

ECONOMIC ANALYSIS OF RAW FISHING MARKETING IN JAMMU DISTRICT OF J&K (UT)

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ABSTRACT: As the fish market sector has large share in India, in view of changing market dynamics advertisement trends, marketing of fish, understanding consumer perception and retaining consumers has been recognized as key source of competitive advantage. Business organizations across the world are becoming more and more consumers centered and competitive day by day. So in order to expand the consumer base and market share business organizations engage in a variety of forms of marketing activities. The study was conducted of 50 samples respondents through which primary data was collected from Jammu district. The data collected was estimated by considering the margins, marketing channels and net price. As per the study three marketing channels were followed where channel I was for fisherman- Auctioneer- Retailers- Consumers, channel II was fisherman- fish collector/local dealer- auctioneer- wholesaler- Retailers-Consumers and channel III was fisherman-Wholesaler-Retailers-Consumers. The variety and quantity of fish purchased daily by respondents was Rohu, followed by pangasius in Jammu district. The income of the respondents was significantly of range between 20,000- 30,000 monthly that constitute of 32% in Jammu district. The market constraints were studied by using Garret ranking technique and constraints found by traders and retailers mostly of high transportation cost, distribution process, seasonal change, storage of fish .

Keywords: Fish, Market, Jammu, Retailer, Auctioneer, transportation, Rohu

Fishery is a flourishing sector with varied resources and potential worldwide in country's economy. Fish consumption plays a good source of human diet, rich in omega-3 fatty acids , vitamins, amino acids and trace elements (Ravichandran et al., 2012). With the consumption of fish that leads to many health benefits such as reduce the risk of delivering premature baby, increase intelligence, healthy development of retina in children, lowers blood pressure, increase good cholesterol, reduces blood clot and healthy development of brain tissues (Kabir et al, 2012, Rahman et al., 2013). Globally, India stands 2nd in the production of fish after China. India's fishery sector contribution in GDP has increased from past 10 years. India's fish production increased in 2019-2020 about 14.6 MMT compared with 2015-2016 about 10.66 MMT. The value of fisheries export in 2019-2020 also increased of about INR 46,662 crore . The contribution of fisheries sector in Indian economy 2018-2019 is 2,12,915 crore (GVA) and of 1.24%. Fishery sector role has increased directly and indirectly that creating jobs, providing food supply, and raising nutritional value. Moreover, UT J&K blessed with plenty of aquatic resources that facilitate fish farming. A few associations have been set up at national level to advance the fisheries division and help the anglers. These include organizations such as the National cooperative Development Corporation (NCDC), the National Federation of Fisherman's Cooperatives Ltd. (FISHCOPFED) and National Fisheries Development Board (NFDB). NCDC's fisheries related activities include creation of infrastructural facilities for fish marketing, ice plants, cold storages, retail outlets etc. FISHCOPFED promotes fishery cooperatives and assists fishermen to market their produce efficiently through hygienic retail fish centre's in metropolitan cities thereby providing remunerative prices to fish farmers. NFDB is

promoting domestic fish marketing through modernization of wholesale markets, establishments of cold chains, popularization of hygienic retail outlets and technology up gradation. Kumar et al., 2008 investigated that Fish marketing has huge potential but still marketing channels were highly unorganized and unregulated in India. Due to improvement in fish marketing not only reduce demand-supply gap, dependency of import of fishes but also contribute in reduction of food and nutritional security of middle income population further, there's need for reduction of barriers for new professional so that they can enter in this sector easily .Moreover, transportation and storage infrastructure should be created and maintenance such as establishment of cold storage, pond-river-reservoir sites, ice factories etc. Hence various efforts were made for modern retail outlets have to be promoted with the help of public- private partnership so that consumption of fish become easier ensuring remunerative prices of fishes. A comparative study was done by Qayoom et al. (2015) that changing in fishing patterns in Jammu and Kashmir where Kashmir province showed 4.2% of overall compound growth compared with Jammu province of 7.9% since 1956-57. Gawa et al., 2017 reviewed the study where all vendors were women and fish wholesaler and retailers were men. All vendors were illiterates and not having any formal education. There was extremely restricted assortment of fish accessible in the business sectors which were essentially Rohu, Common carp, Silver carp, Pangus and Schizothorax. Fixed inventories have investment pattern of Rs. 366600, Rs.18573.33 and Rs.2989 for wholesaler, retailer and vendors, respectively, even retailers were also incurred with highest marketing costRs.10.57/Kg followed by wholesalers and vendors with Rs.6.76/Kg and Rs.5.33/Kg. So, study concluded that there's need for establishment of proper marketing facility in the valley to reduce the dependency of imported fish

and transportation cost. Farooqi et al. (2018) studied that social, economic, personal and health related issues of Kashmir valley fisherwomen come forward where women entrepreneurs need to be encouraged in the fisheries sector. Bhat et al. (2018) Studied the utilization design, imperatives and promoting issues of fish in area Srinagar of Kashmir valley and shown that individuals engaged with Fish showcasing face various issues in fish advertising like Storage issue, Lack of Marketing Facility, High Transportation Cost, Unavailability of Ice and Packaging Problem. Individuals associated with this business additionally told that they were over taken advantage of by the middlemen associated with this business. By keeping all the above into thought, the study has been directed with the accompanying destinations to appraise the value spread and break down the advertising productivity for fish in Jammu district. The scope of this study is to analysis of raw fish marketing in Jammu district of UT J&K. The study is based on primary data and secondary data. The study will also be helpful to policy makers to know the present scenario of fish industry and also underlying the fish marketing constraints.

Materials and Methods

Both primary and secondary data was collected from the sample area. Primary data was collected from respondents of Jammu district through the market survey using questionnaires as well as direct personal interview method. The sample size taken for the study was 50 in which 10 are traders of fish, 15 are retailers and 25 are consumers. The objectives of the study was to understand the status and importance, to identify the various marketing channels of

fish marketing of fish, and to identify the problem and constraints in fish marketing faced by the stakeholders, after collecting the data the results have been analyzed by using descriptive statistics, percentage method and Garrett ranking technique.

Percentage analysis

$$\text{Percentage} = (x/y) \times 100$$

Where x = number of respondents respond

y = total number of respondents

Marketing efficiency

Using Shepherd's formula, measure the market performance where movement of goods from producers to the ultimate consumers at the lowest possible cost consistent with provision of service desired by consumer

Marketing efficiency = fisherman price / (marketing margin + marketing cost) X 100

Henry Garrett Ranking Technique

Formula: percentage position = $100(R_{ij} - 0.5) / N$

Where R_{ij} = rank

N = number of items

Results and Discussion

The Socio- economic characteristics of the fish respondents were studied and data was collected. Then analysis the data by employing tabular form represented in table- 1. During demographic analysis of the respondents that evaluated age group of 20-30 years respondents were maximum in number of 36% of total sample size. Followed the educational status that revealed high school respondents were maximum constitute 28% of sample size and lastly the income incurred monthly was between Rs. 20,000-30,000.

Table- 1: Socio - Economic characteristics of fish respondents in fish market of Jammu district

Variable	Type	Frequency
Age group (years)	20-30	18 (36%)
Educational status	Mostly high school	14 (28%)
Monthly income	Rs. 20,000-30,000	16 (32%)

Status of fish in J&K

Table: 2- showed the data of fish production in J&K from the years i.e. 2007-2017 regarding the production of fish. The data revealed that over the last ten years the increase

and decrease in the volume of fish production. Over these years the minimum production was in the year of 2007-08 (i.e.17.88 in thousand MT) with the maximum production was in the year 2015-16 (i.e.20.08 thousand MT).

Table-2: showed the status of Fish in J&K

Year	Volume in thousand metric tones
2007-2008	17.33
2008-2009	19.27
2009-2010	18.94
2010-2011	19.70
2011-2012	19.85
2012-2013	19.95

2013-2014	20.00
2014-2015	20.30
2015-2016	20.08
2016-2017	18.80

Variety and quantity of fish purchased daily by respondents. It was found that from the sample size, six respondents preferred to purchase Rohu fish variety while, four respondents purchased pangasius variety and rest of sample size mostly one or two preferred to purchase other varieties of fish. Following some other varieties are pomfret, catla, singhara, mahseer, murga, mrigal etc.

To identify the various marketing channels of fish marketing in Jammu Table 3- showed that three marketing channels were involved in fish marketing with participation of various intermediaries. The primary function of marketing channel was to bridge the gap between the producer and the user of it, whether the parties are located in the same community or in different countries thousands of miles apart. In channel 1, fishermen sold the commodity to auctioneer and auctioneer further sold it to retailers and retailers make it available to the ultimate consumers by keeping in mind

to increase his/her additional gain. Channel 2 was longest selling chain to consumer in which there is much participation of intermediaries other actor. In this channel fishermen sold the commodity to fish collector or local dealer and from them fish goes to the auctioneer and auctioneer further sold it to the wholesaler and wholesaler sold the fishes to the retailers and retailers make it available to the ultimate consumers. Channel 3 represents that first of all producer sold their produce to wholesaler, then wholesaler sell them further to retailers and retailers then make the produce available to end consumer, but here all the participated parties except consumers makes up their profit by adopting this kind of marketing channel. Further, these marketing channels were analyzed the marketing margin and cost, with marketing efficiency. From the following results marketing channel III showed more efficient than other two.

Table-3: showed various marketing channels of fish marketing

Marketing channel I			
	Price	Marketing margin	Marketing Cost
FISHERMEN	100	50	5.00
WHOLESALER	150	20	7.50
RETAILER	170	30	10.00
FISHERMEN	100	50	5.00
CONSUMER	200	Total MM=100	Total MC=22.50
Marketing efficiency	1.22%		
Marketing channel II			
	Price	Marketing margin	Marketing Cost
AUCTIONEER	170	30	4.80
RETAILER	200	50	7.10
CONSUMER	250	Total MM=80	Total MC=11.9
Marketing efficiency	2.17%		
Marketing channel III			
	Price	Marketing margin	Marketing Cost
GOVERNMENT	160	20	1.65
RETAILER	180	40	7.50
CONSUMER	250	Total MM=60	Total MC=9.15
Marketing efficiency	2.60%		

Monthly disposals of fish by retailers

Table: 4- and Figure: 1- represented the monthly disposal of fish by retailers. It can be depicted that 7 respondents (i.e. 46.67 per cent) disposed 500-1000 kg of raw fish

monthly, followed by 6 respondents (i.e. 40.00 per cent) disposed 1000-1500 kg of raw fish monthly, followed by 2 respondents (i.e. 13.33 per cent) disposed 1500-2000 kg of raw fish monthly.

Table- 4: Monthly disposals of fish by retailers

Monthly disposal of Raw fish/kg	No. of respondents	Percentage (%)
500-1000	7	46.67
1000-1500	6	40.00
1500-2000	2	13.32

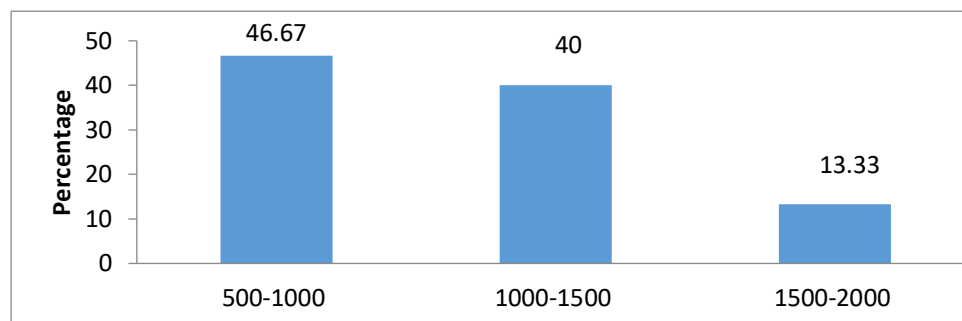


Figure-1: Represents the Monthly disposals of fish by retailers

To Identify The Main Problems And Constraints In Fish Marketing Faced By The Stakeholders. Problems faced by traders and retailers regarding the transportation cost, seasonal changes, distribution process, shortage of fish in winters, storage of fish and weight loss with time.

These market constrains were calculated with the help of Henry Garrett ranking technique. According to this method ranking were provided to the problems and shown in table-5.

Table-5: Garrett Ranking of fish marketing problems faced by wholesaler and retailers

S.No.	Constraints faced by respondent	Total value	Percent	Rank
1.	Transportation cost	1750	17.5	VI
2.	Price Fluctuation	1636	16.36	VII
3.	Distribution Process	1764	17.64	III
4.	Shortage of fish in winters	1884	18.84	II
5.	Seasonal Change	1761	17.61	IV
6.	Storage of fish	1709	17.09	V
7.	Weight loss with time	3700	37	I

Conclusion

Fish is among the healthiest foods on the planet. It's loaded with important nutrients, such as protein and vitamin D. Fish is also a great source of omega-3 fatty acids, which are incredibly important for your body and brain. It is revealed from the study that the largest fish seed production was 50252.00(in million fry) in the year of 2016-17 and 2004-05 is the lowest year in which fish production was 20790.64(in million fry). From the following results marketing channel III showed more efficient than other two. The study revealed that the storage and transportation facilities of raw fish in Jammu District have been done on their own and the governments do not provide any of those facilities. Lack of government initiatives is one of the major constraints in fish marketing. In Jammu district, there's lack of information flow between the Government producers and local traders of fish which is also a main constraint. Government should provide a platform for fish market so that wholesalers can buy from their own state and distribute to retailers and ultimate customers. Proper storage is one of the crucial elements of supply of fishes which is lacking. Therefore

having an efficient storage facility can help to develop an efficient use of fish.

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