government has also established 25 production units for value added service such as grading, processing, waxing, extraction and distillation. A study on value chain analysis of flakes rice in Dhamtari district of the state was conducted during 2014-15. The study covered 3 flakes rice processing unit, 10 wholesalers will be selected randomly to collect the required information, 10 retailers and 40 consumer of flakes rice was considered from jurisdiction of Dhamtari block. This study was specifically carried out for Mahamaya variety of rice, which used for preparation of flakes rice. Formal survey method was used to augment data from sample of Mahamaya rice variety growers. The findings of the study value added cost of unprocessed paddy was noticed to be higher cost in this value chain i.e Rs/q 1360 and the share it was to be 79.87 percent in the value chain followed by value added by processing unit (14.12%), cost of value added by wholesaler (2.87%), Cost of value added by retailer (3.14%). The value addition of paddy into flakes rice at different stages of marketing was estimated and found to be highest at the processor level Rs/q 240.50 followed by wholesaler Rs/q 48.9 and retailer Rs/q 53.4, respectively.

Keywords: Value addition of flakes rice, profit of value addition, stages of value addition

Introduction

In the state of Chhattisgarh rice milling is accomplished by both modern mills and traditional huller mills. Traditional huller mills are mostly located in rural areas and handling small quantities of paddy for day to day requirements of the rural households. These huller mills handle nearly 15000 – 17000 MT of paddy yearly in the state. On the other hand, 1450 numbers of modern commercial rice mills are established in the state and handling approximately 50,000 – 60,000 MT of paddy per annum. Among the 27 districts of Chhattisgarh state, Out of the 170 rice mills of Dhamtari district and 3 flakes rice mills were functioning.

The Value Chain concept acknowledges that production must be linked to demand and the critical role of organizing the flow from farmer to consumer opportunities. The value addition brings more returns to the farmers and enhances nutritional status of their family members. It is in this context, the present study has been taken up to analyze the cost and returns structure in production and value addition of rice. A 'value chain' describe the full range of activities required to being a product or service from conception, through the different phase of production (involve a combination of physical transformation and the input of various producer services), delivery to final consumers and final disposal after use (Kaplinksky and Morris 2000 p4).

Muri (murmura) or the puffed rice and *chivada (poha)* or the flaked rice are the two major value added products of rice processed in the state. Few modern commercial industries have come up in the state manufacturing these two value added products from the rice. Apart from this, domestic scale preparation/ processing of these two products in the villages is very common. The market value of puffed rice varies from Rs. 40.00 to Rs. 70.00 and the value of flaked rice varies from Rs. 50.00 to Rs. 80.00 per kg. Source: Rice Knowledge Management Portal (RKMP) Therefore, a present study was undertaken to analyze the value chain analysis of flakes rice of Dhamtari district.

Material and Methods

The study was confined to Dhamtari district of Chhattisgarh state because rice was grown in both Kharif & Rabi seasons and more number of rice mills under operation that have greater requirement of Mahamaya variety of rice to mills. Out of four block of the district, Dhamtari block was selected randomly; In Dhamtari block, 3 flakes rice (poha) mills are functioning among them 3 flakes rice mills will be selected for present study, 10 wholesalers will be

Correspondence

Dwarikadhish Churpal
Ph.D., Scholar, Department of
Agricultural Economics IGKV,
Raipur, Chhattisgarh, India

selected randomly to collect the required information or data for the study, 10 retailers are being undertaken randomly for the study and 10 consumer of flakes rice were undertaken from each direction of north, south, east and west were undertaken randomly. So, the total 40 consumer of flakes rice were for the study of value chain. The simple statistical tools were applied to analyze the data and report the results/outcomes of the study.

$$1. \text{ Value added cost} = C_t + C_c + C_e + O_c$$

$$2. \text{ Value Added Margin} = \text{Price Receive} - \text{Selling}$$

Result and Discussion

Value addition

1.1 Value addition of paddy into flakes rice at processor level

The value addition of paddy into flakes rice at processor level was computed in Rs/q, which is given Table 1. It reveals that purchased price at processor level of paddy as raw material was observed to be Rs/q 1360. The paddy was processed into flakes rice by processor. The processed flakes rice was sold at price Rs/q 2500. The total value added cost of paddy in flakes rice was involved to be Rs/q 240.50. The cost of processed paddy into flakes rice was found to be Rs/q 1600.5 During the processing of flakes rice, the major cost was registered in machine labour of flakes rice and found to be 41.58 percent followed by bagging (23.26%), electricity (12.47%), loading and unloading charges (8.32%) and transportation (4.37%), respectively. The share of paddy as raw material was 84.97 percent whereas, the share of total value added cost was found to be 15.27 percent. The processors obtain the value added margin of paddy into flakes rice was Rs/q 899.5. The findings of the study indicated that processing of paddy into flakes rice is profitable business activity.

1.2 Value addition in flakes rice at wholesaler level

The value addition in flakes rice at wholesaler level was computed in Rs./q, which is given in Table 2. It reveals that purchase price of flakes rice at wholesaler level was observed to be Rs./q 2600. The flakes rice was sold at price of Rs./q 2800. The wholesaler receive value added cost of Rs./q 151.1. The total value added cost in flakes rice at wholesaler level was involved Rs./q 48.9. The major cost was to be in transportation and found to be 28.63 percent followed by maintenance (20.65%), labour (15.34%), loading unloading (12.88%), other (12.27%), and weighing (10.12%), respectively. The marketing agency as a wholesaler was found to be profitable for flakes rice.

1.3 Value addition in flakes rice at retailer level

The another marketing agency was involve as retailer for flakes rice, which was computed in Rs/q, which is given in

Table 3. It reveals that purchase price of flakes rice at retailer level was observed to be Rs./q 2900. The flakes rice was sold at price of Rs./q 3200. The retailer receive net profit of Rs./q 246.6. The total value added cost in flakes rice at retailer level was involved Rs./q 53.4. At the retailer level, the major cost was registered in transportation and found to be 26.22 percent followed by maintenance (17.79%), weighing (16.85%), other (15.54%), loading unloading (11.99%), and packing (11.42%). The marketing agency as a retailer was found to be profitable for flakes rice.

1.4 Summary of value addition of paddy into flakes rice from producer – processor – wholesaler – retailer

The summary of value addition of paddy into flakes rice from producer to retailer was presented in Table 4. The cost of unprocessed paddy was noticed to be higher cost in this value chain i.e Rs/q 1360 and the share it was to be 79.87 percent in the value chain followed by value added by processing unit (14.12%), cost of value added by wholesaler (2.87%), cost of value added by retailer (3.14%). The value addition of paddy into flakes rice at different stages of marketing was estimated and found to be highest at the processor level Rs/q 240.50 followed by wholesaler Rs/q 48.9 and retailer Rs/q 53.4, respectively.

1.5 Summary of value added margin of flakes rice from producer – processor – wholesaler – retailer – consumer:

The summary of value added margin of flakes rice from produce to consumer was computed and presented in Table 5. The value added margin of flakes rice from producer to retailer, highest value added margin was found to be processor level Rs/q 899.5 followed by wholesaler Rs/q 151.1, retailer Rs/q 246.6. Consumer price was 3200.

Summery Conclusion

Value addition is often understood in the context of adding value to the product. A new dimension from the consumer point of view is added to the existing understanding of value i.e. how a consumer perceives the value delivered to him through a bundle of product services. This new approach of value addition through the consumer's mind needs special attention. All the activities now must be seen from the consumer point of view. For improving the income from rice, one way is to sell it in processed and value added form. There are 3 flakes rice processing unit running in the district Dhamtari. It is necessary to estimate the income and expenditure of processing unit for different products and also it's required to study the problem faced by processors during operation of processed products. Then we can judge the profitability of paddy processing.

Table 1: Value addition of paddy into flakes rice at processor level. (Rs/q)

| S. No. | Particulars | Cost |
|--------|---|----------------------|
| (A) | Cost of unprocessed paddy | 1360 (84.97) |
| (B) | Cost of processing | |
| 1 | Transportation | 10.50 (0.66) [4.37] |
| 2 | Loading – Unloading | 20 (1.25) [8.32] |
| 3 | Electricity | 30 (1.87) [12.47] |
| 4 | Machine labour | 100 (6.25) [41.58] |
| 5 | Bagging | 80 (5) [23.26] |
| | Total cost involved | 240.50 (15.27) [100] |
| (C) | Cost of paddy upto processing (A+B) | 1600.5 (100) |
| (D) | Selling price of processed flakes rice | 2500.00 |
| (E) | Value addition margin of paddy to flakes rice (D-C) | 899.5 |

Note: figure in parentheses indicate percentages of total processing cost of paddy to flakes rice.

Table 2: Value addition at wholesaler level (Rs/q)

| S. No. | Particulars | Cost |
|----------|-------------------------------|-------------------|
| A | | |
| 1 | Transportation | 14 (28.63) |
| 2 | Labour | 7.50 (15.34) |
| 3 | Weighing | 5 (10.22) |
| 4 | Loading | 6.30 (12.88) |
| 5 | Maintenance | 10.10 (20.65) |
| 6 | Other | 6(12.27) |
| B | Total value added cost | 48.9 (100) |
| C | Price paid | 2600 |
| D | Total (B+C) | 2648.9 |
| E | Price receive | 2800 |
| F | Value addition (E-D) | 151.1 |

Note: figure in parentheses indicate to percentage of total value added cost

Table 3: Value addition at retailer level (Rs/q)

| S. No. | Particulars | Cost |
|----------|----------------------------|-------------------|
| A | | |
| 1 | Transportation | 14 (26.22) |
| 2 | Weighing | 9 (16.85) |
| 3 | Packing | 6.1 (11.42) |
| 4 | Loading – unloading | 6.4 (11.99) |
| 5 | Maintenance | 9.5 (17.79) |
| 6 | Other | 8.30 (15.54) |
| B | Total | 53.4 (100) |
| C | Price paid | 2900 |
| D | Total | 2953.4 |
| E | Price received by retailer | 3200 |
| F | Value addition (D-C) | 246.6 |

Note: figure in parentheses indicate to percentage of total value added cost

Table 4: Summary of value addition of paddy into flakes rice from producer – processor – wholesaler – retailer (Rs/q)

| S. No. | Particulars | Cost |
|--------|---|-----------------|
| 1 | Cost of unprocessed paddy | 1360.00 (79.87) |
| 2 | Cost of value addition by processing unit | 240.50 (14.12) |
| 3 | Cost of value addition by wholesaler | 48.9 (2.87) |
| 4 | Cost of value addition by retailer | 53.4 (3.14) |
| | Total | 1702.8 (100) |

Note: figures in parentheses indicate percentage of total value added cost.

Table 5: Summary of value added margin of flakes rice from producer – processor – wholesaler – retailer – consumer

| S. No. | Particulars | Cost (Rs/q) |
|--------|---|-------------|
| 1 | Cost unprocessed paddy | 1360.00 |
| 2 | Total value added cost by processor | 240.50 |
| | a) Selling price | 2500.00 |
| 3 | b) Total value added margin for processor | 899.5 |
| | Total value added cost by wholesaler | 48.9 |
| | a) Price paid | 2800.00 |
| 4 | b) Selling price | 2900.00 |
| | c) Value added margin for wholesaler | 151.1 |
| | Total value added cost by retailer | 53.4 |
| 5 | a) Price paid | 2900.00 |
| | b) Selling price | 3200.00 |
| | c) Value added margin for retailer | 246.6 |
| 5 | Consumer price | 3200.00 |

Note: Figures in parentheses indicate percentage of total value added cost.

Reference

1. Anonymous. Directorate of Economics and Statistics, Department of agriculture and cooperation, Ministry of Agriculture government of India, 2010
2. Anonymous. Economic Survey of Chhattisgarh, Ministry of Agriculture government of India, 2013-14.
3. Bhagat SK. An economic analysis of rice processing units in Dhamtari district of Chhattisgarh. M.Sc. (Agri) Thesis submitted to the dept. Of Agril. Eco., IGKV Raipur, 2010.
4. Demont M, Neven D. Tailoring African rice value chains to consumers. Wallingford, UK: CABI. Realizing-Africa'-s-rice-promise. 2013, 303-310
5. Maneechansook C. Value Chain of Rice Exported from Thailand to Sweden Master's(one year) Thesis in Business Administration submitted to University of Boras Allégatan, 2011
6. Shaik Zakir Hussain, Siddura Rajeswari Mallegowda, Markus Hanisch. Constraints and Opportunities in Paddy Value Chain in Andhra Pradesh, India – Linking Small Rural Producers to Urban Consumers. Humboldt-University at zu Berlin, Dept. of Agricultural Economics & Social Sciences, Germany, 2010.
7. Stryker JD. Developing competitive rice value chains. Wallingford, UK: CABI. Realizing-Africa'-s-rice-promise, 2013, 324-331.