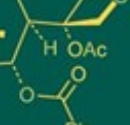
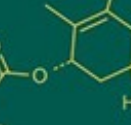
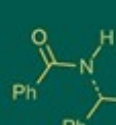


International Journal of Advanced Biochemistry Research



ISSN Print: 2617-4693
ISSN Online: 2617-4707
NAAS Rating (2026): 5.29
Indexing: Embase
IJABR 2026; SP-10(10): 273-277
www.biochemjournal.com
Received: 05-08-2026
Accepted: 21-09-2026
Published: 03-10-2026

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Economic analysis of marketing of honey in Vidarbha region

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DOI: <https://www.doi.org/10.33545/26174693.2026.v10.i10Sd.10288>

ABSTRACT

The study was undertaken to examine the marketing practices and constraints faced by beekeepers. The study was based on primary data collected from 100 beekeepers selected from Amravati and Wardha districts of Vidarbha. The findings of the study revealed that the marketing analysis showed that Channel II was most widely used, adopted by 39.00 per cent of beekeepers and accounting for 58.47 per cent of honey sold. The final consumer price was highest in Channel II i.e. Rs. 711.07, while producers' share in the consumer's rupee was highest in Channel I i.e. 95.59 per cent. Major constraints in collection and marketing of honey included seasonal availability, bee stings, wild animal threats, inadequate protective clothing, difficulty locating colonies, low honey prices, lack of modern equipment and transportation problems.

Keywords: Honey bees, Marketing, Price spread, Producer's share, Marketing margin, Constraints

Introduction

Apiculture or beekeeping is the science which deals with the management and breeding of honey bees round the year for the production of various bee products like honey, bee wax, royal jelly, bee venom and bee propolis. Besides, the production of valuable products, honey bees act as a significant pollinating agent in cross pollination and preserves biodiversity. Honey is a high valued natural sweet substance and the primary product of apiculture made by the honeybees from the floral nectar. Beekeeping is an eco-friendly way to generate income which doesn't compete for scarce land resources and provides employment opportunity to a number of individuals. It is an essential agrobased additional activity that provides major income to the people in the rural as well as urban areas. Despite the advantages, beekeeping can be a complex and challenging practice that requires thorough understanding and knowledge of bee behaviour and biology. However, with proper knowledge and scientific training, beekeeping can be a rewarding and sustainable activity that offers beneficial effects to the environment and the mankind. The genus of *Apis* contains ten species, of which two species - *Apis mellifera* and *Apis cerana* are extensively domesticated. *Apis mellifera* has an average yield up to 40 kg/hive in contrast to *Apis cerana* which yields just up to 10 kg/hive. The apiculture sector has been gradually increasing due to persistent efforts and initiatives taken by the government of India like the sweet revolution which was launched in the year 2016 to advance scientific beekeeping throughout the nation and emphasis the increase in production of honey which can be a major contributor in doubling farmer's income by 2024.

Honey is an important nutritive food containing various kinds of sugar, protein, free amino acids, minerals, trace elements, enzymes and vitamins with a fairly high caloric value. India is one of the major honey exporting countries in the World and has exported 74,413 MT of Honey worth Rs. 1221.17 Crores during 2025-26. More than 50% of the honey production in India is being exported to other countries. India export honey to about 83 countries. The major markets for Indian honey are USA, Saudi Arab, United Arab Emirates, Bangladesh, Canada, etc. India is now among the top global producers of natural honey, with annual production reaching around 1.4 lakh metric tonnes (140,000 MT) in 2024-25. Major honey-producing states include Uttar Pradesh, West Bengal, Punjab, Bihar, and Rajasthan, which together account for most of the country's output. In 2025 Maharashtra produced about 300 tonnes Honey. **Objectives**

1. To assess the marketing of Honey.
2. To identify the constraints faced during Marketing of Honey.

Methodology

Study area and selection of beekeepers

The present study was undertaken in Vidarbha Region of Maharashtra. Amravati and Wardha districts of Vidarbha region of Maharashtra were selected purposively for the present study. Total 100 beekeepers operating in various locations of Amravati and Wardha districts of Vidarbha region were purposively selected.

Sources of

Data

The primary data was collected from the selected beekeepers through personal interview method on a questionnaire prepared for the year 2025-26.

Methods of data analysis

Total marketing cost, Net price received by producer, Price spread, Beekeeper's share in consumer rupee, Marketing margin were estimated by using the following formulae.

Marketing channels

The channels of distribution indicate the route through which commodity moves from initial (Beekeeper to Consumer). Four marketing channels were identified through which marketing of honey took

place in the study area. They were

Channel I - Beekeeper $\Rightarrow$ Consumer

Channel II - Beekeeper $\Rightarrow$ Processor $\Rightarrow$ Wholesaler $\Rightarrow$ Retailer $\Rightarrow$ Consumer

Channel III - Beekeeper $\Rightarrow$ Processor $\Rightarrow$ Retailer $\Rightarrow$ Consumer

Channel IV - Beekeeper $\Rightarrow$ Processor $\Rightarrow$ KVIC $\Rightarrow$ Consumer

Total marketing cost

The total cost on marketing incurred in cash or kind by the beekeeper and various intermediaries involved in the sale and purchase of the commodity till it reaches the consumer.

Market margin

It is the actual amount received by the marketing middlemen in the marketing process i.e. the profit.

Net price received by the beekeeper

The net price received by the beekeeper refers to the actual price that a beekeeper received.

$$\text{Net price Received by the Beekeeper} = (\text{Beekeeper's selling price} - \text{Marketing Costs of Beekeeper})$$

Price

spread

The price spread is the difference between the net price received by beekeeper in market and price paid by consumer.

$$PS = PC - PR$$

Where,

P_S = Price spread

P_C = Price paid by consumer

P_R = Net price received by beekeeper

Beekeeper's share in consumer rupee

It is the percentage of net price received by the beekeeper to the price paid by the consumer or selling price of retailer.

$$\text{The beekeeper's share in consumer rupee (\%)} = \frac{\text{Net price received by beekeeper}}{\text{Price paid by consumer}} \times 100$$

Market intermediaries

For the study of marketing of honey in the study area various intermediaries involved in the process were identified. The identified intermediaries were Collectors, traders, processors, cooperatives and re-

tailers. From each group of these intermediaries, 5 processors, 5 retailers and 5 wholesalers were randomly selected for detailed study.

Constraints

analysis

The constraints in collection and marketing of honey were analysed using Garrett's ranking technique. The ranks given by each respondent were converted into percent position by using formula:

$$\text{Percent position} = \frac{(R_{ij} - 0.5)}{N_j} \times 100$$

Where,

R_{ij} = Rank given to i^{th} constraint by the j^{th} individual.

N_j = Number of constraints ranked by the j^{th} individual.

The estimated percent positions were converted into scores using Garrett's table. The mean of scores was estimated for each constraint and these means score was arranged in a descending order. The constraint with highest mean score value was considered as the most important and ranked as one and remaining mean scores have given rank in descending order.

Results and discussion

Table 1. Disposal pattern of honey through different marketing channels

Marketing Channels	Small Beekeepers (100-500 kg/year)		Medium Beekeepers (501-1000 kg/ year)		Large Beekeepers (1001 kg/year and above)		Overall	
	No. of bee-keepers	Quantity Sold (kg)	No. of bee-keepers	Quantity Sold (kg)	No. of bee-keepers	Quantity Sold (kg)	No. of bee-keepers	Quantity Sold (kg)
I	11 (14.67)	145 (0.73)	-	-	-	-	11 (11.00)	145 (0.46)
II	24 (32.00)	10650 (52.73)	12 (60.00)	8560 (62.97)	3 (60.00)	4400 (66.77)	39 (39.00)	23610 (58.47)
III	30 (40.00)	7400 (36.64)	8 (40.00)	5032 (37.03)	-	-	38 (38.00)	12432 (30.70)
IV	10 (13.33)	2000 (9.90)	-	-	2 (40.00)	2189 (33.23)	12 (12.00)	4189 (10.37)

(continued on next page)

Marketing Channels	Small Beekeepers (100-500 kg/year)		Medium Beekeepers (501-1000 kg/ year)		Large Beekeepers (1001 kg/year and above)		Overall	
	No. of bee-keepers	Quantity Sold (kg)	No. of bee-keepers	Quantity Sold (kg)	No. of bee-keepers	Quantity Sold (kg)	No. of bee-keepers	Quantity Sold (kg)
Total	75 (100.00)	20195 (100.00)	20 (100.00)	13592 (100.00)	5 (100.00)	6589 (100.00)	100 (100.00)	40376 (100.00)

(Figures in the parentheses indicate percentage to total)

The Table No. 1 presents the disposal pattern of honey a total of 100 sample beekeepers disposed of 40,376 kg of honey through four different marketing channels. Among them, 75 were small beekeepers, 20 were medium beekeepers and 5 were large beekeepers. The results indicate that Marketing Channel II was the most important channel, through which 39 beekeepers marketed a total of 23,610 kg of honey, accounting for 58.47 per cent of the total quantity sold. This was followed by Channel III, through which 38 beekeepers disposed of 12,432 kg (30.70 per cent) of the total honey. Channel IV accounted for 4,189 kg (10.37 per cent), while Channel I accounted for only 145 kg (0.46 per cent). Thus, the majority of honey was marketed

through Channel II, indicating its greater importance and preference among the sample beekeepers.

Small beekeepers disposed of 20,195 kg of honey, with the largest quantity of 10,650 kg (52.73 per cent) marketed through Channel II, followed by 7,400 kg (36.64 per cent) through Channel III. Medium beekeepers marketed a total of 13,592 kg, of which 8,560 kg (62.97 per cent) was sold through Channel II and 5,032 kg (37.03 per cent) through Channel III. Large beekeepers disposed of 6,589 kg, with 4,400 kg (66.77 per cent) marketed through Channel II and 2,189 kg (33.23 per cent) through Channel IV. The findings show that Channel II was consistently the dominant marketing channel across all three categories of beekeepers, whereas Channel III was particularly important for small and medium beekeepers.

Table 2. Marketing costs and margins of honey through different marketing channels. (Rs/Kg)

Sr. No.	Particulars	Channels			
		I	II	III	IV
1	Marketing cost incurred by Beekeeper				
i	Container cost	12.68	9.75	8.06	9.94
ii	Transportation Cost	10.30	7.75	5.74	6.30
iii	Miscellaneous expenses	2.00	4.80	2.53	3.37
2	Total marketing cost incurred by Beekeeper	24.98	22.30	16.33	19.61
3	Selling price of beekeeper	567.30	403.78	401.90	406.30
4	Net price received by Beekeeper	542.32	381.48	385.57	386.69
5	Marketing cost incurred by Processor				
	Purchase price of processor	-	403.78	401.90	406.30
i	Processing	-	7.20	9.33	12.00
ii	wastage	-	7.00	4.33	2.50
iii	Packaging	-	7.80	4.60	5.70
iv	Storage	-	5.00	3.70	3.50
v	Labour	-	12.30	14.31	14.60
vi	Miscellaneous expenses	-	2.50	2.80	3.00
6	Total marketing costs incurred by Processor	-	39.30	39.06	41.30
7	Market margins of processor	-	69.76	97.94	105.55
8	Selling price of processor/ price paid by Wholesaler/Price paid by Retailer	-	512.84	538.90	553.15
9	Marketing cost incurred by Wholesaler				
	Purchase price of Wholesaler	-	512.84	-	-
i	Transportation cost	-	9.50	-	-
ii	Storage	-	7.00	-	-
iii	Labour	-	6.50	-	-
iv	Miscellaneous expenses	-	3.00	-	-
v	Total marketing costs incurred by Wholesaler	-	26.00	-	-
10	Market margins of Wholesaler	-	79.76	-	-
11	Selling price of Wholesaler	-	618.60	-	-
12	Marketing cost incurred by KVIC				
	Purchase price of KVIC	-	-	-	553.15
I	Transportation cost	-	-	-	15.00
Ii	Miscellaneous expenses	-	-	-	5.00
iii	Total marketing costs incurred by KVIC	-	-	-	20.00
iv	market margins of KVIC	-	-	-	115.00

(continued on next page)

Sr. No.	Particulars	Channels			
		I	II	III	IV
13	Selling price of KVIC/ price paid by consumer	-	-	-	688.15
14	Marketing cost incurred by retailer	-	-	-	-
	Purchase price of Retailer	-	618.60	538.90	
i	Transportation	-	8.00	10.50	-
ii	Miscellaneous expenses	-	4.00	7.30	-
iii	Total marketing costs incurred by Retailer	-	12.00	17.80	-
15	market margins of retailer	-	80.47	110.00	-
16	Selling price of retailer/ price paid by consumer	567.30	711.07	666.7	688.15
17	Price spread	24.98	329.59	281.13	301.46
18	Beekeeper's share in consumer's rupee (%)	95.59	53.64	57.83	56.19

Marketing costs and margins incurred by marketing functionaries:

The table No. 2 presents, marketing costs, marketing margins, price spread and beekeeper's share in the consumer's rupee under three different honey marketing channels. It explains the flow of honey from the collector to the final consumer through various market intermediaries. The findings indicated that, in Channel I the total marketing cost incurred by the beekeeper was Rs 24.98, comprising container cost of Rs 12.68, transportation cost of Rs 10.30, and miscellaneous expenses of Rs 2.00. The selling price of the beekeeper was Rs 567.30, and the net price received after deducting marketing costs was Rs 542.32. Consequently, the price spread was minimal at Rs 24.98 and the beekeeper's share in the consumer's rupee was the highest at 95.59 percent, indicating maximum retention of value at the producer level and the highest marketing efficiency. In Channel II the beekeeper incurred a total marketing cost of Rs 22.30 and sold honey at Rs 403.78, realizing a net price of Rs 381.48. The processor incurred costs of Rs 39.30 under storage, labour, and miscellaneous expenses, and realized a market margin of Rs 69.76, selling to the wholesaler at Rs 512.84. The wholesaler further incurred Rs 26.00 in

marketing costs and earned a margin of Rs 79.76, selling to the retailer at Rs 618.60 and retailer incurred marketing cost of Rs 12.00 and earned market margin of Rs 80.47. The final consumer price of consume Rs 711.07. The price spread in this channel was Rs 329.59, and the beekeeper's share declined sharply to 53.64 percent, reflecting the impact of multiple intermediaries.

In Channel III, the beekeeper's marketing cost was Rs 16.33 with a selling price of Rs 401.90 and net receipt of Rs 385.57. The processor's total marketing cost was Rs 39.06 with a margin of Rs 97.94, selling at Rs 538.90. The retailer incurred Rs 17.80 in marketing costs and earned a margin of Rs 110.00, with a final consumer price of Rs 666.70. The price spread stood at Rs 281.13 and the beekeeper's share was 57.83 percent.

In Channel IV the beekeeper incurred Rs 19.61 in marketing costs and sold at Rs 406.30, with a net receipt of Rs 386.69. The processor incurred Rs 41.30 in costs and earned a margin of Rs 105.55, selling at Rs 553.15 to the KVIC. The KVIC incurred Rs 20.00 in marketing costs and earned a margin of Rs 115.00, selling at Rs 688.15 to the consumer. The price spread in this channel was Rs 301.46 and the beekeeper's share was 56.19 percent.

Table 3. Constraints in Marketing of honey

Sr. No.	Problems faced by beekeepers in marketing of honey	Garrett Value	Percent	Average Score	Rank
1	Lower price of Honey	73	12.4	52.60	I
2	Lack of modern equipment's	63	24.9	45.94	V
3	Lack of technical knowledge	57	37.4	42.46	VI
4	Honey adulteration	50	49.9	47.78	IV
5	Marketing middlemen	44	62.4	47.86	III
6	Lack of Storage facilities	36	74.9	48.85	II
7	Transportation and distribution problems	28	87.4	41.14	VII
8	Lack of awareness among consumers	1	99.9	16.66	VIII

The analysis of constraints faced by honey collectors during honey marketing revealed in table 3. The findings revealed that lower price of honey was perceived as the most serious constraint and secured the first rank with the highest average percentage of (52.60 per cent).

The second major constraint was lack of storage facilities, which obtained an average score of (48.85 per cent) and Rank II. Marketing middlemen ranked III, with an average score of (47.86 per cent), Honey adulteration, which ranked fourth with an average score of (47.78 per cent), followed by lack of modern equipment with an average score of 45.94 per cent and Rank V. Lack of technical knowledge ranked sixth with an average score of 42.46 per cent, while transportation and distribution problems ranked seventh with a score of 41.14. The least important constraint was lack of awareness among consumers, which obtained an average score of 16.66 per cent and was assigned Rank VIII. Overall, the findings suggest that price realization, storage facilities and dependence on marketing intermediaries were the major constraints in honey marketing.

Conclusions

The study revealed that most beekeepers sold their honey through intermediary-based marketing channels, while direct marketing was less commonly used. Channel I was found to be the most efficient and remunerative channel, as it provided beekeepers with the highest share of the consumer's rupee and the lowest price spread. Channel I the total marketing cost incurred by the beekeeper was Rs 24.98, comprising container cost of Rs 12.68, transportation cost of Rs 10.30, and miscellaneous expenses of Rs 2.00. The selling price of the beekeeper was Rs 567.30, and the net price received after deducting marketing costs was Rs 542.32. Consequently, the price spread was minimal at Rs 24.98 and the beekeeper's share in the consumer's rupee was the highest at 95.59 percent, indicating maximum retention of value at the producer level and the highest marketing efficiency. The major constraints in honey collection were seasonal availability, risk of bee stings, wild animal threats, lack of protective clothing, and difficulty

in locating bee colonies. The major marketing constraints were low prices, lack of modern equipment, and transportation problems. Overall, promoting direct marketing, improving collection facilities, and providing better market and transportation support can help increase the income of beekeepers.

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How to cite this article: Ingle AV, Sarap S, Naware M, Sable Y. Economic analysis of marketing of honey in Vidarbha region. *International Journal of Advanced Biochemistry Research*. 2026;SP-10(10):273-277. doi: <https://www.doi.org/10.33545/26174693.2026.v10.i10Sd.10288>