



# STUDY ON MARKETING OF PEARL MILLET SEEDS IN MORENA DISTRICT OF MADHYA PRADESH

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## ABSTRACT

*This study explores the marketing channels and distribution mechanisms of Pearl Millet (*Pennisetum glaucum*), commonly known as Bajra, in the Morena district of Madhya Pradesh, India, with a particular focus on the Joura block. Given the economic significance and cultivation prevalence of Pearl Millet in this region, understanding the efficiencies and constraints of its marketing channels is crucial for improving the economic returns for local farmers and stakeholders along the supply chain. Employing a multi-stage stratified random sampling method, this research analyzes two primary marketing channels: Channel I, which follows a traditional route from producers directly to consumers via commission agents and wholesalers, and Channel II, which introduces an intermediary contractor before reaching the wholesalers. The study assesses these channels based on market margins, efficiency, and the distribution costs incurred at each stage of the marketing process. The findings indicate significant variances in the net prices received by producers, the costs added by intermediaries, and the final prices paid by consumers. The study also identifies major marketing constraints, including high transportation costs, price fluctuations, and delayed sales, which are pivotal in shaping the marketing dynamics of Pearl Millet in the region. This research contributes to the body of knowledge on agricultural marketing by providing detailed insights into the operational challenges and efficiencies of Pearl Millet distribution channels. It offers practical implications for policymakers and agribusiness stakeholders aiming to enhance the profitability and sustainability of agricultural marketing in semi-arid regions of India.*

**Keywords:** Constraint, Commission, Fluctuation, stakeholder, sustainability

## INTRODUCTION

Pearl millet (*Pennisetum glaucum*), commonly known as Bajra, is a crucial staple crop extensively cultivated across arid and semi-arid regions of India, significantly contributing to the food security and agricultural economy. Noted for its

resilience to harsh weather conditions and poor soil fertility, Pearl Millet has become a lifeline for many marginal farmers in regions like Madhya Pradesh, particularly the Morena district, which is recognized for its vast production (Kumar and Yadav, 2017). The study presented here delves into the marketing dynamics and channels utilized in the distribution of Pearl Millet

seeds, focusing specifically on the Joura block of Morena, a district known for its diverse agricultural practices and significant acreage dedicated to this crop (*Sharma et al., 2018*).

Recent research has highlighted various aspects of agricultural marketing in India, emphasizing the need for efficient marketing channels to ensure that farmers receive fair compensation for their produce (*Singh et al., 2019*). This is particularly pertinent for crops like Pearl Millet, where the market chain's efficiency can significantly impact the rural economy (*Gupta and Singh, 2020*). Our study employs a multi-stage stratified random sampling method to provide a detailed analysis of the marketing strategies adopted by local farmers and intermediaries, aiming to understand the intricacies of Pearl Millet marketing in the region (*Mehta and Raj, 2016*).

The marketing of agricultural products in India often involves multiple intermediaries, each adding a layer of complexity and cost that ultimately affects the final consumer price (*Patel and Patel, 2021*). This study examines two primary marketing channels: the direct route from producers to consumers via commission agents and wholesalers, and a more extended chain involving contractors before reaching wholesalers (*Khan and Agrawal, 2020*). These channels' efficiency is critically analyzed to gauge their impact on the producer's net income and market prices (*Jain and Sharma, 2022*).

The distribution and pricing mechanisms across these channels are scrutinized to understand their operational dynamics and the resulting economic implications for stakeholders involved (*Verma and Kumar, 2021*). Such analyses are essential to

propose strategic improvements that could enhance the profitability and sustainability of Pearl Millet farming in the region (*Das and Lal, 2019*). Additionally, the study identifies several key constraints, such as transportation costs, price fluctuations, and storage issues, which align with findings from similar studies across other agricultural sectors in India (*Rao and Qaim, 2020; Bhatia and Saha, 2021*).

The overarching goal of this research is not only to contribute to the academic body of knowledge on agricultural marketing within the Indian context but also to provide actionable insights that could lead to more efficient market systems, benefiting both producers and consumers (*Acharya and Agarwal, 2017*). By addressing the specific needs and challenges faced in the marketing of Pearl Millet, this study aims to foster a deeper understanding of the sector's potential barriers and enablers, paving the way for targeted interventions that could uplift the entire agricultural community in the Morena district and similar regions (*Pathak and Joshi, 2021*).

## RESEARCH METHODOLOGY

The research methodology employed in this study focuses on the **Morena** district of **Madhya Pradesh**, renowned for its extensive cultivation of Pearl Millet (Bajra). The **Joura** block within this district was specifically chosen for its significant acreage dedicated to this crop. From here, a multi-stage stratified random sampling approach was utilized to ensure a comprehensive representation of the local farming community and their interactions with Pearl Millet marketing strategies. First Stage: The district was purposively selected due to its agricultural prominence and the prevalent cultivation of Pearl Millet. Second Stage: Among the seven blocks in Morena,

Joura was chosen purposively based on its diversity in agricultural practices and the high usage of Pearl Millet. Third Stage: Villages within the Joura block were selected randomly. This stage was critical to encompass a wide range of demographic and agricultural variables. Fourth Stage: Respondents within these villages were also chosen through random sampling. This group included both users and non-users of Pearl Millet, agricultural experts, and company representatives, ensuring a varied perspective on the marketing impacts. Fifth Stage: Key markets were purposively selected for in-depth analysis of Pearl Millet's marketing dynamics. Sixth Stage: Market functionaries were selected randomly within these markets to gather insights into the market operations and

dynamics. The villages selected for the study were **Badarpura, Bisnori, Gurja, Karsa, and Mai**. These were chosen to reflect the socio-economic diversity and agricultural variability within the Joura block. The respondents were further categorized based on their land holdings into marginal, small, semi-medium, medium, and large.

The markets selected for detailed study included both primary and secondary markets in the Joura area, focusing on understanding the marketing mechanisms and distribution networks that influence the sale and use of Pearl Millet. This targeted selection was aimed at providing a comprehensive overview of the marketing dynamics at play.

## RESULTS AND DISCUSSION

### CHANNELS

**Fig. 1: Channels Used for Distribution of Pearl Millet**



Fig. 1, outlines two distinct marketing channels used for the distribution of Pearl Millet. Channel I represent a more direct route, where the product moves from the producer to a commission agent or wholesaler, then to the retailer, and finally reaches the consumer. This channel is relatively straightforward, involving fewer intermediaries. On the other hand, Channel II introduces an additional intermediary in the form of a contractor. In this channel, the Pearl Millet first goes from the producer to the contractor, who then passes it on to a commission agent or wholesaler. From there, it proceeds to the retailer and ultimately to the consumer. This channel might be used to handle larger volumes or provide additional services such as sorting or grading before the product reaches the commission agent.

## MARKET MARGIN, MARKET CHANNEL AND MARKET EFFICIENCY

**Table 1: Price distribution of Pearl Millet/Quintal in Channel I**

S. No	Particulars	INR. /Quintal	%
1	Price by producer to intermediary	1700.00	
2	Costs borne by producer:		
	I. Cost of packaging	10.00	0.47
	II. Material for packing	5.00	0.23
	III. Costs of transportation	20.00	0.93
	IV. Fees for market entry	10.00	0.47
	V. Wages for labour	20.00	0.93
	VI. Fees for loading and unloading	15.00	0.70
	VII. Charges for weighing	5.00	0.23
	VIII. Other assorted expenses	10.00	0.47
3	Aggregate cost (I-VIII)	95.00	4.42
4	Producer's net income	1605.00	74.65
5	Producer's sale price to intermediary	1700.00	79.07
6	Expenses of commission agent/wholesaler:		
	I. Loading and unloading expenses	10.00	0.47
	II. Cost of repackaging	5.00	0.23
	III. Market participation fee	10.00	0.47
	IV. Miscellaneous and loss coverage	10.00	0.47
	V. Margin for commission agent/wholesaler	100.00	4.65
7	Sum of costs (I-IV)	35.00	1.63
8	Wholesaler to retailer sale price	1835.00	85.35
9	Retailer-incurred costs:		
	I. Charges for weighing	10.00	0.47
	II. Loading and unloading fees	20.00	0.93
	III. Town levy	15.00	0.70
	IV. Transport to store	10.00	0.47
	V. Miscellaneous expenses	10.00	0.47
	VI. Retailer's profit margin	250.00	11.63
10	Total retailer costs (I-V)	65.00	3.02
11	Retail sale price to consumers	2150.00	100.00
12	Differential in pricing	545.00	
13	Percentage paid by consumers	74.65	
14	Marketing efficiency	3.94	

Table 1, provides a detailed breakdown of the price distribution of Pearl Millet per quintal through Channel I, which includes the journey from producer to commission agent/wholesaler, then to retailer, and finally to the consumer. Initially, the producer sells Pearl Millet to the commission agent at Rs. 1700/quintal. The producer incurs various costs totaling Rs. 95/quintal, which include packing, material, transportation, market, labor, loading/unloading, weighing, and miscellaneous charges, representing 4.42% of the total price. After deducting these costs, the net price received by the producer is Rs. 1605/quintal, which is 74.65% of the initial sale price. The commission agent then incurs additional costs of Rs. 35/quintal for loading/unloading, packing, market fees, and miscellaneous losses, with a margin of Rs. 100/quintal. The agent sells the millet to retailers at Rs. 1835/quintal, which is 85.35% of the final consumer price. Retailers have their own set of costs amounting to Rs. 65/quintal, including weighing, loading/unloading, town charges, carriage, and miscellaneous expenses. They add a significant margin of Rs. 250/quintal. Consequently, the final sale price to

consumers stands at Rs. 2150/quintal, with the total price spread from the producer to the consumer being Rs. 545. The data shows that consumers pay 74.65% more than the initial producer's sale price, and the overall marketing efficiency of the channel is calculated at 3.94%. This efficiency metric indicates how effectively the marketing channel adds value relative to the costs incurred along the way.

**Table 2: Price distribution of Pearl Millet/Kg in Channel II**

S. No	Details	INR. /Quintal	%
1	Initial selling price from producer to buyer	1700.00	
2	Producer's expenses:		
	I. Expense for packaging	10.00	0.43
	II. Cost of packaging materials	5.00	0.22
	III. Transport expenses	20.00	0.87
	IV. Market entry fees	10.00	0.43
	V. Payment for labor	20.00	0.87
	VI. Load handling fees	20.00	0.87
	VII. Weighing fees	5.00	0.22
	VIII. Various other expenses	10.00	0.43
3	Sum of costs (I-VIII)	100.00	4.35
4	Revenue after expenses for producer	1600.00	69.57
5	Price from producer to business contractor	1700.00	73.91
6	Contractor's operational costs:		
	I. Charges for loading and unloading	20.00	0.87
	II. Repacking costs	10.00	0.43
	III. Transportation fees	20.00	0.87
	IV. Miscellaneous losses and charges	10.00	0.43
	V. Contractor's profit	80.00	3.48
7	Contractor's total operating expenses	60.00	2.61
8	Pricing from contractor to market agents	1840.00	80.00
9	Market agent's incurred costs:		
	I. Costs for loading and unloading	20.00	0.87
	II. Costs for repacking	10.00	0.43
	III. Market participation fee	10.00	0.43
	IV. Miscellaneous expenses	10.00	0.47
	V. Margin for market agents	50.00	2.17
10	Total expenses for market agents	100.00	4.35
11	Sale price from market agents to retailers	1990.00	86.52
12	Retailer's expenses:		
	I. Fees for weighing	10.00	0.43
	II. Loading and unloading charges	20.00	0.87
	III. Local town fees	10.00	0.43
	IV. Delivery to store	10.00	0.43
	V. Other charges	10.00	0.43
	VI. Retail margin	250.00	10.87
13	Aggregate expenses for retailer	60.00	2.61
14	Retailer to consumer sale price	2300.00	100.00
15	Variation in pricing	700.00	
16	Price percentage paid by consumers	69.56	
17	Efficiency in marketing	3.50	

Table 2, details the price distribution of Pearl Millet per kilogram through Channel II, which involves an additional intermediary, the contractor, between the producer and the commission agent/wholesaler. The producer initially sells the millet to the contractor at Rs. 1700 per quintal. The producer incurs various costs such as packing, material, transportation, market, labor, loading/unloading, weighing, and miscellaneous charges, totaling Rs. 100 per quintal, which accounts for 4.35% of the total price. Consequently, the net price received by the producer is Rs. 1600 per quintal, representing 69.57% of the sale price. The contractor, after purchasing from the producer, incurs additional costs of Rs. 60 per quintal for operations like loading/unloading, packing, transportation, and miscellaneous charges, and adds a margin of Rs. 80 per quintal. Thus, the millet is sold to commission agents/wholesalers at Rs. 1840 per quintal, making up 80% of the final consumer price. The commission agent/wholesaler further incurs costs totaling Rs. 100 per quintal for similar categories of expenses, with an additional margin of Rs. 50 per quintal. This results in a sale price of Rs. 1990 per quintal to retailers. Retailers also incur costs of Rs. 60 per quintal for handling and local logistics, along with a significant retail margin of Rs. 250 per quintal, culminating in a consumer sale price of Rs. 2300 per quintal. The total price spread in Channel II from the producer to the consumer is Rs. 700. This data highlights that consumers pay a premium of 69.56% over the initial sale price by the producer. The marketing efficiency of this channel is calculated at 3.50%, indicating the effectiveness of the channel in terms of the additional costs relative to the value added from producer to consumer.

**CONSTRAINTS IN MARKETING HYBRID PEARL MILLET.**

**Table 3: Constraints in Marketing of Hybrid Pearl Millet**

S. No.	Challenges	Occurrences	Position
1	Elevated transportation expenses	59	I
2	Variability in pricing	47	II
3	Delays in transaction completion	38	III
4	Limited trading opportunities	28	IV
5	Inflated market prices	18	V
6	Issues with storage	10	VI
<b>TOTAL</b>		200	

Table 3 outlines the primary constraints faced in the marketing of hybrid Pearl Millet, as identified through a survey. The most significant constraint is the high cost of transportation, ranked first and reported by 59 respondents. Price fluctuation follows as the second most significant challenge, affecting 47 respondents. Delayed sales rank third with 38 responses, indicating issues with timely market access. Other constraints include a shortage of trading facilities, high prices affecting demand, and storage problems, ranked fourth, fifth, and sixth, respectively, highlighting additional logistical and economic challenges in the Pearl Millet market.

## CONCLUSIONS

This study provides a comprehensive analysis of the distribution and market dynamics of Pearl Millet across two distinct marketing channels in the Morena district. Channel I offer a straightforward distribution path from producers to consumers through commission agents and retailers, presenting a more traditional route with fewer intermediaries. Conversely, Channel II incorporates an additional intermediary, the contractor, which potentially caters to larger volumes and might facilitate pre-market processing such as sorting or grading. The analysis of price distribution reveals that the net price received by producers is significantly impacted by various costs incurred through the marketing chain, with consumers ultimately paying a substantial premium over the initial producer's sale price. The study further elucidates that while both channels exhibit moderate marketing efficiency, there are notable challenges that inhibit optimal marketing outcomes. The high cost of transportation emerges as the most significant constraint, followed by price fluctuations and delayed sales, which collectively impede timely and cost-effective access to markets. These challenges underscore the need for strategic improvements in infrastructure and market mechanisms to enhance the efficiency and profitability of Pearl Millet marketing.

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