Journal of Applied Sciences 4 (4): 513-520, 2004
ISSN 1607-8926

A Study on Price Spreads of Major Crops in Selected Markets of Bangladesh

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Abstract: The study was conducted to examine the producer's share to consumer's prices to understand the level of marketing efficiency of major crops (rice, wheat and jute) with the help of primary data collected randomly from 55 intermediaries. Out of the intermediaries interviewed 17 was for rice, 17 was for wheat and 21 was for jute in different market levels of Bangladesh. In the study areas, there were four tiers of market/market levels viz. primary market, secondary market, higher secondary market and terminal market. Farmer's share of consumers' taka of Aman and Boro paddy/rice were 71 and 72%, respectively. In wheat marketing chain, the share of farmer's in retail prices was 66%. The farmers' share to consumers' prices was 53% for white jute and 54% for tossa jute. Amongst the business intermediaries involved in rice, wheat and jute trading, millers received highest net marketing margin (21% total net margin of all intermediaries) in case of rice (Aman and Boro), retailers (57%) in case of wheat and exporters in case of jute (57% for white jute and 39% for tossa jute). Farmers' net share of consumer's prices is lower for wheat than rice. Total marketing cost is higher in case of wheat and jute than rice. Rice market appeared more efficient followed by wheat markets. Jute markets were less efficient in terms of farmer's gain than rice and wheat markets. Bangladesh almost becomes a mono-crop (rice) growing country (covering 78% of net area cropped) because marketing system favours more farmers share to consumers paid prices than any other crop.

Key words: Marketing margin, price spread, marketing efficiency

INTRODUCTION

The economy of Bangladesh is growing in the sense of increased production and marketing facilities. Efficiency should be attained not only in production activities but also in marketing of produces. Marketing plays a great role in value addition and generating employment in the economy. Rice and wheat are major food crops that help men to survive providing protein and essential nutrients and jute and its products are yet a major foreign exchange earner for Bangladesh. More than 85% of cultivable lands are used for food production. among the food, cereals (mainly rice and wheat) cover most of the land (78 and 5%)[1]. Among the rice, Aman cover most of the land (42%) followed Boro (20%). On the other hand jute covers 4% of total cultivable land[2]. Therefore, production and marketing of these major crops play a significant role in shaping the entire economy.

Price spread of major crops are of vital importance because the net return realized by the producers determine to a great extent the choice of the form in which and the places where he should sell his product. Such a study would help understand the level of efficiency of market mechanism of the major agricultural products. This study has been designed to assess the price spread of rice, wheat and jute broadly to understand marketing performance of these crops.

The present study identified important marketing channels (product distribution routs), Marketing cost, price spreads i.e. producers' share to consumers' prices of rice, wheat and jute. The specific objectives were as follows:

i) Identifying the major marketing channels of rice, wheat and jute crops in Bangladesh;
ii) Estimating the costs, price spreads and margins at different levels of marketing;
iii) Analysing the level of marketing efficiency of major marketing channels of the selected commodities;

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MATERIAL AND METHODS

Sherpur, Jamalpur and Mymensingh districts were purposively selected because of the fact that these three districts are major growing areas of rice, wheat and jute, respectively. Within these districts, Sherpur sadar, Melandaha thana under Jamalpur district and Trishal thana under Mymensingh district were purposively selected for the crops of rice, wheat and jute, respectively. The sample size for the market intermediaries i.e. Farias, Beparis were targeted at 2 for each of the crops, 6 millers (3 for rice and 3 for wheat), 10 Aratdars (5 for rice and 5 for wheat) and 10 retailers (5 for rice and 5 for wheat) were selected to collect primary information. On the other hand, 5 commission agents which are known as Aratdars and 12 jute processors (6 for Kutcha balers and 6 for Pucca balers) were also selected randomly (from the list of population in each market level) for elicition necessary information. The total number of traders interviewed for this study were fifty five. Farmgate prices were known from the Farias/Beparies and consumers level prices from retailers. Data were collected mainly from primary sources and secondary sources were also used for collection of some information. Data were collected during the period of March to May in 1999 for the period of 1998. The various prevalent marketing channels were identified by observing the flow of major crops (rice, wheat and jute) from producers to ultimate consumers via different market participants.

Four performance indicators in four marketing channels reflecting economic efficiency can be stated as follows: I) farmers' share, ii) marketing costs, iii) middlemens' margins and iv) physical marketing facilities were considered[3], Farmers' share to consumers' prices has been worked out by the following formula:

$$\text{Farmers' share to the consumers' prices} = \frac{\text{Price received by the farmer}}{\text{Price paid by the retailer}} \times 100$$

The cost of marketing is calculated per taka and the lowest marketing cost channel was ranked 1 vis-a-vis the highest as 4. The same approach has been followed in ranking the margin of middlemen in each channel. The final ranking of all the four indicators for the four channels of each crops was computed by the composite index formula:

$$R = \frac{\sum R_i}{\sum N_i}$$

Where, Ri = total value of ranks of all indicators in all channels and Ni = number of indicators[4].

RESULTS AND DISCUSSION

Different tiers of markets/market levels: The market actors (farmers, intermediaries and consumers) operate in different market levels (broadly 4 market levels at least for rice and wheat) which are: I) primary market, ii) secondary market, iii) higher secondary market and iv) terminal market.

I. Primary market: These are rural markets where producers bring their production to sell. Players of this market level are producer farmer, Faria, Bepari-1, Bepari-2 (in case of rice markets) retailers and local consumers. Millers also buy produces from primary markets.

ii. Secondary market: These makets are well connected by river or road, rail transport. These are assembly markets. Beparies-1, Beparies-2, millers and agent of wholesalers sell and buy in bulk quantity in these markets. These markets could be thana headquarters, rivers ports and railway linked markets.

iii. Higher secondary markets: In these markets Beparis sell their commodities to large wholesalers or Aratdars-cum-wholesalers. Big mill complexes are also found in these markets. District headquarters, central wholesales markets fall in this markets tier/level. Whole selling is the prime mode of market operations.

iv. Final consuming markets/terminal markets: In this market the big wholesalers sell their commodities to Paikers/retailers who in turn, sell at permanent stalls in retail markets/sections in cities/towns or peripheral markets or peddle it to homes by vans/rickshaws. Different market places in the secondary or higher secondary markets may also operate as final consuming markets. Many sellers and buyers characterise all these market tiers for the competitive market structure model (with many buyers and sellers).

Marketing channels: Rice, wheat and jute are different crops and their marketing channels also differ. Rice and wheat need processing for making them consumable but jute being a cash crop, bulk of the output enters into the markets as a wholesome product. The major portion of rice and wheat are consumed by the producers themselves. On the other hand, only a small amount of jute is retained on the farm for domestic and farm use, e.g. making ropes, mates etc. The important channels of these crops for marketing from growers to ultimate users have been identified as:

Marketing channels of rice

Channel-I: Farmer→Faria→Bepari→Miller→Aratdar-cum-wholesaler→Retailer→Consumer.

Channel-II: Farmer→Bepari-1→Bepari-2→Aratdar-cum-wholesaler→Retailer→Consumer.
Channel-III: Farmer→Bepari→Miller→Aratdar-cum-wholesaler→Retailer→Consumer.
Channel-IV: Farmer→Miller→Retailer→Consumer.

Marketing channels of wheat

Channel-I: Farmer→Bepari→Aratdar-cum-wholesaler →Miller→Flour wholesaler→Retailer →Consumer.
Channel-II: Farmer→Bepari→Miller→Flourwholesaler →Retailer→Consumer.
Channel-III: Farmer→Bepari→Miller→Retailer →Consumer.
Channel-IV: Farmer→Miller→Retailer→Consumer.

Marketing channels of jute

Channel-I: Farmer→Faria→Bepari→Aratdar→Kutcha baler→Pucca baler/Exporter→ Miller/Foreign buyer.
Channel-II: Farmer→Bepari→Aratdar→Kutcha baler→Pucca Baler/Exporter→ Miller/Foreign buyer.
Channel-III: Farmer→Bepari→Kutcha baler→Pucca baler/Exporter→Miller/ Foreign buyer.
Channel-IV: Farmer→Kutcha baler→Pucca baler/Exporter→Miller/Foreign buyer.

Marketing costs, margin and price spreads of the major crops: The total marketing cost of all intermediaries was Tk. 210 per quintal for rice (Aman and Boro), Tk. 239 per quintal for wheat and Tk. 525 per quintal for white jute and Tk. 567 per quintal for tossa jute are shown in Table 1, 2 and 3. Wheat intermediaries earned more profit than rice intermediaries. Transportation cost has been the major cost share for wheat (38%) and rice (30%) among all other cost items in the marketing system (Table 1 and 2). Major cost items in the jute marketing system are transportation, assortment and processing, bank interest of capital and insurance premium.

It was observed from Table 4, the highest net marketing margin received by the miller (Tk. 25 and Tk. 22 per quintal for Aman and Boro rice) followed by the Bepari–2 (Tk. 21 and Tk. 20 per quintal for Aman and Boro rice) and retailer (Tk. 21 for Aman and Tk. 18 for Boro rice). The highest percentage of return on business capital earned by the miller which was 3% for both rice. In case of wheat, Table 5 showed that the highest net marketing margin received by the retailer which was Tk 83 per quintal and the highest percentage of return on business capital earned by retailer (8%) followed by miller (3%). On the other hand, the highest net marketing margin received by exporter (Tk. 61 for white jute and Tk. 117 per quintal for tossa jute) followed by the Pucca baler (Tk. 20 for white jute and Tk. 83 per quintal for Tossa jute; Table 6).

Table 7 reveals that the producers' share in the consumers' paid prices of rice was highest in channel IV (82 and 83% for Aman and Boro rice) followed by channel III (79 and 78% for Aman and Boro rice). It was 76% for wheat (Table 8) and 67% for white jute and 63% for tossa jute (Table 9).

In is observed from Table 10 that the margin and cost to the middlemen of rice (Aman and Boro) accounts to be the highest in cannel I and the lowest was in channel IV. The highest margin was due to a large number of intermediaries involved in channel I as compared to other channels. It is showed from Table 11 that the highest margin and cost was in channel I and the lowest was in channel IV. On the other hand Table 12 showed that the margin and cost to the middlemen of white jute accounts to be the highest in channel I and lowest in channel IV. At the same time it was same in case of Tossa jute. The highest margin was due to a large marketing tiers involved in channel I as compared to other channels.

Marketing activities are wider and more spread throughout the year for rice, wheat and jute crop. In terms of volume, transaction of rice is larger. All these might influence marketing of rice more intense, competitive; costs reduced and ultimately make the marketing of rice relatively more efficient.

Amongst the shortest channels (route IV in each case) of the commodities studied, rice marketing system is more efficient than wheat and wheat marketing is more efficient than jute marketing system in terms of total cost of marketing per quintal.

It was observed that the highest marketing margin accrued in channel I (longest channel in each case) as compared to other channels for these crops. It is observed that marketing margin of intermediaries of jute was the highest compared to wheat and rice. The capital invested in jute trading remained tied-up for a longer period comparatively than to rice and wheat (i.e. cost of capital is higher in case of jute). This indicates that jute intermediaries earned greater profit than rice and wheat traders. Therefore, jute marketing system is less efficient than rice and wheat marketing system.

In case of rice and wheat marketing, Table 13 indicates that channel IV (shortest channel) possesses the highest marketing efficiency followed by channel III. The performance indicators revealed that the channel I and II (longest ones) are not relatively efficient in the agricultural marketing sectors in rice and wheat producing regions. It is due to low prices received (due to more intermediaries involved in channeling the products to consumers) by the farmers in the channel I and II as compared to other channels. The farmers' response to the

Table 1: Marketing cost of intermediaries (rice)

Name of intermediaries	Loading and unloading	Transportation	Market tolls	Sweepers	Salary and wages	Rent	Bagging	Wastage or shortage of weight	Commission paid or Aratdary commission	Weighing charge	Drying before milling	Processing and milling charge	Electricity charge	Tk/quintal Miscellaneous	Total cost
Faria	2.85	8.91	1.70	--	--	--	1.48	--	--	1.09	--	--	--	3.33	19.36 (9.2)
Bepari -1	4.51	16.84	1.56	1.30	3.88	2.13	5.98	--	--	--	--	--	--	3.01	39.21 (18.6)
Bepari -2	1.84	13.73	--	--	2.54	2.10	2.11	--	12.45	--	8.0	10.67	--	2.05	55.49 (26.4)
Miller	2.74	12.95	--	--	0.83	0.56	6.83	2.13	18.10	--	4.0	10.67	--	1.47	60.28 (29.1)
Aratdar-cum-wholesaler	3.04	--	--	1.31	5.09	1.97	--	--	--	3.84	--	--	0.64	0.83	16.72 (7.9)
Retailer	1.83	11.31	0.88	--	0.91	1.84	--	--	--	0.59	--	--	0.08	0.91	18.35 (8.7)
Functional costs	16.81	63.74	4.14	2.61	13.25	8.60	16.40	2.13	30.55	5.52	13	21.34	0.72	11.60	209.41
% of total cost	8	30	2	1	6	4	8	1	15	3	6	10	-	6	100.00

Table 2: Marketing cost of intermediaries (wheat)

Name of intermediaries	Loading and Unloading	Transportation	Market tolls	Sweepers	Salary and wages	Rent	Bagging or packaging	Wastage or shortage of weight	Storage	Processing and milling charge	Electricity charge	Tk./quintal Miscellaneous	Total cost
Faria	2.61	11.02	1.10	0.54	2.64	--	1.33	--	--	--	--	1.20	20.44 (8.6)
Bepari	4.51	10.45	1.03	0.57	2.63	--	1.35	1.01	2.08	--	--	1.63	25.46 (10.6)
Aratdar-cum-wholesaler	9.61	20.80	1.83	--	4.55	0.84	3.41	1.34	0.92	--	0.60	1.33	45.23 (18.9)
Miller	8.31	15.65	--	--	9.43	2.51	2.27	--	1.16	33.73	--	1.31	74.38 (31.1)
Flour wholesaler	3.40	18.75	1.63	0.48	3.01	1.11	1.65	--	1.87	--	0.71	0.93	33.54 (14.0)
Retailer	3.36	16.56	1.73	--	5.23	2.51	3.81	1.65	--	--	--	4.96	39.81 (16.7)
Functional costs	31.80	93.23	7.32	1.59	27.49	6.97	13.82	4	6.03	33.73	1.31	11.36	238.65
% of total cost	12	38	3	1	12	3	6	2	3	14	1	5	100.00

Figures in parentheses indicate percentages Miscellaneous indicates entertainment, telephone, personal expenses etc

Table 3: Marketing cost of intermediaries (jute)

Tk./quintal

Name of the intermediaries	loading and unloading	Transportation	Market tolls	Stacking Kutcha bale	Commission paid	Assortment	Rope making	Bale ticket	Pressing charge	Hessian ticket	Stacking pucca bale	Dispatch	International brokerage	Export brokerage
Faria	4.21	21.41	1.41	--	2.51	9.65	--	--	--	--	--	--	--	--
Bepari	6.31	30.59	1.64	--	11.03	7.1	--	--	--	--	--	--	--	--
Aratdar	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Kutcha baler	0.85	15.36	--	0.83	7.91* 20.84**	10.5	0.79	0.81	7.09	--	--	2.51	1.2	--
Pucca baler	2.1	9.37	--	1.62	--	17.44* 31.1**	1.52	--	26.11	0.95	0.99	--	1.87	--
Exporter	2.1	28.49	--	1.62	--	17.44* 31.1**	1.52	--	26.11	0.95	0.99	--	--	3.62* 8.51**
Functional cost	15.57	104.2	3.05	4.07	21.45* 34.38**	62.13* 89.54**	3.83	0.81	59.31	1.9	1.98	2.51	3.07	3.62* 8.51**
% of total cost	3	10	1	1	4* 6**	12* 16**	1	--	11*	10**	--	--	--	1 1

* cost of white jute ** cost of tossa jute

Table 3: Continued

Commission to C and F agents	Commission to BJC	Labour cost	Bill of loading stamping	Bank interest	Insurance	Salary and establishment	Godown rent	Storage	Shortage	Miscellaneous	Others	Total cost (white jute)	Total cost (tossa jute)
--	--	--	--	--	--	--	--	2.08	--	--	2.91	43.18 (8.2)	43.18 (7.6)
--	--	14.89	--	--	--	--	--	4.95	--	--	2.22	78.73 (15)	78.73 (13.8)
--	--	--	--	--	--	4.96	2.96	--	--	3.44	2.52	13.89 (2.6)	13.89 (2.4)
--	--	--	--	18.54	12.5	7.6	7.63	--	8.98	1.83	1.26	106.19 (20.2)	119.12 (20.9)
--	--	--	--	21.05	16.81	7.5	9.88	--	9.35	1.17	--	127.73 (24.3)	141.39 (24.9)
2.71	1.1	--	0.55	21.05	16.81	7.5	9.88	--	9.35	3.1	--	154.89 (29.5)	173.44 (30.3)
2.71	1.1	14.89	0.55	60.64	46.12	27.56	30.35	7.03	27.68	9.54	8.92	524.61	569.75
--	--	3	--	12* 11**	9* 8**	5	6* 5**	1	5	2	2	100	100

Table 4 Marketing margins of rice intermediaries

Tk./quintal

Name of intermediaries	Purchase price (I)		Sale price (ii)		Gross margin (iii) = (ii)–(I)		Marketing cost (iv)	Net marketing margin or profit (v) = (iii)–(iv)		Invested business capital (I) + (iv)		Return on business capital (%)	
	Aman	Boro	Aman	Boro	Aman	Boro		Aman	Boro	Aman	Boro	Aman	Boro
Faria	765.33	636.31	800.84	671.13	35.51	34.82	19.36	16.15	15.46	784.69	655.67	2.06	2.36
Bepari –1	802.90	372.89	860.71	728.13	57.81	55.24	39.21	18.60	16.03	842.11	712.10	2.21	2.25
Bepari –2	883.66	746.77	960.50	822.23	76.84	75.46	55.46	21.35	19.97	939.15	802.26	2.27	2.49
Miller	891.11	749.69	976.09	832.15	84.98	82.46	60.28	24.70	22.18	952.39	810.97	2.77	2.96
Aratdar-cum-wholesaler	975.99	833.50	1007.69	863.10	31.70	29.60	16.72	14.98	12.88	992.71	850.22	1.51	1.51
Retailer	1029.53	861.41	1068.41	897.53	38.88	36.12	18.35	20.53	17.77	1047.88	879.76	1.96	2.02

Table 5: Marketing margins of wheat intermediaries

Name of intermediaries	Purchase price (I)	Sale price (ii)	Gross margin (iii) = (ii)–(I)	Marketing cost (iv)	Net marketing margin or profit (v) = (iii) - (iv)	Invested business capital (vi) = (I) + (iv)	Tk./quintal Return on business capital (%)
Faria	734.67	764.27	29.6	20.44	9.16	755.11	1.21
Bepari	760.85	795.85	35.0	25.46	9.54	786.31	1.21
Aratdar-cum-wholesaler	793.23	844.35	51.12	45.23	5.89	838.46	0.07
Miller	840.09	938.61	98.52	74.38	24.14	914.47	2.64
Flour wholesaler	938.61	986.22	47.61	33.54	14.07	972.15	1.45
Retailer	985.50	1110.03	124.53	39.81	84.72	1025.31	8.26

$$\text{The return on business capital was computed as: } \frac{\text{Net marketing margin}}{\text{Invested business capital}} \times 100$$

Table 6: Marketing margins of jute intermediaries

Name of intermediaries	Purchase price (I)		Sale price (ii)		Gross margin (iii)=(ii-I)		Marketing cost (iv)		Net marketing margin or profit (v)= (iii-iv)		Invested business capital (I+iv)		Tk./quintal Return on business capital (%)	
	White	Tossa	White	Tossa	White	Tossa	White	Tossa	White	Tossa	White	Tossa	White	Tossa
Faria	523.69	674.31	576.90	726.91	53.21	52.60	43.18	43.18	10.03	9.42	566.87	717.49	1.77	1.31
Bepari	555.29	690.30	644.50	782.51	89.21	92.21	78.73	78.73	10.48	13.48	633.59	769.03	1.65	1.75
Aratdar	644.50	765.51	670.79	792.10	26.29	26.59	13.89	13.89	12.40	12.70	658.39	779.40	1.88	1.63
Kutcha baler	663.62	780.47	784.93	967.70	121.31	187.23	106.19	119.12	15.12	68.11	769.81	899.59	1.96	7.57
Pucca baler	776.58	954.65	924.08	1176.00	147.50	224.35	127.73	141.39	19.77	82.96	904.31	1096.04	2.19	7.57
Exporter	776.58	954.65	992.47	1245.08	215.89	290.43	154.89	173.44	61.00	116.99	931.47	1128.09	6.55	10.37

$$\text{The return on business capital was computed as: } \frac{\text{Net marketing margin}}{\text{Invested business capital}} \times 100$$

Table 7: Producer's share in the consumers' paid prices of rice in different marketing channel

Particulars	Channels I		II		III		Tk./quintal IV	
	Aman	Boro	Aman	Boro	Aman	Boro	Aman	Boro
Producer's price	765.33	636.31	800.90	669.89	800.90	669.89	881.11	741.69
Price of rice or retail price	1068.41	897.53	1068.41	897.53	1015.69	863.10	1068.41	897.53
Percentage of producer's share	71.50	70.90	74.80	74.60	78.90	77.60	82.30	82.60
Rank (R_i)	4	4	3	3	2	2	1	1

Table 8: Producer's share in the consumers' paid prices of wheat in different marketing channel

	Channels			Tk./quintal
Particulars	I	II	III	IV
Producer's price	734.67	760.85	756.43	840.09
Price of flour	1110.03	1110.03	1092.50	1098.61
Percentage of producers' share	66.20	68.50	69.20	75.70
Rank (R_i)	4	3	2	1

Table 9: Producers' share of jute in the final product prices in different marketing channels

	Channels						Tk./quintal	
	I		II		III		IV	
Particulars	White	Tossa	White	Tossa	White	Tossa	White	Tossa
Producers' price	523.69	674.31	555.29	690.30	548.60	687.71	663.62	780.47
Price of jute at final stage	992.47	1245.08	992.47	1245.08	980.10	1200.88	992.47	1245.08
Percentage of producers' share	52.80	54.20	55.90	55.40	56.00	57.30	66.90	62.70
Rank (R_i)	4	4	3	3	2	2	1	1

Table 10: Channel wise marketing margin, marketing cost and net marketing margin of all intermediaries of rice

	Purchase price		Sale price		Marketing margin (Rank)			Tk./quintal Net marketing margin or profit	
Channels	Aman	Boro	Aman	Boro	Aman	Boro	Marketing cost (Rank)	Aman	Boro
I	765.33	636.31	1068.41	897.53	303.08 (4)	261.22 (4)	154.92 (4)	148.16	106.30
II	800.90	669.89	1068.41	897.53	267.51 (3)	227.64 (3)	129.77 (3)	137.74	98.00
III	800.90	669.89	1015.69	863.10	214.79 (2)	193.21 (2)	117.21 (2)	97.58	96.00
IV	881.11	741.69	1048.41	897.53	187.30 (1)	155.84 (1)	79.63 (1)	96.67	76.21

Figures in parentheses indicates ranks

Table 11: Channel wise marketing margin, marketing cost and net marketing margin of all intermediaries of jute

	Purchase price		Sale price		Marketing margin (Rank)		Marketing cost (Rank)		Tk./quintal Net marketing margin or profit	
Channels	White	Tossa	White	Tossa	White	Tossa	White	Tossa	White	Tossa
I	523.69	674.31	992.47	1245.08	468.78 (4)	570.77 (4)	369.72 (4)	396.31 (4)	99.06	174.46
II	555.29	690.30	992.47	1245.08	437.18 (3)	554.78 (3)	326.54 (3)	353.13 (3)	110.64	221.65
III	548.60	687.71	980.10	1200.88	431.50 (2)	513.17 (2)	312.65 (2)	339.24 (2)	118.85	173.93
IV	663.62	780.47	992.47	1245.08	328.85 (1)	464.61 (1)	233.92 (1)	260.51 (1)	94.93	204.10

Table 12: Channel wise marketing margin, marketing cost and net marketing margin of all intermediaries of wheat

Channels	Purchase price	Sale price	Marketing margin (Rank)	Marketing cost (Rank)	Tk./quintal Net marketing margin or profit
I	734.67	1110.03	375.36 (4)	238.86 (4)	136.50
II	760.85	1110.03	349.18 (3)	218.42 (3)	130.76
III	756.43	1092.50	336.07 (2)	133.38 (2)	202.69
IV	840.09	1098.61	258.52 (1)	114.19 (1)	144.33

Figure in parentheses indicates ranks

marketing channel IV, selling rice and wheat directly to the millers should be the most desirable. Their access to the millers may be encouraged and facilitated in terms of policy adoption.

Table 13 also indicates that channel IV possesses the highest marketing efficiency of jute marketing followed by channel III. The performance indicators revealed that the channel I and II are not efficient in the agricultural marketing sector in jute producing regions. It is due to low prices received by the farmers in the channel I and II compared to other channels. The farmers' response to the marketing channel IV, that is to sell directly to the Kutcha balers should be encouraged to give more benefits to the grower farmers.

It may, thus, be concluded from the foregoing anlaysis that farmers' share seems very low in channels (I and II) while the cost of marketing and middlemens' margins are high these channels. To enhance the share of the farmer, development of channel IV situation should be given priority/incentives by the government to help

Table 13: Efficiency of marketing channels

Crops	Marketing channels	Performance indicators I_1	I_2	I_3	Composite index (R_i/N_i)	Final ranking
Rice	I	4	4	4	4	4
	II	3	3	3	3	3
	III	2	2	2	2	2
	IV	1	1	1	1	1
Wheat	I	4	4	4	4	4
	II	3	3	3	3	3
	III	2	2	2	2	2
	IV	1	1	1	1	1
Jute	I	4	4	4	4	4
	II	3	3	3	3	3
	III	2	2	2	2	2
	IV	1	1	1	1	1

perform more marketing activities in their jurisdiction on the one hand and to promote intense competitive conditions for the intermediaries in favour of the farmers, on the other. Marketing tiers need to be reduced by encouraging producer farmers for organized market sales and more participation in processing activities. Entrepreneurs should be encouraged to establish rice and flour mills adjacent to the primary or secondary market levels.

REFERENCES

1. Ahmed, M.S. and C.A. Meisner, 1996. Wheat Research and Development in Bangladesh. 1st Edn. Bangladesh Australia Wheat Improvement Project and UMMYT- Bangladesh.
2. Bangladesh Bureau of Statistics, 1997. Statistical Yearbook of Bangladesh. Ministry of Planning, GOB, Dhaka.
3. Chauhan, B.R.S., R.B.S. Tomar and A.K. Gupta, 1994. Economic Performance of Paddy Marketing Channels: A Case Study of Banda District of Uttar Pradesh. J. Agril. Market., 37: 6-10.
4. Rajagopal, 1996. Economic Efficiency if Paddy Marketing System in Modhya Pradesh: A Case Study. Indian J. Agril. Econ.