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AN ECONOMIC ANALYSIS MARKETING OF JAGGERY IN BAREILLY DISTRICT OF UTTAR PRADESH

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ABSTRACT

Jaggery, a traditional sweetener made from sugarcane juice, is primarily produced in rural areas using conventional methods that involve heating the juice in wide, shallow pans. It has long held cultural, nutritional, and medicinal importance, making it a staple in Indian households for both cooking and religious rituals. However, over time, its popularity has declined due to the growing preference for refined sugar, limited advancements in processing technology, and challenges within the marketing framework. This study, titled "An Economic Analysis of Marketing of Jaggery in Bareilly District of Uttar Pradesh", aimed to analyze the structure, costs, profit margins, and efficiency of jaggery marketing in the region. The research was carried out in the Bhojipura block, chosen for its strong potential in sugarcane cultivation. A sample was drawn by selecting 5% of the villages growing sugarcane, from which 10% of farmers were randomly surveyed. Three marketing channels were examined. In Channel I, the marketing cost and price spread were both ₹652, with a marketing efficiency of 5.72%. Channel II involved a marketing cost of ₹948.16, a margin of ₹227.20, a price spread of ₹1175.36, and an efficiency of 3.29%. In Channel III, the marketing cost stood at ₹1172.70, the margin was ₹402, the price spread reached ₹1574.70, and the efficiency was the lowest at 2.46%. The results indicated that Channel I was the most cost-effective and efficient. The study underscores the importance of improving marketing infrastructure, promoting value addition, and establishing direct market access for farmers to boost the economic viability of jaggery marketing.

Keywords: Jaggery, Marketing Efficiency, Price Spread, Sugarcane.

INTRODUCTION

Jaggery, commonly referred to as "gur," is a traditional, unrefined sweetener that has been widely produced and consumed throughout India, especially in rural and agricultural areas. It is typically made from sugarcane juice using traditional methods, where the juice is boiled in open vessels until it solidifies into block or powder form. Unlike refined sugar, jaggery preserves essential minerals such as iron, calcium, magnesium, and potassium. It holds a valuable place in Indian culture, not only as a culinary ingredient but also in religious practices and traditional healing systems. Its consumption is associated with various health benefits, including aiding digestion, boosting energy, and supporting overall well-being.

Jaggery is often produced in small-scale, cottage-based units run by farming households, requiring significant manual labor and specialized skills. However, despite its nutritional value and cultural relevance, the jaggery industry faces numerous modern-day challenges. These include inconsistent product standards, minimal mechanization, poor packaging, and underdeveloped marketing channels. Moreover, it competes heavily with refined sugar, which enjoys greater promotion and a longer shelf life. These issues have contributed to declining demand and profitability for jaggery producers. Small-scale producers, in particular, struggle with limited market access and low price realization due to a lack of direct consumer connections or integration into organized markets. Given these challenges, there is a pressing need to examine the economic and marketing aspects of jaggery production to find strategies that can enhance efficiency, improve farmer earnings, and ensure the long-term viability of the sector.

RESEARCH METHODOLOGY

The methodology for the present study combined purposive and random sampling techniques. Bareilly district in Uttar Pradesh was selected intentionally to reduce logistical difficulties and save time during data collection. Within the district, Bhojipura block was chosen purposively because of its significant sugarcane cultivation and the greater availability of relevant respondents. A list of all villages in the selected block was compiled, and 5% of these villages were randomly chosen, prioritizing those with a dense population of sugarcane farmers. From these villages, a complete enumeration of sugarcane growers was undertaken and categorized into five landholding groups: Marginal (less than 1 hectare), Small (1–2 hectares), Semi-medium (2–4 hectares), Medium (4–10 hectares), and Large (more than 10 hectares). Using proportionate random sampling, a total of 120 farmers were selected across these categories. To assess marketing parameters such as cost, margin, price spread, and efficiency, additional stakeholders were surveyed: 10 wholesalers, 5 retailers, 5 producers, and 5 consumers. Primary data were collected through direct personal interviews using a pre-tested and structured schedule. Secondary information was sourced from relevant literature, including books, academic journals, government publications, and official documents from district and block offices. Appropriate statistical methods were applied to analyze the data, which related to the agricultural year 2024–2025.

Analytical Tools

1. **Cost of Marketing :** $C = Cf + Cm1 + Cm2 + Cm3 + ... + Cmn$
2. **Margin of Market :** $AMI = Pri - (Ppi + Cmi)$
3. **Spread in Price :** Marketing Cost + Market Margin
4. **Efficiency of Marketing :** $= \frac{\text{Price received by producer}}{\text{Marketing Cost + Marketing Margin}}$

RESULTS AND DISCUSSION

Table 1: Uncovers the favoured promoting channel by the respondents.

Sl. No.	Channel Type	No of respondent	Percentage
1	Channel – I	29	24.17
2	Channel -II	33	27.50
3	Channel-III	58	48.33
	Total	**120**	**100.00**

Table 1: The study revealed that among the 120 sampled respondents, 29 individuals (24.17%) preferred to buy and sell jaggery through Channel I, while 33 respondents (27.50%) opted for Channel II. The remaining 58 respondents (48.33%) preferred Channel III for the purchase and sale of jaggery in the study area.

Table 2: Marketing cost, Marketing margin, Marketing efficiency and Price spread of Jaggery in Channel-1.

Sl. No.	Particulars	Amount (₹/Quintal)
1	Producer's Sale Price	4383
2	Processing Charges Incurred by Producer	437
3	**Break-up of Marketing Costs**	
a	Packaging	53
b	Transportation	77
c	Loading and Unloading	32
d	Market Fee	12
e	Commission Charges	17
f	Storage Cost	7
g	Miscellaneous Expenses	17
	Total Marketing Cost (a to g)	**215**
4	**Net Price Realized by Producer**	**3731**
A	**Overall Marketing Cost (Including All)**	**652**
B	**Price Spread**	**652**
C	**Marketing Efficiency (%)**	**5.72**

Table 2: The findings indicated that in Channel I, the producer sold jaggery at ₹4,383 per quintal. The processing cost was ₹437, and the marketing expenses directly borne by the producer amounted to ₹215. After deducting these costs, the net return to the producer stood at ₹3,731 per quintal. The overall marketing cost for this channel was ₹652, which equaled the price spread. The calculated marketing efficiency for Channel I was 5.72%, suggesting it was a relatively cost-effective marketing route.

Table 3: Marketing cost, Marketing margin, Marketing efficiency and Price spread of Jaggery in Channel-2.

Sl. No.	Description	Amount (₹/Quintal)
1	Selling Price by Producer to Wholesaler	4,145
	Processing Charges Paid by Producer	437
2	**Producer's Marketing Expenses**	
a	Packaging	58.08
b	Weighing	16.37
c	Loading and Unloading	46.83
d	Market Fee	29.00
e	Commission Charges	96.42
f	Storage	7.00
g	Miscellaneous Costs	16.00
	Total Producer's Marketing Cost	**269.70**
3	**Net Earnings of Producer**	**3,875.30**
4	Wholesaler's Selling Price to Final Buyer	4,613.66
5	**Wholesaler's Marketing Expenses**	
a	Packaging	56.00
b	Weighing	16.00
c	Loading and Unloading	34.00
d	Transportation	68.00
e	Market Fee	27.46
f	Storage	22.00
g	Miscellaneous Costs	18.00
	Total Wholesaler's Marketing Cost	**241.46**
6	**Wholesaler's Profit Margin**	**227.20**
A	**Total Marketing Cost (Producer + Wholesaler)**	**948.16**
B	**Combined Marketing Margin**	**227.20**
C	**Price Spread (Consumer Price - Net Producer Price)**	**1,175.36**
D	**Marketing Efficiency (%)**	**3.29**

Table 3: In Channel II, jaggery was sold by the producer at a rate of ₹4,145 per quintal. The producer incurred ₹437 as a processing fee and an additional ₹269.70 in marketing-related expenses. After deductions, the actual income retained by the producer was ₹3,875.30 per quintal. On the wholesaler's end, the marketing expenditure totaled ₹241.46 per quintal, and the margin earned was ₹227.20. This brought the final consumer price to ₹4,613.66 per quintal. Overall, the combined marketing cost for this channel was ₹948.16, with a price spread of ₹1,175.36. The marketing efficiency was determined to be 3.29%, indicating relatively lower efficiency in this marketing route.

Table 4: Marketing cost, Marketing margin, Marketing efficiency and Price spread of Jaggery in Channel-III.

Sl. No.	Particulars	Amount (₹/Quintal)
1	Producer's Sale Price to Wholesaler	4,145
	Processing Fee by Producer	437
2	**Producer's Marketing Costs:**	
a	Packaging	58.08
b	Weighing	16.37
c	Loading and Unloading	46.83
d	Market Fees	29.00
e	Commission Charges	96.42
f	Storage	7.00
g	Miscellaneous Expenses	16.00
	Total Producer's Marketing Cost	**269.70**
3	**Net Price Received by Producer**	**3,875.30**
4	Wholesaler's Sale Price to Retailer	4,614
5	**Wholesaler's Marketing Costs:**	
a	Packaging	50.00
b	Weighing	14.00
c	Loading and Unloading	32.00
d	Transportation	66.00
e	Market Fee	19.00
f	Storage	23.00
g	Miscellaneous Costs	22.00
	Total Wholesaler's Marketing Cost	**226.00**
6	**Wholesaler's Margin**	**213.00**
7	Retailer's Sale Price to Consumer	5,043
8	**Retailer's Marketing Costs:**	
a	Packaging	54.00
b	Weighing	13.00
c	Loading and Unloading	36.00
d	Transportation	57.00
e	Market Fee	25.00
f	Storage	31.00
g	Miscellaneous Costs	24.00
	Total Retailer's Marketing Cost	**240.00**
	Retailer's Margin	**189.00**
A	**Total Marketing Cost (Producer + Wholesaler + Retailer)**	**1,172.70**
B	**Total Marketing Margin**	**402.00**
C	**Price Spread (Consumer Price – Net Producer Price)**	**1,574.70**
D	**Marketing Efficiency (%)**	**2.46**

Table 4: In Channel III, producers sold jaggery at ₹4,145 per quintal, paying a processing fee of ₹437 and incurring ₹269.70 in marketing expenses. This left the producers with a net income of ₹3,875.30 per quintal. The wholesaler's marketing costs totaled ₹226, and they earned a margin of ₹213, which raised the price to ₹4,614 when selling to the retailer. The retailer then sold the jaggery to the final consumer for ₹5,043 per quintal, after incurring ₹240 in marketing costs and securing a margin of ₹189. Overall, the total marketing cost for this channel reached ₹1,172.70, with a combined marketing margin of ₹402. The price spread across the channel was ₹1,574.70, and the marketing efficiency was found to be 2.46%, indicating this was the least efficient among the examined marketing channels.

CONCLUSION

The study conducted on jaggery marketing in Bareilly district, Uttar Pradesh, provided valuable insights into the structure, cost factors, and efficiency of different marketing channels. It was found that jaggery production largely remained a labor-intensive activity, primarily undertaken by small and marginal farmers using traditional techniques with minimal technological support. Among the three marketing routes examined, Channel I proved to be the most cost-effective and efficient, largely due to fewer intermediaries which helped keep marketing expenses and price spreads low. On the other hand, Channel III had the highest marketing costs and margins but was the least efficient, owing to multiple intermediaries that increased price spreads and reduced the producer's share. The study highlighted how the presence and activities of middlemen significantly impacted the final market price of jaggery and the earnings of producers. Despite jaggery's well-known health benefits and cultural value, its growth potential was hindered by inefficient marketing systems, limited direct market access, and slow adoption of modern processing and packaging methods. The findings emphasized the need for supportive policies to upgrade infrastructure, foster direct producer-consumer marketing connections, and improve access to advanced technologies for better value addition. Furthermore, raising farmers' market awareness and encouraging cooperative marketing arrangements could enhance their negotiation strength and profitability. Ultimately, the research concluded that overcoming these marketing challenges and structural issues was crucial for achieving sustainable development and fair returns within the jaggery industry, benefiting both producers and consumers.

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