An Economic Analysis on Marketing of Banana in Ghazipur District of Uttar Pradesh, India

Rohit Kharwar [a++*], Amit Kumar [a#] and Avinash Mishra [a†]

[a] Department of Agricultural Economics, SHUATS, Naini, Prayagraj, 211007, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Original Research Article

ABSTRACT

The present study aims to present an Economic Analysis on Marketing of Banana in Ghazipur District of Uttar Pradesh, India. It was founded that there are three marketing channels involved in marketing of banana in Ghazipur district of Uttar Pradesh (channe1- Producer-Consumer), (Channel 2- Producer- Commission Agent- Wholesaler- Retailer) and (Channel 3- Producer- Commission Agent- Retailer – Consumer). The majorly preferred marketing channel by respondents in the study area is Channel 3. In channel 1, total marketing cost is Rs. 31, marketing efficiency of channel 1 is 0 and Price spread seen in channel 1 is Rs.31. In channel 2, total marketing cost is Rs.285, marketing efficiency of channel 2 is 3.01 and Price spread seen in channel 2 is Rs.860.00. In channel 3, total marketing cost is Rs. 280, marketing efficiency of channel 3 is 2.69 and Price spread seen in channel 3 is Rs.755.

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++ Research Scholar (P.G);
 # Assistant Professor;
† Research Scholar (Ph.D);
*Corresponding author: E-mail: adishtha120@gmail.com;

1. INTRODUCTION

Bananas are a fruit that grow on plants called banana trees. The scientific name for the banana tree is Musa acuminata. The banana fruit is long and curved, with a thick, yellowish-green peel that is typically removed before eating. Inside the peel, bananas are soft and sweet, with a creamy texture. They contain small black seeds that are edible, but are usually not eaten. Bananas are a good source of fiber, vitamins, and minerals, including vitamin C, vitamin B6, and potassium [1-3]. Bananas are enjoyed all over the world and are a popular fruit for snacking, baking, and cooking. They can be eaten on their own, sliced onto breakfast cereal or oatmeal, blended into smoothies, baked into breads and muffins, and used in a variety of other dishes. Additionally, because of their high sugar and starch content, bananas can be used as a natural sweetener in recipes [4,5]. The banana supply chain involves the production, processing, and distribution of bananas from farmers to end consumers [6,7]. The process begins with banana farming, where farmers cultivate banana trees and harvest mature bananas. The harvested bananas are then processed, including washing, sorting, and packaging before being transported to distribution centers or retailers [8-10]. Refrigerated trucks or ships are used during transportation to maintain the quality of the bananas. Finally, the bananas are sold to end consumers at supermarkets, grocery stores, or fruit stands. Efficient management of the supply chain is essential to ensure the quality and affordability of bananas, and technology is often used to optimize the process and minimize waste.

2. METHODOLOGY

2.1 Selection of the District

There are 75 District and 18 division in Uttar Pradesh state. Out of these Ghazipur district of Uttar Pradesh was selected for the present study on the basis of maximum area under Banana cultivation,

2.1.1 Selection of block

There are 16 block in the district. Out of these Mohammadabad was selected purposively for the study.

2.1.2 Selection of villages

A complete list of all villages of Mohammadabad block was obtained from the block development office. Thereafter these villages was arranged in ascending order on the basis of area of Banana Cultivation. Thus, out of total villages 5% villages was selected randomly for the present study.

2.1.3 Selection of farmers

From the selected village, list of all the banana cultivator was obtained from the block development office in each selected village. Ascending order on the basis of size of their land holding for the selection of cultivators from families was listed and 10% farmers from each village were randomly selected and then the selected farmers were classified into five sizes of groups.

2.2 Analytical Tools Mean

$$m = \frac{\text{sum of the terms}}{\text{number of terms}}$$

2.2.1 Marketing efficiency

(Net price received by producer's – Consumer price) / Total marketing cost

2.2.2 Marketing cost

Marketing Cost (MC) = ΔTC / ΔQ

Table 1. Selection of respondents

District	Block	Village	Respondents					
			Marginal	Small	Semi medium	Medium	Large	Total
Ghazipur	Mohammadabad	Amarhat	6	4	2	6	3	21
		Bansi	7	6	3	1	2	19
		Bandarpur	8	3	5	2	3	21
		Kadipur	7	6	4	2	2	21
		Lohwa	6	6	2	2	2	18
Total			34	25	16	13	12	100

2.2.3 Price spread

Consumer price paid price – Net price received by producer

3. RESULTS AND DISCUSSION

In channel 1 the net price received by producer is Rs 3400 and the cost incurred by producer in marketing of banana is Rs 31, Sale price of Banana from producer to consumer is Rs 3431/quintal. The price spread seen in channel 1 is Rs 31 (Table 2).

In channel 2 the net price received by producer in selling of 1 quintal of banana is Rs 3400. The marketing cost incurred by producer in marketing of 1 quintal banana is Rs 80. Sale price of 1 quintal of banana to commission agent is Rs 3480, the marketing cost incurred by commission agent in marketing of 1 quintal of banana is Rs 50, the profit margin of commission agent is Rs. 125, Sale price of 1 quintal of banana from commission agent to wholesaler is Rs. 3655, the marketing price incurred by wholesaler in marketing of 1 quintal of banana is Rs. 70. The

profit margin of wholesaler is Rs 150. Sale price of wholesaler price to retailer is Rs 3875, marketing cost incurred by retailer in marketing of 1 is Rs 85, the margin of retailer is Rs 300. Sale price of banana from retailer to consumer is Rs 4260. The total marketing cost is Rs 285. The price spread seen in channel 2 is Rs 860 (Table 3).

In channel 3 the net price received by producer in selling of 1 quintal of banana is Rs 3500. The marketing cost incurred by producer in marketing of 1 quintal banana is Rs 75. Sale price of 1 quintal of banana to commission agent is Rs 3575, the marketing cost incurred by commission agent in marketing of 1 quintal of banana is Rs 60, the profit margin of commission agent is Rs. 150, Sale price of 1 quintal of banana from commission agent to retailer is Rs. 3785, the marketing price incurred by retailer in marketing of 1 quintal of banana is Rs.145. The profit margin of retailer is Rs325. Sale price of banana from retailer to consumer is Rs 4255. The total marketing cost is Rs 280. The price spread seen in channel 2 is Rs 755 (Table 4).

Table 2. Price spread of banana in channel I
Channel 1 - Producer – Consumer

S. No	Particulars	Rs/Qlts
1	Net price received by producer	3400
2	Cost incurred by the producer	
a	Packing cost	10
b	Packing material cost	11
c	Miscellaneous charges	10
3	Total marketing cost	31
4	Sale price of producer/Purchase price of Consumer	3431
	Price spread	31
	Producer's share in consumer rupee	100.49%

Table 3. Price spread of banana in channel II
Channel 2. Producer→commission agent →wholesaler→retailer→consumer

S. No	Particulars	Rs/Qlts
1	Net price received by producer	3400
2	Cost incurred by the producer	
a	Packing cost	10
b	Packing material cost	10
c	Transportation cost	10
d	Loading and unloading charges	20
e	Miscellaneous charges	30
3	Marketing cost	80
4	Sale price of producer/Purchase price of Commission agent	3480
5	**Cost incurred by the Commission agent**	
a	Loading, Unloading and repacking cost	30
b	Spoilage and losses	20

S. No	Particulars	Rs/Qlts
6	Marketing cost	50
	Margin of commission agent	125
7	Sale price of Commission agent/ purchase price of wholesaler	3655
8	**Cost incurred by the wholesaler**	
a	Loading and unloading and repacking charges	20
b	Grading and sorting charges	20
c	Spoilage and losses	30
9	Marketing cost	70
10	Margin of wholesaler	150
	Sale price of Wholesaler/Purchase price of retailer	3875
	Loading and unloading Charges	20
	Carriage up to shop	15
	Miscellaneous charges	20
	Spoilage and losses	30
	Marketing cost	85
	Margin of Retailer	300
11	Sale price of retailer/ Purchase price of consumer	4260
	Total Marketing cost	285
	Net margin	575
	Price Spread	860
	Producer's share in consumer rupee	79.81%

Table 4. Price spread of banana in channel III
Channel 3. Producer→Commission Agent→Retailer→Consumer

S. No	Particulars	Rs/Qlts
1	Net price received by producer	3500
2	**Cost incurred by the producer**	
a	Packing cost	10
b	Packing material cost	10
c	Transportation cost	15
d	Loading and unloading charges	20
e	Miscellaneous charges	20
3	Marketing cost	75
4	Sale price of producer/Purchase price of Commissionagent	3575
5	**Cost incurred by the Commission agent**	
a	Loading, Unloading and repacking cost	30
b	Spoilage and losses	30
6	Marketing cost	60
	Margin of Commission agent	150
7	Sale price of commission agent/ purchase price of retailer	3785
	Loading and unloading Charges	20
	Carriage up to shop	25
	Grading and sorting charges	20
	Miscellaneous charges	20
	Spoilage and losses	60
8	Marketing cost	145
9	Margin of retailer	325
10	Sale price of retailer/ purchase price of consumer	4255
	Total Marketing cost	280
	Net margin	475
	Price Spread	755
	Producer's share in consumer rupee	82.25%

Table 5. Marketing efficiency of banana in different marketing channels

Particulars	Units	Channel- I	Channel-II	Channel - III
Consumer purchase price		3881	4380	4318
Total marketing price	Per	31	980	818
Total net margin of intermediaries	Quintal	-	505	410
Net price received market intermediaries		3800	3400	3500
Marketing efficiency by Conventional method		0	3.017	2.69

reveals about the marketing efficiency of different marketing channels in which marketing efficiency of channel I by conventional method is 0, marketing efficiency of channel II is 3.017 and marketing efficiency of channel III is 2.69. 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 II i.e., 575 (Table 5).

4. CONCLUSION

The supply chain for food products is of great importance both for the overall economic sector of food products and for agriculture and rural communities.. Methods or technologies must be identified and implemented in order to create value for farmers. This also benefits consumers, who desire high-quality, chemical-free bananas. The banana sector must address many areas of production because importers or importing countries are currently demanding excellent quality bananas that are also free of any chemical residue. Based on the findings, it is evident that the present marketing system for Banana had not been an efficient one. This was made clear by a lack of organization, limited transportation facilities, high commission fees, and a variety of other issues confronting producers. If the measures suggested were adopted by the policy makers, the government and the fanners, it might be hoped that the future of Banana marketing and the economic conditions of both producers and traders would flourish. To conclude, it could be said that by framing the proper regulations for Banana marketing and by providing adequate institutional credit, the performance and efficiency of Banana marketing in the Malda district could be improved.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Food and agriculture organization of the United Nations. FAOSTAT Database; 2016.

2. Gray A. Report for the institute of terrestrial ecology (Bangor) on a visit to Sri Lanka to assess the market impact of a potential increase in production of banana resulting from high density intercropping of banana with rubber. Natural Resources Institute; 1997.

3. Geetha P, Meena A. Problems in production of banana: An Analysis, B-Research. 2010;7:30-31.

4. Debabandya Mohapatra, Sabyasachi Mishra, Namrata Sutar, Banana post harvest practices: Current status and future prospects: A Review, Agricultural Review. 2010;31(1):56-62.
Available:www.arccjournals.com /
Available:indianjournals.com

5. Deshmukha DS, Bornareb PP, Anawadec P. Constraints in banana marketing and scope of improvement: A case study for Jalgaon Region. Pratibha: International Journal of Science, Spirituality, Business and Technology. 2013;2(1):74-78.

6. Obetta AE, Achike AI, Mukaila R, Taru B. Economic analysis of marketing margin of banana and plantain in Enugu state, Nigeria. African Journal of agriculture and Food science. 2020;3(4): 52-62.

7. Gowri MU, Shanmugam TR. An economic analysis of production and marketing of banana in India. American International Journal of Research in Humanities, Arts and Social Sciences. 2015;9(3):234-40.

8. Rathod SR, Gavali AV. Economic analysis of banana production from Western Maharashtra. The Pharma Innovation Journal. 2021;10(8):379-84.

9. Kumar S, Tegar A. An economic analysis of production and marketing of banana in Bilaspur district of Chhattisgarh state. Plant protection. 2021;13(24863.73): 13-29.

10. Umagowri M, Chandrasekaran M. An economic analysis of value chain of banana in Western Tamil Nadu. IUP Journal of Supply Chain Management. 2011;8(3).