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A STUDY ON MARKETING OF HYBRID RICE IN RAIGARH DISTRICT OF CHHATTISGARH

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ABSTRACT:

The present study entitled as "A study on marketing of hybrid rice in Rigarh district of Chhattisgarh" was conducted in Raigarh district of Chhattisgarh. Three marketing channels through which paddy from the study area passed from the producer to ultimate consumers were identified channels 1, producer-consumer, channel 2, Producer-village merchant/retailers-consumer and channel 3, producer-commission agents-retailer-consumer. The producer net share in channel 1, channel 2 and channel 3 was 90.68%, 79,21% and 72.25% in consumer price. Producer sale price to consumer was 1450/qtl (100%) in channel 1, Rs 1600/qtl (100%) in channel 2 and Rs 1820/qtl (100%) in channel 3. The price spread of channel 1, 2 and 3 was Rs 135/qtl(1.86%), 345/qtl (9.35%) and 505/qtl (21.74%). Market efficiency is 3.60% of channel 3 and it is low compared to channel 1.

INTRODUCTION:

Rice is the staple food of more than 60 percent of the world's population. It is the staple food of most of the people of South – Eastern Asia. About 90 percent of all rice grown in the world in produced and consumed in the Asian region. In India, rice is the most important and extensively grown food crop, occupying about 40 million hectares of land.

Rice is primarily high calories food. It contains less protein than wheat. The protein content of milled rice is usually 6 to 7 percent. Rice however compares favorably with other Cereals in amino acid content. The biological value of its proteins is high. The fat content of rice is low (2.0 to 2.5 percent) and much of the fat is lost during milling. Rice contains lower percentage of calcium. Rice grain contains as much B group vitamins as wheat.

RESEARCH MEHODOLOGY:

Selection of District:

Raigarh is one of the district of Chhattisgarh state of India and one of the leading districts in hybrid rice productions. Hybrid rice is cultivated on a commercial scale due to adverse suitable conditions prevailing in study area. Raigarh district were selected purposively for study purpose.

Selection of Block:

Selection of block is the second stage of sampling. Out of 9 blocks present in Raigarh district, Kharsia block were selected purposively based on the highest area under hybrid rice production.

Selection of Market:

The market Kharsia is the main primary market for Paddy marketing in block therefore raigarh market was selected purposely for the present study. Whereas the secondary market Navin Mandi is located in raigarh sadar tahshil which was also selected purposely for the present study.

Selection of market functionaries:

Market functionaries was prepared with the help of markets heads, of both markets out of that 10% of each market functionaries were selected randomly for the present study. All to gather total 40 market functionaries (10 Village merchant, 10 Wholesaler, 10 retailers, 10 consumers,) were selected randomly for the present study.

Table 1: Selection of market functionaries:

S.No.	Market(Primary & Secondary)	Market Functionaries No.	Total
1.	Kharsia	Village Merchant	10
2.	Raigarh	Wholesaler	10
3.		Retailers	10
4.		Consumers	10
Total			40

- **Analytical tools:**

A. Marketing Efficiency:

Modified marketing efficiency (ME) formula as given by Acharya and Agarwal (2001) was used to compute marketing efficiency

$$\text{Marketing efficiency} = \frac{\text{Conaumer price}}{\text{Total marketing cost} + \text{marketing margin}}$$

B. Marketing Cost:

C = Cf + Cm1 + Cm2 + Cm3 + …… + Cmn

Where,
C = Total cost of marketing
Cf= Cost born by the producer from the time produce leaves the farm till the sale of the produce
Cmn= Cost incurred by the middlemen in the process of buying and selling.

C. Marketed surplus:

MS-Qs

Where,
MS = Marketable surplus
Qs = Quantity used for home consumption

D. Price spread:

GMM = P_c-P_{fb}

Where,
GMM= Gross marketing margin
P_c= Price paid by consumer
P_{fb}= Price received by producer

RESULTS AND DISCUSSION:

Table 1: Detail description of sample size of households/families in different size of Farms Group -

Number of farms Group = 120 S M L = 50+40+30 = 120

S. No.	Particulars	Size Of Farms Group			Average Sample
		Small	Medium	Large	
1.	Average size of farm Families	5.90 (100)	6.80 (100)	7.50 (100)	6.73 (100)
2.	Age composition				
I	Below 15 years	2.10 (35.59)	2.30 (32.35)	2.50 (34.21)	2.21 (34.15)
II	15-60 years	3.50 (59.32)	4.10 (50.29)	4.50 (59.21)	3.86 (59.66)
III	60 years and above	0.50 (8.47)	0.50 (7.35)	0.50 (6.57)	0.67 (10.35)

Note: Figures in the parenthesis indicates percentage to the total size of families (2019)

The composition of an average size of the farm families according to sex and age composition is indicated in table 4.2 Average size of the farm families in small, medium and large size of farms groups were 5.90, 6.80 and 7.50 respectively. The average sample percentage of male and female for different size of farms groups was 54.25% and 45.74% respectively. It could also be seen from the table that age composition of different size of farms group. Highest average sample percentage of different size of farms belongs to the age composition of below 15-59 years (59.66%) followed by below 14 years (34.15%) and above 50 years and above (10.35%) respectively.

Table 2: Total Marketing Cost, Marketing Margin, Price spread, Producer share in consumer rupee in % and Marketing efficiency in % in Different Channels -

Table 2 reveals that total marketing cost, marketing margin, price spread, and Producer share in consumer rupee and marketing efficiency in both the marketing channels. The total marketing cost was higher in channel III (Rs.365.00) compared to channel I and channel II, And the total marketing margin and price spread was also seen higher in channel III Rs. 505.00 because in the channel III there are three intermediates, where as in the channel I and channel II there is only one , and two intermediate. The producer share in consumer rupee was higher in Channel I 90.68%.

Table 3: Estimation Total Marketing Cost and Marketing Margin in Different Channels -

S.No.	Particulars	Channel I	Channel II	Channel III
1	Total marketing cost	135.00 (9.31)	275.00 (16.56)	365.00 (20.05)
2	Total marketing margins	00.00	70.00 (4.21)	135.00 (7.41)
3	Price spread	135.00 (9.31)	345.00 (20.78)	505.00 (27.74)
4	Producer share in consumer rupee in %	90.68	79.21	72.25
5	Marketing efficiency in %	10.74	4.81	3.60

(Value Rs/quintals)

The marketing efficiency was higher in channel I 10.74% respectively.

Table 4: Market share of hybrid rice in respect to traditional rice -

Market size of Raigarh District -

Area	Hybrid	Research	Total, Tons
Raigarh	657(67.18)%	132(32.82)%	978(100)%

The table the diagram represents the total seed market of paddy hybrid seeds alone occupied 67.18% and the remaining 32.82% of the seed market was grabbed by Research paddy. This indicates that there is a scope of 67.18% of the total market for the company in fulfilling the objective of conversion of hybrid paddy to research paddy.

Table 5: Percentage of farmers use Hybrid Paddy in that given area -

Options	No. of Responds	Percentage of Responds
Yes	195	65%
No	105	35%

(No. of farmers use hybrid seed)

Analysis: The Table show 65 % farmer use hybrid seed and 35 % farmer use research Paddy in that given area.

CONCLUSION:

From the study it was concluded that the small holdings grow more food crops as compared to larger holdings. The factor wise break-up of the costs showed that half of the cost was covered by human labor, manure and fertilizer, bullock, labor, Tractor power and Irrigation charge, seeds.

In general the sample farmer's have sold most of their produce through the commission agents.

Paddy, channel III (Producer → Commission agent→Rice miller→ Retailer→Consumer) was more efficient due to higher % share of farmer in the consumer rupee and low price spread.

Major production constraints were poor irrigation facilities and shortage of human labor and poor quality and costly insecticide and high cost of labor.

Major marketing constraints were lack of transportation facilities at farm level, high cost of transportation and high fluctuation in price and malpractices in market as well as decreased consumer's demand.

REFERENCES:

Singh and Chandra (2016) tested various functional forms and found that exponential function was the most appropriate to examine the growth trends of area, production and yield of paddy in India. They studied the growth rates in area, production and productivity and found that as a result of increase in area under cultivation and yield, the overall growth rate in paddy production had been very significant (2.96) during - the 2007-08 to 2015-16 period. Yield increased by 2.42 per cent whereas acreage increased by 0.52 percent.

Verma et al. (2017) worked out the annual compound growth rates of area, production and productivity of principal crops in Madhya Pradesh for the period 2000-01 to 2016-17. The trend analysis indicated that there was a major break-through in the annual compound growth rates of area and productivity of oilseeds at 2.35 per cent and 1.68 percent, respectively, resulting in higher growth of production at 4.03 per cent per annum.

Satapathy and Tripathy (2018) stated that operational cost constituted more than 50 per cent of the total cost of sample rice farmers in Cuttack district. Irrespective of farm SBC and type expenditures on human labour, fertilizer and manure, seed and plant protection chemicals were the important components of operational cost. Similarly rental value of owned land, interest on fixed capital and depreciation charges were the major components of fixed cost.

Joshi et al. (2018) conducted a study on production and marketing of rice in different developed regions of Nepal and concluded that farmers were facing several production problems such as lack of technical knowledge, lack of irrigation, lack of organized credit facilities, lack of quality inputs, diseases and pests. They also reported marketing problems such as low price of produce, unorganized market and lack of appropriate transportation facilities.

Nirmala and Muthuraman (2019) studied economics and major constraints in rice cultivation in Kaithal district of Haryana. The study covered four villages of two blocks and data on constraints and costreturn aspects of rice cultivation were collected from 80 farmers. Total costs in rice production amounted to be ` 33778.68/ha. Average yield was 4.99 t/ha. Benefit-cost ratio worked out to be 1.27. Pests and disease incidence, lack of remunerative price and labour shortage were the major constraints in rice production.