

AN ESTIMATION OF MARKETING MARGINS OF INLAND FISH IN DISTRICT FAISALABAD, PAKISTAN

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Abstract

This paper attempts to estimate marketing margins of major intermediaries involved in the marketing of inland fish in district Faisalabad using primary source of data. Formal interviews were conducted from a representative sample of 80 farmers, 40 commission agents and 40 retailers selected using stratified random sampling technique with proportional allocation. Findings of the study indicated, commission agents earned Rs.560 and Rs.475 per maund as net margin respectively in case of Rahu and Thaila breeds. Similarly the net margins of retailers were estimated as Rs.675 and Rs.450 per maund for Rahu and Thail breeds respectively. High commission fee beyond the limits is just the exploitation of the retailers. Government should lower down the commission fee and fix up to a reasonable level for facilitating the marketing functions.

Key Words: Inland Fish, Marketing Margin, Stratified Random Sampling and proportional allocation

1. Introduction

Agriculture sector comprises of crops, livestock, forestry and fisheries sub sectors. Major crops include wheat, rice, cotton, and sugarcane which contribute 32.8 percent whereas minor crops include fruits, vegetables and condiments which contribute 11.1 percent to the agricultural GDP. Livestock is the single largest contributor to overall agriculture (53.2 percent) however, grew by 4.1 percent in 2011-12 as

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against 3.5 percent last year. The fishery sector has been expanded by 1.4 percent, against its previous year's growth of 2.3 percent (GOP, 2012).

The fisheries sector, although small, is an important economic sub-sector of agriculture, which contributes about 1.0 percent to the country's GDP, equivalent to 3.7 percent of the agriculture sector. Fisheries also contribute to foreign exchange earnings amounting to more than 589.8 million per annum, fourth in ranking amongst export commodities. The sector provides employment to about 0.4 million people, constituting 1.0 percent of the country's total labor force (GOP, 2011).

Fisheries sector play a significant role in the food security of the country, as it reduces the existing pressure on demand for mutton, beef and poultry meat. It is considered as one of the most important economic activity along the coastline of Sindh and Khyber pakhtonkhaw provinces. It has been estimated that about 400,000 fishermen and their families are directly dependent upon the fisheries for their livelihood whereas about 600,000 are involved in the ancillary industries. Pakistan's major seafood buyers are China, UAE, Thailand, Korea, Malaysia, Indonesia, Hong Kong, Middle East, and Sri Lanka (GOP, 2011).

Inland fishing has received increasing attention in recent years and the government has established several fish hatcheries and training facilities for fish farmers. Fish farming is practiced in the Punjab, Khyber Pakhtonkhaw, and Sindh provinces on a limited scale, where species such as *trout*, *common carp*, *grass carp*, *silver carp* and *other carp* species have been introduced. The per capita fish consumption in Pakistan was about 2.0 kg/yr, which is very low by international standards (FAO, 2009).

The marketing chain for fish is more or less similar to those of other agricultural commodities. Products are sold into the market to wholesalers and then to retailers and to end consumers through agents working on commission basis. Inland fish tend to be marketed either at the farm gate, through middle men or during open auction where ice-packed fish sent to fish markets after harvest (FAO, 2005).

Marketing margin or price spread is a commonly used measure of the performance of a marketing system (Abbott and Makeham, 1990). It can be a useful descriptive statistics if used to show how the

consumers' expenditure is divided among market participants at different levels of the marketing systems. It is defined as the difference between the price the consumer pays and the price that is obtained by producers, or as the price of a collection of marketing services, which is the outcome of the demand for and supply of such services.

Many studies are available which estimated marketing margins of major crops which include Partadiredja (1971) for rice, Khushk and Smith (1996) for mango, Ishaq *et al.*, (2006) for citrus, Cholan (2007) for broiler, Zeb and Khan (2008) for peach, Adinya (2009) for groundnut, Khushk *et al.*, (2009) for date etc. Only few studies are available which estimated marketing margins for inland fish like Nadeem (1984), Rao and Chaudhry (1988), Hussain *et al.*, (2003) and Ali *et al.*, (2008). The present study was conducted to estimate margin of major intermediaries involved in marketing of inland fish (Rahu and Thaila) in district Faisalabad.

3. Methodology

Methodology includes the tools and techniques of collection and analysis of data; this is applied particularly for testing the hypothesis. The aim of research was to estimate margins of major intermediaries involved in the marketing of Inland Fish in district Faisalabad. In order to achieve objectives of the study, planned strategy was undertaken to select area, type and number of respondents. Without taking these considerations it would be a futile effort. The paper is based on primary data collected through a comprehensive and pre-tested questionnaire from 80 fish farmers, 40 commission agents and 40 retailers from three tehsils i.e. Faisalabad, Tandlianwala and Summandri of district Faisalabad for the year 2012. Stratified random sampling technique (proportional allocation) was used to select the sample. Margin analysis was used to measure the margins of commission agents and retailers. The percent marketing margin was estimated using the following formula.

$$MM = Ps/Sp * 100 \quad (1)$$

Where;

MM = Marketing Margin

Ps = Price spread

Sp = Sale price

Price spread = Sale price – Purchase price

Gross marketing margin was estimated employing the following formula.

$$GM = Sp - Pp \quad (2)$$

Where;
GM = Gross Margin
Sp = Sale price
Pp = Purchase price

Net marketing margin was estimated using following formula.

$$NM = GM - TC \quad (3)$$

Where;
NM = Net Margin
GM = Gross Margin
TC = Total cost

4. Empirical Analysis

In this section empirical findings of marketing margin analysis of inland fish in district Faisalabad is presented and discussed.

4.1 Marketing Margin of Commission Agents for Rahu Breed

Commission agent acts as the middleman between producers and consumers. He is always present in the wholesale market. The commission agent was selling Rahu fish to another stakeholder on an average Rs.6600 per maund. The gross marketing margin of commission agent for Rahu was Rs. 660 per maund; out of this, marketing cost was Rs.100 per maund. So the net margin was Rs. 560 per maund. In the marketing chain of fish in district Faisalabad, commission agent was getting 10 percent of the total margin of the marketing chain. The net profit as percentage of sale price was 8.5 percent. In gross margin of commission agent, marketing cost contributed 15 percent whereas rest of the 85 percent was the profit of commission agent (see table 1 in appendix).

Average sale price (Rs/Maund) = 6600
Gross marketing margin (Rs/Maund) = 660
Percent marketing margin = 10 percent
Average marketing cost (Rs/Maund) = 100
Net Profit (Rs/Maund) = 660-100=560
Net Profit as percentage of margin = 560/660*100= 85.0 percent
Net Profit as a percentage of sale price = 560/6600*100 = 8.5 percent

4.2 Marketing Margin of Commission Agents for Thaila Breed

The commission agent was selling Thaila fish to another stakeholder on an average Rs.5750 per maund. The gross marketing margin of commission agent for Thaila was Rs. 575 per maund; out of this, marketing cost was Rs. 100 per maund. So the net margin was Rs. 475 per maund. Net profit as percentage of sale price was 8.0 percent and marketing cost contributed 18 percent whereas rest of the 82 percent was the profit of commission agent (see table 2 in appendix).

Average sale price (Rs/Maund)	= 5750
Gross marketing margin (Rs/Maund)	= 575
Percent marketing margin	= 10 percent
Average marketing cost (Rs/Maund)	= 100
Net Profit (Rs/Maund)	= 575-100=475
Net Profit as percentage of margin	= 475/575*100= 82.0 percent
Net Profit as a percentage of sale price	= 475/5750*100 = 8.0 percent

4.3 Marketing Margin of Retailers for Rahu Breed

Retailer is mostly a street hawker or stall holder in city areas. The retailer was purchasing Rahu fish on an average Rs. 6000 per maund and was selling fish to another stakeholder on an average Rs.7400 per maund. The gross marketing margin of retailer for Rahu was Rs. 1400 per maund; out of this, marketing cost was Rs. 725 per maund. So the net margin was Rs. 675 per maund. In the marketing chain of fish in district Faisalabad, retailer was getting 19.0 percent of the total margin of the marketing chain. The net profit as percentage of sale price was 9.0 percent. In gross margin of retailer, marketing cost contributed 52.0 percent whereas rest of the 48.0 percent was the profit of retailer (see table 3 in appendix).

Average purchase price (Rs/Maund)	= 6000
Average sale price (Rs/Maund)	= 7400
Gross marketing margin (Rs/Maund)	= 1400
Percent marketing margin	= 1400/ 7400*100 = 19.0 percent
Average marketing cost (Rs/Maund)	= 725
Net Profit (Rs/Maund)	= 1400-725 = 675
Net Profit as percentage of margin	= 675 /1400*100= 48.0 percent
Net Profit as a percentage of sale price	= 675/ 7400*100 = 9.0 percent

4.4 Marketing Margin of Retailer for Thaila Breed

The retailer was purchasing Thaila fish on an average Rs. 5500 per maund was selling fish to another stakeholder on an average Rs.6600 per maund. The gross marketing margin of retailer for Thaila was Rs. 1100 per maund; out of this, marketing cost was Rs. 650 per maund. So the net margin was Rs. 450 per maund. In the marketing chain of fish in district Faisalabad, retailer was getting 16.67 percent of the total margin of the marketing chain. The net profit as percentage of sale price was 7.0 percent. In gross margin of retailer, marketing cost contributed 59.0 percent whereas rest of the 41.0 percent was the profit of retailer (see table 4 in appendix).

Average purchase price (Rs/Maund)	= 5500
Average sale price (Rs/Maund)	= 6600
Gross marketing margin (Rs/Maund)	= 1100
Percent marketing margin	= $1100/6600*100 = 16.67$ percent
Average marketing cost (Rs/Maund)	= 650
Net Profit (Rs/Maund)	= $1100-650 = 450$
Net Profit as percentage of margin	= $450/1100*100 = 41.0$ percent
Net Profit as a percentage of sale price	= $450/6600*100 = 7.0$ percent

5. Concluding Remarks

Fisheries play an important role in Pakistan's economy, which contributes about 1 percent to the country's GDP. Fish is a healthy food, low in calories and cholesterol levels but rich in protein. In spite of enormous potential, there are many problems on marketing side of fisheries like wide price fluctuations, higher commission fee, delayed payments by commission agents, relatively high transportation costs and lack of knowledge on actual market conditions. As far as Faisalabad wholesale fish market is concerned, there is very congested place for the market. Due to congested environment, sanitary conditions are poor, unhygienic conditions are prevailing and it creates problems during loading and unloading. Government should provide proper place for the wholesale fish market in district Faisalabad for making market operations smooth and should lower down the commission fee and fix up to a reasonable level for facilitating the marketing functions.

REFERENCES

- Abbott, J. C. and Makeham, J. P. (1990). *Agricultural Economics and Marketing in the Tropics* (2nd edition). Intermediate Tropical Agricultural Series. Longman, Group Ltd, London, UK.
- Adinya, I. B. (2006). Analysis of Costs>Returns Profitability in Groundnut Marketing in Bekwarra Local Government Area Cross River State, Nigeria. Department of Agricultural Economics and Extension, Cross River University of Technology Obubra Campus, Nigeria. *The Journal of Animal & Plant Sciences* 19(4), Pages: 212-216.
- Ali, E. A., Gaya, H. I. M., and Jampada, T. N. (2008). Economic Analysis of Fresh Fish Marketing In Maiduguri Gaboru Market and Kachallari Alau Dam Landing Site of Northeastern, Nigeria. *Journal of Agriculture and Social Sciences*, 4 (1).
- Cholan, T. Z. (2007). Marketing Margins of Broiler in Azad Jammu Kashmir: Challenges and Opportunities. *Sarhad J. Agric.*, 23(1), 27-35.
- Food and Agriculture Organization (FAO). (2005). *National Aquaculture Sector Overview Pakistan*. Fisheries and Aquaculture Department of the United Nations; Pakistan.
- Food and Agriculture Organization (FAO). (2009). *Fishery and Aquaculture Country Profile of the United Nations; Pakistan*. Material downloaded from http://www.fao.org/fishery/countrysector/naso_pakistan/en on 27 Jan, 2010.
- Government of Pakistan (GOP). (2011). *Economic Survey of Pakistan (2010-11)*. Economic Advisor's Wing, Finance Division, Islamabad.
- Government of Pakistan (GOP). (2012). *Economic Survey of Pakistan (2010-12)*. Economic Advisor's Wing, Finance Division, Islamabad.
- Hussain, S. A., Badar, H. and Khokhar, S. B. (2003). Market Intermediaries and Their Marketing Margins for Inland Fish – A Case Study of Lahore District. *International Journal of Agriculture & Biology*, 5(1), 34-42.
- Ishaq, M., Farooq, A., and Hassan, A. (2006). Market Margins Analysis of Citrus Produce in Malakand District of NWFP. *Sarhad J. Agric.*, 22(3), 57-68.

- Khushk, A. M. and Smith, L. E. D. (1996). A Preliminary Analysis of the Marketing of Mango in Sindh Province, Pakistan. *The Pakistan Development Review*, 35(3), 241—255.
- Khushk, A. M., Memon, A. and Aujla, K. M. (2009). Marketing Channels and Margins of Dates in Sindh, Pakistan. *J. Agric. Res.*, 47(3), 293-299.
- Nadeem, M. A. (1984). A Study of Marketing of Fresh-Water Fish: The Testimony from Faisalabad Markets. MSc (Hons) Thesis, deptt. of Agriculture Marketing UAF.
- Partadiredja, A. (1971). The Marketing Margin for Rice, *Bulletin of Indonesian Economic Studies*, 7(2), 89-94.
- Rao, D. V. S. and Chaudhry, K. R. (1988). A Study of Marketing Costs, Margins and Factors Affecting Prices of Inland Fish in Selected Markets. *Indian Journal of Agricultural Marketing*, 170-175.
- Zeb, J. and Khan, Z. (2008). Peach Marketing in NWFP. Restructuring of Horticultural Research and Development Project in NWFP. *J. Agric.*, 24(2), 67-74.

APPENDIX

Table 1: Marketing Margins of Commission Agent for Rahu Breed (Rs/Maund)

Item	Avg. Sale Price	Gross Margin	Marketing Cost	Net Profit Margin	Net Profit as % of sale price
Fish	6600	660	100	560	
Percent		10	15.0	85.0	8.5

Table 2: Marketing Margins of Commission Agent for Thaila Breed (Rs/Maund)

Item	Avg. Sale Price	Gross Margin	Marketing Cost	Net Profit Margin	Net Profit as % of sale price
Fish	5750	575	100	475	
Percent		10	18.0	82.0	8.0

Table 3: Marketing Margin of Retailer for Rahu Breed (Rs/Maund)

Item	Avg. Sale Price	Avg. Purchase Price	Gross Margin	Marketing Cost	Net Profit margin	Net Profit as % of sale price
Fish	7400	6000	1400	725	675	
Percent			19.0	52.0	48.0	9.0

Table 4: Marketing Margin of Retailer for Thaila Breed (Rs/Maund)

Item	Avg. Sale Price	Avg. Purchase Price	Gross Margin	Marketing Cost	Net Profit margin	Net Profit as % of sale price
Fish	6600	5500	1100	650	450	
Percent			16.67	59	41.0	7.0