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Dried fish marketing system in Kanker district of Chhattisgarh state: An economic analysis

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Abstract

The present study was conducted to understand the dry fish marketing system of Charama Block of Kanker District (Chhattisgarh). An attempt was made to examine the present fish marketing system, considering the price spread, marketing cost and marketing margin of the dry fish retailers. The research was conducted from August - October month of 2023. Semi-structured questionnaire interviews were used for collecting data, with an emphasis on group discussions. A total of 40 respondents were selected through a random sampling. In the Charama Fish market, almost all dry fish were traded within and between Chhattisgarh districts, as well as with local retailers. The main source of fishes in fish market is Dudhawa reservoir, Paralcot reservoir, Gangrel Reservoir, Small rivers and reservoir which supply a variety of fishes. A large number of intermediaries are involved in the distribution and marketing of fish in the area. The results of the study revealed that the fish of the area was marketed through three types of marketing channel were found in the selected dry fish market. Channel I is from Fish Collector – Consumer, Channel II from Fish collector – Retailer – Consumer and Channel III from Fish collector – Wholesaler - Retailer – Consumer. The study further revealed that among all the three marketing channels identified for fish marketing, the highest percentage of fisher's share was in channel I being 88.23 percent because of the fact that there were no intermediaries involved in this channel. The fisher's share in consumer rupee was 76.27 percent in channel II while it was lowest 67.19 percent in case of channel III. It was clear from the results that the absolute advantage of fisher was the highest in channel I being Rs. 90.00/kg. As compared to Rs. 85/ kg. In channel III. The results also the marketing efficiency was highest in marketing channel I (7.50) while it was lowest in channel III (1.90).

Keywords: Socio-economic, market, intermediaries, wholesaler

Introduction

Fisheries play a crucial role in the global food supply and economy. A fish market is a gathering place for people involved in the selling and buying of fish (Upadhyay *et al.*, 2016). Fisheries have been recognized as a significant sector in the state of Chhattisgarh, serving as a prospective entrepreneurial enterprise and a potential source of income. Chhattisgarh is blessed with various water resources, including reservoirs, rivers, tanks, and ponds. The state is ranked 5th in fish seed production and 6th in fish production in the country (Fisheries Dept. of C.G, 2022). This study was conducted at Charama dry fish markets in Kanker District, Chhattisgarh. The district is known for its specific methods of drying fish and the varieties available due to its conducive geographical location and environmental conditions. A fish marketing system is a comprehensive network and strategy for the distribution, promotion, and sale of fish (FAO, 2018). It encompasses various stages, from catching or farming fish to reaching consumers through channels such as wholesalers, retailers, and direct sales. These surveys involve collecting data on the demographic profile of fish retailers in the Charama fish market, fish populations, the marketing system, fish species available in the market, analyzing the marketing cost, marketing margin, marketing efficiency, and the price spread of fishes in the market, marketing channels, in Kanker district, Charama of Chhattisgarh.

Table 1: Annual Data Fish production of the selected district (Department of Fisheries Gov. of C.G.)

Name	2020-21 (Metric ton)	2021-22 (Metric ton)	2022-23 (Metric ton)
Chhattisgarh	577024.85	591284	615911.50
Kanker Distt.	43970	47673	52080
Charama Block	4705	5310	5210



Fig 1: Charama Fish market



Fig 1: Primary Data Collection



Fig 2: Secondary Data Collection

Materials and Methods

Marketing cost

Marketing cost refers to the expenses incurred by a business to promote and advertise its products or services to potential customers. (Acharya and Agarwal, 2004)^[1]

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

Where

C = Total cost of marketing of the market commodity.

C_f = Cost paid by the producer from the time the produce

leaves till he sells it.

C_{mi} = Cost incurred by the ith middlemen in the process of buying and selling the products.

Marketing Margin

Marketing margin is the difference between the price paid by the dry fish consumer and that received by the fish collector. (Acharya and Agarwal, 2004)^[1].

Market Margin (M) = Selling Price – marketing cost.

Price spread = Retail price - Net price received by the fish collector per kg of fish.

Marketing efficiency (ME) = (V/I)-1

Where

ME = Index of marketing efficiency.

V = Value of the goods sold (consumer price).

I = Total marketing cost.

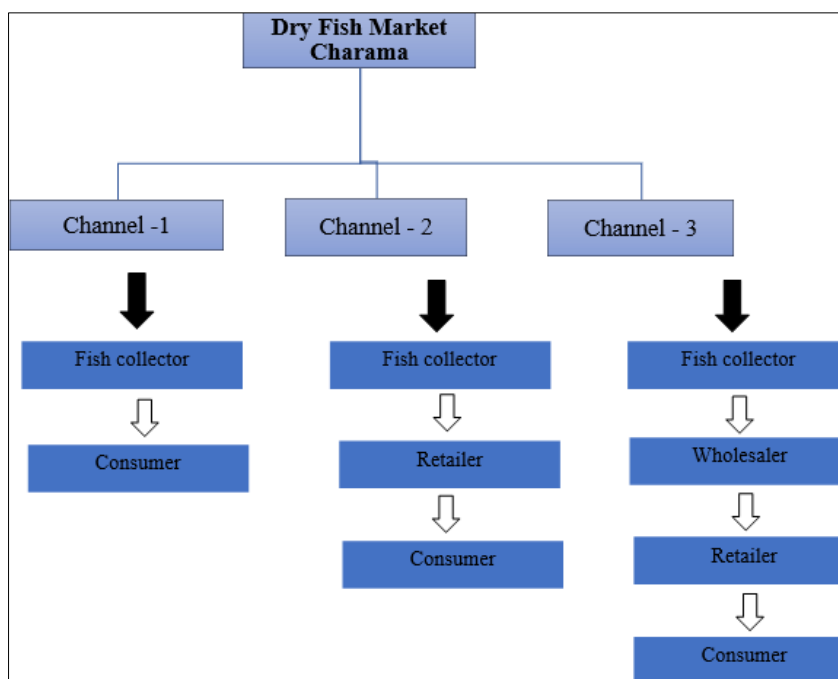
Results and Discussion

Objective: To analyze the marketing cost, market margin price spread and marketing efficiency of the selected fish market

Marketing channel of dry fish

In marketing of fish, were offered for sale through a variety of marketing channels. A marketing channel refers to “set of an interdependent organization involved in the process of making a product or service available for use or consumption. Marketing channel is the place where involvement of some middlemen through which transportation of fish take place from fish collector to consumer. Similar results observed from the study of Charama dry fish market kanker. The market chain from farmer to consumer passes through a number of intermediaries, such as: Fish collector, wholesaler, and retailers. The most common marketing channels identified in the study area for fish were:

1. Fish collector - Consumer.
2. Fish collector – Retailer - Consumer.
3. Fish collector – Wholesaler - Retailer – Consumer.



Marketing cost

Marketing cost refers to the expenses incurred by a business

to promote and advertise its products or services to potential customers. (Acharya and Agarwal, 2004)^[1].

Table 1: Fish paid by fish collector/Wholesaler/Retailer: (Rs/Kg)

S. No.	Particulars	Fish collector	Wholesaler	Retailer
1.	Packaging	-	2.00	2.50
2.	Transportation	2.00	3.00	3.00
3.	Loading and Unloading (labour)	-	1.00	1.30
4.	Drying Fish	10.00	-	10.00
5.	Weighing	-	0.50	0.50
6.	Plastic container	-	0.60	0.70
7.	Storage	-	0.40	-
	Total	12.00	7.50	18.00

The marketing cost, per kilogram of fish paid by fish collector/wholesaler/retailer is given in Table 1. The table revealed that the highest marketing cost was born by the retailer being Rs. 18.00/kg followed by fish collector (Rs.12.00/kg) and wholesaler (Rs.7.50/kg). Out of total marketing cost, retailer spent highest share on drying charges being Rs.10/kg followed by transportation from fish market to retail sale point (Rs.3/kg).

Table 2: Marketing margin in the various channel in the marketing of fish (Rs/Kg)

S. No.	Particular	Channel-1	Channel-2	Channel-3
1.	Fish collector Price	102.00	90.00	85.00
2.	Marketing cost born by Fish collector	12.00	-	-
3.	Net Price of fish collector	90.00	90.00	85.00
4.	Marketing cost born by wholesaler	-	-	7.50
5.	Net margin of wholesaler	-	-	8.00
6.	Marketing cost born by Retailer	-	18.00	18.00
7.	Net Margin of Retailer	-	10.00	8.00
8.	Retail sale price /Consumer price	102.00	118.00	126.50

Marketing margin in various channels in the marketing of fish

is given in Table 2. The table revealed that the highest net sale price received by the fish collector was in channel I being Rs. 90/kg. The retailer spent Rs.18/kg as a marketing cost and got net margin of Rs.10/kg in channel II, while it was lowest in channel III being Rs.8/kg only because in this channel a greater number of intermediaries were involved.

Price Spread

The difference between the price paid by the consumer and the net price received by fish collector was taken as the concept of spread. (Acharya and Agarwal, 2004)^[1].

Table 3: Price spread and fish collector share in different marketing channel of fish:

S. No	Particular	Channel-1	Channel-2	Channel-3
1.	Fish collector price	90.00	90.00	85.00
2.	Consumer price	102.00	118.00	126.50
3.	Price spread	12.00	28.00	43.50
4.	Fish collector share in consumer rupee (%)	88.23	76.27	67.19

The price spread and fish collector share in different marketing channel of fish are given in Table 3. The table revealed that the price spread in fish marketing was Rs.12, Rs.28 and Rs. 43.50 per kilogram for channel I, channel II

and channel III, respectively. It indicated that price spread was higher in channel III, where maximum intermediaries were involved in the marketing of fish and on the other hand, this was lowest in channel I, as in this channel no intermediaries were involved between the fisher and consumer. The table further revealed that among all the three marketing channels identified for fish, the highest percentage of fish collector share was in channel I, i.e., fish collector, consumer being (88.23%) because of the fact that there were no any intermediaries involved in this channel. The fish collector share in consumer's price was (76.27 %) in channel II, i.e., fish collector, retailer, consumer whereas it was lowest (67.19%) in case of the channel III in which four

intermediaries were involved were the fish collector, consumer wholesaler, retailer, consumer. It is clear from these results that the percentage of fish collector share in consumer rupee is inversely related to the number of middlemen involved in the process of marketing.

Marketing Efficiency

Marketing efficiency is the ratio of market output to market input and is the degree of marketing performance. Increasing ratio represents improve deficiency and decrease denotes reduce deficiency (Measured by shepherd's method, 1965, Acharya and Agarwal, method, 2004) ^[1].

Table 4: Marketing efficiency in different channel

Channel	Consumer Price (Rs/kg) (V)	Marketing Cost (Rs/kg) (I)	Marketing efficiency (V/I -1)
1	102.00	12.00	7.50
2.	118.00	28.00	3.21
3	126.50	43.50	1.90

The marketing efficiency in different marketing channels of fish is given in Table 4. Marketing efficiency has been estimated by examining the price paid by the consumer as well as the cost incurred in the process of marketing. The table revealed that the marketing efficiency was high in marketing channel I (7.50%) and it was lowest in channel III being (1.90%).

Table 8: Fish Species Available in the market

S. No.	Common Name	Scientific Name	Retail/kg
1.	Magur	<i>Clarias batrachus</i>	700 -800
2.	Singhi	<i>Hetropneustes fossils</i>	250 -300
3.	Singhara	<i>Sperata seenghala</i>	160 -180
4.	Bambi	<i>Mastacebelus pancalus</i>	160 -170
5.	Chhuriya	<i>Gudusia chapra</i>	100 -150
6.	Kotri	<i>Puntius sophore</i>	180 -200
7.	Dandai	<i>Parluciosoma daniconius</i>	200-220
8.	Sarangi	<i>Salmostoma bacoila</i>	600 -700
9.	Tengna	<i>Mystus tengara</i>	400 -500
10.	Khokhsi	<i>Channa orientalis</i>	200-250
11.	Chinghri	<i>Macrobrachium choprai</i>	800 -1000
12.	Chilati	<i>Osteobrama cotio</i>	100 - 120
13.	Rudwa	<i>Noemacheilus botia</i>	500 -600
14.	Padhina	<i>Wallago attu</i>	300-400
15.	Pangas	<i>Pangasius pangasius</i>	120 -130
16.	Borai	<i>Cirrhinus reba</i>	100 - 130
17.	Singhar	<i>Mystus aor</i>	100 -140
18.	Mohroli	<i>Amblypharyngodon mola</i>	700 -800



Fig 2: Dandai (*Parluciosoma daniconius*)



Fig 3: Sarangi (*Salmostoma bacoila*)



Fig 1: Tusa (Pieces of fish)



Fig 4: Kotri (*Salmostoma bacoila*)



Fig 5: Chingri (*Macrobrachium choprai*)



Fig 9: Chilati (*Osteobrama cotio*)



Fig 6: Mohroli (*Amblypharyngodon mola*)



Fig 10: Chhuriya (*Gudusia chapra*)



Fig 7: Bambi (*Mastacembelus pancalus*)



Fig 8: Khoksi (*Channa orientalis*)

Conclusion

- The dry fish market plays a significant role in the livelihoods of the rural population and the economy of *Charama*, contributing to the diversification of financial conditions.
- In our study, the price of fish varied based on species, size, freshness, and seasons.

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