

Effects of IBBL's Investment in Rice Processing as
an
Agro-Processing Business in Some
Selected Areas of Bangladesh

S. ISLAM¹
M. AKTERUZZAMAN²
M D . BAKHTIAR UDDIN³

Abstract

This short paper examines the contribution of Islami Bank Bangladesh Limited (IBBL)'s investment in the rice husking mills and identifies the growing participation of women in decision-making in activities pertaining to the operation of these rice processing mills. Based on a sample survey of 30 rice millers from Mymensingh and Gazipur district, a regression exercise shows that IBBL's investment in automatic rice mills is more rewarding than the semi-automatic rice-processing mills. In the semi-automatic rice mills, 50 percent of the workers are women workers that perform various milling activities. In the automatic rice mills, however, only 27 per cent workers are women. Instances of taking joint decision in family affairs have now increased considerably. Activities in rice mill operation are now helping women empowerment in the society, an issue to which the Government of Bangladesh at present attaches a high priority. Equal participation of male and female in family decisions has already been globally recognized for peaceful family life and the present study may at least be an example in this respect.

Key Words: Rice husking, decision-making processing, IBBL, investment,

¹ Ex-Graduate Students, Department of Agricultural Economics, Bangladesh Agricultural University, Mymensingh-2202, Bangladesh

² Professor, Department of Agricultural Economics, Bangladesh Agricultural University, Mymensingh-2202, Bangladesh (dakteruzzaman2009@yahoo.com)

³ Lecturer, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Trishal, Mymensingh.

and gender role.

1. Introduction

Rice is one of the major food items in the diet of more than half of the population of the world and it is the major food item for the people of Bangladesh. According to International Rice Research Institute (IRRI), rice demand in Asia is projected to rise 30 per cent in 2010 as the regional economic slowdown forces more people to rely on the staple due to the higher cost in diversifying diets. Bangladesh is one of the leaders in per capita consumption of rice with an indicated consumption of slightly more than 150 kilos of milled rice per person annually (Das, 2006). Bangladesh was a food deficient country up to 1971-1999. Due to the adoption of HYV rice and improved method of rice cultivation the country achieved almost self-sufficiency in rice production (GOB, 2008).

Rice processing includes parboiling (soaking and streaming), drying and milling in order to obtain milled rice. In a few places parboiling practice is not followed. They get milled rice by milling raw paddy. The total production of milled rice was about 18 million tons (BBS, 2007). More than 80 per cent of rice is processed in the village and about 20 per cent is processed in the commercial rice mills (Khan, 2005). Rural women play a significant role in rice processing system. Rice milling is the largest single food industry in Bangladesh. Although a huge amount of capital is invested in Bangladesh rice milling industry, the efficiency of the industry is far lower than that of other countries, including our neighboring country, India (Das, 2006). Women in agriculture today are a popular area of study. It is now accepted that women were the initiators of agricultural activities in the history of mankind, while in Bangladesh about 75% of the women live in farming families and have responsibility for most post-harvest activities. The most concentrated and busiest time in rice production occurs after the rice is harvested and brought into the homestead, and so women carry a heavy load to convert paddy to edible grain by threshing, soaking, parboiling, drying, husking, winnowing and preserving seed. Milling is the final stage in rice post-harvesting processing. It includes pre-cleaning, destining, husking, bran removal, cleaning and grading. Mobile rice hullers are gaining popularity in rural areas and the traditional *Dheki* for rice dehusking is gradually disappearing. People like mobile rice hullers because it provides home service. Commercial rice mills of different capacities (small, medium, and large, traditional, semi-automatic, and automatic) are available all over the country, although the exact number of these mills is not known. Similarly, the mechanical devices for post-harvesting operations have a great potential to be used by landless farmers for earning money and improving

their livelihood. Participation of women is most common in post-harvest farming operations although some field operations are also done by wage earning females in certain areas. Landless women are directly involved in rice processing, particularly in parboiling, and drying at the farm level though they live in extreme poverty measured in terms of their minimal calorie intake per day.

Islami Bank Bangladesh Limited (IBBL) plays a vital role in the economy by investing a huge amount of money in different sectors. In the agriculture sector, IBBL invested Tk. 9110 million, i.e. 5.06 per cent of the total invested capital.

Table 1 : Investment of IBBL in different sectors

SL No	Areas of Investment	2008		2007	
		Amount in million BDT	% of total investment	Amount in million BDT	% of total investment
1	Industry	99233	55.11	78788	54.37
2	Commerce	51332	28.51	43877	30.28
3	Real Estate	10172	5.65	8588	5.93
4	Agriculture	9110	5.06	6485	4.47
5	Transportation	4082	2.27	2656	1.83
6	Others	6125	3.40	4,527	3.12
7	Total	180054	100.00	144921	100

Source: IBBL, Annual report 2008.

Table 1 shows the IBBL's investment by sectors up to 31st December 2008.

Rice is a very important cereal crop of Bangladesh. So, for husking paddy a large number of paddy processing mills have been established in Bangladesh. There are, however, a large number of mills in the country, which do not have adequate capital for the processing of paddy. There is no specific policy of providing bank loans to this sector even though it is the largest single agricultural industry in the country. For a well-planned development of rice mills, an effective policy for bank lending to the rice mills is urgently needed. In Bangladesh a large number of workers are directly or indirectly employed in rice processing mills. But there has been no exclusive study so far concerning the investment of commercial banks in the activity. The present study, therefore, has been undertaken to evaluate the contribution of IBBL's investment in rice husking mills that operate in some

selected areas of the country.

It is expected that such studies would be useful to the government policy planners, independent researchers and academicians. These studies would help government in taking pragmatic decision to uplift the condition and performance of the rice millers, and the socio-economic status of the rural poor in general and women, in particular who are engaged in rice husking mills, which would help the country to reduce poverty, a core objective of the Millennium Development Goals.

The specific objectives of in present study are as follows:

- i) To evaluate the contribution of Islami Bank Bangladesh Limited (IBBL)'s investment in rice husking mills.
- ii) To examine the gender role in decision-making process of the women workers engaged in rice husking mill.

2. Methodology and Data Sources

The study is based on primary data collected from selected rice millers through a field survey and carefully designed interviews as well as informal discussion with the rice millers. The data was also collected from secondary sources, which include publications of the Bangladesh Bureau of Statistics (BBS), Papers and leaflets of IBBL, Census Reports, Research Reports of the Bangladesh Institute of Development Studies (BIDS), and different national and international journals.

For the present study, information was collected from Rice millers of Mymensingh and Gazipur District. On the basis of information of IBBL, four upazilas namely Muktagacha, Trishal, Mymensingh Sadar and Phulpur of greater Mymensingh District and one Upazila of Gazipur District namely Sreepur were purposively selected.

Table 2 : Information of sample and sampling procedure

District	Upazila	Population (No.)	Sample (No.)
Mymensingh	Muktagacha	11	4
	Trishal	8	2
	Sadar	13	8
	Phulpur	9	4
Gazipur	Sreepur	20	12
Total		61	30

the level of influence of different variables on income of the automatic and semi-automatic rice mills.

Educational qualification (X_1)

Table 3 : Average Investment of IBBL on rice husking mills

Types of rice mill	Tk. In million (average)		Total
	Own capital	Credit from IBBL	
Normal/ semi-automatic	2.73 (67.82)	1.29 (32.18)	4.03 (100)
Automatic	4.47 (53.24)	3.92 (46.76)	8.39 (100)

Source: Field Survey, 2009

Note: Figures within parentheses indicate percentages.

Table 4 : Estimated Values of the coefficients of Independent Variables
(Dependent Variable: Y (Income))

Explanatory variables	Automatic Rice Mill		Semi-automatic Rice Mill	
	Co-efficient	t-values (df=8)	Co-efficient	t-values (df=8)
Constant	11.861	3.600	6.717	3.319
Education (X_1)	0.284	1.662	0.089	1.189
Own capital (X_2)	0.351**	4.067	0.359*	2.451
Investment of IBBL (X_3)	0.268*	2.553	0.226	2.164
Experience (X_4)	0.330	1.188	0.191	1.708
Rice processed in study year (X_5)	0.232	1.698	0.555**	3.631
Establishment cost (X_6)	0.393*	2.287	0.314**	5.635
R^2	0.870	-	0.957	-
Adjusted R^2	0.740	-	0.915	-
F-value	6.703**	-	22.400**	-

** Significant at 1 per cent level

* Significant at 5 per cent level

The co-efficient of the variable educational qualification is 0.284 for automatic and 0.089 for semi-automatic rice millers. Both coefficients are not statistically significant.

Own capital (X_2)

The co-efficient of the variable own capital of automatic rice miller was 0.351 and that for semi-automatic millers was 0.359 that were statistically significant at 1 per cent and 5 per cent level of confidence with positive sign, respectively.

Investment of IBBL (X_3)

The co-efficient of the variable investment of IBBL of automatic rice miller was 0.268 and semi-automatic rice miller was 0.226. The co-efficient for automatic rice miller is significant at 5 per cent level of confidence with positive sign. This implies that, keeping other things constant, 1 per cent increase in investment of IBBL would lead to an increase in the rice-millers' income by 0.268 per cent.

Experience (X_4)

The co-efficient of the variable experience of the automatic rice miller is 0.330 and semi-automatic rice miller 0.191 Both of these coefficients are statistically insignificant.

Rice processed in study year (X_5)

The co-efficient of the variable rice processed in study year of automatic rice miller is 0.232 and semi-automatic rice miller is 0.555.

Establishment cost (X_6)

The co-efficient of the variable establishment cost of the respondent of automatic rice miller is 0.393 and semi-automatic rice miller is 0.314. These coefficients are positive and statistically highly significant.

Values of R^2 and adjusted R^2

The value of the co-efficient of multiple determinations R^2 is 0.870 in automatic rice mill, which means that the explanatory variables included in the model explained 87 per cent of the variation in total income of the automatic rice miller. It is also evident from the same table that the value of adjusted R^2 is 0.740 indicating that after taking into account the degrees of freedom the explanatory

variables in the model explain about 74.0 per cent of the variations in the dependent variable.

The value of the co-efficient of multiple determinations R^2 is 0.957 in semi-automatic rice miller, which means that the explanatory variables included in the model explained 95.7 per cent of the variation in total income of the semi-automatic rice mill. It is also evident from the table that the value of adjusted R^2 is 0.915 indicating that after taking into account the degrees of freedom those explanatory variables in the model explain about 91.5 per cent of the variations in the dependent variable.

F-value

The F-values are highly significant at 1 per cent level, implying that all the included explanatory variables are important for explaining the variations in income (Y) of both automatic and semi-automatic rice millers.

From the above estimated variables, it can be concluded that the importance of investment of IBBL on automatic rice mill is more significant than the semi-automatic rice-processing mill. The education of the rice millers did not play any significant role in influencing the income of both rice millers.

3.2. Gender Role in Decision Making

Women in general, have very little participation or are often very less concerned in the decision making process even at the household level activities. In this study, attempt was made to analyze the pattern of participation of women in household decision-making process (Table 5). Responses to questions on decision-making are coded in three categories as defined below:

- (a) "Decision taken by the husband" means that the wives have no say in decision making and the husband determines all matters by himself without any consultation with wife.
- (b) "Decision taken by the wife" means that all matters are decided by women themselves without any consultation with husband.
- (c) "Decision taken by both husband and wife" means that all decisions are arrived at by mutual consent of the husband and wife. In such decision making process, both the husband and the wife have equal authority to reject or accept a decision.

Male domination in decision-making has come down significantly after the

women started working in rice mills. Men that previously took monopoly decision now realize that women should also join in decision-making for smooth running of income generating activities (IGAs). Taking joint decision in family affairs has thus increased considerably. As Table 5 will show, during the study year, 100 percent of decisions relating to children's education and daughter's/son's marriage were taken jointly by husband and wife. The percentages were 98 percent in the case of works in the mills, 85 percent in labour selling, 80 percent in housing, 53 percent in matters of rearing children, and 56 percent in matters of social function. It can, therefore, be said that the rice mill operation has been helping women empowerment in the society, which also occupies a high priority in government's policy toward women.

4. Conclusion and Recommendations

The of IBBL's investment in automatic rice mills has proved more productive than in the semi-automatic rice-processing mills. Measures should be taken to provide institutional credit in easy terms and conditions for establishing automatic rice mill.

Table 5 : Participation of Women in household decision-making

Decision making topics	Work in rice mill (%)					
	Before Husband only	Wife only	Equal	After Husband only	Wife only	Equal
Crop production	95	-	5	63	-	37
Labor selling	90	-	10	15	-	85
Housing	82	18	-	10	10	80
Work in rice mill	54	20	26	-	2	98
Take care of children	-	80	20	-	47	53
Child education	70	20	10	-	-	100
Allocation of income	86	10	4	50	25	25
Daughter/son's marriage ceremony	55	-	45	-	-	100
Participation in voting	75	25	-	-	-	100
No. Children to raise	70	30	-	-	-	100
Group meeting	100	-	-	50	25	25
Participation in social function	90	5	5	44	-	56
Visiting relatives	62	20	18	46	15	39

Semi-automatic rice mills employ more labor, specially women workers, for performing various milling activities compared to automatic rice mills. This is because in automatic rice mills most of the milling activities are electric machine-operated. Government along with all banks try in their own way to assist this industry to grow in order to generate a good employment opportunity.

Gender inequality in decision-making is gradually disappearing at least in the rice mills that have been the subject of this paper. Men that previously took monopoly decision have now begun to realize that women should also join in decision-making for smooth running of income generating activities. However,

Government should frame and implement proper rules and regulations so that any woman worker does not encounter gender based discrimination.

References

1. Bangladesh Bureau of Statistics (2007): *Statistical Yearbook of Bangladesh*, Ministry of planning, and Government of the People's Republic of Bangladesh, Dhaka.
2. Das, S. R. (2006): "A study on Rice Mills in selected areas of Sherpur District". Unpublished M.S. Thesis Submitted to Department of Co-operation and Marketing, Bangladesh Agricultural University, Mymensingh.
3. GOB (2008): *Bangladesh Economic Review*. Ministry of Finance, Government of the People's Republic of Bangladesh, Dhaka.
4. Gujarati, D. N. (2003): *Basic Econometrics*. Singapore: McGraw-Hill, Inc.
5. IBBL (2008): *Annual Report*, (2007-2008): Islami Bank Bangladesh Limited.
6. Islam S. (2009): "Economics of Rice Husking as an Agro-Processing Business in Some Selected Areas of Bangladesh." M. S. Thesis, Department of Agricultural Economics, Bangladesh Agricultural University, Mymensingh-2202, Bangladesh.
7. Khan, M. B. (2005). "Processing of Boro paddy and its marketing in selected areas of Sherpur District". Unpublished M.S.Thesis, Department of Co-operation and Marketing, Bangladesh Agricultural University, Mymensingh.