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## ***COST OF CREDIT FROM INSTITUTIONAL SOURCES IN BANGLADESH***

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### **ABSTRACT**

This paper seeks to examine, by using survey data, the magnitude and extent of non-interest costs involved in obtaining loans from credit institutions, namely, the Janata Bank, the Bangladesh Jatiya Samabaya Bank (Central Cooperatives), the Integrated Rural Development Programme (IRDP) and the Bangladesh Kishi Bank (BKB). The study identified four components of transaction costs, viz., i) application fee, stamp and documents required in support of loan ii) form filling and writing iii) conveyancing or cost of traveling for loan negotiation and iv) the cost of entertaining people who assisted in loan negotiation. 'Conveyancing' and 'cost of entertaining people' constitute the major portion of total costs in each of the institutions. The <sup>effective</sup> rate of interest for institutional loans stood at Tk. 15.54, Tk. 20.55, Tk. 24.04 and Tk. 21.50 respectively to the borrowers of Janata Bank, Cooperative, IRDP and BKB. It was found that the interest cost of borrowing falls as loan size increases. Since the modal values of loans obtained mostly by small borrowers were smaller compared to average, they had to incur higher non-interest costs.

### **1. INTRODUCTION**

Agricultural credit like any other commodity has its price. The peculiarity is that its demand is highly elastic while supply is fairly inelastic. The formal rate of interest is fixed irrespective of loan sizes. Thus in spite of a horizontal price line faced by credit institutions the quantity of credit to be supplied is restricted by fund limitations. Therefore, even if he needs more, a farmer can not get enough credit from these sources simply by paying a higher price.

Because of this demand-supply relationship, the price of formal credit particularly in developing countries reflects not only formal official interest rates but also some invisible costs which remain unaccounted for in any of the ledgers maintained at the institution level. Once these hidden costs are spread over the total quantity of credit obtained, the effective rate of interest becomes much higher than the official interest rates.

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Considerable evidences as found in literature support the above view. The hidden or non-interest costs are incurred in the process of loan transaction. These comprise in general the cost of stamps and documents, loan registration fee, form filling expenses, opportunity cost of the days spent, conveyancing and the cost of entertaining people for loan negotiation. The magnitude of the non-interest costs is substantial. In their studies, Shahjahan (1968); Adams and Nehman (1979); Dahl (1962) and Kurup (1976) showed that cost of borrowing from institutional sources falls as the size of borrowing goes up and the lion's share of credit is appropriated by a relatively small proportion of households belonging to upper stratum of families. Almost similar findings were reported by Michael Lipton (1976); Thirsk (1974); Vasthoff (1968); and Wills (1972). Though big and influential farmers receive lion's share of institutional credit nevertheless percentage of default is higher on these loans (Ames 1974; Dadhich 1971; Lale 1974). Villmil (1974) and Nehman (1973) respectively showed that borrowing costs became about 42 percent of the value of loan, and farm sizes and the experience in borrowing from institutional sources are negatively related to cost.

#### 11. NATURE OF INSTITUTIONS AND LOANS

The present study is based on the analysis of short-term loans provided by the Janata Bank, Co-operatives (Central Co-operative Banks), the Integrated Rural Development Programme (IRDP) and the Bangladesh Krishi Bank (BKB). The Co-operatives and IRDP were found to advance only short term loans emphasizing small farmer lending while BKB used to advance medium and long term loans in addition to the short term loans. Janata Bank also had the provision of financing medium term loans for purchasing capital inputs like shallow tube wells, etc. Janata Bank used to finance short term loans to the tobacco growers directly in Rangpur district.

The paper aims at finding out the magnitude of the non-interest costs incurred in borrowing from the above institutions. The findings are expected to help in the current debate concerning adjustment of interest rate structure for the agricultural sector.

#### III. DATA SOURCE AND METHODOLOGY

Relevant data concerning borrowing costs were collected from the borrowers of each of the above institutions. This includes formal interest rates and expenses incurred during the process of loan. Non-interest or transaction costs were composed of i) application fee, stamps and documents required in support of loan, (ii) form filling and writing expenses, (iii) conveyancing or cost of travelling for loan negotiation, and (iv) cost of entertaining

people who assisted in loan negotiation. The valuation of the days spent was not taken into consideration since its inclusion would have exceeded the total value of loan in many cases.

A total of 500 loanees from six districts namely, Rangpur, Bogra, Pabna, Mymensingh, Tangail and Comilla were purposively selected. Samples from BKB, IRDP, Co-operatives and Janata Bank constituted 29 percent, 29 percent 32 percent and 10 percent respectively of the total samples. The reason Janata Bank represents only 10 percent was that it was the only bank which first started direct financing in agriculture and its financing activities were concentrated only in tobacco development projects of Rangpur district in 1976.

The tabular method was used in showing the extent of non-interest costs. In addition, the nature of transaction costs of borrowing was examined in more detail by applying first a quadratic function and then a hyperbolic function assuming borrowing cost as a function of size of credit. The quadratic function was defined in the following way :

$$Y_i = \alpha + \beta_1 X_i + \beta_2 X_i^2 + E_i$$

Where  $Y_i$  = Average transaction cost of borrower  $i$ . This is the transaction cost divided by the size of loan.

$X_i$  = Size of credit ( in hundred Taka ) received by borrower  $i$ .

$E_i$  = Normally distributed error term.

Realizing the difficulty of rationalizing the up turn of the average cost curves under quadratic specification, the hyperbolic function of the form  $Y = \alpha X_i^\beta + E_i$  were again run.

#### IV. RESULTS AND DISCUSSION

The details of the breakdown of the transaction costs of borrowing according to size of credit and size of farm are shown in Tables 1 and 2 respectively. Out of the four components of the non-transaction costs, 'conveyancing' occupied the highest position while next highest was the 'cost of entertaining people'. 'Stamps and documents' and 'form filling expenses' were relatively lower than others. The amount of the non-interest costs of borrowing Taka 100.00 was found to be Tk. 5.04, Tk. 8.05, Tk. 6.54 and Tk. 10.59 for Janata Bank, Co-operatives, IRDP and BKB respectively. The effective rate

of interest of institutional credit therefore becomes 15.54, 20.55, 24.04 and 21.58 percent respectively for Janata Bank, Co-operatives, IRDP and BKB (see note 1).

The reasons being conveyancing and cost of entertaining people as larger components of non-interest cost can be explained in several ways. The location of the bank branches, fear of illiterate farmers to face bank officials, formalities and complexities in loan sanctioning procedures and attitude of the institutional personnel contribute significantly to the above non-interest costs. Since most of the borrowers are either illiterate or have a very low level of education, they do not understand the official formalities. They very frequently need the help of officials for which they are required to pay some price. Since there remains no fixed criteria about the size of loan to be sanctioned, the subjective judgement of the officials becomes the determining factor in most of the cases. This makes the borrowers conscious that he is facing a situation of extra expenses if he wants to get a sizable loan.

Table 1 shows that non-interest costs vary negatively with the size of credit which implies that smaller loans are expensive than bigger ones. This relationship was not statistically significant only in the case of IRDP. The Spearman Rank Correlation Coefficients suggest rejection of null hypothesis (Table 3) in the case of Janata Bank, Co-operative and BKB at .05 level of significance. The IRDP results though not statistically significant, does have a negative sign implying the same message that smaller loans are more expensive. The same relationship was also found between farm size and borrowing cost. Hence it leaves little doubt that smaller loans (obtained mostly by smaller farmers) are exploitative in nature than bigger loans.

The quadratic specification of the average cost provides satisfactory results since all the parameters for each and every institutions are of the expected signs (Table 4) and are statistically significant. But the expected 'U' shaped average cost curves had the difficulty of rationalizing the up turn position since it is known that average transaction cost generally falls as size of credit increases. Therefore, in addition to this, a model based on rectangular hyperbola was applied. It provided better result and eliminated the rationalizing problem of the quadratic specification. The results of the regression model based on hyperbolic form are presented in Table 5. This form of average cost specification seemed to better fit in terms of R than quadratic specification and it produced 'L' shaped average cost curves (Figure 1) as is generally expected. The signs of the elasticity co-efficients in the estimate conform to expectation. The 'L' shaped average cost curves as in Figure 1 confirm the same result that smaller loans are expensive.

The analysis of the cost of credit indicates that the borrowers of Janata Bank had to incur the lowest cost while it was highest to the borrowers of BKB. The location of most of the borrowers of smaller loan sizes were at the highest segments of the cost curves since small loans constitute the bulk of over all loans. This indicates that a great majority of the borrowers who obtained smaller size of loans were required to incur higher non-interest costs compared to borrowers of bigger loan sizes.

#### V. CONCLUSIONS

It is evident from the above analysis that non-interest cost of borrowing from institutional sources are substantial. It varies considerably among credit institutions. The presence of the non-interest costs under the normal credit programmes is thus unavoidable. Bank's location, borrowers' ignorance and officials attitude are the main reasons for these costs. Inclusion of these costs make the effective cost of borrowing from the above sources closer to the rates generally charged by non-institutional sources.

Since the farmers borrow from these sources inspite of higher transaction costs, it implies that credit is very much needed and the farmers are willing to pay a higher price to get it. Under the assumption of unavoidable occurrence of non-interest costs under the current practices, the magnitude of these costs can be reduced substantially for the smaller borrowers simply by increasing the size of credit, because when costs are spread over larger quantity of credit, per unit cost will become lower. However, we do not suggest an arbitrary increase in the size of credit in this case rather we suggest that an honest attempt should be made to meet the genuine unsatisfied credit need of the farmers. Alternatively, transaction costs can be reduced substantially by increasing the number of bank branches and co-operative societies in the rural areas, by minimising the official formalities and security requirements of loans. Recent credit programmes with soft terms and conditions for loans are some of the steps in reducing transaction costs. But this depends mainly on the success of these programmes.

#### Notes :

- (1) The formal or official rates of interest for different credit institutions were 10.50, 12.50, 17.50, and 11.00 percent respectively for the Janata Bank, the Co-operatives, the IRDP and the BKB. Interest charged by IRDP at farmers' level was 12.50 percent and a service charge of 5.0 percent was realized from farmers by Thana Central Co-operative Association.
- (2) Effective rate of interest was found by adding non-interest cost per hundred taka of credit received and the formal rate of interest.
- (3) Short term loans are generally advanced for a period not exceeding 18 months. Most of the crop loans fall in this category.
- (4) Non-interest costs of borrowing were synonymously used.

FIGURE 1 : AVERAGE TRANSACTION COSTS PER HUNDRED TAKA OF CREDIT  
 RECEIVED BASED ON MODEL  $Y_i = \alpha X_i^\beta \epsilon_i$

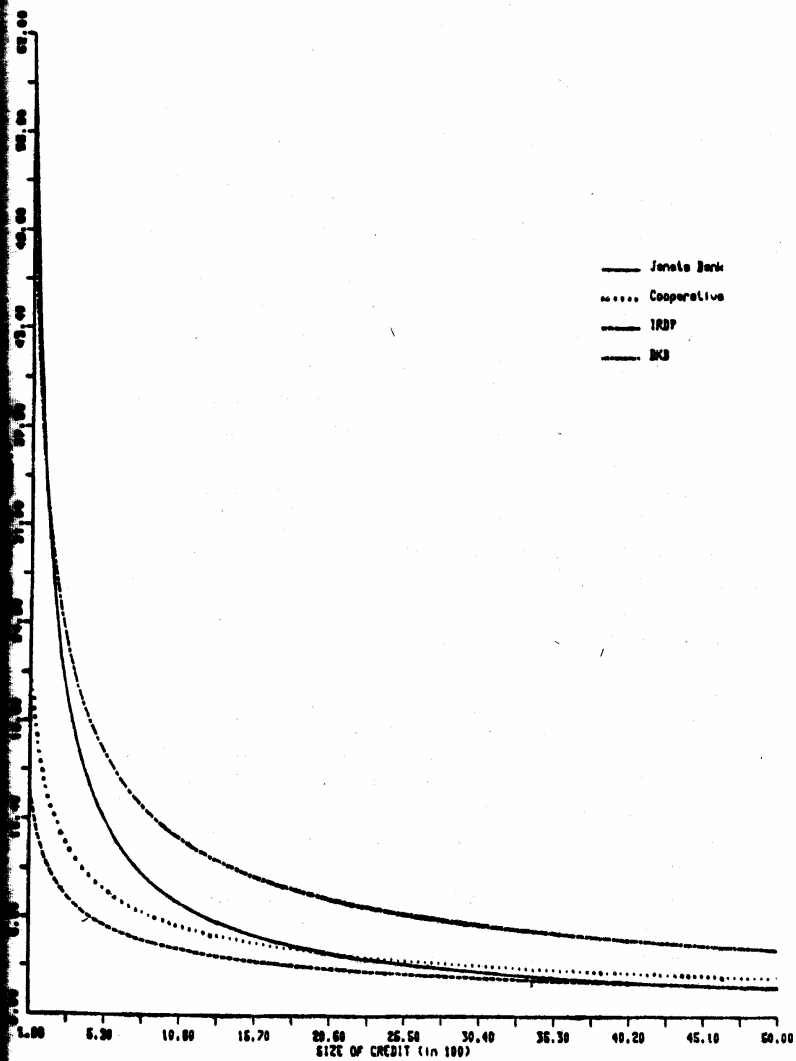


TABLE 1: NUMBER OF FARMS AND BREAKDOWN OF TRANSACTION COSTS PER HUNDRED TARA OF CREDIT RECEIVED ACCORDING TO SIZE OF CREDIT

Institutions	Size of Credit (Taka)									
	100- 300	301- 500	501- 750	751- 1000	1001- 1500	1501- 2000	2001- 2500	2501- 3000	3001- 4200	All Sizes
<b>JANATA BANK</b>										
Conveyance	18.33	5.70	8.00	3.52	3.24	2.10	3.28	1.39	1.21	2.43
Stamps and documents	0.66	0.40	0.29	0.21	0.15	0.10	0.08	0.06	0.05	0.12
Form filling and writing	2.66	0.90	0	0.67	0.23	0.04	0	0	0	0.17
Cost of entertaining people	10.00	3.00	10.71	3.49	3.50	1.88	2.00	1.69	0.94	2.32
Total transaction cost	31.66	10.00	19.00	7.90	6.94	4.14	5.36	3.15	2.20	5.04
No. of farms	1	2	1	12	12	12	1	6	3	50
<b>CO-OPERATIVE</b>										
Conveyance	9.30	4.81	3.62	3.56	3.08	2.97	—	—	—	4.31
Stamps and documents	1.62	1.27	1.37	0.60	0.48	0.17	—	—	—	0.88
Form filling and writing	0.39	0.18	0.03	0.02	0	0	—	—	—	0.08
Cost of entertaining people	4.83	2.88	2.25	2.28	2.78	1.97	—	—	—	2.76
Total transaction cost	16.14	9.14	7.27	6.46	6.35	5.11	—	—	—	8.05
No. of farms	47	46	20	23	17	7	0	0	0	160
<b>RDP</b>										
Conveyance	5.37	3.42	3.24	2.28	1.80	2.76	—	—	—	3.06
Stamps and documents	2.09	0.99	1.05	0.46	0.93	1.65	—	—	—	0.97
Form filling and writing	0	0	0.29	0.10	0	0	—	—	—	0.08
Cost of entertaining people	2.50	1.96	2.97	2.12	2.76	2.59	—	—	—	2.41
Total transaction cost	9.97	6.28	7.57	4.98	6.10	7.02	—	—	—	6.54
No. of farms	45	32	24	32	9	3	0	0	0	145
<b>BKB</b>										
Conveyance	—	14.62	9.49	7.18	5.69	3.93	3.49	2.63	3.22	5.81
Stamps and documents	—	1.60	1.07	0.66	0.54	0.88	0.90	1.70	0	0.80
Form filling and writing	—	0	0.12	0.11	0.07	0.06	0.01	0	0	0.07
Cost of entertaining people	—	9.14	5.69	4.22	3.42	3.61	3.11	3.18	3.87	3.91
Total transaction cost	—	25.37	16.38	12.19	9.74	8.50	7.53	7.53	7.09	10.59
No. of farms	0	4	30	47	36	11	12	4	1	145

Source : Survey data.



**TABLE 2 : NUMBER OF FARMS AND BREAKDOWN OF THE TRANSACTION COSTS PER HUNDRED TAKA OF CREDIT RECEIVED ACCORDING TO FARM SIZE**

Institutions	Size of Farms (Acres)									
	0.33- 1.50	1.51- 3.00	3.01- 4.50	4.51- 6.00	6.01- 7.50	7.51- 9.00	9.01- 10.50	10.51- 35.00	All Sizes	
<b>JANATA BANK</b>										
Conveyance	3.39	3.68	2.33	1.73	1.46	3.28	1.76	-	2.43	
Stamps and documents	0.19	0.20	0.11	0.08	0.07	0.08	0.08	-	0.12	
Form filling and writing	1.05	0.18	0	0	0	0	0	-	0.17	
Cost of entertaining people	3.16	4.14	2.15	1.71	1.35	2.00	1.26	-	2.32	
Total transaction cost	4.38	8.19	4.60	3.52	2.89	5.36	3.10	-	5.04	
No. of farms	11	11	14	9	2	1	2	0	50	
<b>CO-OPERATIVE</b>										
Conveyance	6.56	5.05	4.68	3.75	3.50	2.66	2.82	2.90	4.31	
Stamps and documents	1.39	1.38	0.68	0.57	0.67	0.71	0.58	0.79	0.88	
Form filling and writing	0.13	0.22	0.10	0.02	0.02	0	0	0	0.08	
Cost of entertaining people	4.23	3.02	2.85	2.02	3.36	2.38	1.82	1.28	2.76	
Total transaction cost	12.32	9.69	8.32	6.36	7.55	5.76	5.23	4.97	8.05	
No. of farms	26	49	33	25	13	8	2	4	160	
<b>IRDP</b>										
Conveyance	3.76	2.94	3.02	2.83	3.70	3.27	1.65	2.00	3.06	
Stamps and documents	0.79	0.97	1.06	0.95	0.60	1.86	0.57	0.68	0.97	
Form filling and writing	0.21	0.16	0	0	0	0	0	0	0.80	
Cost of entertaining people	2.87	2.36	2.47	2.58	1.60	2.31	1.17	1.63	2.41	
Total transaction cost	7.63	6.43	6.56	6.35	5.50	7.44	3.39	4.31	6.54	
No. of farms	36	42	28	16	4	9	3	7	145	
<b>BKB</b>										
Conveyance	15.50	7.58	10.27	7.42	5.89	5.77	6.63	3.76	5.81	
Stamps and documents	1.00	1.06	0.84	0.82	0.67	0.58	0.50	0.88	0.80	
Form filling and writing	0	0.15	0.14	0.13	0.11	0.10	0	0.01	0.07	
Cost of entertaining people	5.00	3.56	5.31	4.27	3.62	4.06	2.93	3.62	3.91	
Total transaction cost	21.50	12.25	16.54	12.65	10.31	10.53	10.07	8.29	10.59	
No. of farms	1	6	19	39	25	11	5	39	145	

Source : Survey data.

TABLE 3 : RESULT OF THE SPEARMAN RANK CORRELATION TEST

Institutions	Correlation Co-efficients	Critical Region at .05 level	n	Hypetheses accepted	Hypotheses
Janata Bank	-.97*	$r_s \leq -.600$	9	No	$H_0$ : Size of credit and borrowing costs are independent.
Co-operative	-1.0*	$r_s \leq -.829$	6	No	
IRDP	-.49	$r_s \leq -.829$	6	Yes	$H_0$ : Size of credit and borrowing cost are negatively correlated
BKB	-.79*	$r_s \leq -.643$	8	No	
Janata Bank	-.43	$r_s \leq -.714$	7	Yes	$H_0$ : Size of farm and borrowing costs are independent
Co-operative	-.97*	$r_s \leq -.643$	8	No	
IRDP	-.72*	$r_s \leq -.643$	8	No	$H_0$ : Size of farms and borrowing costs are negatively correlated.
BKB	-.90*	$r_s \leq -.643$	8	No	

\*significant at.05 level

TABLE 4 : RESULT OF THE REGRESSION ANALYSIS BASED ON MODEL  $y_i = \alpha + \beta_1 X_i + \beta_2 X_i^2 + E_i$

Institutions	$\alpha$	X	X <sup>2</sup>	R <sup>2</sup>	F
Janata Bank	19.07	-1.17* (4.96)	.021* (3.68)	.49	22.72*
Co-operative	23.48	-3.46* (7.36)	.152* (5.58)	.36	43.64*
IRDP	14.07	-1.70* (4.48)	.077* (3.31)	.18	15.28*
BKB	27.66	-1.98* (5.16)	.047 (6.44)	.50	72.32*
All institutions	14.30	-.84* (5.85)	.012 (3.20)	.13	36.42*

Figures in parentheses represent t - ratios.

\*significant at .01 level

TABLE 5 : RESULT OF THE REGRESSION ANALYSIS BASED ON MODEL  $Y_i = \alpha + X_i\beta E_i$ 

Institutions	$\alpha$	$\beta$	R <sup>2</sup>	F
Janata Bank	61.6948*	-.9103* (8.83)	.62	77.98*
Co-operative	21.6239	-.5624* (11.66)	.46	136.14*
IRDP	14.1752	-.5179* (7.13)	.26	50.91*
BKB	51.7849	-.6433 (12.44)	.52	154.53*

Figures in parentheses represent *t*-ratios

\*Significant at .01 level.

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