

Available Online at http://www.recentscientific.com

**CODEN: IJRSFP (USA)** 

International Journal of Recent Scientific Research Vol. 8, Issue, 12, pp. 22609-22612, December, 2017 International Journal of Recent Scientific Re*r*earch

DOI: 10.24327/IJRSR

## **Research Article**

## PRICE BEHAVIOUR AND MARKETING EFFIEIENCY OF MARINE FISH IN NELLORE, ANDHRAPRADESH

## Thriveni K<sup>1</sup>., Chandra Shekar Rao<sup>2</sup> Anand Prasad P<sup>3</sup>., Anupamma RR<sup>4</sup>., Sravani K<sup>5</sup> and Prabanjan kumar Reddy<sup>6</sup>

Department of Fisheries Economics and Statistics, Others Faculty of College of Fishery Science, Muthukur, Nellore

DOI: http://dx.doi.org/10.24327/ijrsr.2017.0812.1300

#### ARTICLE INFO

#### ABSTRACT

*Article History:* Received 17<sup>th</sup> September, 2017 Received in revised form 21<sup>th</sup> October, 2017 Accepted 28<sup>th</sup> November, 2017 Published online 28<sup>th</sup> December, 2017

#### Key Words:

Price behaviour, marketing efficiency, marine fish.

Marketing is an important activity in the marine fisheries sector of the country. Fish being a highly perishable commodity needs immediate disposal after harvest. Around 50 percent of the fish caught are marketed in and around the landing centres and the rest goes for interstate trade or export. Analysis of price behaviour at landing centres and retail markets helps to assess the efficiency of the marketing system. The paper analyses the efficiency of marine fish marketing system in Nellore through different indicators like marketing margins, percentage share of fishermen in consumers' rupee, monthly price fluctuations and marketing efficiency index. The results indicated that fishermens' share in consumers' rupee varied from 35 per cent for silver bellies to 80 per cent for barracudas. The highest marketing efficiency index was shown by barracudas and pigface breams.

**Copyright** © **Thriveni K** *et al*, 2017, this is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

## **INTRODUCTION**

An efficient marketing system is one capable of moving goods from producer to consumer at the lowest cost consistent with the provision of to services that consumers demand. Marine fish marketing in India is characterized by uncertainties in supply, assembling of fish from too many landing centres, different types of varieties and demand pattern, large number of marketing channels and intermediaries and price, marine fisheries supply plays a major role in price determination (Sathiadhas, 1997). Price is determined by the interaction of demand and supply at both producing centre (primary markets) and consumer markets. Analysis of price behaviour at landing centres and retail markets helps to assess the efficiency of marketing system.

Andhra Pradesh is one of the important coastal states in the East coast, which has a coastline of 974 km covering 9 coastal districts and 555 fishing villages. The marine fish production in Andhra Pradesh stood at 6.6 lakh tones worth Rs.20,000 crores in 2017. All the fishing villages along Andhra Pradesh coast constitute the primary marketing cetures of marine fish. However, the major primary fish markets of Andhra Pradesh coast are Srikakulam, *Vizianagaram*, Visakhapatnam, *East* 

Godavari, West Godavari, Krishna, Guntur, Prakasam and Nellore. Where the fish arrivals are comparatively higher due to mechanised landings. Prior to independence, substantial quantity of dry fish was exported from Andhra Pradesh especially from Nellore (Sathiadhas, 1997) About 68,397 tonnes of marine products worth Rs.1,772 crores was exported from Andhra Pradesh in 2008-09. Muthukur in Nellore District is one of the major fishing harbours in Andhra Pradesh which contributes nearly 73% of the marine fish production in the State. Out of the 6.01 lakh active fishermen population in Andhra Pradesh. Andhra Pradesh, 33,613 are from Nellore. About 1,127 coastal fisher folk are involved in fish marketing in the region (CMFRI, 2005). An analysis of marine fish marketing system in Nellore was done for the period 2004-2008, using different indicators like marketing margins, percentage share of fishermen in consumers' rupee, monthly price fluctuations, landing and retail price correlations and marketing efficiency index.

#### **REVIEW OF RELATED STUDIES**

Panikkar and Sathiadhas (1989) estimated the functional relationship between the landing centre price and retail price at two markets in Cochin for selected fish varieties using linear

regression analysis. The landing centre prices and retail prices were highly correlated for most of the fishes. Sathiadhas (1997) reported that marketing cost including handling and transportation of big sized fishes like seerfish, giant sea-perch, shark and barracudas was comparatively higher than that of small sized fishes such as sardines, lizard fish and thread-fin breams.

A macro level analysis of marine fish marketing revealed that at all India level, fishermen received an average of 30% (silverbellies) to 60% (seerfish) of consumers' rupee for different varieties of fish. The general trend of fishermens' share in consumers' rupee for different varieties of fish in various states indicates that the fish marketing system is comparatively efficient in Gujarat and Maharastra while less efficient in Karnataka and Tamil Nadu (Sathaidhas and Kanagam, 2000). A study conducted in the Tuticorin District of Tamil Nadu showed that the percentage share of fishermen in the consumer rupee (PSFCR) was maximum for varieties like penaeid prawns annually at 76.87% followed by sharks (69.57%), pomfrets, (68.89%), rock cods (68.57%), thread fin breams (67.21 %) and seer fish (68.53%). These varieties earned the fishermen a consistent share of the consumer rupee (Narayankutnar and Sathiadhas, 2006).

## METHODOLOGY

There are about 13 fish landing centres in Nellore. The data on marine fish prices at first sales where collected from Krishnapatnam, Maipadu, Nellore North and Nellore South fish landing centres. The major retail markets in Nellore are Jalapuspha Bhavan fish market and Madhya Bhavan fish market. The retail price data was collected from Jalapuspha Bhavan market which is one of the important retail markets in Nellore. Analysis of marine fish prices at landing centre and retail levels were done for Nellore District for the period 2004-08. Monthly price fluctuations were analysed using coefficient of variation. Data on marketing costs and margins were collected from different landing centres and Jalapuspha Bhavan market. The price spread or gross marketing margin is the difference between the producer price and the consumer price. The marketing margin is an indicator of efficiency of the marketing system. In the absence of any value added process, higher the value of marketing margin, the lower is the efficiency of the marketing system (Huger and Hirenath, 1984). Marketing efficiency is worked out using Shepherd's Index (Chole et a/., 2003):

Index of marketing efficiency (MEI) = V/l V= value of goods sold (retail price) l= Total marketing costs and margins

### **RESULTS AND DISCUSSION**

Marine fish passes through different channels and intermediaries until it reaches the ultimate consumer. There is no wholesale market existing in Nellore and Jalapuspha Bhavan market was one of the important retail markets where fishes arrive from Krishnapatnam, Fishing Harbour, Maipadu, North and South landing centers. Groupers, prawns and cephalopods are mainly taken by the export sector. Sailfish, tunnies, seer fish, mackerel and pigface bream are mainly going-to neighbouring States especially Tamil Nadu. In Maipadu landing centre, there is a large scale trade of dried rays especially to cater the dried fish markets in Central Kerala. Varieties like barracudas, pigface breams, half and full beaks, anchovies, crabs, etc move through the local marketing channels. The different marketing channels in Nellore are:

- A. Fishermen-Auctioneers-commission agents-Retailers (Nellore)- Consumers (Nellore)
- B. Fishermen-Auctioneers-commission agents (Kerala)-Retailers- Consumers (Kerala)
- C. Fishermen-Auctioneers-Agents of exporters-Processors-Exporters

Among the different channels, the local marketing channel is analysed to assess the price behaviour and marketing efficiency.

# Monthly Price Fluctuations of Landing Centre and Retail Prices

Analysis of annual average price, monthly price fluctuations at landing centre and retail levels were done for commercially important species of fishes in Nellore. Analysis of monthly price fluctuations showed that at landing centre level fluctuations were more when compared to retail level. This showed a stable demand for fishes at retail level when compared to landing centre level where local buyers, exporters, and outside state buyers decide the price of auctioned fish. At landing centre, the highest fluctuation was shown by rock cods (87.87%) and the lowest by lizard fishes (10.96%). At retail level, the highest fluctuation was seen in the price of silver bellies (32.24%). Crabs (6.97%), anchovies (7.33%), seer fishes (10.93%) and pigface breams (11.79%) showed lower fluctuations (Table 1). The highly elastic supply, perishability of fish and absence of storage and processing facilities force the fishermen to dispose the catch immediately after harvest. This make the fishermen mere price takers and causes high fluctuations at landing points when compared to retail markets.

 Table 1 Coefficient of Variation of Monthly Landing Centre

 Prices in Nellore

Name of speices	CV(%) landing centre price	Retail price	
Rays	28.39	31.38	
Catfishes	17.03	13.49	
Anchovies	34.05	7.33	
Lizard fish	10.96	14.72	
Rockcods	87.87	14.13	
Pigface breams	14.18	11.79	
Goat fishes	21.51	20.77	
Silverbeilies	19.68	32.24	
Seerfishes	18.11	10.93	
Barracudas	14.81	14.98	
Crabs	17.89	6.97	

#### Price Spread Analysis

The price spread was highest for seer fishes at Rs. 70/kg and the lowest for catfishes and lizard fishes at Rs. 11/kg. Percentage Share of Fishermen in Consumers' Rupee (PSFCR) was less than 80% for most of the varieties and varied from 35 per cent for silverbellies to 80% for barracudas (Table 2).

Auctioneer-Retailer-Consumer)								
Name of fish	Net price received by fishermen (Rs./to	Retail price (Rs./kg)	Price spread (Rs/kg)	PSFCR (%)				
Rays	20	35	16	54.83				
Catfishes	33	44	11	74.77				
Anchovies	34	51	17	66.35				
lizard fish	35	46	11	75.61				
Pigface breams	55	69	14	79.01				
Goat fishes	36	66	30	54.12				
Silverbellies	9	27	18	34.81				
Seerfishes	160	230	70	69.4S				
Barracudas	54	67	13	79.97				
Crabs	42	69	27	61.30				

 Table 2 Price Spread and Percentage Share of Fishermen in

Consumers' Rupee (Marketing channel: Fishermen-

slashing down of prices with heavy catches which in turn leads to high price fluctuations at landing points when compared to retail markets. The perishable nature of fish and lack of proper storage and processing facilities force the fishermen to dispose the produce immediately after harvest. In addition, most of the fishermen are indebted to the money lenders cum middlemen who finance the fishing operations which force them to sell the produce at a lower price. The involvement of too many intermediaries needs to be curbed in order to increase the efficiency of fish marketing system and ensure remunerative price to the fisher folk. Introduction of co-operative marketing system in the region will help to protect the interest of both fishermen and consumers. It is also necessary to create proper institutional support mechanism for fishing and marketing activities as well as creation of adequate infrastructural

 Table 3 Marketing Costs and Margins of Selected Species of Fish (Marketing channel: Fishermen-Auctioneer-Retailer-Consumer)

Items of cost	Name of fish					
At landing centre level	Rays	Anchovies	Pigface- breams	Goatilsh	Seer fish	Barracudas
Landing centre price	21	36	58	38	170	57
Auctioning charges	1.26	2.16	3.48	2.28	102	3.42
Fishermen's price	20	34	55	36	160	54
Costs of packing	0.1	0.1	0.2	0.1	02	0.2
Loading/ unloading charges	0.25	0.25	0.25	0.25	0.25	025
Ice cost	15	1.5	2	1.5	2	2
Costs of transport	1	1	1	1	1	1
At retail level						
Ice cost	05	0.5	1	0.5	1	1
Stall rent	0.1	0.1	0.1	0.1	0.1	ai
Labour cost	3	3	3	3	3	3
Other costs	02	0.2	0.2	0.2	02	02
Retail price	36	51	69	66	230	67
Marketing costs	7	7	8	7	8	8
Share of marketing costs in price spread (%)	43.75	35.29	57.14	23.33	11.43	6154
Marketing margin	9	10	6	23	62	5
Share of marketing margins in price spread (%)	56.25	64.71	4286	76.67	88.57	38.46
Price spread	16	17	14	30	70	13
Share of marketing margins in consumers' rupee (%)	25.00	19.61	8.70	34.85	26.96	7.46
Index of marketing efficiency	2.25	3.00	4.93	2.20	3.29	5.15

The price spread included marketing costs and margins. The different items of marketing costs included costs of packing, loading and unloading charges, ice cost, icing charges and cost of transport at the landing centre and stall rent, ice costs and labour charges at the retail market. Analysis of marketing costs and margins for selected species of fishes showed that more than 50% of the price spread was accounted as marketing margins for most of the varieties. The percentage share of marketing margins in consumers rupee was highest for goatfishes (34.85%) followed by seerfishes (26.96%) and rays (25%). The marketing efficiency index was highest for barracudas followed by pigface breams (Table 3).

## CONCLUSIONS

The study showed that barracudas and pigface breams had the highest marketing efficiency and the maximum percentage share of fishermen in the consumers' rupee whereas seer fishes showed the highest percentage share of marketing margins in consumers' rupee. The extent of marketing margins in varieties like rays, goatfishes and stiver bellies indicated the huge margin grabbed by the intermediaries. A large number of intermediaries and high marketing margins indicate a less efficient marketing system. Inelastic supply offish results in facilities for storage and processing for improving the efficiency of fish marketing.

### References

- Chole, V.M., J.M.Thalathi and V.G.Naik (2003) Price spread in marketing of Brinjal in Maharshtra, *Agricultural Marketing*, XLVI: 2(5-8).
- CMFRI (2005) Marine Fisheries Census-2005 Part-1, Government of India, Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries, Krishi Bhavan, New Delhi and Central Marine Fisheries Research Institute, Kochi: 104.
- Narayanakumar, R. and Sathiadhas, R. (2006) Domestic fish marketing opportunities for marine fisheries sector in India. National Workshop on Post harvest Methods and Domestic Fish Marketing Opportunities: 59-67.
- Huger, L.B and K.C. Hirenath (1984). Efficiency of alternative channels in marketing of vegetables in Belgaum city-A comparison. *Indian Journal of Agricultural Economics*, 34(3).
- Panikkar, K. K. P. and Sathiadhas, R. (1989) Marine fish marketing trend in Kerala. *Journal of the Marine Biological Association of India*, 31(1 &2): 239-246.

- Sathiadhas, R. (1997) Production and marketing management of marine fisheries in India. Daya Publishing House, New Delhi.
- Sathiadhas, R. and Kanagam, A. (2000) Distribution problems and marketing management of marine fisheries in India. In: *Marine Fisheries Research and Management*, Pillai, VN and Menon, N G, (eds.) CMFRI; Kochi: 858-875.

#### How to cite this article:

Thriveni K et al.2017, Price Behaviour And Marketing Efficiency of Marine Fish In Nellore, Andhrapradesh. Int J Recent Sci Res. 8(12), pp. 22609-22612. DOI: http://dx.doi.org/10.24327/ijrsr.2017.0812.1300

\*\*\*\*\*\*