



Marketing of sugarcane in Shamli district of Uttar Pradesh

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Abstract

The study on sugarcane marketing in Shamli district of Uttar Pradesh explores the marketing patterns of marginal, small, semi-medium, medium, and large farmers. Medium farmers, with 2 to 5 acres of land, have more freedom to cultivate other crops and maintain a portion of their land under casuarina. They have access to public sector extension services and are able to invest in drip irrigation. Larger-scale farmers, with over 10 acres of property, have more freedom to plant other crops and produce more sugarcane. However, they face challenges such as lack of technical knowledge, marketing-related challenges, pest and disease management, irrigation problems, and information from extension workers about constraints and economic threats.

Keywords: Sugarcane, marketing of sugarcane, constraints in marketing, market margin, market efficiency

Introduction

The Indian economy relies heavily on agriculture, which has historically been the primary vocation in developing economies. However, due to urbanization and industrialization, cultivable land has begun to diminish, leading to a decline in agricultural production and a slowdown in GDP growth. Sugarcane is an important cash crop in India, cultivated over about 5 million ha of land in both sub-tropical and tropical regions. India is only second in terms of sugarcane production globally, with sugarcane grown on 4.73 million ha of land in 2017-18, producing 376.90 million tonnes with a productivity of 79.65 tonnes per hectare. In Andhra Pradesh, sugarcane is one of the most significant cash crops, with West Godavari, Krishna, and Visakhapatnam being the three main sugarcane-growing districts. Jaggery and sugar are two of the largest sugarcane-based industries in Visakhapatnam. The Indian sugar industry is a key driver of village level wealth creation and has tremendous transformational opportunities to meet food, fuel, and power needs and earn carbon credit.

Sugarcane requires a lot of labour, water, and other inputs, so productivity must be maximized in terms of cost per unit of water, labour costs, or environmental costs. Adopting the skip furrow method and drip irrigation system could result in water savings of between 30 and 50% when compared to traditional irrigation systems. Water is a valuable natural resource that should be used wisely and conserved as a matter of importance to satisfy future complicated demands for food and energy security. The largest sugarcane producing state in India is Uttar Pradesh, with an average annual production of 135.64 million tonnes. Shamli district, located at 29.45°N 77.32°E, has achieved a top position in sugarcane production with 990.64 quintals per hectare. The Indian Sugar Mills Association (ISMA) expects a marginal increase in yield and sugar recovery in 2020-21 SS due to good overall standing crop condition and continued replacement of cane variety by high yielding and high sugared cane varieties in more areas.

Sugarcane growers face problems in production due to non-availability of labour, high wage rate, high transportation cost, storage cost, poor quality of fertilizers, non-availability of viable seeds, and loss due to inadequate technical know-how. Farmers also face difficulties in marketing their products, such as high commission rates, which levels farmers with insufficient earnings and leads them to get loans for further cultivation.

Objectives Of The Study

- To evaluate marketing cost, market margin, price spread, producer's share in consumer's rupees and marketing efficiency of sugarcane in various marketing channels.
- To identify the constraints faced by the respondents in marketing of sugarcane.

Research Methodology

The study was done in Shamli district of Uttar Pradesh, India. Sampling design involves a multi-stage stratified random sampling procedure, with the first stage being the selection of district, second stage the selection of block, third stage the selection of village, fourth stage the selection of respondents, and fifth stage the selection of market and market functionaries. Shamli is known for its agriculture and industry-based economy, with sugarcane being the main crop. The district has three major sugar mills located at Shamli, Un, and Thanabhawan.

The study selected five blocks in Shamli district, with Kairana block chosen for the study based on the maximum number of productions of sugarcane/hectare provided by Krishi Vigyaan Kendra (KVK), Shamli. Out of these 5% villages, farmers were randomly selected from various sizes. The selection of marketing was made within 10 km near the village where the highest number of sugarcane-growing farmers were present.

Data collection methods include primary data collected from selected farmers and different market functionaries, using

well-constructed questionnaires and personal interviews. Secondary data was collected from sources like the block office and district office Department of Agriculture Uttar Pradesh, as well as journals.

Analytical tools used in the study include standard deviation, simple percentage analysis, Likert scale, marketing cost, marketing margin, marketing efficiency, Garrett ranking technique, price spread, consumer price, producer's share in consumer's rupee, and the Garrett ranking technique.

Results And Discussion

Channel wise description of each marketing channel observed on the basis of their share in the marketing of Sugarcane

Channel-I



Table 1: Price Spread Of Sugarcane In Channel I

S. No	Particulars	Price/Tonnes
1	Net price received by producer	3450
2	Cost incurred by the producer	
	Transportation cost	150
	Loading and unloading charges	150
	Miscellaneous charges	100
3	Total marketing cost	400
4	Sale price of producer/Purchase price of Sugar mills	3850
	Price spread	400
	Market efficiency by conventional method	9.625
	Producer's share in consumer rupee	89.61

The analysis reveals that the producer receives a net price of 3,450 per tonne after incurring total marketing costs of 400, resulting in a sale price of 3,850 to sugar mills, which highlights the producer's significant share of 89.61% in the consumer rupee and underscores the market's efficiency.

Channel-II



Table 2: Price Spread of Sugarcane in Channel Ii

S. No	Particulars	Price/Tonnes
1	Net price received by producer	3100
2	Cost incurred by the producer	
	Transportation cost	120
	Loading and unloading charges	100
	Miscellaneous charges	50
3	Marketing cost	270
4	Sale price of producer/Purchase price of Commission agent	3370
5	Cost incurred by the Commission agent	
	Loading, Unloading	120
	Spoilage and losses	50
6	Marketing cost	170
	Margin of commission agent	150
7	Sale price of Commission agent/ purchase price of sugar mills	3860
	Cost incurred by the sugar mills	
	Loading and unloading Charges	50
	Carriage charges	80
	Miscellaneous charges	50
	Spoilage and losses	40
	Marketing cost	220
11	Net purchase price of Sugar mills	4080
	Total Marketing cost	830
	Net margin	150
	Price Spread	980
	Market efficiency by conventional method	1.79
	Producer's share in consumer rupee	75.98

The analysis reveals that the price spread in the sugar market is significant, with a net margin of 150 and a producer's share of approximately 75.98% in the consumer rupee, indicating a relatively efficient market structure despite the various costs incurred at each stage of the supply chain.

Channel III



Table 3: Price Spread of Sugarcane in Channel Iii

S. No	Particulars	Price/Tonnes
1	Net price received by producer	3100
2	Cost incurred by the producer	
	Transportation cost	80
	Loading and unloading charges	90
	Miscellaneous charges	50
3	Marketing cost	220
4	Sale price of producer/Purchase price of Commission agent	3320
5	Cost incurred by the Village Dealer	
	Loading & Unloading Charges	80
	Spoilage and losses	60
6	Marketing cost	140
	Margin of Village Dealer	150
7	Sale price of Village Dealer / purchase price of wholesaler	3610
	Cost incurred by the Wholesaler	
	Loading and unloading Charges	90
	Carriage up to mill	80
	Grading and sorting charges	60
	Miscellaneous charges	40
	Spoilage and losses	50
8	Marketing cost	320
9	Margin of wholesaler	120
10	Sale price of wholesaler/ purchase price of sugar mills	4050
	Total Marketing cost	680
	Net margin	270
	Price Spread	950
	Market efficiency by conventional method	1.32
	Producer's share in consumer rupee	76.54

The analysis reveals that the price spread in the sugar market is significant, with a net margin of 150 and a producer's share of approximately 75.98% in the consumer

rupee, indicating a relatively efficient market structure despite the various costs incurred at each stage of the supply chain.

Table 4: Marketing Efficiency of Sugarcane in Different Marketing Channels

Particulars	Units	Channel I	Channel II	Channel III
Consumer purchase price	Per Tonnes	3850	4080	4050
Total marketing price		400	830	680
Total net margin of intermediaries		-	150	270
Net price received market intermediaries		3450	3100	3100
Marketing efficiency by Conventional method		9.625	1.79	1.32

Table 4 reveals about the marketing efficiency of Sugarcane in different marketing channels in which marketing efficiency of channel I by conventional method is 9.625, marketing efficiency of channel II is 1.79 and marketing efficiency of channel III is 1.32. The total marketing price was high in channel II in comparison of other channels. The

maximum net price received by the farmers is high in channel I. The maximum net margin received by market intermediaries is highest in Channel III i.e., 270. This result is similar to Rao (2017) ^[15], Peerzado *et al.* (2016) ^[13] and Sivanappan (2015).

Table 5: Constraints faced by respondents in marketing of Sugarcane

S. No.	Issues	Garrett Score	Garrett Rank
1	Absence of minimum support prices	68.57	V
2	Existence of large number of intermediaries in marketing process	65.12	X
3	High cost of transportation	69.14	IV
4	Inadequate of appropriate credit facilities	67.21	VII
5	Lack of market information	68.51	VI
6	Lack of infrastructure facility	63.54	XII
7	Lack of suitable packaging material	64	XI
8	Heavy losses in the market	70.52	II
9	Long distance from the production point to market	72.14	I
10	Too much fluctuation in prices	69.45	III
11	Commission agents not maintaining the proper records of sale and rate	61.5	XIII
12	Unorganized marketing system	65.4	IX
13	Perishable nature of Red Sugarcane	66.8	VIII

Table 5 details the restrictions preventing the commercialization of Sugarcane, which Long distance from the production point to the market ranks first, followed by significant market losses in second place, excessive price fluctuation in third place, high transportation costs in fourth place, the absence of minimum support prices in fifth place, a lack of market information in sixth place, inadequate credit facilities in seventh place, the perishable nature of Red Sugarcane in eighth place, a disorganised marketing system in ninth place, and the presence of numerous intermediaries in the marketing process in tenth place. This result is similar to Kaur Arjinder and Saran Sukhjeet (2016), Nazir *et al* (2013), Clainos chidoko and ledwin wai (2011)^[5] and Arjinder Kaur & Sukhjeet Saran (2011).

Conclusion

Sugarcane production shows increasing trend; the share of increased area has higher contribution in increased yield. Price of sugarcane production has been abruptly increased after policy intervene. Research in use of by-products of sugarcane could be fruitful to increase the income of the farmers. In addition to this to solve an acute problem of sugarcane bill settlement, warehouse receipt financing could be a fruitful solution. It is concluded that delay in payment is the most significant problem in marketing of sugarcane to sugar factory. Further it is concluded that high wastage of sugarcane is the major problem in marketing of sugarcane to jiggery producers. It is also to conclude that high commission charge is the significant problem in marketing of sugarcane through commission agent and is concluded that no advance money is the most important problem in marketing of sugarcane through regulated market. One of the major constraints faced by farmers in the study area was low prices in the local market. The main reason for this low price in the local market may be the regulations imposed on farmers that do not allow them to sell their product in any other market.

References

1. Anonymous, Ann. Rep. 2014-15. District at a glance, District Statistical Office, Belagavi, 2015, 2-8.
2. Arjinder Kaur, Sukheet K Saran "Status and constraints of sugarcane cultivation in Punjab", Indian Journal of Agricultural Marketing, January, April, 2011:25(1):78-87.
3. Basavaraj K, Kunnal LB. Constraints in production, marketing and processing of soybean. Rural India, 2002:65(4):68-71.
4. Chavan Problems faced by sugar industries in production of sugarcane products, January, April, 2019: 25(1):78-87.
5. Clainos chidoko, Ledwin chimwai. "Economic challenges of sugarcane production in the low yield of Zimbabwe" International journal of economics research, 2011:2(5):1-13.
6. Gomatee Singh, "An empirical study of Economics of Sugarcane Cultivation and Processing based Farming in Uttar Pradesh", Sky journal of agricultural research, January, 2013:2(1):7-19.
7. Gruhn *et al*. An Economic Appraisal of Manufacturing and Marketing of Jaggery in Andhra Pradesh state, India. Sugar Tech, 2018:13(3):236-244.
8. Jaswant Singh. Issues in cane production and marketing in Karnataka, Indian Journal of Agricultural Marketing, 2021:31(2):31-41.
9. MR Subramani. Price factor in sugarcane production, International Journal of Commerce, 2022:7(3):38-43.
10. M Pitchaimuthu, "Sugarcane Marketing and Production in Tamil Nadu." Shanlax International Journal of Commerce, 2019:7(3):38-43.
11. Nazir, Adnan, Jariko, Ghulam Ali, Junejo, Mumtaz Ali "Factors affecting Sugarcane Production in Pakistan", Pakistan Journal of Commerce and Social Sciences, January, 2013:7(1):128-140.
12. Onduru *et al*. Economic profile of Sugarcane producing farmers in Andhra Pradesh, India. Indian Journal of Agricultural Marketing, 2018:31(2):32-42.
13. Peerzado MB, Jalbani AA, Mangan T, Joyo MAA, Jingdong L, Qurat U. *et al*. Economic assessment of sugarcane production and its marketing constraints in Sindh, Pakistan. Journal of Marketing and Consumer Research, 2016:29(1):11-17.
14. Pol Problems and Prospects for Sugarcane Growers in India: Ser. IV March, 2021:8(03):51-57.
15. Rao IVY R. Estimating the economic efficiency in production and value chains of jaggery in Andhra Pradesh, India. Indian Journal of Agricultural Marketing, 2017:31(2):31-41.
16. R Asha, G Sunil Kumar Babu, T Surya Teja Production and Marketing of Sugarcane in Visakhapatnam District of Andhra Pradesh. J. Res. ANGRAU, 2019:47(4):69-77.
17. Siddu Hanabar YN, Havaladar KV, Ashalatha NL, Pavithra, Anand Constraints in the Cultivation and Marketing of Sugarcane in the District of Belagavi, Karnataka, India. Int. J. Curr. Microbiol. App. Sci, 2021:10(02):2060-2064.
18. Sivanappan RK. "Sugarcane cultivation with Drip Irrigation and fertigation", Kisan world, 2009.
19. Vasanta K. Impact of climate change on Wheat and Rice production: An analysis. Economic Affairs, 2013:58(2):89-95.
20. Yadav RL, Solomon, S. Potential of developing sugarcane and by products-based industries in India, Sugar Tech, 2006:8:104-111.