



An Economic Analysis on Marketing of Hybrid Paddy (Arize-6444 Gold) Seeds in Azamgarh District of Uttar Pradesh

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ABSTRACT

The study titled “An Economic Analysis on Marketing of Hybrid Paddy (Arize-6444 Gold) Seeds in Azamgarh District of Uttar Pradesh” focused on understanding the marketing dynamics of Arize 6444 Gold hybrid paddy seeds. Known for their high yield potential, disease resistance, adaptability, and superior grain quality, these seeds were popular among farmers. The study was conducted in the Tarwan block of Azamgarh, where five percent of paddy-cultivating villages were purposively selected, and ten percent of farmers from those villages were chosen randomly as respondents. Producer → Wholesaler → Consumer (Channel I) and Producer → Wholesaler → Retailer → Consumer (Channel II) were selected as the two marketing channels. The customer paid Rs. 852 and the manufacturer received Rs. 647 in Channel I. Price spread was Rs. 208, marketing efficiency was 3.11%, margin was Rs. 100, and marketing cost was Rs. 108. The producer price was the same, the consumer paid Rs. 910, and the marketing cost, margin, and spread were Rs. 131, Rs. 132, Rs. 263, and 2.46%, respectively, in Channel-II. The study sheds data on regional seed distribution trends and the relative effectiveness of marketing channels.

Keywords: Hybrid paddy seeds, Marketing channels, Price spread, Marketing efficiency.

INTRODUCTION

Hybrid paddy seeds represented a significant advancement in agricultural technology and were widely adopted across various rice-growing regions due to their potential to enhance productivity and profitability. These seeds were developed through the crossbreeding of different rice varieties to harness heterosis or hybrid Vigor, resulting in higher yields compared to traditional or inbred varieties. Hybrid paddy seeds exhibited improved resistance to pests and

diseases, better adaptability to diverse agro-climatic conditions, and efficient nutrient utilization, which collectively contributed to increased farm incomes and food security. Farmers across India, particularly in regions like Uttar Pradesh, Andhra Pradesh, and West Bengal, increasingly shifted towards hybrid paddy cultivation to capitalize on these benefits. Though the cost of hybrid seeds was relatively higher than conventional ones, the return on investment was generally favourable due to enhanced productivity.



Various government and private sector initiatives promoted the adoption of hybrid seeds through subsidies, demonstrations, and awareness campaigns. However, the cultivation of hybrid paddy also presented certain challenges, such as the requirement for timely irrigation, higher input usage, and technical knowledge for proper crop management. Furthermore, hybrid seeds needed to be purchased afresh each season, as their genetic purity and productivity could not be maintained through replanting. Despite these limitations, hybrid paddy seeds played a crucial role in modernizing rice cultivation and ensuring food sustainability. Their widespread adoption marked a transition towards more intensive and commercially viable farming practices, supporting the livelihoods of small and marginal farmers while contributing to the overall agricultural development of the country.

RESEARCH METHODOLOGY

The current study used a purposive-cum-random sampling strategy to make sure that the selection procedure was representative and relevant.

The district of Azamgarh in Uttar Pradesh was purposively selected to minimize logistical challenges and time constraints. Within the district, Tarwan block was chosen based on the predominance of paddy cultivation among farmers. Five percent of the villages in the block that had a high concentration of rice growers were chosen at random from a thorough list of all the villages in the block. After compiling a list of rice farmers from the selected villages, they were split into five categories based on the size of their landholdings: small (1–2 hectares), medium (4–10 hectares), tiny (more than 10 hectares), semi-medium (2–4 hectares), and marginal (less than 1 hectare). From these groups, 120 farmers were chosen via proportional random selection. In addition, ten wholesalers, five retailers, and ten customers were chosen randomly to examine marketing efficiency, pricing spread, margins, and expenses. Primary data were collected through a well-structured schedule via direct personal interviews, while secondary data were obtained from books, journals, reports, and official records at the district and block levels. Appropriate statistical tools were employed to analyse the data, which pertained to the agricultural year 2024–2025.

ANALYTICAL TOOLS

1. **Marketing Cost:** $C = C_f + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$
2. **Market Margin:** $AMI = P_i - (P_i + C_{mi})$
3. **Price Spread:** Marketing Cost + Market Margin
4. **Marketing Efficiency:** $= \frac{\text{Price received by producer}}{\text{Marketing Cost} + \text{Marketing Margin}}$



RESULTS AND DISCUSSION

Table 1: Reveals the preferred marketing channel by the respondents.

CHANNEL-I: Producer-Wholesaler-Consumer

CHANNEL-II: Producer-Wholesaler-Retailer-Consumer

S. No.	Channel Type	No of respondent	Percentage
1	Channel – I	47	39.16
2	Channel -II	73	60.83
Total		120	100.00

Table 1: The study revealed that among the 120 sampled respondents, 47 farmers (39.16%) preferred Marketing Channel I for buying and selling Arise 6444 Gold, while the remaining 73 respondents (60.83%) opted for Marketing Channel II for their transactions related to Arise 6444 Gold in the study area.

Table 2: Marketing cost, Marketing margin, Price spread and marketing efficiency of Arise 6444 Gold in Channel-I.

Channel I: Producer-Wholesaler-Consumer

S. No	Particulars	Value in Rupees/ 3kg bag of Arise 6444 Gold
1.	Producer sale price to wholesaler	755
2.	Cost incurred by the producer	
i	Packing cost	14.00
ii	Packing material cost	13.00
iii	Transportation cost	19.00
iv	Cost of Marketing	17.00
v	Cost of labour	11.00
vi	Cost of loading and unloading	9.00
vii	Charges for Weighing	7.00
viii	Unspecified fees	18.00
2.	The entire price (i-viii)	108.00
4.	The producer's net price	647
5.	The price that a wholesaler sells to a customer	852
6.	The wholesaler's margin	100
A	Total Expense for Marketing	108
B	Total Marketing Margin	100
C	Price Spread	208
D	Marketing of Efficiency	3.11%



Table 2: According to the study, the producer paid Rs. 755 per 3 kg bag for the marketing price of Arise 6444 Gold in Channel I, whereas the producer obtained Rs. 647 as the net price. The producer spent 108 rupees on marketing activities. At Rs. 755 per 3 kg packet, the wholesaler bought the Arise 6444 Gold from the manufacturer. After deducting a margin of Rs. 100, the final selling price to the customer was Rs. 852 per 3-kilogram package. As a result, Channel I's pricing spread was Rs. 208, its marketing cost was Rs. 108, and its overall marketing margin was Rs. 100. Channel I's marketing efficiency was determined to be 3.11%.

Table 3: Marketing cost, Marketing margin, Price spread and marketing efficiency of Arise 6444 Gold in Channel-II.

Channel II: Producer – Wholesaler – Retailer – Consumer		
S. No.	Particulars	Value in Rupees/ 3 kg bag of Arise 6444 Gold
1.	Producer sale price to Wholesaler	755
a.	Marketing cost incurred by producer	108
b.	Net price received by the producer	647
2.	Sales price of Wholesaler to Retailer	848
	Cost incurred by the Wholesaler	
I	charge loading and unloading	4.00
ii	Carriage up to shop	3.00
iv	Town charges	3.00
v	Transportation	4.00
vi	Losses and other costs	9.00
3	Total Cost (i-vi)	23.00
4	Margin of Wholesaler	70.00
5	Sale price from Retailer to Consumer	910.00
6	Margin of Village Merchant/Retailer	62
7.	Consumers paid price	910
A	Total marketing cost	131
B	Total marketing margins	132
C	Price Spread	263
D	Marketing Efficiency	2.46%

Table 3: The study revealed that the marketing price of Arise 6444 Gold from the producer to the wholesaler for a 3 kg packet was Rs. 755, with the producer incurring a marketing cost of Rs. 108. The producer earned a net price of Rs. 647. The Arise 6444 Gold 3-kilogram package sold for Rs. 848 from the wholesaler to the retailer, with a profit margin of Rs. 70 and marketing expenses of Rs. 23 for the wholesaler. The store earned a profit margin of Rs. 62 on the final selling price of Rs. 910 to the customer. The price spread in Channel II was Rs. 263, the marketing efficiency was 2.46%, the total marketing cost was Rs. 131, and the overall marketing margin was Rs. 132.



Table 4: For the promotion of a 3-kg bag of Arise 6444 Gold, a comparison of the pricing spread, marketing cost, marketing margin, and marketing efficiency in channels I and II is made.

S. No.	Particulars	Value in Rupees / 3 kg bag of Arise 6444 gold	Value in Rupees / 3 kg bag of Arise 6444 gold
		Channel I	Channel II
1	The producer's net price	647	647
2	Price paid by the consumer	852	910
3	Total marketing cost	108	131
4	The whole marketing margin	100	132
5	The disparity in prices	208	263
6.	Effectiveness of Marketing	3.11%	2.46%

Table 4: shows the comparison of marketing Arise 6444 Gold in Channel I and Channel II. In Channel I, customers paid Rs. 852 for a 3-kilogram bag, with the manufacturer receiving Rs. 647. The pricing differential was Rs. 208, and marketing expenses totalled Rs. 108, resulting in a marketing efficiency of 3.11%. In Channel II, customers paid Rs. 910, but the manufacturer still earned Rs. 647. Here, the pricing differential was Rs. 263, marketing expenses were Rs. 131, and efficiency dropped to 2.46%. Despite higher costs and margins in Channel II, its marketing efficiency was lower than that of Channel I.

CONCLUSION

The study on the marketing of Arize 6444 Gold hybrid paddy seeds in Azamgarh district highlighted significant insights into the marketing channels and their economic efficiency. Two primary marketing channels were identified: Channel-I (Producer → Wholesaler → Consumer) and Channel-II (Producer → Wholesaler → Retailer → Consumer). The analysis revealed that in Channel-I, the producer received a net price of Rs. 647, and the consumer paid Rs. 852 for a 3 kg bag, with a marketing efficiency of 3.11%.

Conversely, in Channel-II, although the consumer paid Rs. 910 for the same quantity, the marketing efficiency was lower at 2.46%. The study indicated that Channel-I was more efficient in terms of price spread and marketing margin, suggesting that fewer intermediaries resulted in a higher economic return for the producer. However, Channel-II, despite a lower efficiency, allowed for broader distribution and access to consumers. The findings emphasized the need for improving marketing structures to enhance profitability and reduce price disparities in hybrid paddy seed marketing.



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