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RESEARCH PAPER

Efficacy of fish marketing channel in selected districts of North Karnataka

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Abstract: Marketing plays an important role to reach goods from producers to ultimate consumers. Hence, an attempt has made to identify the marketing channels, estimate price spread, marketing costs, margin and efficiency of fish marketing in Dharwad and Belagavi districts of North Karnataka. The study is purely based on primary data collected from the 30 market intermediaries through well-structured pre-tested schedules. There were different marketing channels for Banguda (*Rastrellingerkanaguta*), Surmai (*Scomberomorusguttatus*) and pomfert (*Pampusargenteus*) and three channels for Catla (*Catlacatla*). Shepherd's Marketing Efficiency Index Method was used to examine the efficiency of different marketing channels for selected fish species. Among the identified channels, Channel I is more efficient for Banguda, Surmai and Pomfert and catla as indicated by the marketing efficiency in both the districts.

Key words: Marketing channels, Marketing efficiency, Price spread

Introduction

Fisheries sector is playing an important role in the socio economic development of the country. It has been recognized as a powerful income and employment generator as it stimulates the growth of the number of subsidiary industries and is a source of cheap and nutritious food besides a valuable foreign exchange earner. Most importantly, fishery is a source of livelihood for a large section of the economically backward population. In 2017, the total fish production in India was 12,327 thousand tonnes with a share of 3,562 thousand tonnes from marine and 8,765 thousand tonnes of Inland. Andhra Pradesh is the highest Inland fish producing state of about 2861 thousand tonnes and Gujarat is the highest marine fish producing state of about 708 thousand tonnes. The fish production has risen from 752 thousand tonnes from 1950 to 12,327 thousand tonnes in 2017 with 5.06 per cent growth. Fisheries sector contributes 5.23 per cent to Agriculture GDP and 0.91 per cent to overall GDP. This sector provides employment to 14 million people. (www.indiastat.com)

Efficient marketing plays an important role in the producer's share in the consumer's rupee and maintains the tempo of increased production. Agricultural marketing is costly with high commission charges, trader's profit margin, wastage and malpractices (Thakur, 1998). Fish, being highly perishable in nature, is no exception. In this context, there is a need for the study of efficiency of marketing channels in the marketing of different fish species that are marketed in the study area.

Material and methods

Dharwad and Belagavi are the districts of Karnataka state. The total population of Dharwad district as per 2011 provisional census was 18.46 lakhs and in Belagavi district was 47.78 lakhs. This research mainly focuses in analyzing marketing of the Fishes in Dharwad and Belagavi districts of Karnataka by evaluating the marketing channels, marketing cost price spread, and marketing efficiency of different fish varieties. Primary data was used in the study and data was collected with the help of well-structured open-ended pre-tested interview schedule. Fish markets in selected districts lacks basic facilities and infrastructure except in District headquarters, both marine and inland fishes are available in the markets. Among the different varieties, the arrivals of Banguda (*Rastrellinger kanaguta*), surmai (*Scomberomorus guttatus)*, Pomfert (*Pampusar genteus*) and catla (*Catla catla*) accounts for 85 per cent of the total arrivals to the market. Hence, these varieties were selected for the study. Out of five taluks of Dharwad three taluks were selected and out of 10 taluks of Belagavi district three taluks were selected. From each taluk one fish market was selected and from each market 1 wholesaler, 2 retailers and 2 vendors were selected. Overall 30 market functionaries were selected for the study. Shepherd's Index Method and Price spread, as given below, were used to examine the cost and returns; constraints in fish production.

Shepherd's Index Method

Shepherd has suggested that the ratio of total value of goods marketed to the marketing cost is used as a measure of efficiency. The higher the ratio, higher is the efficiency and vice-versa.

A better expression for shepherd's idea is:

ME = V/(MC+MM)

Where,

ME = Index of Marketing Efficiency

V = Value of fish sold (consumer's price)

MC = Total marketing cost

MM= Total marketing margin

Price spread

The difference between the price paid by consumer and price received by the producers is the marketing margin or price spread. Lesser price spread marketing channel is more efficient.

Table 1. Different marketing channels in selected districts of North Karnataka

Fish species	Channel Number	Marketing channel
	Dharwad district	
Banguda	Channel I	Farmer-Wholesaler- Retailer-Consumer
	Channel II	Farmer-Wholesaler-Vendor-Consumer
Surmai	Channel I	Farmer-Wholesaler- Retailer-Consumer
	Channel II	Farmer-Wholesaler-Vendor-Consumer
Pomfert	Channel I	Farmer-Wholesaler- Retailer-Consumer
	Channel II	Farmer-Wholesaler-Vendor-Consumer
Catla	Channel I	Farmer-Wholesaler- Retailer-Vendor-Consumer
	Channel II	Farmer-Wholesaler-Vendor-Consumer
	Channel III	Farmer-Wholesaler-Retailer-Consumer
	Belagavi district	
Banguda	Channel I	Farmer-Wholesaler- Retailer-Consumer
	Channel II	Farmer-Wholesaler-Vendor-Consumer
Surmai	Channel I	Farmer-Wholesaler- Retailer-Consumer
	Channel II	Farmer-Wholesaler-Vendor-Consumer
Pomfert	Channel I	Farmer-Wholesaler- Retailer-Consumer
	Channel II	Farmer-Wholesaler-Vendor-Consumer
Catla	Channel I	Farmer-Wholesaler- Retailer-Vendor-Consumer
	Channel II	Farmer-Wholesaler-Vendor-Consumer
	Channel III	Farmer-Wholesaler-Retailer-Consumer

Table 2. Marketing costs margin and price spread of different marketing channels of major fishes in Dharwad district, North Karnataka

(₹ /Kg)

Particulars	Banguda		Surmai		Pomfert		Catla		
	Channel -I	Channel-II	Channel -I	Channel-II	Channel -I	Channel-II	Channel -I	Channel-II	Channel-III
Price received by fish farmer	106.00	106.00	306.00	306.00	356.00	356.00	65.00	65.00	65.00
Cost incurred by fish farmer	6.00	6.00	6.00	6.00	6.00	6.00	-	-	-
Net price of fish farmer	100.00	100.00	300.00	300.00	350.00	350.00	65.00	65.00	65.00
Price paid by wholesaler	106.00	106.00	306.00	306.00	356.00	356.00	65.00	65.00	65.00
Cost incurred by wholesaler	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00
Wholesaler's margin	9.00	9.00	15.00	15.00	15.00	15.00	9.00	9.00	9.00
Price received by wholesaler	120.00	120.00	326.00	326.00	376.00	376.00	78.00	78.00	78.00
Price paid by retailer	120.00	-	326.00	-	376.00	-	78.00	-	78
Cost incurred by retailer	5.00	-	5.00	-	5.00	-	5.00	-	5.00
Retailer's margin	15.00	-	20.00	-	20.00	-	15.00	-	15.00
Price received by retailer	140.00	-	351.00	-	401.00	-	98.00	-	98.00
Price paid by vendor	-	120	-	326	-	376	98.00	78.00	-
Cost incurred by vendor	-	10.00	-	10.00	-	10.00	10.00	10.00	-
vendor's margin	-	20.00	-	25.00	-	25.00	20.00	20.00	-
Price received by vendor	-	150.00	-	361.00	-	411.00	128.00	108.00	-
Price paid by consumer	140.00	150.00	351.00	361.00	401.00	411.00	128.00	108.00	98.00
Marketing cost	16.00	21.00	16.00	21.00	16.00	21.00	19.00	14.00	9.00
Marketing margin	24.00	29.00	35.00	40.00	35.00	35.00	44.00	29.00	24.00
Price spread (₹)	40.00	50.00	51.00	61.00	51.00	61.00	63.00	43.00	33.00
Marketing efficiency	3.50	3.00	6.88	5.91	7.86	7.33	2.03	2.51	2.96

Price spread= Price paid by consumer - Price received by the producers

Results and discussion

The route through which fish passes to reach the ultimate consumers is called fish marketing channel. The fish marketing channels prevalent in Dharwad and Belagavi districts at the time of study period were presented in Table 1.

Marketing costs, margin, efficiency and price spread of major fishes in Dharwad district of North Karnataka

The results of marketing costs and margin of intermediaries involved in the marketing of major fishes in Dharwad district was presented in Table 2. Major fish varieties in Dharwad district were Banguda, (Sea fishes) and Catla (Inland fish). There are two different marketing channels for Banguda, Surmai, Pomfert and three marketing channels for Catla fish in Dharwad district, which is presented in Table 2.

In channel I, for Banguda Surmai and Pomfert, price spread was found to be ₹ 40/kg, ₹ 51/kg and ₹ 51/kg, respectively. Whereas marketing efficiency was 3.50, 6.88 and 7.86 as respectively. In channel II for Banguda, Surmai and Pomfert price spread was found to be ₹ 50/kg, ₹ 61/kg and ₹ 61/kg, respectively. Whereas marketing efficiency was 3.00, 5.91 and 7.33, respectively. Price spread in Channel-I was less as compared to channel-II in Banguda, Surmai and Pomfert fish, this was mainly because in Channel-II total marketing cost as well as profit margin was high as compared to Channel-I. In case of Channel-II, vendors help to reach fish to the ultimate consumers by carrying fish to the consumer's residences (Brijesh *et al*., 2014). Hence, they are incurring more transportation costs leading to increased total marketing cost and ultimately increasing the price of the fish by keeping higher margin of profit and Channel II is more efficient than Channel I as indicated by marketing efficiency. High marketing margins indicates a less efficient marketing system (Aswathy and Abdu Samad, 2013).

In channel I, for Catla fish price spread and marketing efficiency was found to be ₹ 63/kg and 2.03, respectively. In channel II, price spread was ₹ 43/kg and marketing efficiency was 2.51. In channel III, price spread was ₹ 33/kg and marketing efficiency was 2.96. Channel III was found to be more efficient as indicated by marketing efficiency. This is mainly because lesser the channel length higher the marketing efficiency (Hatte *et al.,* 2017).

Table 3. Marketing costs, margin and price spread of different marketing channels of major fishes in Belagavi district, North Karnataka

(₹ /Kg)

Particulars	Banguda		Surmai		Pomfert		Catla		
	Channel -I	Channel-II	Channel -I	Channel-II	Channel -I	Channel-II	Channel -I	Channel-II	Channel-III
Price received by fish farmer	126.00	126.00	356.00	356.00	456.00	456.00	65.00	65.00	65.00
Cost incurred for fish farmer	6.00	6.00	6.00	6.00	6.00	6.00	-	-	-
Net price of fish farmer	120.00	120.00	350.00	350.00	450.00	450.00	65.00	65.00	65.00
Price paid by wholesaler	126.00	126.00	356.00	356.00	456.00	456.00	65.00	65.00	65.00
Cost incurred by wholesaler	8.00	8.00	8.00	8.00	8.00	8.00	5.00	5.00	5.00
Wholesaler's margin	15.00	15.00	20.00	20.00	20.00	20.00	15.00	15.00	15.00
Price received by wholesaler	149.00	149.00	384.00	384.00	484.00	484.00	85.00	85.00	85.00
Price paid by retailer	149.00	-	384.00	-	484.00	-	85.00	-	85.00
Cost incurred by retailer	6.00	-	6.00	-	6.00	-	6.00	-	6.00
Retailer's margin	20.00	-	25.00	-	25.00	-	15.00	-	15.00
Price received by retailer	175.00	-	415.00	-	515.00	-	106.00	-	106.00
Price paid by vendor	-	149.00	-	384.00	-	484.00	106.00	85.00	-
Cost incurred by vendor	-	16.00	-	16.00	-	16.00	16.00	16.00	-
vendor's margin	-	20.00	-	25.00	-	25.00	20.00	20.00	-
Price received by vendor	-	185.00	-	505.00	-	525.00	142.00	115.00	-
Price paid by consumer	175.00	185.00	415.00	425.00	515.00	525.00	142.00	115.00	106.00
Total marketing cost	20.00	30.00	20.00	30.00	20.00	30.00	27.00	21.00	11.00
Total market margin	35.00	35.00	45.00	45.00	45.00	45.00	50.00	35.00	30.00
Price spread (₹)	55.00	65.00	65.00	75.00	65.00	75.00	77.00	56.00	41.00
Marketing efficiency	3.18	2.84	6.38	5.66	7.92	7.00	1.84	2.05	2.58

Marketing costs, margin, efficiency and price spread of major fishes in Belagavi district of North Karnataka

Price spread for Banguda, Surmai and Pomfert fishes has been shown in Table 3. Among the channels, Channel I price spread was found to be lowest for Banguda (₹ 55/kg), Surmai (₹ 65/kg) and Pomfert (₹ 65/kg). Marketing efficiency indicated that Channel I is more efficient for Banguda (3.18), Surmai (6.38) and Pomfert (7.92).

Among the three different channels for Catla fish, price spread is low in channel III (₹ 41/kg) and marketing efficiency is highest in Channel III (2.58). Marketing efficiency was lowest in the longest channel (Das *et al.,* 2013 and Solanke *et al.,* 2013) as observed in the channel I for Catla fish. Low price spread and high marketing efficiency channels were more efficient (Gawa *et al.,* 2017).

Conclusion

The results concluded that the channel I was the main marketing channel of Banguda, Surmai, Pomfert and Catla fishes in Dharwad and Belagavi districts which revealed that price spread is low in channel I and high in channel II for sea fishes because in channel II, vendors help to reach fish to the ultimate consumers by carrying fish to the consumer's residences. Hence, they are incurring more transportation costs leading to increased total marketing cost and ultimately increasing the price of the fish by keeping higher margin of profit. For Catla fish, price spread is low in channel III, because of few number of intermediaries involved in marketing channel compared to channel I.

The marketing efficiency of Banguda, Surmai and Pomfert fishes for channel I was higher than channel II and for Catla fish channel III was higher than channel II and Channel I in both Dharwad and Belagavi districts. Therefore channel I and channel III were more efficient for sea and inland fishes respectively, due to lower marketing costs and margin.

In fish marketing channel, government needs to bring policy to reduce role of market intermediaries to increase the revenue for the producer and decrease the fish prices for the consumers. Better infrastructure facilities are essential for direct marketing of fish which will help to the fish consumers and fish market will be easily accessible to the fish consumers.

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