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Marketing of *basmati* rice in Jammu district of J&K state: an economic analysis of marketing channels and their efficiency

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Abstract
An investigation entitled "Marketing of *Basmati* Rice in Jammu district of J&K State: An Economic Analysis of Marketing Channels and their Efficiency" was conducted in *Basmati* grown two different development blocks of Jammu district (R. S. Pura and Bishnah) during the agricultural year 2011-12. Four villages from each block, 10 farmers from each village were selected randomly, so as to constitute a ultimate sample size of 80 farm households. Primary data were collected by the survey method by interviewing the *Basmati* rice growers as well as different market functionaries involved through an especially structured and pre-tested schedule. In the study, the three types of marketing channels were identified to be followed by the *Basmati* rice growers, the first one was the 'Producer – village trader – rice miller – consumer' which was named as Channel-I, the second channel was identified as 'Producer – rice miller – consumer' and it was named as Channel-II, whereas the third one was the 'Producer – Consumer' and named as Channel-III. The marketing efficiency was found to be highest in case of Channel-III (1.52) followed by Channel-II (0.74) and Channel-I (0.66).

Keywords: Marketing Channels, Marketing Cost, Marketing Margin and Marketing Efficiency

Introduction

Rice crop plays a significant role in livelihood of people of J&K state. Although area under rice is very small of about 0.27 million hectare, it play an important role in the state economy. Rice productivity in state is high (2.2 tonnes/ha.) compared to the national average productivity of about 1.9 tonnes/ha. The total annual rice production in the state about more than 0.59 MT. Jammu region represent almost all the zones ranging from sub-tropical one to mid hills extending to high hills (high-altitudes) thus constituting temperate zone. *Basmati* rice in sub-tropical zone of Jammu region is grown on more than 32,000 hectare of area. The J&K state produces 1 lakh metric tonnes of exotic varieties of *basmati* rice in Jammu, Samba and kathua districts in areas along the 198 km International Border with Pakistan. Around 30,000 metric tonnes is exported every year. *Basmati* of Jammu region, particularly of R. S. Pura belt is world famous for its high aroma. The business from *basmati* rice annually fetches more than 45 crores of rupees. Thus, the cultivation of *basmati* rice in this region offers a great potential for its improvement. India is the leading exporter of the *basmati* rice to the global market. The India has exported 4056758.62 MT of *basmati* rice to the world for the worth of Rs. 26870.17 crores during the year 2017-18 (according to APEDA). The growth in rice export volume is expected to help India retain the top slot as the world's largest exporter.

Materials and Methods

The present study has been carried out on the basis of primary data collected from two different development blocks of Jammu district namely R. S. Pura and Bishnah where *Basmati* rice crop is predominantly grown. Four villages from each block were selected randomly. Further, from each village, 10 farmers were selected randomly, so as to constitute a total sample size of 80. The farms were categorized into four categories on the basis of owned holdings viz, marginal (upto 1 ha.), small (1.01-2 ha.), medium (2.01-4 ha.) and large (> 4 ha.).

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Required data from sample farmers as well as the market functionaries involved were collected through a pre-tested schedule and questionnaires by personal interview method. Tabular analysis has been used to obtain the result of the study. The reference year of the study is agricultural year 2011-12.

Marketing channels are the path through which goods are moved from the hands of producers to the hand of ultimate consumers. It involves various middlemen who facilitate the flow of goods and services from the producers to the consumers. The length of channel varies from commodity to commodity and depends on the quantity to be moved and the nature and degree of specialization in production. In the present study the three marketing channels (viz.: Channel-I, Channel-II and Channel-III) of *Basmati* rice in Jammu district of J & K state were identified.

Marketing Efficiency

For estimation of Marketing Efficiency, Acharya's approach was used as per the suitability of the data.
The modified marketing efficiency (MME) formula is given below.

$MME = NP_P/MM + MC$

Where,
NP_F is net price received by the producers (Rs/kg),
MM is the marketing margin,
MC is the marketing cost.

Marketing Margin:

$MMw = MMw_1 + ... + MMw_i + ... + MMw_n$

Where,
MMw is the Total Marketing Margin.
MMw_i is the marketing margin of the ith wholesaler.

Marketing cost

The total marketing cost (MC) incurred by the producer, retailer and seller is calculated as:
MC = Loading/unloading + Transportation + Other charges (octri, mandi tax etc.)

Results and Discussion

a). Categorisation of Sampled Farm Households

The total number of samples of predominant *basmati* growers selected for the present study and their classification was presented in Table-1. The selected sample has been classified into four categories viz., marginal (upto 1 ha.), small (> 1.0 to < 2.0 ha.), medium (2.0 to <4.0 ha.) and large (4.0 ha. & above).

Table 1: Category wise sampling structure of *basmati* rice under study

Farm size group	R. S. Pura	Bishnah	Total
Marginal	9	9	18
Small	11	15	26
Medium	15	10	25
Large	5	6	11
Total	40	40	80

b). Identification of Marketing Channels

The main marketing channels involved in the marketing of *Basmati* rice can be summarized as follows:
Channel-I: "Producer – Village trader – Rice miller – Consumer"
Channel-II: "Producer – Rice miller – Consumer"

Channel-III: "Producer – Consumer"

c). Marketing cost and margins of *basmati* rice through different Marketing channels:

The marketing cost and margins presented in Table 2 shows that the marketing cost in the all the marketing channels of study area included loading and unloading, transportation cost and octri. The average per quintal marketing cost of producer, trader and miller were Rs. 36.00, Rs. 66.00 and Rs. 163.52 respectively in case of Channel-I. In case of Channel-II the marketing cost of producer and rice miller were Rs. 66.00 and Rs. 163.52 respectively. The marketing cost of producer was Rs. 231.00 in case of marketing channel - III. The marketing margin of producer, village trader and rice miller were Rs. 389.36, Rs. 134.00 and Rs. 1921.48 respectively in case of I-channel. In case of channel-II the marketing margin of producer and rice miller were Rs. 559.36 and Rs. 1921.48 respectively. The marketing margin of producer was Rs. 2419.36 in case of channel-III. The marketing efficiency was higher in case of marketing channel- III was 1.52 followed by the 0.74 and 0.66 in case of marketing channel- II and marketing channel- I respectively.

Table 2: Marketing costs and margins of *basmati* rice through different Marketing channels

(in Rs./q.)

Sr. No.	Particulars	Channels		
		I	II	III
1.	Price received by Producer	1800.00	2000.00	4025.00
	Marketing cost of Producer			
	Transportation cost	-	20.00	15.00
	Loading/unloading	-	6.00	6.00
	Others (octri)	36.00	40.00	-
	Processing cost	-	-	210.00
	Total marketing cost	36.00	66.00	231.00
	Cost of cultivation	1374.64	1374.64	1374.64
	Marketing margin	389.36	559.36	2419.36
2.	Price paid by village trader	1800.00	-	-
	Marketing cost of village trader			
	Transportation cost	20.00	-	-
	Loading/unloading	6.00	-	-
	Others (octri)	40.00	-	-
	Total marketing cost	66.00	-	-
	Marketing margin	134.00	-	-
3.	Price paid by Rice miller	2000.00	2000.00	-
	Marketing and processing cost			
	Milling	25.00	25.00	-
	Cleaning	135.00	135.00	-
	Others (local taxes, packaging etc.)	3.52	3.52	-
	Total marketing cost	163.52	163.52	-
	Marketing margin	1921.48	1921.48	-
4.	Price paid by Consumer	4085.00	4085.00	4025.00
5.	Marketing Efficiency	0.66	0.74	1.52

d). Total grain from *basmati* rice after processing:

The total grains from *basmati* rice after processing presented in Table 3 shows that the sixty per cent recovery of rice was observed for *basmati* rice, which accounted for more than 80 per cent of the total value. The recovery of broken rice 8 per cent, *kanni* 4 per cent, husk 21 per cent and bran 7 per cent, which accounted for 5.88, 3.92, 5.14 and 4.28 per cent respectively of the total value.

Table 3: Total grain from *basmati* rice after processing

Sr. No.	Particulars	Recovery (%)	Value (Rs./q.)	Percentage
1.	Rice	60	3300.00	80.78
2.	Broken rice	8	240.00	5.88
3.	kanni (Small rice)	4	160.00	3.92
4.	Husk	21	210.00	5.14
5.	Bran	7	175.00	4.28
6.	Total	100	4085.00	100.00

e). Marketing efficiency and price spread of *Basmati* rice in different channels under study:

The marketing efficiency and price spread of *basmati* rice presented in Table 4 shows that the price received by the producer was Rs. 1800.00, Rs. 2000.00 and Rs. 4025.00 in case of marketing channel-I, II and III respectively. The marketing cost was Rs. 265.52, Rs. 229.52 and Rs. 231.00 in case of marketing channel-I, II and III respectively. The marketing margin in case of marketing channels-I, II and III were Rs. 2444.84, Rs. 2480.84 and Rs. 2419.36 respectively. The marketing efficiency was higher in case of marketing channel-III was 1.52 followed by the 0.74 and 0.66 in case of marketing channel-II and marketing channel-I respectively.

Table 4: Marketing efficiency and price spread of *Basmati* rice in different channels

Sr. No.	Particulars	Channels		
		I	II	III
1.	Price received by producer	1800.00	2000.00	4025.00
2.	Marketing Cost (MC)	265.52	229.52	231.00
3.	Marketing Margin (MM)	2444.84	2480.84	2419.36
4.	Marketing Efficiency (ME)	0.66	0.74	1.52

Conclusion

The marketing channels of three types follow by the *basmati* rice growers under study area, the first one structure was the Producer – village trader – rice miller – consumer, second channels was the producer – rice miller – consumer and third was the producer – consumer. The marketing cost in the all the marketing channels of study area included loading and unloading, transportation cost and octri. The average per quintal marketing cost of producer, village trader and rice miller were Rs. 36.00, Rs. 66.00 and Rs. 163.52 respectively in case of marketing channel-I. In case of marketing channel-II the marketing cost of producer and rice miller were Rs. 66.00 and Rs. 163.52 respectively. The marketing cost of producer was Rs. 231.00 in case of marketing channel-III. The marketing margin of producer, village trader and rice miller were Rs. 389.36, Rs. 134.00 and Rs. 1921.48 respectively in case of channel-I. In case of channel-II the marketing margin of producer and rice miller were Rs. 559.36 and Rs. 1921.48 respectively. The marketing margin of producer was Rs. 2419.36 in case of channel-III. The marketing efficiency was higher in case of marketing channel-III was 1.52 followed by the 0.74 and 0.66 in case of marketing channel-II and marketing channel-I respectively.

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