

International Journal of Statistics and Applied Mathematics

ISSN: 2456-1452

Maths 2023; SP-8(6): 745-749

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<https://www.mathsjournal.com>

Received: 06-08-2023

Accepted: 10-09-2023

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Marketing of coconut in southern Karnataka – economics

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Abstract

As per the report by the Coconut Development Board of India, the country ranks third globally in terms of coconut production. 19,247 million nuts were produced there in 2021–2022. More than 20 states and union territories in India grow coconut. Karnataka is the state that produces the enormous number of coconuts in India, accounting for about 30% of the total. This paper attempts to understand certain aspects of marketing of coconut in Karnataka through two villages of each 3 tehsils. It attempts an analysis of costs and margin in various channels of trade and formulates a composite index of marketing efficiency for each channel. The price spread was calculated for marketing of 100 nuts for different channels. Four channels of marketing were identified as a major, with the farmers favoring Channel-I, while Channel-III's use in the sale of nuts was limited because it involved more middlemen. The farmer in Channel-IV, on the other hand, gets the highest net price. Higher producer share price and high marketing efficiency were found in the case of Channel II.

Keywords: Coconut marketing, marketing cost, marketing margin, price spread, marketing channels, producer's share

Introduction

The coconut palm, scientifically known as *Cocos nucifera* Linn, is a monocotyledon that is a member of the Palmae family and Arecaceae order of plants. The coconut palm's fruit, which is also called a "nut," is its most important and lucrative product. It provides food security and a means of survival for a sizable fraction of the world's population, particularly in the Asian Pacific nations. It is estimated that 12 million people in India depend on the cultivation, processing, and export of coconuts. The production of food crops, such as wheat, rice, and other cereals, increased dramatically during the 1960s Green Revolution. Furthermore, initiatives were undertaken to enhance the yield of non-food crops such as coconuts, groundnuts, cotton, and sugarcane.

A significant agricultural crop, coconuts are grown in more than 70 nations worldwide. One of the agricultural crops that India excels in producing is coconut. As per the report by the Coconut Development Board of India, the country ranks third globally in terms of coconut production. Around 19,247 million nuts were produced in 2021–2022. This is less than 1.5% of what it was the year before. Area of 20.96 lakh hectares were cultivated for coconuts in India in 2021–2022. In over 20 states and union territories of India, cultivation of coconut takes place. Karnataka is the state that produces the enormous number of coconuts in India, accounting for about 30% of the total. The four states which are top in the production of coconut in India are Karnataka, Tamil Nadu, Kerala, and Andhra Pradesh; together, these states generate over 90% of the nation's coconut crop.

Coconut marketing in India is a complex and diverse sector, with a wide range of products and markets. The domestic market is the largest, accounting for over 90% of total coconut consumption in India. India's top states for coconut consumption are Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, and Maharashtra. In India, coconut is sold in a range of forms, such as desiccated coconut, fresh coconut, coconut milk, coconut oil, and coconut water. The value of the domestic coconut market in India in 2021–2022 was above Rs. 255,88,292.32 crore. Coconut products are exported in large quantities from India in addition to the domestic

market. Europe, North America, and the Middle East are India's top export destinations for coconut products. India exported 1.3 million tonnes of coconut goods in 2021–2022, worth about 3254.04 crore.

Materials and Methods

Fifteen retailers, eight wholesalers, five village merchants, and thirty-five farmers were randomly selected to participate in the research, which was done in the Hassan district of Karnataka. This meant that the study's total sample of responders numbered 110. The data was collected for the year 2021-22.

S. No	Respondents	Numbers
1	Wholesalers	5
2	Retailers	10
3	Village Merchants	5
4	Farmers	90
5	Total Respondents	110

Using pre-tested, well-structured schedules that were created specifically for the purpose, personal interviews were used to gather primary data about marketing costs, margins, and channels from randomly selected sample market intermediaries.

Terms and concepts used

Price Spread

Price spread: Price that the farmer receives from the consumer

$$P_s = C_p - P_f$$

Where,

P_s = Price spread

C_p = Consumer's price

P_f = Price received by farmer

Total Marketing Cost

This item included all costs associated with shipping, measuring, commission, levy, postage, and other related expenses.

$$C = C_f + C_{m1} + C_{m2} + \dots + C_{mi}$$

Where,

C = Total marketing cost.

C_f = The farmer pays for the produce from the time it leaves the farm until it is sold.

C_{mi} = The costs that the i^{th} middleman experienced when buying and selling the item.

Marketing margin

$$MT = \sum (S_i - P_i) / Q_i$$

Where,

MT = Margin of Total Marketing

S_i = Product value of sale covered by the i^{th} firm

P_i = Product purchase price covered by the i^{th} firm

Q_i = The amount of goods that the i^{th} firm handles

Marketing efficiency

Acharya and Agarwal's (1999) modified technique was used to calculate the marketing efficiency.

$$MME = RP / (MC + MM)$$

Where,

MME = Modified measure of marketing efficiency.

RP = Price paid by consumer or retailer's sale price.

MC = Total marketing cost

MM = Net marketing margin

Results and discussion

The marketing of coconuts in the Karnataka district of Hassan was done through a variety of outlets.

The following were the key channels:

Channel-I: Producer-Village Merchant-Retailer-Consumer

Channel-II: Producer-Retailer-Consumer

Channel-III: Producer-Commission agent -Wholesaler-Retailer-Consumer

Channel-IV: Producer-Commission agent cum Wholesaler-Upcountry Consumer

Frequency of farmers Marketing in different channels

Table 1 displays data regarding the number of coconut growers that sold their nuts through various outlets. Table 1 demonstrates that 40 farmers (44.44%) sold their nuts through channel I, 22.22% sold through channel II, 8.89% sold produce through channel III, and 24.44% sold through channel IV.

Table 1: Frequency of farmers Marketing in different channels

Channel	Small	Medium	Large	Total farmers marketed in each channel
I(P-V-C)	14.00	13.00	13.00	40.00 (44.44)
II(P-R-C)	8.00	7.00	5.00	20.00 (22.22)
III(P-C-W-R-C)	3.00	2.00	3.00	8.00 (8.89)
IV(P-C/W-C)	5	8	9	22 (24.44)
Total	30.00	30.00	30.00	90.00 (100)

(Figures in parentheses indicates the percentage to the total)

Channel-I: The table makes it evident that coconut growers (44.44%) in the study area preferred this route because it was appropriate for them and solved their transportation-related problems. The reason for coconut growers to choose this channel was also the long distance from wholesalers and retailers.

Channel – II: Producers, sellers, and customers were the involved in this channel. Of all the producers, 22.22% preferred this channel. The coconut farmer sold the

commodity to the dealer. This may be because of the reason that the proximal retailers and farmers both went to nearby market for buying and selling of the nuts. In the interim stores, the manufacturer sold the coconut to customers according to their tastes in terms of quality and quantity.

Channel – III: In this channel totally 3 middlemen are involved. The producer sells the farm produce to wholesaler through the commission agent. The commission agent belonged to same area or from outside. The wholesalers, in

general big buyers either sold to the retailers. The coconut was rated on the basis of quality and price for local use. After grading the commodity, the retailers sold the coconut to customers. Since there were so many middlemen involved only 8.66% farmers marketed in this channel.

their purchase, these wholesalers graded the item and sold it to the retailers. Distributors brought the products to market. Large coconut growers usually choose this type of route because they can negotiate better rates with wholesalers of the farmers, 24.44% used this channel for sales. Similar outcomes were observed in Ranjitha (2021) ^[12].

Channel - IV: The commission agents/wholesalers were the direct buyers of the coconut growers' products. Following

Table 3: Total number of nuts marketed in different channels

Channel	Small	Medium	Large	Total quantity marketed in each channel
I(P-V-R-C)	51535	106869	277613	436017.00 (49.37)
II(P-R-C)	25223	59083	83185	167491.00 (18.96)
III(P-C-W-R-C)	9053	17184	50253	76490.00 (8.66)
IV(P-C/W-C)	16094	59645	127497	203236 (23.01)
Total	101905	242781	538548	883234.00 (100)

(Figures in parentheses indicates the percentage to the total) Of the total number of nuts marketed, the major amount—that is, 49.37 percent of the total quantity—were marketed in channel I, 18.96% in channel II, only 8.66% in channel III, and 23.01% in channel IV. Based on the quantity marketed and the number of growers, the analysis showed that Channel I and Channel IV were the most popular channels in the investigation area. Similar outcomes were observed in Ranjitha (2021) ^[12].

Marketing cost incurred by growers (per 100 nuts)

The highest and lowest marketing costs per 100 nuts were expended in Channel III and Channel I, respectively. Channel IV had the highest maximum net price obtained by farmers, at Rs. 1435; this was followed by Channel III at Rs. 1380, Channel II at Rs. 1282.5, and Channel I at Rs. 1252.65. Similar outcomes were observed in Ranjitha (2021) ^[12].

Table 4: Marketing cost incurred by growers (per 100 nuts)

	Channel 1	Channel 2	Channel 3	Channel 4
Gross price received	1350	1400	1500	1550
Total marketing cost for farmers	97.35	117.5	120	115
Net price received by farmers	1252.65	1282.5	1380	1435.00

Marketing Cost and Marketing Margin in Coconut Marketing

Table 4 lists the market costs and market margins that various market intermediaries received in each channel. Table 4 shows that the price that consumers paid for each 100 nuts in Channel I was Rs. 1700.00, with the producers receiving a net price of Rs. 1252.65. Village merchant and retailer's costs in this channel were Rs. 60 and Rs. 40, respectively, while their gross marketing margins were Rs. 140 and Rs. 110. The user paid Rs. 1650.00 for Channel II, while the producer earned a net price of Rs. 1282.5. The retailer's cost in this channel was Rs. 70, and their gross marketing margin came to Rs. 180. The user paid Rs. 1,500.00 for Channel III, while the producer earned Rs. 1380.00 as the net price. The commission agent, wholesaler, and retailer in this channel incurred costs of Rs. 30, Rs. 40, and Rs. 40, respectively, while their gross marketing margin was Rs. 120, Rs. 110, and Rs. 110. The user paid Rs. 2000.00 for Channel IV, while the producer earned Rs. 1435.00 as the net price. The wholesaler and retailer in this channel incurred costs of Rs. 90 and Rs. 30, respectively, while their respective gross marketing margins were Rs. 140 and Rs. 130. Similar outcomes were observed in Ranjitha (2021) ^[12].

Price Spread in Marketing of Coconut

The price spread is the difference in price that occurs between what a consumer buys and what a producer gets for an equal amount of farm produce. The spread, which is made up of the market margins and marketing expenses of the intermediaries, is what ultimately determines the overall performance of the market system. Price-spread research can be used to examine the marketing system's efficacy. The data regarding the channel-wise pricing spread that was established for the marketing of coconuts is shown in Table 5.

Table 5: Marketing cost and marketing margin incurred by different market intermediaries

Particulars	I	II	III	IV
Producer				
Gross price received	1350	1400	1500	1550
Cost incurred	97.35	117.5	120	115
Net price received	1252.65	1282.5	1380	1435.00
Village merchant				
Price paid	1350			
Cost incurred	60			
Margin	140			
Price received	1550			
Commission agent				
Price Paid			1500	
Cost incurred			30	
Margin			120	
Price received			1650	
Wholesaler				
Price Paid			1650	1550
Cost incurred			40	90
Margin			110	140
Price received			1800	1780
Retailer				
Price paid	1550	1400	1800	1780
Cost incurred	40	70	40	30
Margin	110	180	110	130
Price received	1700	1650	1950	2000
Consumer price	1700	1650	1950	2000
Total marketing Cost	197.35	187.5	230	235.00
Commission of intermediaries	250	180	340	270.00
Price spread	447.35	367.5	568	570.00
Producer share in consumer's rupee	73.68	77.72	70.87	71.75

Table 6: Price spread in marketing of coconut per 100 nuts

Particulars	Channel I	Channel II	Channel III	Channel IV
Net price received by farmer	1252.65 (73.68)	1282.5 (77.73)	1380 (70.77)	1435.00 (71.75)
Net margin of village merchant	140.00 (8.24)			
Net margin of Commission agent			120.00 (6.15)	
Net margin of Wholesaler			110.00 (5.64)	140 (7.0)
Net margin of Retailer	110.00 (6.47)	180.00 (10.91)	110.00 (5.64)	130 (6.5)
Total marketing cost	197.35 (11.61)	187.5 (11.36)	230 (11.79)	235.00 (11.75)
Total marketing margin	250 (14.71)	180 (10.91)	340 (17.44)	270.00 (13.5)
Consumer Price	1700 (100)	1650 (100)	1950 (100)	2000 (100)

(Figures in parentheses indicates the percentage to the Cost C)

Channel II had the largest producer share in consumer rupees (77.73%), followed by Channel I (73.68%), Channel IV (71.5%), and Channel III (70.77%). Because the producer sold their nuts to middlemen like commission agents, wholesalers, and retailers, the producer's share of the rupees spent by consumers in Channel III was minimal. This

demonstrated unequivocally that selling coconuts to customers through Channel II is beneficial, despite the fact that relatively few nuts are sold through this channel. Similar outcomes were observed in Ranjitha (2021) [12].

Producers share in consumer’s rupee

Table 7: Producers share in consumer’s rupee

Particulars	Channel I	Channel II	Channel III	Channel IV
Producer share (%)	73.68	77.73	70.77	71.75
Marketing cost (Rs.)	197.35	187.5	230	235
Marketing margin (Rs.)	250	180	340	270
Consumer price (Rs.)	1700	1650	1950	2000

Table 6 showed that, when price dispersion over various marketing channels was analyzed, various intermediaries captured the highest part of the consumer price as market margin. When compared to other channels, Channel III's marketing channel had a higher share of marketing costs. The producers' stake in Channel II is at its highest, at 77.73%,

because there are less intermediaries in the marketing channel; this is followed by Channel I (73.68%), Channel IV (71.75%), and Channel III (70.77%). Similar outcomes were observed in Ranjitha (2021) [12].

Marketing Efficiency

Table 8: Marketing efficiency of identified channels

Particulars	Channel I	Channel II	Channel III	Channel IV
Net price Received by the farmer	1252.65	1282.5	1380	1435.00
Total marketing cost	197.35	187.5	230	235.00
Total marketing margin	250	180	340	270.00
MM+MC	447.35	367.5	570	505
Price paid by consumer	1700	1650	1950	2000
Marketing efficiency ratio	3.80	4.49	3.42	3.96

Table 7 shows that compared to Channel I (3.80), Channel III (3.42), and Channel IV (3.96), Channel II's marketing efficiency was much greater (4.49). Channel III was less efficient as a result of its greater marketing margins. As a result, the analysis showed that, although it was carried out in smaller quantities in the study region, farmer marketing of coconuts in Channel II with minimal involvement from middlemen was the most advantageous and successful. Nonetheless, Channel I and Channel IV were highly well-liked in the research region. Similar outcomes were observed in Ranjitha (2021) [12].

Conclusions

The majority of growers used village merchants to sell their nuts, with commission agents/wholesalers coming in second. The majority of coconut growers—44.44 percent—sold their nuts to village merchants, with commission agents/wholesalers coming in second—24.44 percent. This suggested that village traders and wholesalers control the coconut marketing system in the Hassan district. When food was supplied to consumers through a commission-based distributor, the growers received the highest net price—Rs. 1430. Growers in Channel III paid the greatest marketing costs per 100 nuts, or Rs. 120, while growers in Channel I paid the lowest costs, or Rs. 97.35 per 100 nuts. The greatest

amount was passed through Channel I (44.44 percent) and Channel IV (24.24 percent), but the producers' share of the consumer rupee was highest in Channel II (77.72 percent) and lowest in Channel III (70.77 percent). Only 8.86 percent of the total was transferred through channel III. Due to a bigger number of middlemen and a higher marketing margin, Channel II had the highest marketing efficiency (4.49) and the lowest marketing efficiency (3.42). Coconut growers are exploited since the existing marketing structure has more middlemen, which is reflected in the low producer's price. Establishing cooperative coconut grower societies or coconut growers' organizations, which would handle marketing tasks like produce assembly, dehusking, grading, transportation, packing, processing, and marketing, is advised in order to improve the current state of coconut marketing. in order to lower middlemen's profit margin and marketing expenses. Both consumers and producers will benefit from this.

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