

Original Research Article

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## Price Spread of Paddy in Chandrapur District of Maharashtra, India

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### ABSTRACT

Rice belong to genus *Oryza*. The cultivated species are *Oryza sativa* and *Oryza glaberrima*. *Oryza glaberrima* has been cultivated in West Africa. Rice is grown under many different conditions and production system, but submerged in water is the most common method use worldwide. Rice is the only cereal crop that can grown for long periods of time in standing water. 57% of rice is grown on irrigated land, 25% on rainfed lowland, 10% on the uplands, 6% in deepwater and 2% in tidal wetland. The study was conducted to understand the nature of the marketing channels, marketing costs, margins, price spread and producer's share in the consumer's price of paddy in Chandrapur district of Maharashtra. The data base consists of producer, wholesalers, and retailers of paddy from whom primary data were collected by personal interviews with the help of pretested schedule during 2017-18. Three marketing channels were identified in case of paddy i.e. I. Producer-Consumer. II .Producer-Retailer-Consumer, III. Producer-Wholesaler-Retailer-Consumer. Per farm total production of paddy was 41.34 qtl/ha. Out of the total production 1.65 per cent was retained for family consumption and left was marketed through different channels. Among marketing cost incurred by different intermediaries marketing cost of wholesaler was highest and cost incurred by producer was lowest. Channel I was most efficient with 58.38 price spread and 97.52 per cent producer's share in consumer rupee. And price spread was highest in the channel III where number of intermediaries was also more.

#### Keywords

Paddy, Marketing channel, Marketing cost, Price spread

#### Article Info

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### Introduction

Rice cultivation started in the 15th century in South East Asia and spread to India, China and Japan. Rice was first domesticated in the region of the Yangtze River valley in China, however rice was found in its wild form in India. Rice goes through a series of processing before finally reaching the dinner table. Rice cultivation involves seed selection followed by land preparation that is aimed to place the soil in the best physical condition

for crop growth and to ensure that soil surface is level. Seeds are sown in seed bed. Further, crop establishment involves transplanting, where pre-germinated seedlings are transferred from seed bed to wet field.

Transplantation is done manually by hand after a period of 20-40 days. Water management is a crucial step where the field is maintained in a flooded condition to conserve water sufficient for the crop.

Rice commends recognition, as a supreme commodity to mankind, because rice is truly life, culture, a tradition and a means of livelihood to millions. It is an important staple food providing 66-70 per cent body calorie intake to the consumers. Nutrient value of rice, it content highest amount of carbohydrate about 65-70%, 7-8% protein, 2-3% fat and a rich source of mineral and vitamins like phosphorus, manganese, iron, folic acid, thiamine and niacin. The United Nations General Assembly, in a resolution declared the year of 2004 as the “International Year of Rice”, which has tremendous significance to food security.

In 2016-2017 area and production of paddy in World 160.12 (MH), 486.39 (MT) and productivity is 4.53 (T/ha). In 2016-2017 area and production of paddy in India is 42.95 (MH), 110.15 (MT) and productivity is 3.85(T/ha). The total area, production and productivity of paddy in Maharashtra during the year 2016-2017 is 14.66(MH), 34.19(MT) and 2333 (Kg/ha).

The major rice importing countries of India are Nigeria, Philippines, Saudi Arabia, Iraq, Iran, Malaysia, Brazil, Persian Gulf countries, Europe, South Africa, Bangladesh and Indonesia.

In 2017-2018 area and production of paddy in Maharashtra 1446.6(MH), 2660.5MT) and productivity is 1839(T/ha). In 2017-2018 area and production of paddy in World 165 (MH), 495.9 (MT), and productivity is 210 (T/ha). In 2017-2018 area, production and productivity of paddy in India 42949.80(Ha), 112905.50 (MT) and 2585(Kg/ha). (Source-India. agri. stat. and FAO)

## **Materials and Methods**

Market channels for paddy were identified by primary data from farmers, wholesalers, and

retailers. A sample of 90 respondents including 60 farmers, 20 wholesalers, 10 retailers and were randomly selected and interviewed based on pretested schedule in Warora taluka of Chandrapur district.

Primary data regarding purchase price, marketing cost incurred, sale price and other related information were collected from the respondents.

The data, thus collected was subjected to tabular analysis obtaining percentages.

## **Results and Discussion**

### **Major marketing channel in the study area**

Marketing channels reveal that how produce passes through different agencies from producer to final consumer.

In the study area following prominent channels were observed in the marketing,

Producer – Consumer  
Producer – Retailer – Consumer  
Producer – Wholesaler – Retailer – Consumer.

### **Production, retention and marketed surplus of paddy marketing**

Production, retention and marketed surplus of paddy sold through different channels were calculated and are presented in table 1. Production of paddy was 41.34 quintals on 1.10 hectares and its retention paddy for consumption seed was 1.65 quintals.

The results revealed that quantity of paddy as 10.88, 12.74 and 16.07 quintals were marketed through channel-I, channel-II, and channel-III. Thus total marketed surplus of paddy was 39.69 i.e. 100 per cent

### **Marketing cost of paddy incurred by different intermediaries**

#### **Marketing cost of paddy incurred by producer**

Item wise per quintal cost of marketing of paddy incurred by producer in different channels was calculated and presented in table 2. The cost incurred by the producer was Rs.53.38 per quintal in channel-I, 79.07 in channel-II and 85.83 per quintal in channel-III. It was observed that, the proportionate expenditure in the total cost was highest packaging charges (80.81 per cent) followed by unloading charges (6.66 per cent), loading charges (6.51 per cent), transportation charges (5.97 per cent). In channel-II maximum share was on packaging charges (56.34 per cent) followed by commission charges (21.41 per cent), transportation charges (14.02 per cent), loading charges (3.85 per cent) and unloading charges (2.71 per cent) and weighing charges (1.64 per cent), In channel-III maximum share was on packaging charges (55.38 per cent) followed by commission charges (19.98 per cent), transportation charges (17.75 per cent), unloading charges (2.67 per cent), loading charges (2.56 per cent), unloading charges (2.67 per cent) and weighing charges (1.63) per cent.

#### **Marketing cost of paddy incurred by wholesaler**

Per quintal marketing cost of paddy incurred by wholesaler with respect to various items in different marketing channels were calculated and presented in table 3. In regard to marketing cost incurred by wholesaler in channel-III, it was Rs.91.62 per quintals. Proportionate expenditure on packaging charge was the highest as (53.42) per cent, followed by commission charge (19.20) per cent, transportation charge (16.21) per cent,

losses (3.27) per cent, loading charge (2.77) per cent, unloading (2.52) per cent, weighing charge (1.52) per cent, license charge (0.65) per cent and market fee (0.39) per cent in channel-III

#### **Marketing cost of paddy incurred by village retailer**

Per quintal cost of marketing of paddy incurred by retailer channel-II and channel-III was calculated and presented in table 4. The result revealed that highest incurred by wholesaler cost was Rs 27.37 in channel-III followed by Rs 25.70 channel-II. In which share of transportation charges was high as 71.39 per cent in channel-III followed by channel-II i.e. 70.23 per cent, losses of paddy was high i.e. 16.30 per cent in channel-II followed by channel-III 13.84 per cent, storage charges was high as 7.50 per cent in channel-II as compared to channel- III 7.01 per cent, market fee was high as 2.74 in channel- III followed by channel-II 2.14 per cent, license charges 2.63 per cent in channel-III followed by channel-II 2.60 per cent, shop tax charges 2.37 per cent channel-III followed by channel-II 1.20 per cent.

#### **Price spread in paddy marketing**

Per quintal marketing cost, marketing margin and price spread in marketing of paddy with respect to different channels were calculated and presented in table 5. The result revealed that, in regard to channel-I net price received by producer from consumer was Rs 2300.35 while cost incurred by producer was Rs 58.38. The price paid by consumer was Rs 2358.73 thus price spread was found to be Rs 58.38. In channel-I producers share in consumer's rupee was found to be 97.52 per cent.

In regard to channel-II price received by producer from retailer was Rs. 2250.25 while cost incurred by producer was Rs 79.09. The

cost incurred by retailer and margin of retailer was Rs 25.70 and Rs 183.88, respectively. The price paid by consumer was Rs 2538.92. Thus, price spread was found to be Rs 288.67. In channel-II producer's share in consumer's rupee was found to be 88.63 per cent. It was clear that, producer's share in consumer's

rupee was maximum in channel-I. It was observed that, marketing cost in channel-I was 58.38. Thus price spread was found to be Rs 58.38. In channel-II marketing cost was 104.79 and margin was Rs 183.88. Thus price spread was found to be Rs 288.67.

**Table.1** Per farm Production, retention and marketed surplus of paddy (qtl/farm)

Sr. No.	Particulars	Paddy farm
1	Paddy farm size (ha)	1.10
2	production of paddy (q)	41.34
3	Retention paddy for consumption(q)	1.65
4	Marketed surplus in channel-I(q) (Producer-Consumer)	10.88 (27.24)
5	Marketed surplus in channel-II(q) (Producer-Retailer-Consumer)	12.74 (32.09)
6	Marketed surplus in channel-III(q) (Producer-Wholesaler-Retailer-Consumer)	16.07 (40.48)
7	Total marketed surplus(q)	39.69 (100)

(Figure in parenthesis is the percentage to the marketed surplus in different channel)

**Table 2** Marketing cost incurred by paddy producer in different channel (Rs/q)

Sr. No	Particulars	Channel-I (Producer-Consumer)	Channel-II (Producer-Retailer-Consumer)	Channel-III (Producer-Wholesaler-Retailer-Consumer)
1.	Packaging charge	43.14 (80.81)	44.55 (56.34)	47.54 (55.38)
2.	Loading charges	3.48 (6.51)	3.05 (3.85)	2.20 (2.56)
3.	Transport charges	3.2 (5.97)	11.09 (14.02)	15.24 (17.75)
4.	unloading charges	3.56 (6.66)	2.15 (2.71)	2.30 (2.67)
5.	Weighing charges	-	1.30 (1.64)	1.40 (1.63)
6.	Commission charges	-	16.93 (21.41)	17.15 (19.98)
	<b>TOTAL</b>	<b>53.38 (100)</b>	<b>79.07 (100)</b>	<b>85.83 (100)</b>

(Figure in parenthesis is the percentage to the cost incurred by producer)

**Table 3** Marketing cost incurred by wholesaler in channel-III (Rs/q)

Sr. No	Particulars	Channel-III
1.	Packaging charge	48.95 (53.42)
2.	Loading charges	2.54 (2.77)
3.	Transport charges	14.86 (16.21)
4.	unloading charges	2.31 (2.52)
5.	License charges	0.60 (0.65)
6.	Weighing charges	1.40 (1.52)
7.	Commission charges	17.60 (19.20)
8.	Market fee	0.36 (0.39)
9.	Losses	3.00 (3.27)
	<b>TOTAL</b>	<b>91.62</b> <b>(100)</b>

(Figure in parenthesis is the percentage to the cost incurred by wholesaler)

**Table.4.**Marketing cost incurred by retailer (Rs/q)

Sr. No	Particulars	Channel-II	Channel-III
1.	Transport charges	18.05 (70.23)	19.54 (71.39)
2.	Licence charge	0.67 (2.60)	0.72 (2.63)
3.	Shop tax	0.31 (1.20)	0.65 (2.37)
4.	Storage charges	1.93 (7.50)	1.92 (7.01)
5.	Market fees	0.55 (2.14)	0.75 (2.74)
6.	Losses	4.19 (16.30)	3.79 (13.84)
1	<b>TOTAL COST</b>	<b>25.70</b> <b>(100)</b>	<b>27.37</b> <b>(100)</b>

(Figure in parenthesis is the percentage to the cost incurred by retailer)

**Table.5** Per quintal marketing cost, margin and price spread in paddy (Rs/q)

Sr. No	Particulars	Channel-I	Channel-II	Channel-III
1	Net price received by producer(producer share in consumer rupee)	2300.35 (97.52)	2250.25 (88.63)	2170.22 (76.25)
2	Cost incurred by producer	58.38 (2.47)	79.09 (3.11)	85.83 (3.01)
3	Price paid by wholesaler	-	-	2256.05 (79.27)
4	Cost incurred by wholesaler	-	-	91.62 (3.21)
5	Margin of wholesaler	-	-	90.07 (3.16)
6	Price paid by retailer	-	2329.34 (91.74)	2437.74 (85.66)
7	Cost incurred by retailer	-	25.70 (1.01)	27.37 (0.96)
8	Margin of retailer	-	183.88 (7.24)	380.72 (13.38)
9	Price paid by consumer	2358.73 (100)	2538.92 (100)	2845.83 (100)
10	Marketing cost	58.38 (2.47)	104.79 (4.12)	113.2 (3.97)
11	Marketing margin	-	183.88 (7.24)	380.72 (13.38)
12	<b>Price spread</b>	<b>58.38 (2.47)</b>	<b>288.67 (11.36)</b>	<b>493.92 (17.35)</b>

(Figure in parenthesis is the percentage to the marketing cost, margin and price spread)

In channel-III, that the price paid by consumer in this channel was Rs 2845.83. It was clear that, the price received by the producer from wholesaler was Rs 2170.22 while cost incurred by producer was Rs 85.83. In next order, cost incurred by the wholesaler was Rs 91.62 while marketing margin of wholesaler was Rs 90.07. The wholesaler had sold the produce to retailer at Rs 2437.74. Next order, cost incurred by retailer was Rs 27.37 while marketing margin was 380.72 and thus it inferred that, in this channel the marketing cost was Rs 113.2 while marketing margin was Rs 380.72 and the price spread was found to be Rs 493.92. It

inferred that, price spread was found higher in channel-III as compared to channel-I and channel-II.

In conclusion, three marketing channels were identified in case of paddy (i.e. I. Producer-Consumer. II. Producer-Retailer-Consumer, and III Producer-Wholesaler-Retailer-Consumer). Among marketing cost incurred by different intermediaries marketing cost of wholesaler was highest and cost incurred by producer was lowest. Channel I was most efficient with 58.38 price spread and 97.52 per cent producer's share in consumer rupee because the produce was directly marketed

from producer to consumer and price spread was highest in the channel III where number of intermediaries was also more.

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