The Role of Marketing in Standard of Living: A Case Study of Rice Farmers in Bangladesh

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Abstract: The standard of living of rural people is closely related to rural development, a multidimensional process that often involves the reorganization and reorientation of a nation's entire economic and social system. Rice marketing is one of the most important factors in determining the rural economy of Bangladesh. This study focuses on the standard of living of rice farmers, marketing channels, prices received by the farmers and intermediaries, marketing costs and net earnings of farmers, margins to intermediaries and the income differences of farmers in the different marketing channels. The research is based on data collected through a survey of 105 farm households and 38 intermediaries carried out during July to August 2003 in Jhikargacha upazila in the Jessore district of Bangladesh. The study found that 83% of households sold exclusively unpolished rice and only 17% of households sold partially polished rice, although selling polished rice could earn 30% more money. As land cultivators with less than one acre did not have sufficient marketable surplus, they were excluded from the survey. In the study, statistical mean has been used for the calculation. It is argued that because of the limits on alternative ways of improving the conditions of the villagers, promotion of polished rice marketing may be a major way of alleviating poverty and improving living conditions.

Key words: Rice, marketing, increasing income, standard of living

INTRODUCTION

There is no doubt that marketing has a role to play in the economic development of least developed countries (LDCs)[1]. The development of large-scale production depends upon the ever-expanding markets. The most significant characteristic of a sound marketing system is distribution. There seems to be a gradually growing recognition of the importance of distribution in any underdeveloped and developing economy. Distribution helps to disseminate new ideas, new patterns of consumption, new techniques, new ideas of social relations and social equality and justice, all of which are conducive to the economic growth of a country. In addition. Abbott[2] argues that the importance of agricultural marketing, not just as a means of distributing agricultural produce but also in stimulating new forms of production and value added, is often underplayed in economic analysis. Marketing is a strong instrument whereby per capita income could be raised, leading to a higher standard of living. There is a close relation between standard of living and poverty. Cundiff and Hilger^[3] emphasized marketing innovations by individual entrepreneurs as a means to increase the level of economic development. In a follow-up work, Cundiff^[4]

reemphasized this position, stating that micro-level improvements are the most effective means of encouraging economic development. Nations with higher proportions of their populations in marketing also have higher gross domestic products (GDPs)^[5].

In Bangladesh, 74% of the population still live in rural areas and live off the rural economy. According to the Bangladesh Bureau of Statistics^[6], in 1999-2000 the agricultural labor force was 63.2% of the total labor force, with almost all the agricultural workers engaged in rural areas. Populations below the national poverty line in Bangladesh in rural and urban areas were 37.4 and 19.1%, respectively in 2000. In the year 2000, 82.8% of the population was earning less than \$ 2 per day[7]. As the income level of the most of the population is low, so their standard of living is not high. The percentage of a nation's resources employed in agriculture depends to a large extent upon the efficiency with which agriculture is organized. Marketing, as a discipline, has played an important role in the development of industrialized nations. Until recently, however, its potential as a source of development in the Third World has been largely ignored[8].

The predominant activity in the rural areas of Bangladesh is agriculture, but agriculture here is carried

on largely by traditional methods and production is limited mainly to cereals and a few cash crops. Among cereals, rice undoubtedly constitutes the largest and most important sector of Bangladesh agriculture. From 1960 onward, the official strategy of successive governments was intensification of agriculture. It was to be carried out with the help of high yielding varieties (HYV) of rice and wheat. According to the Bangladesh Bureau of Statistics^[9], in 1996, major cereals-i.e., paddy and wheataccount for over 99% of the total area producing cereals; among the major cereals, paddy occupies about 93.19% of this area. Three varieties of paddy, aus, aman and boro, occupied areas of 18.56, 47.18 and 27.45%, respectively. Although Bangladesh has a comparative advantage in the production of high-yielding rice, the present marketing system is not suitable for getting farmers a fair price.

Rice is the dominant crop in the surveyed areas; its proper marketing is now regarded as an instrument that helps to better farmers' standard of living. It is argued that because of the limits on alternative ways of improving the conditions of rice farmers, promotion of the marketing system of polished rice may be a major way of alleviating poverty by yielding higher prices and improving the conditions of farmers' lives.

MATERIALS AND METHODS

The survey was conducted using the interview method during July to August 2003 for the period of 2002 in the two villages of Jhikargacha upazila in the Jessore district. Jessore district, in the southwestern part of Bangladesh, produces jute, wheat, potatoes, flowers and vegetables. It is one of the great plains, with extensive rice production. In Jessore district, there are eight upazilas, Jhikargacha upazial is one of them. The surveyed areas represent the overall characteristics of Jessore district. Earnings from rice selling play a dominant role in the rural livelihood. In the study, 105 rice farmers were randomly selected as respondents from 440 farmers. The selected two villages are located near to upazila headquarters. According to the definition of the Bangladesh Bureau of Statistics (BBS)^[9], both villages include landless, small (a farm holding having an operated area of 0.05 to 2.49 acres of land with a minimum of 0.05 acres as cultivated area), medium (a farm holding having an operated area of 2.50 to 7.49 acres of land) and large (a farm holding having an operated area of 7.50 acres and above) land holdings. The topology of the study villages is flat; High yielding variety (HYV) rice is produced for both consumption and cash. Farmers sell rice and other agricultural products to consumers and to intermediaries in the Jhikargacha market. As land cultivators with less than one acre did not have significant surplus to sell, they were excluded from the survey. The research was confined to data collection in the season of boro rice cultivation, which starts in December-January and ends in April-May. In boro season, the length of the selling period is almost seven months. It starts from mid-April and continues up to mid-October. By observing the flow of rice, the various prevalent marketing channels were identified. The survey also included seven village merchants, seven wholesalers of unpolished rice, six stockists, four huskers, six wholesalers of polished rice and eight retailers of polished rice as intermediaries. The collected data from both farmers and intermediaries was analyzed with mathematical mean.

RESULTS AND DISCUSSION

Marketing complexity: The rice farmers suffer from a number of difficulties, that reduce their bargaining power; a long chain of intermediaries operating between the primary producer and the ultimate consumer appropriate a major share of the consumer's price. Agricultural sector has not been modernized, farmers do not get fair price, this sector is in various difficulties^[10]. According to the BBS Statistical Pocketbook 2001, in 1995-96 there were 193 cold storages in Bangladesh. Inadequate storage facilities in the areas are the cause of heavy losses of rice and what is available is not within the reach of the average farmer. Thus the methods used by most of the farmers are of an indigenous type (such as storage in woven-split bamboos, bamboo baskets, jars and pitchers, mud-walled golas and golas made of bamboo and wood, etc.). The hot, humid condition of almost all parts of the areas studied is favorable to insect infestation and mold growth in food and to rapid decomposition of more perishable products. In order to avoid losses and deterioration in the quality of their produce and to obtain money to meet immediate debts and livelihood, many farmers are obliged to sell their produce as soon as it is harvested. Dissemination of information on daily prices and their fluctuations, stocks, dispatches, market trends, etc., has been considered essential to help farmers to decide where and when to market. The farmers are ignorant of the current prices and their trends, demand and supply at home and abroad, etc. The reason for this is that there is no organized means to provide them information necessary for the effective marketing of their produce. Recently, the government has begun broadcasting daily market prices through Radio Bangladesh. The Directorate of Agricultural Marketing also issues a weekly bulletin. But these measures are not sufficient to meet the requirements of farmers.

An organization is a deliberate arrangement of people to accomplish some specific purpose^[11]. Organizations have a pervasive influence in the marketing of agricultural goods. Organizations are created and continue to exist because a single individual is unable to perform all the functions and activities necessary to create a product or provide a service to a group of customers or clients. Because there are none of the usual farmer's marketing organizations in the areas studied, farmers operate marketing activities individually, without formal plans. The small marketable surplus of the individual growers, their disorganized conditions, the selling of raw products and other conditions explain the multiplicity of intermediaries. There is no doubt that in recent years, commercial activities have increased all over Bangladesh. But increased commercial activity is not always a sign of increasing wealth: it may be an indicator of distress sales and increased poverty^[12]. Such realities emphasize the importance of protecting farmer interests against powerful merchants, the need to reduce the risk of rice production through price stabilization and to protect rural livelihoods and food security at both micro-and macro-levels.

Standard of living: Standard of living is the capacity of people to spend for food, housing, clothing, education, medicine and other amenities of life. When people are able to pay for adequate food, housing, clothing, education, etc. and lead a comfortable life, it can be said that their

standard of living is high^[13]. The standard of living of the households in the study was evaluated in terms of housing conditions (whether bad or good, using only the living room in the consideration), the household amenities (availability of television, refrigerator and telephone), the availability of an electrical power supply and medical facilities. Houses built with mud, bamboo, straw and tile have been considered as bad, brick-built houses have been considered as good. The study found 50% of the households' housing conditions were bad and 35% of households had no electricity facilities. It was found that two-thirds of the households (68%) had no television. In recent years some rural farmers are using telephones, but they are not common: among the surveyed households, 97% had no telephone. Ninety five percent of the households had no refrigerator. Medical facilities in Bangladesh are very inadequate to provide minimum basic treatment to its population and 68% of the surveyed households had no available medical facilities.

Marketing channel of rice: A marketing channel performs the work of moving goods from producers to consumers. It overcomes the time, place and possession gaps that separate goods and services from those who need or want them. The marketing intermediaries make up a marketing channel^[14]. In rice marketing, marketing channels are the chain of intermediaries through which rice move from farmers to consumers. The marketing channel of rice in the surveyed areas is shown in Fig. 1.

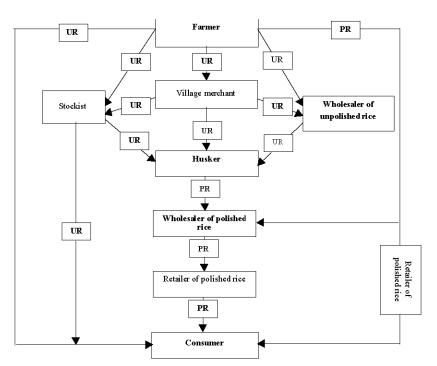


Fig. 1: Marketing channel of rice, Jhikargacha upazila, Jessore Abbreviations: UR = Unpolished rice, PR = Polished rice

According to Table 1, six types of intermediaries are involved in the marketing channel in selling unpolished and polished rice in the surveyed areas: stockists, village merchants, huskers, wholesalers of unpolished rice, wholesalers of polished rice and retailers of polished rice. In local language, wholesaler of unpolished rice and wholesaler of polished rice are called arathdar of unpolished rice and arathdar of polished rice, respectively. In the case of unpolished rice selling, the farmers sold the product to four kinds of buyers, including one consumer and three intermediaries: they were consumers, stockists, village merchants and wholesalers of unpolished rice. If the same farmers were also involved in selling polished rice, they sold the product to two types of intermediaries: wholesalers of polished rice and retailers of polished rice. The stockist purchased the unpolished rice from farmers and village merchants. They sold the product to both the consumer and husker. Village merchants were observed in purchasing unpolished rice from farmers directly, selling it to three types of intermediaries: stockists, huskers and wholesalers of unpolished rice. The huskers, a very important part of the marketing channel, purchased the unpolished rice from stockists, village merchants and wholesalers of unpolished rice. They polished the unpolished rice and sold it to only one type of intermediary: wholesalers of polished rice. Wholesalers of unpolished rice purchased the rice from two sources: farmers and village merchants and sold it to huskers. Wholesalers of polished rice bought the rice from huskers and farmers and sold it to retailers of polished rice. Retailers of the polished rice in the marketing chain purchased the polished rice from farmers and wholesalers of polished rice and sold it to final consumers.

Rice selling on a small-scale basis is the common feature in the surveyed areas. With regard to the rice selling, 39% of the households sold a range of 2,001 to 3,000, while 29% sold 3,001 to 4,000 kg. Those who sold between 4,001kg. to 5,000 kg were recorded as 11% and those 5,001 kg or above were recorded as 4% from the sample. However, 17% of the households were in the category of minimum rice sold, upto 2,000 kg.

Due to financial inability to maintain livelihood by other resources and to pay back the money that is borrowed for production, 63% of the farmers sold 58% of their produce in the harvesting season. In the case of polished rice selling, in the surveyed areas it was found that farmers could easily turn the unpolished rice into polished by paying a certain amount of money to huskers. Huskers took unpolished rice from farmers, boiled, dried and turned it into polished rice and returned it to the farmer. Among 105 farmers, 83% of them sold exclusively unpolished rice; 17% of farmers sold both polished and

unpolished rice. The quantity of unpolished rice sold to consumers, stockist, village merchants and wholesalers of unpolished rice were 14, 24, 17 and 36%, respectively. Polishing the unpolished rice and selling it to the wholesalers and retailers of polished rice accounted for 6 and 3% in total rice sold, respectively.

Prices: Prices of polished and unpolished rice observed at different levels in the marketing channel are presented in Table 2. Prices varied by the nature of rice and types of seller. Farmers sold unpolished rice to four types of buyers: consumers, stockists, village merchants and wholesalers of unpolished rice and received the prices 681, 675, 657 and 675 Tk., respectively. Some farmers who

Table 1: Sellers and buyers in the marketing channel by the nature of rice, Jhikargacha upazila, Jessore

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Nature of rice	Seller	Buyer
Unpolished	Farmer	Consumer
_		Stockist
		Village merchant
		Wholesaler of unpolished rice
Polished	Farmer	Wholesaler of polished rice
		Retailer of polished rice
Unpolished	Stockist	Consumer
		Husker
Unpolished	Village merchant	Stockist
		Husker
		Wholesaler of unpolished rice
Polished	Husker	Wholesaler of polished rice
Unpolished	Wholesaler of polished rice	Husker
Polished	Wholesaler of polished rice	Retailer of polished rice
Polished	Retailer of polished rice	Consumer

Table 2: Prices of unpolished rice (Tk/100 kg) and polished rice (Tk/67 kg)

Buyer	Place of sale	PRS
C	FH	681
S	LM	675
VM	FH	657
WUR	LM	675
WPR	LM	872
RPR	LM	946
C	LM	746
H	LM	735
S	LM	684
H	HC	679
WUR	LM	683
WPR	HC	906
H	LM	705
RPR	LM	965
С	LM	1,036
	C S VM WUR WPR RPR C H S H WUR WPR	C FH S LM VM FH WUR LM WPR LM RPR LM C LM H LM S LM H LM S LM H HC WUR LM WPR HC H LM RPR LM

F=Farmer, S=Stockist, VM=Village merchant, H=Husker, PRS=Price received by seller. FH=Farmer's house, LM=Local market, RPR=Retailer of polished rice, C=Consumer, HC=Husking Center WUR=Wholesaler of unpolished rice, WPR=Wholesaler of polished rice,

Note: In the channel, when the farmers sold 100 kg of unpolished rice to different kinds of intermediaries, this ultimately yielded 67 kg of polished rice. Actually huskers were involved in polishing the unpolished rice and sold it to other intermediaries. When the farmers polished their own product, from 100 kg of unpolished rice they also got the same amount of polished rice (67 kg)

^{*} Indicates seller who engaged in selling unpolished rice

^{**} Indicates seller who engaged in selling polished rice

sold polished rice got two different prices from two types of intermediaries: 872 Tk. from wholesalers of polished rice and 946 Tk. from retailers of polished rice. Stockists received 746 and 735 Tk. from consumers and huskers, respectively by selling unpolished rice. Village merchants collected the unpolished rice from farmers and sold it to three types of buyers; stockists, huskers and wholesalers of unpolished rice, receiving the prices 684, 679 and 683 Tk., respectively. Huskers sold polished rice to wholesalers of polished rice and received 906 Tk. Wholesalers of unpolished rice sold the product to huskers and received 705 Tk. Wholesalers of polished rice and retailers of polished rice sold their product to retailers of polished rice and consumers, receiving 965 and 1,036 Tk, respectively. The price difference reflects the unpolished and polished nature of the produce, the functions each intermediary performed and the degree of completion between sellers. In the local market (Jhikargacha), many intermediaries were doing rice business with sellers and buyers and had many options in their operations. The prices of both types of rice, whether or not they were in the same quality and quantity, were increasing gradually as the products moved from one intermediary to another.

Marketing costs and net earnings of farmers and margins: Marketing costs are needed in the flow of goods from producers to consumers. They affect the prices of goods at the producers' and the consumers' level. Reduced marketing costs increase the farmer's earnings, indicating the marketing efficiency of the farmer. The amount of margin received by each marketing intermediary will also affect the marketing profit and the price received by farmers and paid by consumers.

The portion of the consumer's money that goes to intermediaries is referred to as the marketing margin. This is the difference between what the consumers pay for produce and what the farmer receives^[15]. In a sense, the marketing margin is the price of all utility adding activities and functions performed by intermediaries. The cost of marketing showed differences when the product was sold to different kinds of buyers and between the two types of rice (Table 3). When the farmers sold unpolished rice to consumers, stockists, village merchants and wholesalers of unpolished rice, their net earnings were 669, 660, 648 and 660 Tk., respectively. Marketing costs were 12 Tk. for selling unpolished rice to consumers, 15 Tk. to stockists, 9 Tk. to village merchants and 15 Tk. to wholesalers of unpolished rice. In the case of selling the polished rice to wholesalers of polished rice and retailers of polished rice, farmers got two different prices excluding marketing costs: 790 and 843 Tk, respectively.

Table 3: Marketing costs and net earnings of farmers and margins: Unpolished rice (Tk/100 kg) and polished rice (Tk/67 kg)

Seller	Buyer	MCF	NEF	MI	MCI	PΙ
F^*	C	12	669	-	-	-
	S	15	660	-	-	-
	VM	9	648	-	-	-
	WUR	15	660	-	-	-
F^{**}	WPR	82	790	-	-	-
	RPR	103	843	-	-	-
S*	C	-	-	66♦	16	50
	H	-	-	55♦	13	42
VM*	S	-	-	27	10	17
	H	-	-	22	10	12
	WUR	-	-	26	10	16
H**	WPR	-	-	200♦	64	136
WUR*	H	-	-	26♦	9	17
WPR**	RPR	-	-	76♦	22	54
RPR**	С	-	-	80♦	15	65

MCF = Marketing cost of farmer, NEF = Net earning of farmer,

= Margin to Intermediary. = Profit of intermediary

MCI = Marketing cost of intermediary,

Note: • The intermediaries were involved in purchasing the product from

two or more different sources-for example, stockists purchased the unpolished rice from farmers and village merchants; in this case average purchasing price had been considered for calculating its

The marketing costs of farmers selling the polished rice were 82 Tk. for selling to wholesalers of polished rice and 103 Tk. to retailers of polished rice. In selling unpolished rice, stockists received 66 and 55 Tk. from consumers and huskers, respectively as the marketing margin and marketing cost involved 16 and 13 Tk. Deducting marketing cost from marketing margin, the net profits of stockists were calculated as 50 and 42 Tk. The margins of village merchants were 27, 22 and 26 Tk. in selling the unpolished rice to respectively stockists, huskers and wholesalers of unpolished rice. Marketing cost was 10 Tk. in all respects. The net profits earned by village merchants were 17, 12 and 16 Tk. from stockists, huskers and wholesalers of unpolished rice, respectively. The marketing margin of huskers was comparatively much higher than other intermediaries. They received 200 Tk. as the marketing margin in selling polished rice to wholesalers of polished rice. The marketing cost involved was 64 Tk.; the net profit of huskers was 136 Tk. The marketing margins of wholesalers of unpolished rice, wholesalers of polished rice and retailers of polished rice were 26, 76 and 80 Tk. Excluding marketing cost-9, 22 and 15 Tk.-their net profits were 17, 54 and 65 Tk., respectively. Table 3 shows that although the marketing costs of polished rice were higher than of unpolished rice, the net earnings of farmers selling polished rice instead of unpolished rice were higher. Here the highest marketing margin was received by the huskers (200 Tk.), followed by the retailers of the polished rice (80 Tk.) and wholesalers of polished rice (76 Tk.). In the marketing margin, the huskers received the highest amount of profit (136 Tk.) and then the retailers of polished rice (65 Tk.). One of the reasons for the high profit made by the huskers was that they purchased unpolished rice from different sources at lower prices, polished it and then sold it.

Income differences: It is important to distinguish between the income from the usual marketing channel and from alternative marketing channels. By selling two different kinds of products to consumers and to different kinds of intermediaries, farmers got different prices. The farmers had wide options to sell their product by using different channels; Table 4 shows how much more money the farmer could earn through alternative channels. The major differences between the channels are discussed here. According to the table, when a farmer sold unpolished rice to consumers, he got 669 Tk. The farmers could sell the product to different kinds of buyers-i.e. stockists, village merchants, wholesalers of unpolished rice, wholesalers of polished rice and retailers of polished rice. In each case, the income of the farmer differed: for example, by selling unpolished rice to consumers, the farmer 669 Tk. but if it was polished and sold to a retailer of polished rice, the farmer's income would increase by 26% to 843 Tk. When a farmer sold the unpolished rice to a stockist, he earned 660 Tk. but he could earn 28% more money by selling polished rice to a retailer of polished rice. If a farmer sold unpolished rice to a village merchant, he received 648 Tk., but if he sold the polished rice to a retailer of polished rice, he could increase his income by 30%. By selling unpolished rice to a wholesaler of unpolished rice, the farmer received 660 Tk. He could sell the polished rice to two different kinds of buyer: wholesalers of polished rice and retailers of polished rice. Here the farmer's earning would be increased to 28%, if the farmer sold to a retailer of polished rice. A farmer earned 790 Tk. by selling polished rice to a wholesaler of

polished rice; he could earn 7% more money from the same product if he sold it to a retailer of polished rice. In Table 4, the highest income differences (30%) are found between unpolished rice sold by the farmer to a village merchant and polished rice sold by the farmer to a retailer of polished rice. The second highest income differences (28%) was found at two different channels: (a) between unpolished rice sold by the farmer to a stockist and polished rice sold by the farmer to a retailer of polished rice and (b) between unpolished rice sold by the farmer to a wholesaler of unpolished rice and polished rice sold by the farmer to a retailer of polished rice sold by the farmer to a retailer of polished rice.

In the studied areas there are six types of intermediaries involved in rice trading. Farmers had freedom to sell their product to any types of intermediary. Nobody was found in the surveyed areas that sold his total produce solely to the only one kind of middleman and no one sold exclusively polished rice. Farmers' earnings depended upon the nature of the rice, whether it was polished or unpolished and upon the buyer. The highest income differences existed between the unpolished rice sold by the farmer to intermediaries (village merchants) and polished rice sold by the farmers to retailers of polished rice. Selling polished rice can comparatively earn more money than selling unpolished rice and when polished rice was sold to retailers of polished rice, farmers received comparatively more money than when they sold to wholesalers of polished rice. Although polished rice selling to retailers of polished rice was observed as the best source of earning in the areas, among 105 farmers, 83% exclusively sold unpolished rice and only 17% partially sold polished rice- 6 and 3% of the produce to wholesalers of polished rice and retailers of polished rice, respectively. The research revealed the poor standard of living of the rice farmers. Obviously, income influences standard of living conditions. Most of the farmers in the community must sell the raw product

Marketing channel as Table 3	Earnings (Tk.)	Alternative marketing channel	Eamings (Tk.)	Differences (Tk.)	% of income differences
F*-C	669	F*-S	660	-9	1
		F^* -VM	648	-21	3
		F*-WUR	660	-9	1
		F**-WPR	790	+121	18
		F**-RPR	843	+174	26
F*-S	660	F^* -VM	648	-12	2
		F*-WUR	660	0	0
		F^{**} -WPR	790	+130	20
		F**-RPR	843	+183	28
F*-VM	648	F*-WUR	660	+12	2
		F^{**} -WPR	790	+142	22
		F**-RPR	843	+195	30
F*-WUR	660	F^{**} -WPR	790	+130	20
		F**-RPR	843	+183	28
F**-WPR	790	F**-RPR	843	+53	7

immediately after harvesting because of two main problems: (1) resource constraints to maintain their livelihood during a delay and (2) the need to pay back the money that is borrowed for production. To reduce this (raw produce selling immediately after harvesting) tendency, the government of Bangladesh may take more initiative to protect rural farmers by giving loans on the basis of production. The availability of polishing facilities at the rural level and the opportunity to sell polished rice to retailers of polished rice in the local market may help some farmers to earn more money by selling polished rice than is possible in current common marketing practices. In conclusion, the research emphasizes the benefits of polished rice marketing to retailers of polished rice instead of unpolished rice selling, which can uplift farmers' income by 30% and thus ultimately influence a better standard of living for farmers.

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