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Market Intermediaries and Their Marketing Margins for Inland Fish – A Case Study of Lahore District

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ABSTRACT

Despite its arid climate, Pakistan has substantial inland water that offers great potential of fish farming inland both on small and large scale, the exploitation of which could help to meet the growing demand of animal protein for local consumption and for earning foreign exchange through exports. Nonetheless, there are problems on both production and marketing side associated with inland fishing. On marketing side, wide price fluctuations lead to uncertainties in securing favourable price upon harvest. Besides this, many market intermediaries are involved in the marketing of inland fish. The article in hand attempts to identify the market intermediaries involved in the marketing of inland fish, their marketing margins and the market channels through which the inland fish reaches to the ultimate consumers. The study is based on the primary data and simple statistical techniques like averages and percentages have been employed to calculate marketing margins. The results of the study indicate that share of market intermediaries in the consumer's rupee is substantial and there is need to increase the government shops to reduce the marketing margins and thereby to enhance the producer income.

Key Words: Market intermediaries; Marketing margins; Marketing channel; Marketing costs; Inland fisheries

INTRODUCTION

Fisheries play an important role in Pakistan's economy and is considered to be an important source of livelihood for the coastal inhabitants. Apart from marine fisheries, inland fisheries are also very important source of animal protein. Although the share of fisheries in the GDP is very little but it contributes substantially to the national income through export earnings. Around 84,693 million tons valued at Rs. 7.9 billion fishery products were exported in the year 2000. During the year 2000-2001, the total fish production is estimated at 665,000 million tons, of which share of marine sector is 480,000 million tons and inland contribution is 185,000 million tons. (Govt. of Pakistan, 2000-2001)

Despite its arid climate, Pakistan has substantial inland water areas with varying degrees of potential for the development of inland fisheries and aquaculture. Inland water resources consist of rivers, canals, lakes, ponds and reservoirs scattered over several lakh acres in Pakistan Thus there exists tremendous potential for exploiting inland water resources in Pakistan for fish farming inland both on small and large scale. Fresh water culture is profitable undertaking with low investment and quick results. The development of aquaculture would go a long way in enhancing the production of fish to meet the growing demand of animal protein for local consumption and for earning foreign exchange through exports.

Nonetheless, there are problems on both production and marketing side associated with inland fishing. On productions side, common problem is insufficient supply of fingerlings. This principally affects productive capacity. Other forces attributing to low production are unfavourable weather conditions and lack of technical assistance from government.

On marketing side, wide price fluctuations lead to uncertainties in securing favourable price upon harvest. Other problems are delayed payments by commission agents: relatively high transport costs and lack of knowledge on actual marketing condition. This last problem created the condition of unsold catch. In times of bumper production of marine fish, inland fish contractors can hardly cope with the existing competition. Besides many market intermediaries are involved in the marketing of inland fish. Therefore, the article in hand attempts to identify the market intermediaries involved in the marketing of inland fish, their marketing margins and the market channels through which the inland fish reaches to the ultimate consumers.

RESEARCH METHODOLOGY

The study was based on primary data collected from Lahore district in year 2000. A preliminary survey revealed that in Lahore district there were 201 fish farms (out of this 4 were Govt. fish farms and 197 private fish farms), 4 Public water areas, 3 contractors of public water areas and 36 commission agents. Only one shop was being operated by the department of Fisheries at Lahore where surplus fish stock came from the fish farms. The private fish farms operators either auctioned their farms or sold their catch through the commission agents. The study sample was divided into 3 sections namely producer, market intermediaries and consumers, each of them having their own universe. Producers were categorized in to small, medium and large depending upon the size of fish farm.

The sample drawn form each of the universe was as under;

1. 20 fish farms [18 private (8 small, 8 medium and 2 large farms), 2 Government fish farms].
2. 3 contractors (Public water areas), 6 commission agents, 4 processor / retailers and 10 retailers.
3. 30 consumers [10 low income (earning less than Rs.25000 per annum), 10 medium income (earning more than Rs. 25000 and less than Rs. 50000 per annum), 10 high income (earning more than Rs. 50000 per annum)]

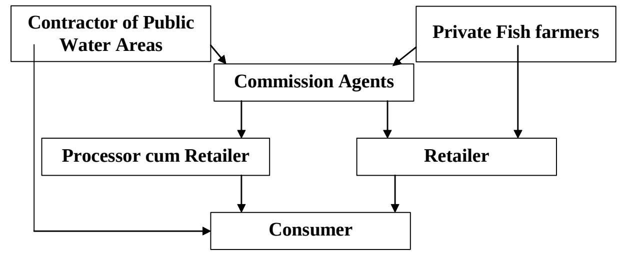
In all, 73 respondents were selected at random and interviewed to get detailed information. Separate interview schedules were prepared to collect necessary information and data from each of the seven groups of the respondents. The data were taken by personal interview method. These schedules were pretested and modified before the actual data collection. Data thus collected were tabulated and statistically analyzed. Owing to certain limitations, the study was confined to only three fish species Rohu, Morie and Thalla which were categorized as first, second and third class respectively.

RESULTS AND DISCUSSION

Marketing channels. The sequence of stages involved in transferring produce from the farm to the consumer is generally referred to as marketing channel (Shepherd, 1996). The fish supplied by the producers passed through certain channels before it reached the ultimate consumers. Direct marketing as practiced by the contractor was made possible only when there was a direct contact between the producer and consumers. In most of the cases, the producer sold their catch through intermediaries particularly when the consumer markets were distant from the production areas. The common practice of channeling the catch was through the commission agents because of the producer's desire to concentrate on production.

Seven market channels were observed in the flow of fresh water fish in Lahore market. Selection of a suitable marketing channel depended upon the volume and quality of fish catch and the requirements of the consumers.

Fig. 1.Market channel for inland fisheries in Lahore district



Channel 1, 3 and 7 were selected for the sale of the fish in the rural markets directly of the final consumers. Only 15 percent of the total catch from the public water areas was disposed of through these two channels. Channels 4 and 6 were adopted for the disposal of the processed fish.

The demand of fish in the rural markets was small. Major part of the fish catch from the public water areas was disposed of in the urban markets through channel 2. Channel 5 and 6 were used for disposal of the produce coming form the private fish farms. Channel 2, 5 and 6 were the most prominent for the sale of fish in the urban markets.

Channel 1: Contractor-Consumer:
Channel 2: Contractor-Commission Agent-Retailer-Consumer;
Channel 3: Contractor-Retailer-Consumer;
Channel 4: Contractor-Commission Agent-Retailer/Processor-Consumer;
Channel 5: Private Fish Farmers-Commission Agent-Retailer-Consumer;
Channel 6: Private Fish Farmers-Commission Agent-Processor/Retailer-Consumer;
Channel 7: Private Fish Farmers-Retailer-Consumer;

Market intermediaries and their marketing margins. Marketing margins are indicators of trends in costs, profits and services provided by farmers and food marketing firms. This is the difference between what the consumer pays for food and what the farmer receives (Kohl & Uhl, 1972). It is also calculated as the percentage share received by each

Table I. Marketing margins and net profit for various marketing intermediaries for inland fish in Lahore for different marketing channels

		Channel 2			Channel 4			Channel 5			Channel 6		
#	**Elements**	**Rohu**	**Morie**	**Thailla**	**Rohu**	**Morie**	**Thailla**	**Rohu**	**Morie**	**Thailla**	**Rohu**	**Morie**	**Thailla**
1	Contractors' Sale price / Private Fish Farmers	63.13	53.75	46.25	80	70	60	49.38	45.63	44.69	70	65	60
2	Commission agents fee	6.31	5.31	4.63	8	7	6	4.94	4.56	4.47	7	6.5	6
3	Retailers' purchase price (including commission fee)	69.44	59.14	50.88	88	77	66	54.22	50.19	49.16	77	71.5	66
A	Gross Margin	6.81	8.36	7.75	132	123	134	11.41	9.81	7.09	143	128.5	134
B	Net Margin (GM-Cost)	4.83	6.38	5.77	65	56	67	9.43	7.83	5.11	76	61.5	67
4	Consumer purchase price	76.25	67.5	58.13	220	200	200	65.63	60	56.25	220	200	200
5	Share of producer in consumers' rupee (%)	82.79	79.63	79.56	36.36	35	30	75.24	76.05	79.45	31.82	32.5	30
	Aggregate Margins (%)	17.21	20.37	20.44	63.64	65	70	24.76	23.95	20.55	68.18	67.5	70

marketing intermediary. There is a strong cumulative effect on the marketing margin resulting from the increasing number of intermediaries involved in marketing process (Bashir *et al.*, 2001).

There were four intermediaries involved in the flow of fresh water fish i.e. Contractors / fish farmers, Commission agents, retailers, processor cum retailers. Overall aggregate margins in case of channel 2 were found to be 17.21 %, 20.37 % and 20.44 % for Rohu, Morie and Thailla respectively. For channel 4, the aggregate margins were 63.64 %, 65 % and 70 % for Rohu, Morie and Thailla respectively. In case of channel 5, these were calculated 24.76 %, 23.95 % and 20.55 % for Rohu, Morie and Thailla respectively where as for Rohu, Morie and Thailla same were found to be 68.18 %, 67.5 % and 70 % respectively (Table I). For each marketing intermediary the marketing margins have been calculated as under.

I) Contractors. The contractors in the rural markets sold only 15 percent of the total catch while 85 percent was brought to the urban markets, which was sold through the commission agents. Whole catch of the private fish was sold in the urban market through the commission agents.

The contractors paid on an average Rs. 9.91 per kg to Govt. The marketing margins of the contractors were Rs. 59.16, Rs. 51.97, and Rs. 43.22, for Rohu, Morie, and Thailla, respectively. Costs incurred by the contractors on various items were as under:

i)	Netting (Average)	=	Rs. 1000/40kg;
ii)	Packing	=	Rs. 5/40 kg;
iii)	Transportation	=	Rs. 21/40 kg;
Total		=	Rs. 1026 / 40 kg or Rs. 25.65 / kg

Net profit of the contractors averaged at Rs. 33.51, Rs. 26.32, and Rs. 17.57, for Rohu, Morie, and Thailla, respectively.

II) Private fish farmers. The cost of production of private fish farmers was Rs. 24.34 per kg. Marketing margins of the private fish farmers were found to be Rs. 25.04, Rs. 21.29, and Rs. 20.35, for Rohu, Morie, and Thailla, respectively where as costs for the private fish farmers included the following items.

i)	Netting	=	Rs. 35/40kg;
ii)	Packing	=	Rs. 5/40 kg;
iii)	Transportation	=	Rs. 30/40 kg;
iv)	Labour	=	Rs. 20/40 kg;
Total			Rs. 90 / 40 kg or Rs. 2.25 / kg

As per the findings of the study the private fish farmers obtained average per of Rs. 22.79, Rs. 19.04, and Rs. 18.1, for Rohu, Morie, and Thailla, respectively.

III) Commission agents. The commission agents or arhtiyas operated in the town or city markets. They possessed sizable cold storage facilities and were an important functionary in the marketing of fresh water fish. They graded the fish in accordance with the requirements of the buyers. Every commission agent had employed one or two labourers to perform the functions of handling, grading, storage and cleaning of fish and shop.

The commission agent disposed off all the fish catch preferably on the same day or with next few days. The commission agents received 10 percent commission fees from the buyers of fish as was prescribed by the market committee. Commission agent also gave the credit to producers and contractors with some conditions such as the producer or contractors will sell their produce through the commission agent and commission agent will charge a 7 percent commission fee from producer or contractors. Following items constitute cost structure for commission agents.

i)	Icing	=	Rs. 25/40kg;
ii)	Labour charges	=	Rs. 5/40 kg;
iii)	Shop rent	=	Rs. 5/40 kg;
iv)	Miscellaneous	=	Rs. 5/40 kg (Electricity, Lunch etc.)
Total		=	Rs. 40 / 40 kg or Rs. 1 / kg

Regarding the net profits of the commission agent, these were averaged at Rs. 5.56, Rs. 4.86, and Rs. 4.16, for Rohu, Morie, and Thailla, respectively.

IV) Retailers. The retailers purchased the supplies from the commission agents or the contractors in the rural markets. Some of them selling fish to the urban consumers had permanent shops in the urban markets generally close to the commission shops but majority of them carried fish from place to place for the sale to the final consumers. They were in direct contact with the consumers and supplied various species of fish to the consumers according to their demand. Preparing fish for cooking was the main job of the retailers. Their marketing margins averaged at Rs. 9.11, Rs. 9.09, and Rs. 7.42, for Rohu, Morie, Thailla, respectively whereas retailers had to spend on the following cost items.

i)	Icing	=	Rs. 20/40 kg;
ii)	Packaging	=	Rs. 5 /40 kg
iii)	Salt	=	Rs. 8 /40 kg;
iv)	Labour charges	=	Rs. 16/40 kg
iv)	Miscellaneous	=	Rs. 30/40 kg (Shop rent, Electricity, Transportation)
Total		=	Rs. 79 / 40 kg or Rs. 1.98 / kg

Net profit of the commission agent averaged at Rs. 7.15, Rs. 7.11, and Rs. 5.44, for Rohu, Morie, and Thailla, respectively.

V) Processors. The processors of the fish usually purchased their supplies from the retailers and commission agents. Most of them used 'A' or 'B' grade marine and fresh water fish. Marketing margins of the retailers averaged at Rs. 137.5, Rs. 125.75, and Rs. 134, for Rohu, Morie, and Thailla, respectively. The items, which constitute the cost structure for the processors, were found to be as under.

i)	Gram floor	=	Rs. 4/40kg;
ii)	Spices	=	Rs. 5 /40 kg;
iii)	Edible oil	=	Rs. 10 /40 kg;
iv)	Fuel	=	Rs. 5/40 kg;
v)	Shop rent	=	Rs. 2/40 kg;
vi)	Electricity	=	Rs. 7/40 kg
vii)	Labour	=	Rs. 4/40 kg;

viii) Transportation = Rs. 1.5/40 kg;
ix) Taxes = Rs. 1.5/40 kg;
x) Value of weight loss during preparation = Rs. 27/40 kg
Total = Rs. 67 / 40 kg

The processors earned an average net profit of Rs. 70.5, Rs. 58.75, and Rs. 67, for Rohu, Morie, and Thailla, respectively.

Share in Consumer's Rupee. Marketing margins and net profit of different intermediaries in different channels are given in Tables I. In channel two and five the contractors and producers got the highest share in consumer's rupee as explained in Table I. The share of contractors and producers in consumer's rupee were averaged at 80.48 % and 77.57 % respectively. In channel four and six as explained in Table the processor got the highest margin so that's why the margin of producer or contractors is less. Table also depicts that the share of contractors and producers in consumer's rupee were averaged at 34 % and 31.36 % respectively while of processor in both cases was averaged at 64.05 %. The processor's purchase price was quite high because he bought the bigger sized fish, which was of the high price.

CONCLUSIONS AND SUGGESTIONS

On overall basis, according to the results of the study, the marketing cost per kg incurred by the contractors, producers, commission agent, retailers and the processors were Rs. 25.65, Rs. 2.25, Rs.1, Rs. 1.98 and Rs. 67 respectively. As for as the profit margins are concerned, these varied from species to species for different categories of marketing intermediaries.

To save the consumers from the exploitation of middlemen, the number of Government fish shops should be increased so that instead of relying on middlemen, they could also buy fish from these shops. By increasing the Govt. fish shops the marketing margins of middlemen could be decreased and ultimately the share of the producer will be increased.

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