Vol. XLIX
No. 3

ISSN 0019-5014

CONFERENCE
NUMBER

JULY -
SEPTEMBER
1994

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS

INDIAN SOCIETY OF
AGRICULTURAL ECONOMICS,
BOMBAY

Ind. Jn. of Agri. Econ.
Vol. 49, No. 3, July-Sept. 1994

Transaction and Service Costs for Co-operatives and Regional Rural Banks

S.L. Kumbhare,* V. Mohan Doss† and V.S. Bhadauria*

I

INTRODUCTION

Over the years a vast network of rural credit institutions comprising the co-operatives, Regional Rural Banks (RRBs) and the Commercial Banks, involving huge financial resources has been created, for effectively meeting the credit needs of the rural society in general and that of the weaker section in particular. The small amount of loans involved and other environmental factors have, *inter alia*, led to high cost of credit delivery as also to high risk cost of lending. Consequently, the structure so created has come to suffer from non-viability. The issue of non-viability has been receiving the attention of policy makers, apex institutions like Reserve Bank of India (RBI), National Bank for Agriculture and Rural Development (NABARD) and the credit institutions themselves for quite some time now. The main factors responsible for non-viability of the rural credit structure are the low interest spread defined as the difference between average lending and deposit/borrowing interest rate, and the high cost of transacting loans and deposit accounts. The subject matter of this paper is to study the transaction cost and service cost since the rates of interest on deposits and advances which together determine interest spread are administered and thus external to the banking operations. Further, the paper confines to the RRBs and co-operatives on account of the fact that the problem of non-viability is more acute in their case as also for the reason that the problems and solutions of financial viability in their case are more easily identifiable as compared to the commercial banks which are engaged in relatively larger variety of activities. Excepting a few ad-hoc studies, no mechanism with well defined cost concepts exists for obtaining regular feedback on lending costs especially the transaction and service costs. This paper is an attempt in this direction. More specifically, the paragraphs to follow discuss the conceptual and methodological issues involved in the estimation of lending cost.

The lending costs consist of three components, viz., (i) cost of fund including cost of mobilising and servicing deposits, (ii) transaction cost of lendings and (iii) risk cost. The cost of funds, to a large extent, depends upon the bank's access to concessional funds available from the higher tiers, i.e., NABARD and sponsor banks in the case of RRBs, and State Co-operative Bank/State Co-operative Land Development Bank and NABARD in the case of co-operatives. The cost of funds and the risk cost could logically be estimated at corporate/institution level since the major decisions regarding borrowings, deployment of resources, provision for bad and doubtful debts, etc., are taken at that level. On the other hand, the cost of mobilising and servicing the deposits and the transaction cost in respect of lending operations are to be estimated on the basis of relevant data in respect of bank

* Department of Economic Analysis and Research, National Bank for Agriculture and Rural Development (NABARD), Head Office, Bombay, and † NABARD, Regional Office, Madras, respectively.

The views expressed in this paper do not reflect the views of the institution to which the authors belong. The authors gratefully acknowledge the guidance given by B.R. Chaudhari and H.P. Singh, General Managers, NABARD, Bombay.

branches since both these functions are performed by them. The transaction cost could be kept low either by increasing the scale of operations or by compromising with the quality of lending. The latter alternative, may, in all probability lead to increase in the risk cost and would entail provision for higher level of bad and doubtful debts.

The estimation of risk cost so far has not been given due attention because the bankers view that the risk cost emanating from the high overdues is exogenous to the credit system perhaps on account of the policies of Government with regard to target approach in lending and the loan waiver which have contributed to the mounting overdues. The Land Development Banks (LDBs) view that their loans are fully secured and consequently provision for bad and doubtful debts is not made unless they realise the profits. Other banks follow different systems for estimation of bad and doubtful debts and, consequently, the risk costs across the agencies and the districts are not comparable. In view of the foregoing, the paper focuses on transaction and service costs alone as these are internal to the credit system and can be reduced through the identification of specific factors affecting these costs and initiating the measures to reduce the same. Available evidence suggests that the cost of servicing the loan and deposit accounts is high on account of relatively smaller business of rural financial institutions and the smaller size of loan/deposit accounts. The paper examines the methodological issues involved in the estimation of transaction cost and service cost (Section II) and presents the estimates of both these costs based on the studies conducted in Maharashtra and Tamil Nadu (Section III). The last section summarises the findings.

II

METHODOLOGICAL ISSUES AND THE APPROACH TO THE STUDY

Logically, the service cost includes costs involved in handling deposit accounts, documentation, record keeping and issuing and updating pass books and statements. The transaction cost could be viewed either from the borrower's or from the institution's point of view. In this paper, it has been viewed from the point of view of the institution. The transaction cost includes costs associated with the loan processing, loan disbursement, monitoring and loan recovery. The cost associated with collection of information on potential borrowers, assessment of value of collateral and documentation are among the transaction costs.

The cost allocation approach was adopted in working out transaction cost and service cost. The usual approach adopted by the bankers does not make any distinction between the service cost and transaction cost and it is estimated as transaction cost in terms of non-interest costs per Rs. 100 of working capital. This approach presumes that the cost of servicing a rupee of deposit, loan, investment, etc., is the same. This rather appears to be incorrect since the field level experience suggests that the cost of servicing a rupee of loan is substantially higher than that of deposit/investment/owned fund. Despite the limitations, the bankers estimate transaction cost per Rs. 100 of working capital or the working funds because this approach is simple and the transaction cost could be computed by using the data available in their financial statements.

As indicated earlier, the transaction cost and service cost have to be computed based on the branch level data since both the functions of deposit mobilisation/servicing and lending are attended to at the branch level. Since the study involved cost allocation approach through visits to bank branches, a small sample of bank branches was drawn from the South Arcot and Kamarajar districts of Tamil Nadu and Thane district of Maharashtra. In the latter only one branch of each agency [Central Co-operative Bank (CCB), Land Development Bank (LDB), Regional Rural Bank (RRB) and Primary Agricultural Credit Society (PACS)] was covered whereas in other two districts, 3-4 branches of each type were covered. While selecting the branches, the criteria, (i) the branch had been functioning for more than five years, (ii) the branch is in rural/semi-urban area so as to have enough volume of agricultural, allied and other rural lending and (iii) the branch has a credit-deposit ratio which would be close to that of the bank as a whole, were adopted. In South Arcot and Kamarajar, one branch each with high, medium and low level of business was selected.

From the sample bank branches the data on (i) number of officers and clerks handling the deposit and loan accounts; (ii) the proportion of time spent by each of the staff on deposits, lending and other activities not related to funds; (iii) average salary and other allowances including provident fund, encashment of leave, etc., of an officer and a clerk; and (iv) loans and deposits outstanding as on September 30, 1992 and March 31, 1993 were collected. The exercise of estimation of transaction cost and service cost has been carried out with 1992-93 as the reference year.

The service cost comprised the staff cost and other overheads of the branch. To work out the cost of staff, the number of officers and clerks handling deposits was multiplied with the proportion of time spent by each one of them on mobilising and servicing the deposits. This was multiplied with the average salary of an officer/clerk. Branch overheads like salary of messengers, rent, maintenance expenditure were added to the cost of mobilising and servicing the deposits in proportion of staff cost for deposit mobilisation in total staff cost. The cost associated with some of the common services like preparation of statements and administration was apportioned between the servicing of deposits and issuing loans on the basis of perceptions of the branch officials. The staff and establishment costs along with the cost associated with common services for deposit mobilisation were then divided by the average amount of deposits to obtain the service cost per Rs. 100 of deposits. The use of deposit balances at the end of September 1992 and March 1993 was the only option available, given the nature of bank records. The approach suffers from the limitation that the stock variable of deposits did not account for the type of deposits and the number of transactions.

A similar approach was adopted for estimating the total transaction cost involved in appraisal, sanction and disbursement of loans, post-loan follow-up and recovery of the loans. This cost was divided by average loans outstanding as on September 30, 1992 and March 31, 1993 to obtain the transaction cost per Rs. 100 of loans outstanding. The loans outstanding included not only the principal but also the interest overdue since separate break-up of interest and principal was not available for RRBs. The use of loans outstanding versus loans issued during the year as denominator is both a conceptual and a practical issue. The loans issued during the year could be preferred if the bank resources are not involved in servicing the old loans outstanding. Available evidence suggests that given the repayment performance, considerable resources of bank branches are deployed in monitoring and recovery of loans. Further, the rural credit institutions lend both for short-term and long-term purposes, and the transaction cost for each purpose could be different since appraisal, supervision and recovery of loans may be different but the problem is how to account for all these while computing the costs with available data base at the grassroot level. This aspect could, however, be looked into while refining the approach.

III

RESULTS AND DISCUSSION

The estimates of transaction and service costs across the districts and agencies are given in Table I. The comparison of transaction and service costs across agencies and districts, however, needs to be made with caution, considering the wide variations in sample size (i.e., number of bank branches in the district as the estimates based on data collected from a sample of few branches will not be precise), size of credit institution (as in case of PACS it is a one/two-person business), organisational structure, economic activity level in the area, stage of development of the area, etc.

TABLE I. TRANSACTION COST AND SERVICE COST OF RURAL CREDIT INSTITUTIONS

(per Rs. 100 of loan/deposit outstanding)

Bank (1)	District (2)	Transaction cost (3)	Service cost (4)	Business per employee (Rs. lakh) (5)
	Thane	3.47	2.65	35.66
CCB	South Arcot	0.52	0.91	92.40
	Kamarajar	0.75	1.03	63.02
	Thane	7.38	3.88	9.32
RRB	South Arcot	2.59	2.40	23.51
	Kamarajar	2.67	2.44	24.42
	Thane	3.20	-	15.73
LDB	South Arcot	3.53	-	17.05
	Kamarajar	4.22	-	18.58
	Thane	6.15	-	4.07
PACS	South Arcot	2.97	0.71	15.11
	Kamarajar	1.50	1.81	17.14

The variation in service and transaction costs across the agencies and the districts, *inter alia,* could be explained in terms of business per employee (Table I) as well as the salary structure. The absolute business per employee, however, disregards the type of deposits (savings, current and term deposits), type of lending (traditional, non-traditional, farm and non-farm sector, crop loans and term loans), etc. The type of deposits and lending has considerable impact on service and transaction costs and this has to be kept in view while refining the approach on estimation of transaction and service costs.

The transaction cost for branches of CCB in South Arcot was the lowest (Re. 0.52 per Rs. 100 of loan outstanding) mainly due to large volume of business (Rs. 7.7 crores per branch and Rs. 92.40 lakhs per employee) and higher average loans outstanding per account (society) at Rs. 25.34 lakhs. Further, the intermediary financial agency like CCB had low transaction cost (except for Thane) as they had to deal with a limited number of institutional borrowers (societies) rather than a large number of scattered individual borrowers. The relatively high transaction cost (Rs. 3.47) in Thane could be explained in terms of lower business of Rs. 35.66 lakhs per employee as against Rs. 63.02 lakhs in Kamarajar and Rs. 92.40 lakhs in South Arcot. Added to that, the average salary of officers in Thane CCB (Rs. 1,12,000) happened to be higher by 48 to 50 per cent than their counterparts in South Arcot (Rs. 77,300) and Kamarajar (Rs. 72,000) districts and that of clerks by 25 to 89 per cent. It is felt that the analysis of CCB branches undertaking primarily the intermediate financing of PACS would not represent the realistic cost of rural lending.

The relatively higher transaction cost (Rs. 6.15 per Rs. 100 loans outstanding) in the case of PACS in Thane was on account of less business (Rs. 4.07 lakhs per employee). Similarly, the high transaction cost especially in the case of RRB, Thane (7.38 per cent) could be attributed to the smaller business (Rs. 9.32 lakhs as against about Rs. 24 lakhs in other districts covered under the study) as also the small sized loan and deposit accounts. The average loan per account was Rs. 3,868 as against Rs. 27,631 in the case of LDB, Thane.

Relatively, the lower cost of servicing the deposits and the loans in the case of PACS could be explained in terms of relatively low staff cost, especially of the clerks. The average salary and other allowances of the clerks in PACS varied from Rs. 17,000 in Kamarajar to Rs. 20,400 in South Arcot as against Rs. 34,700 to Rs. 36,000 in RRBs and between Rs. 32,000 and Rs. 52,000 in LDBs. The transaction cost, referred to above, did not include the component of the transaction cost at the banks' head office level. A part of the resources at the head office was used for servicing of loans advanced by the bank branches. Using the cost allocation approach at the head office level, the transaction cost was estimated at the head office level. It varied from 0.41 per cent for CCB, Thane to 2.1 per cent for RRB, Thane. The transaction and service costs could be reduced by increasing the business as well as through the simplification of procedures including increasing the sanctioning powers of branch managers wherever required. The latter could be linked with the maximum unit cost fixed by NABARD. Closure of loss making branches and introduction of performance related pay scheme (wherein the employees could be paid basic salary irrespective of business but the allowances could be paid based on the level of business handled by them), could be some of the short-term measures to reduce these costs. A long-term view, however, has to be taken keeping in view the potential for increasing business over the period and the likely effect of such measures. If the scope for increasing the business does not exist, alternative methods may have to be devised to achieve the objective. An experiment currently being tried in selected areas is the linking of Self-Help Groups (SHGs) with the credit institutions, which is likely to reduce not only the transaction cost but also the risk cost through improvement in the recovery performance. It is, however, apprehended that the half-hearted attempt of linking the SHGs with credit institutions may merely add another tier to the existing structure and the cost of lending may further increase. Notwithstanding the practice of charging high rates of interest (18 to 24 per cent) by SHGs, the prudent linking of SHGs with credit institutions may increase the demand for credit without commensurate increase in the cost.

The cost of servicing the deposits and loans could be reduced by lowering the operational expenses and increasing the productivity of employees. In this regard NABARD has issued guidelines and has also advised the co-operative banks and RRBs to formulate Development Action Plans (DAPs) using the guidelines. The DAPs are expected to identify the main factors adversely affecting the performance of the co-operatives and RRBs and initiate the steps necessary for overcoming the same. The DAPs would also estimate the external assistance required for cleansing the balance sheets of loss making banks and restructuring them for attaining the viability. The level of business required for attaining current as well as sustainable viability in the long run would also be estimated under DAPs.

The additivity of the estimates of service cost and transaction cost to the cost of funds and the risk cost is not possible if they are based on different sets of data and the denominators. The cost of funds and the risk cost are logically estimated at the corporate level although the risks arise at the branch as well as at the corporate level. The transaction and service costs are estimated at the branch level as the deposit mobilisation and lending take place at the branch level. The practical alternative to ensure additivity of transaction cost to the cost of funds and the risk cost could be to use the branch level proportion of staff salary for servicing the deposits or loans, for apportioning the total establishment costs at the corporate level (net of provision for bad and doubtful debts) among different functions undertaken by the banks. An attempt was made to estimate transaction and service costs using the approach referred to above. The transaction cost and service cost for RRB, Thane were 12.6 per cent and 2.23 per cent respectively and the corresponding estimates for CCB, Thane were 2.93 per cent and 1.28 per cent. The estimates for RRB were close to the branch level estimates.

The cost of servicing deposits, using the approach referred to above, in absolute terms, could then be added to the interest cost of deposits for ascertaining the actual cost of deposits and then the weighted average of funds could be computed wherein the amount of deposits and borrowings could be used as weights. If we assume that the cost of funds for advancing loans or the investments is the same, the cost of funds would be in terms of per Rs. 100 of loans outstanding at the corporate level. Similarly, the transaction cost could be estimated by using loans outstanding at the corporate level as denominator. Since the various components of lending would be estimated using the corporate level loans outstanding, the same could be added.

The analysis of service and transaction costs at the grassroot can help in evolving the norms for these costs. These norms based on the averages at the state level for the profit making credit institutions could be used for comparing them with actual transaction and service costs of the individual bank branches and the action plans could be prepared for achieving the regional state level norms in the first phase and then the aim should be to reach the level of good and excellent banks in the subsequent phases. Further, these norms could help us in working out the normative cost of lending and pricing. The average business per employee of RRB at all-India level was Rs. 16.47 lakhs as against Rs. 26.30 lakhs for a profit making RRB. The corresponding transaction and service costs for the RRBs were not available but their average business per employee was comparable with the RRB of South Arcot (Rs. 23.51 lakhs) and Kamarajar (Rs. 24.42 lakhs). The average service and transaction costs for RRB in South Arcot were Rs. 2.40 and Rs. 2.59 per Rs. 100 of outstanding deposits and loans as against Rs. 2.44 and Rs. 2.67 for the Kamarajar RRB. The latter could broadly be considered as norms for service and transaction costs at the state level.

IV

CONCLUSIONS

Excepting a few ad-hoc studies, no mechanism with well defined cost concepts exists for obtaining a regular feedback on lending costs especially the transaction and service costs for rural credit institutions. The paper suggests an approach for estimating the transaction and service costs and the same has been tested on a small sample of banks, viz., RRBs and the co-operatives in Thane district of Maharashtra and South Arcot and Kamarajar districts of Tamil Nadu. Using the proportion of time spent by officers and clerks on mobilising and servicing of deposits and loans, the service and transaction costs have been computed. These costs have confirmed an inverse relationship with the volume of business comprising the deposits and loans. Further, the intermediate financing agency like CCBs under the three-tier structure had low transaction and service costs as they had to deal with limited number of accounts of PACS rather than a large number of scattered accounts. The mechanism for reducing the transaction and service costs comprised the linking of SHGs with the credit institutions and increasing the business through prudent planning including identification of potential under the Development Action Plans being prepared by the Co-operatives and the RRBs. Given the relatively lower margins net of lending cost including the risk cost on account of default by rural clients, it is a moot question whether the banks would like to increase the rural lending. The analysis of transaction and service costs would be useful in evolving the normative cost of lending based on the state averages or the industry averages or the cost parameters for the profit making rural credit institutions. There appears to be enough room for refining the methodology for estimating transaction and service costs wherein the composition of deposits and loans could be accounted for along with the volume of business. The methodology for integrating the branch level service and transaction costs with the cost of deposits and borrowings and the risk cost computed at the corporate level needs to be further refined for computing the lending costs in a more precise manner.