Study on Marketing of Jowar (Sorghum) in Bareilly District of Uttar Pradesh

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Abstract— *This research paper examines the marketing channels for Jowar (Sorghum) in Bareilly District, Uttar Pradesh, focusing on the cost, margin, efficiency, and price spread associated with each channel. The study identifies three primary marketing pathways: direct producer-to-consumer sales (Channel I), sales through village merchants or retailers (Channel II), and sales involving commission agents and wholesalers (Channel III). The research utilizes a systematic multi-stage stratified random sampling technique, collecting primary data through personal interviews and secondary data from relevant sources. The results reveal that Channel I, the direct marketing route, is the most efficient with the lowest marketing costs and a high efficiency of 48.81. Channels II and III, incorporating intermediaries, exhibit significantly lower efficiencies (5.87 and 5.15 respectively) and higher price spreads, indicating greater economic burdens for producers and consumers. These findings highlight the detrimental impact of intermediaries on market dynamics. The study advocates for reducing intermediary involvement to enhance marketing efficiency, improve producer profitability, and ensure fair pricing for consumers. This strategy promises to empower local farmers and promote sustainable agricultural practices.*

Keywords— *Marketing channels, Jowar (Sorghum), Efficiency, Price spread, Producer profitability*

I. INTRODUCTION

The marketing of agricultural products is crucial for the economic empowerment of farmers and the overall development of rural areas. In India, Jowar (Sorghum) is a significant crop, particularly in regions like Uttar Pradesh, where it contributes to both food security and income generation. This research focuses on the marketing channels for Jowar in Bareilly District, a key hub for Jowar production and marketing. Effective marketing strategies can significantly impact the profitability and sustainability of agricultural practices, as highlighted by *Pingali and Traxler (2002) and Acharya and Agarwal (2011).*

The study aims to analyze the cost, margin, efficiency, and price spread across different marketing channels, employing a multi-stage stratified random sampling technique to ensure comprehensive data collection. Previous studies have emphasized the importance of efficient marketing systems for improving farmer incomes and reducing post-harvest losses *(Joshi et al., 2004; Singh and Joshi, 2009).* In this context, the role of intermediaries in agricultural marketing has been a critical area of investigation, with findings indicating that excessive intermediary involvement often leads to inflated consumer prices and reduced producer profits *(Gandhi et al., 2001; Murthy et al., 2007).*

The research builds on these insights by providing a detailed examination of the marketing channels in Bareilly District. By understanding the dynamics and efficiency of each channel, this study aims to identify strategies that can enhance market access, reduce costs, and increase profitability for Jowar producers. The findings have significant implications for policy-making and the design of agricultural marketing interventions, contributing to the broader goal of sustainable agricultural development in India *(Chand and Kumar, 2004; Birthal et al., 2005).*

II.   METHODOLOGY

The research methodology employed for this study involves a systematic multi-stage stratified random sampling technique to thoroughly investigate the marketing mechanisms of Jowar in Bareilly District, Uttar Pradesh. The first stage involved the purposeful selection of Bareilly district due to its significant role as a key hub for Jowar production and marketing. Bareilly's extensive engagement in Jowar cultivation aligns perfectly with the study's objectives to explore the economic advantages and empowerment derived from Jowar-related activities. In the second stage, Shergarh block, which comprises 121 villages, was specifically chosen for its highest concentration of Jowar cultivation and marketing groups. For the third stage, a list of villages in the selected block was obtained, and 5% were randomly selected, resulting in six villages: Bhaunta, Jagat, Nagla, Rohali, Bisalpur, and Lakha. In the fourth stage, 10% of respondents from each village were randomly selected based on their land holdings, totalling 100 respondents.

To gain an in-depth perspective on the Jowar market's structure, market functionaries including retailers like Sakar Daily Need Mart and Raashan Express, and wholesalers such as Rama Pansari and Deva Foods, were selected. Data collection comprised both primary and secondary methods. Primary data was gathered through personal interviews with respondents using a well-structured, pre-tested schedule, while secondary data supplemented the study and was sourced from block and district offices, relevant organizations, and the internet. This comprehensive methodological approach ensures detailed investigation into the economic impacts and empowerment associated with Jowar marketing, cultivation techniques, market accessibility, and profitability among local farmers.

III.   RESULT

Channels of Marketing for Sorgum

Table 1 Different marketing channels involved in the marketing of Jowar

Channel I	**Producer > Consumers**
Channel II	**Producer > Village Merchant/Retailer > Consumers**
Channel III	**Producer > Commission Agent > Wholesaler > Consumers**

Marketing cost, marketing margin, marketing efficiency and price spread in the marketing of Jowar

Table 2 Price Distribution of Jowar in Channel I

S.No.	Particulars	Value in INR/quintal
1.	Producer Sale Price	2,500
	Cost Incurred by Producer:	
i.	Packaging Cost	5
ii.	Packing material cost	7.5
iii.	Transportation Cost	20
iv.	Market cost	8
v.	Labour cost	5
vi.	Loading and unloading charges	10
vii.	Weighing charges	5
viii.	Miscellaneous charges	3
ix	Producer additional profit	436.5
	Total Marketing Cost (i-vi)	63.5
2.	Sale Price to Consumers	3000
A.	**Total Marketing Cost**	500
B.	**Total Market Margin**	-
C.	**Marketing Efficiency**	48.81
D.	**Price Spread**	500

Table 3 Price Distribution of Jowar in Channel II

S.No.	Particulars	Value in INR/quintal
1.	Producer Sale Price	2,500
2	**Cost Incurred by Producer:**	
i.	Packaging Cost	5
ii.	Packing material cost	7.5
iii.	Transportation Cost	20
iv.	Market cost	8
v.	Labour cost	5
vi.	Loading and unloading charges	10
vii.	Weighing charges	5
viii.	Miscellaneous charges	3
	Total Cost	**63.5**
3	Net price received by producer	2466.5
4	Sale price of producer to Merchant/Retailer	3100

5	Cost incurred by the Village Merchant/Retailer	
	Loading and unloading charges	10
	Packing cost	5
	Market fee	8
	Losses & Miscellaneous charges	5
	Total Cost	60
	Margin of Retailer	500
2.	Sale Price to Consumers	3660
A.	**Total Marketing Cost**	123.5
B.	**Total Market Margin**	500
C.	**Marketing Efficiency**	5.87
D.	**Price Spread**	1160

Table 4 Price Distribution of Jowar in Channel III

S.No.	Particulars	Value in INR/quintal
1.	Producer Sale Price	2,500
2	**Cost Incurred by Producer:**	
i.	Packaging Cost	5
ii.	Packing material cost	7.5
iii.	Transportation Cost	20
iv.	Market cost	8
v.	Labour cost	5
vi.	Loading and unloading charges	10
vii.	Weighing charges	5
viii.	Miscellaneous charges	3
	Total Cost	**63.5**
3	Net price received by the producer	2466.5
4	Sale price of producer to Commission Agent	3100
5	**Cost incurred by the commission agent**	
	Loading and unloading charges	10
	Packing cost	5
	Market fee	8
	Commission of trader	-
	Losses & Miscellaneous charges	5

	Total cost(i-v)	58
6	Margin of commission agent	280
7	Sale price of commission agent to wholesaler	3438
8	**Cost incurred by wholesaler**	
	Weighing charges	5
	Loading and unloading charges	10
	Town charges	25
	Carriage up to shop	15
	Miscellaneous charges	5
	Total cost	60
9	Wholesalers Margin	270
10.	Sale Price to Consumers	3,768
A.	**Total Marketing Cost**	181.5
B.	**Total Market Margin**	550
C.	**Marketing Efficiency**	5.15
D.	**Price Spread**	1268

IV.   DISCUSSION

The research on marketing channels for Jowar reveals three primary pathways: Channel I (Producer > Consumers), Channel II (Producer > Village Merchant/Retailer > Consumers), and Channel III (Producer > Commission Agent > Wholesaler > Consumers). Each channel exhibits distinct characteristics in terms of marketing cost, margin, efficiency, and price spread.

In Channel I, the direct sale from producer to consumer involves minimal intermediary costs, resulting in a producer sale price of INR 2,500 and a consumer sale price of INR 3,000. The total marketing cost incurred by the producer is INR 63.5, yielding a marketing efficiency of 48.81 and a price spread of INR 500.

Channel II introduces a village merchant/retailer into the chain. The producer still receives INR 2,500, but after deducting their marketing costs (INR 63.5), the net price is INR 2,466.5. The retailer then incurs additional costs (INR 60) and adds a margin of INR 500, selling the Jowar to consumers at INR 3,660. This channel results in a significantly lower marketing efficiency of 5.87 and a wider price spread of INR 1,160.

Channel III, which involves a commission agent and a wholesaler, shows even more complexity. The producer's initial sale price remains INR 2,500, with a net price of INR 2,466.5 after costs. The commission agent incurs costs (INR 58) and earns a margin of INR 280, selling to the wholesaler

at INR 3,438. The wholesaler adds further costs (INR 60) and a margin of INR 270, leading to a final consumer price of INR 3,768. This channel has the lowest marketing efficiency at 5.15 and the highest price spread of INR 1,268.

These findings indicate that the direct marketing channel (Channel I) is the most efficient, with the lowest costs and highest efficiency, benefiting both producers and consumers. Conversely, the involvement of multiple intermediaries in Channels II and III significantly increases the price spread and reduces marketing efficiency, highlighting the impact of intermediary costs and margins on the overall market dynamics of Jowar.

V.   CONCLUSION

The research on Jowar marketing channels in Bareilly District highlights significant disparities in marketing efficiency, cost, and price spread across different channels. Channel I, involving direct sales from producers to consumers, emerges as the most efficient with minimal costs and a high marketing efficiency of 48.81. Conversely, Channels II and III, which include intermediaries such as village merchants, retailers, commission agents, and wholesalers, demonstrate substantially lower efficiencies (5.87 and 5.15 respectively) and broader price spreads. These findings underscore the economic burden imposed by intermediary involvement, which inflates consumer prices and reduces producer profits. The study advocates for strategies that minimize intermediaries to enhance marketing efficiency, ensuring better returns for producers and fair prices for consumers. This approach could significantly empower local farmers, improve market accessibility, and foster sustainable agricultural practices in the region.

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