

A STUDY ON BRAND PROMOTION STRATEGY OF HYBRID PADDY IN REWA DISTRICT OF MADHYA PRADESH, INDIA

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ABSTRACT

The present study focuses on the brand promotion strategy of hybrid paddy in Rewa District of Madhya Pradesh, where agriculture plays a vital role in the livelihood of farmers. Hybrid paddy varieties have gained importance due to their higher productivity, disease resistance, and better adaptability compared to traditional varieties. However, the success of these varieties largely depends on effective brand promotion strategies adopted by seed companies and marketers. The study aims to analyse farmers' awareness, preferences, purchasing behaviour, and satisfaction level regarding different hybrid paddy brands available in the market. It also examines the promotional tools such as demonstrations, farmer meetings, dealer influence, advertisements, field visits, and word-of-mouth communication used to create brand awareness and loyalty among farmers. Primary data can be collected from selected farmers, dealers, and distributors in Rewa district through structured questionnaires and personal interviews. The findings of the study are expected to identify the most effective promotional methods, factors influencing farmers' buying decisions, and challenges faced in promoting hybrid paddy brands. The research will help seed companies, marketers, and policymakers in designing suitable marketing strategies to improve adoption and market penetration of hybrid paddy in the region, thereby contributing to agricultural growth and farmers' income enhancement.

Keywords: Hybrid Paddy, Brand Promotion, Marketing Strategy, Farmer Awareness, Buying Behaviour, Seed Industry, Rewa District, Madhya Pradesh, Agricultural Marketing

INTRODUCTION

Paddy (rice) is one of the most important cereal crops in the world, serving as a staple food for more than half of the global population. Grown mainly in tropical and subtropical regions, it thrives in conditions with sufficient water and suitable climate. Beyond being a primary source of carbohydrates, rice also provides essential nutrients like proteins, vitamins, and

minerals, making it vital for food security, especially in developing countries. In recent years, hybrid paddy varieties have gained prominence due to their higher yield potential, better grain quality, and improved resistance to pests and diseases. These varieties are developed using advanced breeding techniques and are designed to perform well under diverse environmental conditions. In India, paddy is a major Kharif crop, and the adoption of hybrid seeds has

significantly improved productivity and farmers' income. Traits such as early maturity, stress tolerance, and high yield make hybrids an important component of modern agriculture.

Madhya Pradesh, with its diverse agro-climatic conditions, plays a key role in India's agricultural production. Districts like Rewa are particularly suitable for paddy cultivation due to favourable rainfall, fertile soils, and appropriate temperature conditions. Agriculture is the main livelihood in this region, and farmers prefer paddy because of its stable demand and importance as a staple food. Seed companies have actively promoted hybrid paddy seeds through demonstrations, farmer interactions, and dealer networks to increase awareness and adoption. The seed industry in India has undergone significant transformation over the past few decades. Government initiatives such as the National Seed Projects and the New Seed Development Policy of 1988 helped build a strong foundation for the organized seed sector. These reforms encouraged private sector participation, increased investment in research and development, and provided farmers with access to high-quality seeds. Today, the seed industry is more market-driven and farmer-centric, offering a wide range of improved seed varieties. The concept of a "Second Green Revolution" or "Evergreen Revolution" emphasizes sustainable productivity and improved livelihoods for rural populations. High-quality seeds, especially hybrids, remain the most critical input for increasing agricultural productivity. Strengthening the seed sector, along with better management practices, was essential to achieving long-term food security and economic growth in India.

Company Profile

Bayer is a global life science company with over 150 years of experience, focusing on agriculture and healthcare. Guided by its mission "Science for a Better Life" and vision "Health for all, hunger for none," Bayer develops innovative solutions to improve health and food security. In India, it operates across Crop Science, Pharmaceuticals, and Consumer Health, employing over 13,000 people. Its Crop Science division leads with products in seeds, crop protection, biological solutions, and digital farming. Bayer also offers pest control and environmental solutions, helping farmers enhance productivity while promoting sustainable agriculture and efficient resource use.

Product profile

Arize 6444 Gold is a variety of hybrid rice developed by Bayer Crop Science. It is designed to provide high yield potential, superior grain quality, and strong disease resistance. The variety is well-adapted to a range of growing conditions and can be cultivated in various regions around the world. The Arize 6444 Gold variant is specifically known for its exceptional grain quality, including its appearance, taste, and cooking characteristics. It is a popular choice among farmers who are looking to maximize their yields and achieve better economic returns.

1. India's highest selling hybrid rice
2. Resistant to Bacterial Leaf Blight (BLB)
3. Consistently yielding 25-30% higher than popular inbred varieties
4. Medium duration (135-140 days)
5. High productive tillers (12-15)
6. Wider adaptability
7. More than 70% milling
8. Suitable for Direct Seeded Rice (DSR) system

RESEARCH METHODOLOGY

Sampling Design

1. First Stage: - Selection of District (Purposively Sampling)
2. Second Stage: - Selection of Block (Purposively Sampling)
3. Third Stage: - Selection of Villages (Randomly Sampling)
4. Fourth Stage: - Selection of Respondents (Randomly Sampling)
5. Fifth Stage:-Selection of Market functionaries (Randomly Sampling)

Selection of District

There are 55 District and 10 division in Madhya Pradesh state. Out of these Rewa district of Madhya Pradesh was selected purposively for the present study on the basis of maximum area under paddy cultivation. The total area of Rewa District is 6314 sq. km as per land record of 2021-2022. The major part of the district has fertile agricultural land suitable for paddy cultivation.

Selection of Block

List of all the (developed block) community development block of Rewa district along with the total area under Paddy was procured from the current official record available in the district. block was selected purposively based on highest area under paddy cultivation.

Selection of Village (Random Sampling)

List of village was procured and such villages was sorted out which have Maximize paddy farm and 5% village was selected randomly for the present study.

Selection of Respondents (Random Sampling)

A village-wise list of all the farmers having paddy farms in the sample village was prepared along with the size of their operational holding from the selected sample. 10% of the respondents with paddy were randomly selected further; these

farmers were satisfied based on their holding size as

1	Marginal farmers	Up to 1 ha
2	Small farmers	1–2 ha
3	Semi-medium farmers	2–4 ha
4	Medium farmers	4–10 ha
5	Large farmers	Above 10 ha

Selection of Market

Primary and secondary markets was selected randomly for data collection.

Analytical Tools and techniques: -

1. Standard Deviation
2. Likert Scale
3. Weighted Average Score
4. Garrett Ranking

Surveys and Questionnaires

These structured sets of questions are used to directly collect data from consumers regarding their buying behaviour.

Interviews: This qualitative research method is employed to gather in-depth information about consumers' buying behaviour. Interviews can be conducted face-to-face, over the telephone, or through online communication.

Observational Research: This involves observing consumers' buying behaviour in natural settings, such as retail stores, to gain insights into their decision-making processes.

Data Analytics: This entails analysing large volumes of data from various sources, including social media, website analytics, and customer databases, to identify patterns and trends in consumer behaviour.

Percent: Percent is a common method of expressing a proportion or fraction in relation to 100. It is denoted by the symbol "%". The percent formula is used to calculate the percentage value of a number or ratio in relation to 100.

The general formula for finding the percentage of a number is:

$$\text{Percentage} = (\text{Part} / \text{Whole}) \times 100$$

Where:

- Percentage represents the calculated percentage value.

- Part is the value being compared to the whole.

- Whole is the total value or reference point

Likert Scale: The Likert scale is a standard classification format for studies. The respondents provide their opinion (data) about the quality of a product/service from high to low or better to worse using two, four, five, or seven levels. This tool is majorly used for the analysing consumers buying behaviour.

RESULT & DISCUSSION

This chapter deals with the results and various aspect which came out during the study and are supported with a brief discussion on the findings of the study. The main focus of my study was evaluating the socioeconomic, marketing channels, marketing cost, marketing margin, price pread, marketing efficiency and constraints toward the hybrid paddy in the study area which could be helpful for the readers. The study was commenced strictly on the basis of the objectives chosen for the study. The data was collected, classified, analysed, interpreted, presented and discussed systematically

To study the socio-economic profile of the respondents in the study area.

Farm size

Distribution of farmer according to farm size

S. N o.	Categories (Respondents)	Respondent number	%
1	Marginal (<1 ha)	56	37.33%
2	Small (1–2 ha)	37	24.66%
3	Semi-medium (2–4 ha)	29	19.33%

4	Medium (4–10 ha)	18	12%
5	Large (>10 ha)	10	6.66%
Total		150	100%

Categorizes 150 agricultural respondents by land size, revealing a diverse farming community. Marginal farmers, with less than 1 hectare of land, form the largest group at 37.33% (56 respondents), indicating a significant number of small-scale farmers in the study area. Small farmers, holding between 1 and 2 hectares, make up 24.66% (37 respondents), suggesting a gradual shift towards semi-commercial farming. Semi-medium farmers, with 2 to 4 hectares, account for 19.33% (29 respondents), representing a group moving towards better productivity and adoption of improved agricultural practices. Medium farmers, possessing 4 to 10 hectares, represent 12% (18 respondents), indicating more stable and commercially oriented farming operations. Finally, large farmers, with over 10 hectares, comprise the smallest group at 6.66% (10 respondents), reflecting those with higher capacity and resources. The distribution across these categories underscores the variation in farm sizes and the potential challenges and opportunities for targeted brand promotion of hybrid paddy.

To determine the positioning of Arize 6444 Gold in comparison to other hybrid paddy varieties.

Comparative Perception of Hybrid Paddy Varieties in Rewa District

S. No.	Brand/Variety	Yield Performance	Grain Quality	Price Affordability	Availability	Overall Score	Rank
1	Arize 6444 Gold	4.35	4.28	3.90	4.10	4.16	I
2	Pioneer 27P37	4.10	4.05	3.85	3.95	3.98	II
3	KPH-468	3.95	3.90	4.05	3.80	3.92	III
4	US 312	3.80	3.75	4.10	3.70	3.84	IV

The table presents a comparative perception analysis of major hybrid paddy varieties based on key attributes such as yield performance, grain quality, price affordability, and availability. Among all the varieties, Arize 6444 Gold secured the highest overall score (4.16) and ranked first, indicating a strong market position.

The superior ranking of Arize 6444 Gold is primarily driven by its high yield performance (Mean = 4.35) and excellent grain quality (Mean = 4.28), which are the most critical factors influencing farmers' preferences. These attributes clearly differentiate it from competing varieties such as Pioneer 27P37 and KPH-468, which scored comparatively lower in both yield and quality dimensions.

Although the price affordability of Arize 6444 Gold (Mean = 3.90) is slightly lower than some competitors like US 312, farmers still prefer it due to its higher productivity and better returns. Availability (Mean = 4.10) also contributes positively to its positioning, reflecting an efficient distribution network in the study area.

To formulate a proper promotional strategy for enhancing the acceptability of Arize 6444 Gold.

Effectiveness of Brand Promotion Strategies (Garrett's Ranking)

S. No.	Promotion Strategy	Garrett's Mean Score	Rank
1.	Dealer / Input Retailer Network	72.4	I
2.	Field Demonstration / Demo Plots	68.9	II
3.	Farmer Meetings /Group Discussions	64.2	III
4.	Fellow Farmer Recommendation	59.7	IV
5.	Television / Radio Advertisement	52.3	V
6.	Print Media / Pamphlets	47.8	VI
7.	Agricultural Exhibitions / Melas	43.1	VII

presents the effectiveness of various brand promotion strategies as ranked by respondents using Garrett's Ranking technique. The Dealer / Input Retailer Network emerged as the most effective promotional channel with the highest Garrett's mean score of 72.4 (Rank I), confirming that agricultural input dealers are the primary gatekeepers of brand information for farmers in the Raipur Karchuliyan block.

Field Demonstration / Demo Plots ranked second (Score = 68.9), reinforcing the importance of experiential learning and on-farm observation in building farmer confidence in Arize 6444 Gold.

Farmer Meetings / Group Discussions ranked third (64.2), demonstrating that

direct interaction and community-based promotion remain highly effective in rural contexts.

To find out marketing constraints and suggest suitable measures in the marketing of Hybrid paddy

Garrett Ranking Analysis of Marketing Constraints

	Marketing Constraints	Total Garrett Score	Mean Score	Rank
1	High Cost of Hybrid Seeds	10425	69.50	I
2	Non-availability of Seeds at Right Time	10080	67.20	II
3	Lack of Technical Knowledge / Guidance	9630	64.20	III
4	Risk of Crop Failure	9180	61.20	IV
5	Inadequate Dealer Support	8820	58.80	V
6	Lack of Awareness about New Varieties	8460	56.40	VI
7	Limited Government Support / Subsidy	7950	53.00	VII

The Garrett ranking analysis shows that High Cost of Hybrid Seeds is the most severe constraint (Mean Score = 69.50, Rank I), indicating that farmers perceive hybrid seeds like Arize 6444 Gold as expensive, which limits adoption among small and marginal farmers. The second major constraint is Non-availability of seeds at the right time (67.20), highlighting supply chain inefficiencies during the peak sowing season. Lack of technical Knowledge (64.20) ranks third, suggesting that farmers face difficulty in proper crop management practices such as spacing,

fertilizer application, and pest control. Other constraints such as risk of crop failure (61.20) and inadequate dealer support (58.80) also influence adoption decisions. Lower-ranked constraints include lack of awareness and limited government support, though they still play a role in overall marketing challenges.

CONCLUSION

The present study on the brand promotion strategy of hybrid paddy, with special reference to Arize 6444 Gold in Rewa district of Madhya Pradesh, reveals that hybrid rice seeds have gained significant acceptance among farmers due to their higher productivity, adaptability, and economic benefits. Arize 6444 Gold, a leading hybrid rice seed developed by Bayer, has established a strong market presence owing to its superior yield potential, disease resistance, and consistent performance under diverse agro-climatic conditions. The findings indicate that farmers in the study area are increasingly inclined towards hybrid seeds primarily because of their ability to provide 20–25 percent higher yield compared to traditional varieties, along with tolerance to major diseases like Bacterial Leaf Blight (BLB). The product's suitability for both transplanted and direct-seeded rice (DSR) systems further enhances its adoption among farmers. Effective brand promotion strategies such as field demonstrations, farmer meetings, dealer networks, and word-of-mouth communication have played a crucial role in influencing farmers' purchasing decisions. Moreover, the role of input dealers, progressive farmers, and agricultural extension services has been found to be significant in creating awareness and trust toward the brand. Promotional activities emphasizing yield advantage, crop reliability, and economic

returns have strengthened the positioning of Arize 6444 Gold as a premium hybrid paddy seed in the region. However, the study also highlights certain challenges, including high seed cost, limited awareness among small and marginal farmers, and dependency on timely availability of inputs. Addressing these constraints through targeted promotional campaigns, subsidies, and farmer education programs can further enhance market penetration. In conclusion, Arize 6444 Gold has successfully positioned itself as a reliable and high-performing hybrid paddy seed in Rewa district. A well-integrated promotion strategy combining technical support, demonstration-based marketing, and strong distribution networks is essential for sustaining its growth and expanding its adoption among farmers.

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