AN INVESTIGATION INTO MARKETING CHANNELS AND MARGINS OF RICE IN DISTRICT MALAKAND

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ABSTRACT

This study is aimed at determining the distributive marketing margins of rice and the shares of different marketing functionaries involved in the marketing margins in Batkhela Tehsil of Malakand district during the year 2004. It was observed that two marketing channels 1) Producer→wholesalers (Pharia)→ retailer→consumer and 2) Producer→beopari→wholesaler (Pharia)→ retailer→consumer, involved in trading of rice in the study area. In channel 1, the producer received 17.90% net margin and 41.04% gross margin. However, in channel 2, it was found that the producer gained less net margin 36.36% and 14.54% gross margin. The main reason behind the reduction into net margin and gross margin was observed to be relatively low involvement of farmer in the marketing activities. Furthermore it was also observed that the lack of capital, poor extension services, high input price and lack of marketing channels were the main marketing problem of rice producers in the study area. Additionally total production, marketing intelligence, education, marketable surplus and marketing price are important variables affecting marketing margin.

Key words: Agriculture, Marketing channels, Marketing margins, Malakand, Rice

INTRODUCTION

Malakand is one of the most fertile lands of NWFP. The total area of the district is about 952 square kilometers (94287.66 hectare). Out of the total reported area i.e. 52.134 thousand hectares only 45.681 thousand hectares is cultivated. Major crops grown in the area are wheat, maize and rice. Within NWFP Malakand district accounts for 11.2% of the total rice cultivated area and produce 10.6 percent of total production in NWFP. The soil of Malakand district is sandy loam gravel layers/loams and developed from old materials where rice is grown as one of the cash crops. Basmati and JP5 occupy major areas along with the traditional rice verities. The total area under rice cultivation during 2003 was 6.894 thousand hectares, whereas production was 13 thousand tonnes (Govt. of NWFP, 2003).

Fruit gardens are numerous in the district and the area is known for guava and peaches. Rice is also grown due to persistent demand from the villages. The improved means of communication have led to more people growing rice and they now fetch better price. Batkhela Tehsil of district Malakand is famous for rice production and farmers have now started taking keen interest in growing more rice.

While marketing their commodities many problems are being faced by the rice growers of Batkhela as elsewhere in the country, including lack of quality seeds and other inputs such as pure pesticides and fertilizers, inadequate and poor extension services, lack of market intelligence, storage facilities and financial constraints. Due to lengthy and complex marketing channels the marketing costs are high and rice producers suffer tremendous economic losses.

Small farmers of the study area have little access to get credit from institutional sources because of high interest rate and prohibition of interest in Islam. Improved packaging and grading is still not popular in the area. These are some of the factors responsible for the low return to rice producers.

The common perception is that marketing margins are very high which diminish the return of the rice growers. This study was directed to investigate the rice growers share in price paid by consumer's rupee and also sort out shares of various middlemen involved in marketing process. It also analyses the costs incurred at various stages of marketing process and highlights the marketing bottlenecks of rice growers, beoparies, wholesalers and retailers. At the end makes suggestions and recommendations for the improvements of rice marketing. The study was conducted in Malakand district where no such study has been undertaken before this.

The objectives of the study were;

i. To identify the marketing channels of rice in Batkhela tehsil of Malakand district.
ii. To estimate the margins and cost of intermediaries at various stages of rice marketing.

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iii. To highlight and investigate the bottlenecks in rice marketing system.
iv. To suggest policy guidelines for improving rice marketing.

In the past, several studies have been undertaken elsewhere to underscore the marketing margins of agricultural commodities. In these studies efforts have been made to determine the cost of production of crops, marketing costs, marketing margins at various levels, net returns to producers, gap between price paid by the ultimate consumers and price received by the farmers and their marketing problems. In general, most of the studies show that the middlemen are exploiting farmers and big marketing margins exist for agricultural commodities, ranging from about 10 to more than 80 percent.

Some of the studies, e.g., Kasana (2003) carried out study on distributive marketing margins of three most commonly grown vegetables, i.e. potato, peas and marrow and the shares of different marketing functionaries involved in the marketing margins. He observed that total marketing margins for potato was 38.86 %, for peas 54.89 % and for marrow 62.89 %. The net margins for potato, peas and marrow were 19.04 %, 27.25 % and 30.50 % respectively. The producer received 61.136 %, 45.106 % and 37.107 % of the price paid by the consumer for potato, peas, and marrow respectively. The difference in marketing margins for various vegetables is due to high marketing and picking costs. It was observed that 30 % of the potato fields were sold to pre harvest contractors. The highest marketing margins were observed for marrow followed by peas and potato respectively. The highest net margins for producers were observed for potato followed by peas and marrow. The highest net margin for wholesales was found in marrow followed by peas and potato. The retailer's highest net margins were observed for marrow followed by peas and potato.

MATERIALS AND METHODS

The study was based on primary as well as secondary data. The primary data were collected from producers of rice, beoparies, wholesalers and retailers during the years 2004. The secondary information about different respondents, i.e. the lists of wholesalers of rice, were obtained from Market Committee Batkhela.

Malakand District is divided into 2 Tehsils namely, Batkhela and Dargai. Batkhela tehsil is famous for rice production. In Tehsil Batkhela 3 villages (Totakan, Khar and Batkhela) were purposively selected, because these villages were accessible and well suited for rice cultivation. There are 450 growers of rice in Tehsil Batkhela. Out of the total, a sample comprises 10 percent of total population (i.e. 45) growers were randomly selected on proportionate sampling basis. A list of all the beoparies of rice was compiled and 10 beoparies were selected randomly. Wholesalers and retailers 10 each in numbers were interviewed. Separate questionnaires were prepared for growers, wholesalers, beoparies and retailers. The questionnaire was pretested before regular survey. The information from farmers included sale price, and cost of harvesting, packing, packing material, transportation and market committee fee. The results were arrived at by computing simple arithmetic average. To analyze the factors responsible for marketing margins the following econometric model was used to estimate empirical results.

$$MM = f (TP, DM, MI, SY, MS, MC, MP)$$

Where,
MM is marketing margin, TP is total production, DM is distance from the market, MI is market intelligence, SY is schooling year, MS is marketable surplus, MC is marketing cost and MP is market price or consumer price. These entire factors have positive correlation for marketing margins.

RESULTS AND DISCUSSION

Size of Landholding

Average farm per sample farmer was 4.396 acre and average area under rice was 4.32 acres. In the overall sample, 71 percent acres of land followed by 22 percent possessing 6-10 acres and 7 percent having 11 acres and above respectively.

Age of Sample Respondents

The age of sampled respondents are more or less equally distributed into various age groups. The largest number (35%) were reported in the age group 31-40 years followed by 25, 24 and 16% belonging to age groups 51-69 years 41-50 years and 20-30 years, respectively.

Educational Level of Sampled Respondents

A forty two percent of the sample respondents were illiterate. Among literates, a large number (20%) were having education up to matric level. The other notable education reported by sample respondents was FA (13%), primary (11%), middle (10%) and MA (4%).

Tenurial Status of Sample Respondents

The majority (55%) of the sampled respondents of the research area were owners. The remaining 28% and 17% were tenants and owner-cum-tenant, respectively.

Marketing Channels

Marketing channels is a chain of middlemen involved in the process of selling of different commodities at different stages. Each functionary in the marketing channel has a role and gets payments for his role. The most common distribution channels observed were:

i. Producer——wholesaler (Pharia)—retailer—consumer
ii. Producer—beopari——wholesaler—retailer—consumer

Henceforth, the first marketing channel will be called as channel-1 and second marketing channel as channel-2.

Role of market intermediaries

The Market intermediaries provide specialized marketing services and financial support to producer and play a pivot role in the production and marketing of rice. Most common marketing intermediaries were beoparies, wholesalers and retailers.

Beopari

Beopari plays an important role in the marketing system. Beopari buys the rice after harvesting and carried out all the post harvest activities himself.

Wholesaler

The wholesaler buys relatively bigger volume and sell to retailer and consumer in small volume

Retailer

Retailer is situated at the terminal end of marketing channel. He has his own, or rented shop in the market or in village.

Marketing Margins

The marketing margin is the difference between the price paid by the ultimate consumer and the price received by the producer. The number of middlemen involved in various channels of the marketing has a strong effect on the marketing margin. Marketing margins of rice in both channels are summarized.

Channel-1

In channel I, the net margins (Gross margin-cost of marketing/sale price*100) gained by the farmer, wholesaler and retailer were estimated at the rate of 17.9%, 4.04% and 13.14% respectively; whereas, the gross margins (sale price-cost of production/sale price*100) for the three categories were found to be 41.04%, 8.61% and 15.51% correspondingly.

Channel-2

For rice marketed through channel 2, the net margins gained by the farmer, beopari, wholesaler and retailer were computed as 14.88%, 10%, 18.22%, and 6.22% respectively; while, the corresponding figures for the gross margins of the same categories stood at 36.36%, 23.64%, 24.44% and 28%.

The first channel is relatively more efficient than channel 2 because the farmers carried out marketing activity themselves.

Iqbal (1992) observed that the gross margins of producer, preharvest contractor, wholesaler and retailer were 13.11, 30.90, 12.51 and 43.48% for plums in Balochistan, respectively while the margins of preharvest contractor, pharia and retailer for apple were 32.65, 9.90 and 26.99%, respectively. Similarly, net margins of apple were 7.17 and 6.39%. The producer share was 38.65% and the net commission agent share was 3.95%. The net margins of almond for producer, preharvest contractor, wholesaler and retailer were 25.2, 24, 10.2 and 37.2%, respectively. He noted that the producer of almond who self marketed were able to improve his share from 25.2 to 45% while the commission agent charged the commission at the rate of 2% of the auction price. Khair (2000) observed that overall marketing margins for apple varieties were 73% while the producer is receiving 27% of the consumer price. The marketing cost are very high due to exploitative marketing set up, lack of marketing intelligence of farmers, expensive packaging material and transport. Thakur *et al.* (1994) concluded that vegetable production in the hilly areas is highly profitable and can be used to significantly increase the income of small and marginal farmers. There is a need for an integrated approach to tackle the production and marketing problems faced by farmers. However, similar study related to the marketing margins of vegetables and fruits could be found.

Econometric Analysis

To quantify the impact of various variables on the marketing margins, the following econometric model was used.

$$MM = \boldsymbol{Bo}+\boldsymbol{B_1}\,TP+\boldsymbol{B_2}\,DM+\boldsymbol{B_3}\,MI+\boldsymbol{B_4}\,SY+\boldsymbol{B_5}\,MS+\boldsymbol{B_6}\,MC+\boldsymbol{B_7}MP$$

Where,

MM is marketing margin, TP is total production, DM is distance from the market, MI is market intelligence, SY is schooling year, MS is marketable surplus, MC is marketing cost and MP is market price.

The results of the given model are as follows:

Variable	OLS coefficient	*t* value
MM	-21.67	-2.21
TP	-0.0014	-2.155
DM	0.142	0.939
MI	-0.435	-0.317
SY	-1.095	-7.06
MS	-0.002	2.151
MC	2.338	2.019
MP	-0.53	-1.72

$R^2 = 0.889$ F=40.72

The sign of the total production, market intelligence, schooling years, marketable surplus and market price variables are negative and also statistically significant at 5% level of significance. This means that by increasing total production, market intelligence, schooling years, marketable surplus and market price marketing margins decreases. The coefficient of distance from market variable is positive but statistically insignificant thus its means that distance from market have no effect on marketing margin. The sign of the marketing cost is positive and also statistically significant at 5% level of significance. This means that by increasing marketing cost marketing margins increased.

As Fcal = 40.72 is > than Ftab =3.34 at 5% level of significance therefore overall effect of various variables on marketing margins is significant.

R^2 is called coefficient of determination, indicate that 88 percent variation in dependent variable has been explained by variation in independent variable.

CONCLUSION AND RECOMMENDATIONS

The main focus of the study was to investigate the marketing channels and margins of the rice. The popularly grown rice verities are Basmati and JP5.

The most commonly used marketing channel for rice is Producer—wholesalers (Pharia)—retailer—consumer. The producer got, 41.04 of the consumer price as net margin. For rice another channel is also used. This channel is Producer—beopari—wholesaler—retailer—consumer. In this channel the producer share was 23.64 % of the price paid by the final consumer.

In the light of results of the study following are the recommendations;

i. A large-scale comprehensive study is needed to evaluate marketing costs and marketing margins of various marketing functionaries.
ii. The farmers themselves should carry out the marketing activities. This will increase their share in consumer rupee. Agricultural extension should encourage farmers for direct marketing.
iii. It farmers have easy access to credit facilities; it will discourage the role of certain middlemen.
iv. Various marketing intermediaries are exploiting farmer by charging higher rates under various heads, so it is suggested to implement the market regulations strictly.

Table I. ***Marketing Costs and Margins for rice (Rs./Kg)***

Channel-1

Trade Level and Costs		Margins/Costs	%age
Farmers	Sale price	22.39	100
	Cost of Production	13.2	
	Gross margins	9.19	41.04
	Cost of marketing	5.18	
	Net margins	4.01	17.90

Channel I

Trade Level and Costs		Margins/Costs	%age
Wholesalers	Purchase price	22.39	100
	Sale price	24.5	
	Gross margins	2.11	8.61
	Cost of marketing	1.12	
	Net margins	0.99	4.04
Retailers	Purchase price	24.5	
	Sale Price	29	
	Gross margins	4.5	15.51
	Cost of marketing	0.61	
	Net margins	3.89	13.41
Consumer	Purchase price	29	

Table II. ***Marketing Costs and Margins for rice (Rs./Kg)***

Channel-II

Trade Level and Costs		Margins/Costs	%age
Farmers	Sale price	11	
	Cost of Production	7	
	Gross margins	4	36.36
	Cost of marketing	2.4	
	Net margins	1.6	14.55

Channel II

Trade Level and Costs		Margins/Costs	%age
Beopari	Purchase price	11	
	Sale price	13.6	
	Gross margins	2.6	23.64
	Cost of marketing	1.5	
	Net margins	1.1	10
Wholesalers	Purchase price	13.6	
	Sale price	18	
	Gross margins	4.4	24.44
	Cost of marketing	1.12	
	Net margins	3.28	18.22
Retailers	Purchase price	18	
	Sale Price	25	
	Gross margins	7	28
	Cost of marketing	5.3	
	Net margins	1.7	6.8
Consumer	Purchase price	26	

REFERENCES

Govt. of NWFP. 2002. Agric. Extension Department, Govt. of NWFP, Pakistan.

Govt. of Pakistan. 2003. Pakistan Economic Survey. Ministry of Finance, Economics Advisor's Wing, Finance Div. Islamabad.

Chattaopadhyay, M. and D. Sarkar. 1994. Marketing efficiency and marketing channels in a prosperous region of rural west Bengal. Asian Econ. Rev. 36: 565-597.

FAO, 1990. Marketing Cost and Margins of Selected Agricultural Products in Selected Govt. of Balochistan.

Iqbal, M. 1992. Marketing Costs and Margins of Deciduous Fruits in Balochistan. Outreach and Transfer of

Fruit Technology Project in Balochistan Paper # 4, Food and Agric. Org. of UN and Deptt. of Agric. and Cooperatives, Govt. of Balochistan.

Iqbal, M. 1994. Marketing Costs and Margins of Apple in Balochistan. Outreach and Transfer of Fruit Technology Project in Balochistan Paper # 14, Food and Agric. Org. of UN and Deptt. of Agric. and Cooperatives, Govt. of Balochistan.

Iqbal, M. 1994. Marketing of Plums in Balochistan. Outreach and Transfer of Fruit Technology Project in Balochistan. Paper # 14. Food and Agric. Org. of UN and Deptt. of Agric. and Cooperatives, Govt. of Balochistan.

Iqbal, M. 1995. Marketing of almonds in Balochistan. Outreach and Transfer of Fruit Technology Project in Balochistan. Paper 23. Food and Agric. Org. of UN and Deptt. of Agric. and Cooperatives, Govt. of Balochistan.

Sial, M.H. and M.S. Anjum. 1990. Returns to Investment by Market Intermediaries in Pindi, Islamabad Market. Pak. J. of Agric. Social Sci. 3, 4: 43-53.

Khair, S.M. 2000. Distributive Marketing Margins of Apple in Pashin. M.Sc (Hons) thesis, Deptt. of Agric. Econ., Faculty of Rural Social Sci., NWFP Agric. Univ. Peshawar.

Kasana, M.J. 2003. Distributive Marketing Margins of Selected Vegetables in Tangi Tehsil of Charsadda District. M.Sc (Hons) thesis, Deptt. of Agric. Econ., Faculty of Rural Social Sci., NWFP Agric. Univ. Peshawar.

Thakur, D.S., Sanjay, R.D. Thakur and D.K. Sharma. 1994. Economics of Off-Season Rice production and Marketing in hills. Ind. J. of Agric. Marketing. Himachal Pradesh Krishi Vishavavidyalaya Regional research Station, Kullu Manali, India. 8: 72-82.

Khushk, A. M. 2001. Marketing of Rice and Fruits in Asia and the Pacific. Asian Productivity organization, Tokyo.