Study on Constructing Composite Credit Quality Index and the Weighting Scheme in Rohtak District

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Abstract – ***The different weights attached to the different indicators or parameters of credit quality have been allotted on the basis of the expert opinion of a number of bank managers, economists, experts and consultants. The expert group consisting of 61 respondents was requested to provide leading indicators/parameters of credit quality and attach numerical weights to each parameter on the basis of their importance in the overall credit quality index. The experts were agreed on the six parameters and suggested weighting pattern based on their banking experience and expertise. Except in a few cases the weights attached to different parameters varied by small to moderate margins. The different weights were then averaged and used as the benchmark for the purpose of subsequent analysis. This method of computing the composite index was widely accepted as it reflected a practical and reasonable benchmark for the region in which this study was conducted.***

Key Words: Indicators, Parameters, Weighting Pattern, Composite Index, Weight Assignment.

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INTRODUCTION

The first effort to involve commercial banks in rural credit began with the conversion of Imperial Bank of India to State Bank of India. State Bank of India opened more than 400 branches within 5 years mostly in centres with population below 25,000. Subsequently in 1967 Govt. came out with a policy of social control on commercial banks. In October 1968, the national credit council appointed a study group on organisational framework for the implementation of social objectives under the chairmanship of Prof. D.R. Gadgil which recommended that the main aim of national policy should be on involving the commercial banks in providing rural credit. Again the All India Rural Credit Review Committee (1969) under the chairmanship of Sh. B. Venktappati made an assessment of role of commercial banks in dispensing rural credit and felt progressive and farsighted commercial banking should ordinarily by able to see the wisdom of stepping in boldly to serve the rural areas with the services of banking and credit.

The commercial banks were in private sector and as such were reluctant to enter in the rural financing in view of attendant risks. So on 19th July 1969, 14 major banks were nationalised. In 1980, six more were subjected to nationalisation. Specific policy initiatives were taken to direct lending to agriculture and certain other sectors which did not have easy access to institutional funds. Along with this steps were taken to open branches in the rural areas.

REVIEW OF LITERATURE

In this connection on 17th Oct. 1987 the Governor of RBI convened a meeting of the chief executives of all the public sector banks and suggested to carryout a study about the impact of rural lending. Accordingly field study was conducted in 88 districts of 21 different states.

The field study pointed out that there is a need for operational freedom at grass root level. It was felt that detailed directives and targets should better be replaced by guidance from authorities. The grass root level planning should provide flexibility in identifying and deciding packages of development schemes which may very depending upon families and class of borrowers. This would ensure better commercial viability and would lead to qualitative lending and visible impact.

The findings were discussed at a seminar convened by RBI on 9th and 10th January 1988. Several suggestions were made at the seminar for strengthening the existing rural credit delivery system with a view to improve the quality of lending and ensuring that bank credit was wholly channelised in increasing production, productivity and income level and it brought about visible development in the rural sector. The RBI, decided that these suggestions should be examined in greater depth with regard to their operational aspect and specific recommendations made for their implementations. Accordingly a committee was set up by the RBI with the Chairman of SBI and other commercial banks as members. As a result of the recommendations of this committee the concept of Branch Service Area Planning came into being.

MATERIAL AND METHOD

In order to assess the quality of credit in the study a composite index of credit quality has been constructed by using a number of parameters with weights attached to each parameter on the basis of their significance. The different weights attached to the different indicators or parameters of credit quality have been allotted on the basis of the expert opinion of a number of bank managers, economists, experts and consultants. The expert group consisting of 61 respondents was requested to provide leading indicators/parameters of credit quality and attach numerical weights to each parameter on the basis of their importance in the overall credit quality index. The experts agreed on the six parameters as given in Table 1 and suggested weighting pattern based on their banking experience and expertise. Except in a few cases the weights attached to different parameters varied by small to moderate margins. The different weights were then averaged and used as the benchmark for the purpose of subsequent analysis. The final weight age pattern is shown in the following table.

Table 1

Parameters of credit quality and the maximum allotted score

Parameter	Maximum scorellotted (empirical weights)
Adequacy	12
End use	20
Monitoring & supervision	11
Borrowers' ability to utilize loan	15
Income generated by borrower	24
Recovery	18
Total	100

Source: Field data.

This method of computing the composite index was widely accepted as it reflected a practical and reasonable benchmark for the region in which this study was conducted.

Such a weighting scheme would, of course, vary from region to region and from respondent to respondent, depending upon experts' attitude, professional skill and experience. Unfortunately no standard norms are provided by the RBI, Ministry of Finance or any statutory or official body are even in the internal management control system of the concerned commercial banks with regard to the assignment of weights to the different components of credit quality. Therefore, there is no escape fro a social science researcher from a possible or probable bias or subjectivity that might creep into the weighting scheme. This is particularly so as most of the variables are qualitative in nature and are difficult to quantify on any mathematically logical basis. However, in this methodology, that bias was minimised through the averaging process and because of a fairly wide cross-section of banking experts. Any alternative other than the one adopted in this study appeared less scientific and more subjective. The expert base could have been far greater objectivity in weight assignment but the present base of 60 was considered quite dependable. The expert-based system to determine the empirical weights for computing credit quality index appears quite reasonable and logical though it, at best, is only a rough approximation of credit quality.

On the same pattern sub-parameters of the main parameters of the credit quality have been developed and assigned weights according to their significance. Detailed scoring scheme for various components of credit quality is as follow:

1. Amount disbursed and market value of asset has been taken into account. In case of loans upto Rs. 25,000 no margin is required i.e. asset is to be financed entirely. So amount disbursed had been compared with market value of asset. In case of loans above Rs. 25,000, 25% margin is required. So 75% of market value was compared with amount of loan disbursed. In each case percentage of amount financed to market value (adjusted to margin) had been calculated. If it was 100% full score been allotted. If it was less than 100%, pro rata weight age had been provided.

2. For scoring under this parameter two aspects were taken into account. First whether asset was purchased initially and secondly the condition of asset at the time of survey. If the asset was not purchased at all no score had been given. If it was purchased and was also intact with the borrower at the time of survey then full score 20 was allotted if the asset was making profit. If it was not making profit but was earning interest and wages 15 marks were given. It it was earning only interest 13 marks were given and when it was not earning even interest 10 marks were given. In case the asset was purchased but was not available at the time of survey scoring was done on the basis of reasons for the non-availability of asset. If the loan was adjusted, 8 marks were given, if it died (in case of cattle) 6 marks were given, if it was sold on account of becoming unproductive, 4 marks were given and if it was sold for fulfilling domestic needs, 2 marks were given.

3. Monitoring & Supervision

Scoring under this parameter has been done according to frequency of visits made by branch manager and field staff of financing bank for asset verification, recovery and guidance to borrower. For monthly visits full score i.e. 11 was allotted. Score 9, 8 and 5 was given to quarterly, half yearly and yearly visits respectively. For irregular visits 3 marks were allocated.

In case of negligible visits no score had been allotted. If during the visits guidance was also provided to borrower, additional marks were given.

4. Borrowers' Ability to Utilize Credit

The score under this parameter was awarded on the basis of borrower's educational qualification, technical skill, age, size of family, his own material resources, availability of raw material and infrastructure such as roads, electricity etc. necessary for the activity financed.

5. Income Generation

In response to the question of income earned by the borrower the figure given by the borrower did not take into account capital cost i.e. interest payable to bank and wage equivalent of efforts put in by him. These were calculated as under:

(a) Interest: Rate of interest being charged by bank was 10 percent for loans below Rs. 25,000 and 12 percent for loan above Rs. 25,000. So annual interest payable by each borrower was accordingly calculated.

(b) Wages: Daily wages prevalent in the area were Rs. 100 to 200 per day. Taking average as Rs. 70 and number of days in a year as 300, annual wages were taken as Rs. 21,000. So in activities such as shop, artisan and self employed where borrower has to put full day in the activity, wages were taken as Rs. 21,000. In activity such as dairy, piggery, sheep rearing etc. Where full day is not required, wages were calculated on the basis of time required for these activities. Thus for dairy (1-2 buffaloes) it was taken as Rs. 6,000 pre annum. For sheep it was taken as Rs. 10,000 per annum.

Income earned by the borrower includes interest, wages and profit. To calculate profit/losses interest and wages as calculated above were deducted from income earned by the borrower. If the profit was more than the annual instalment of the principal amount payable by the borrower, he was given maximum score i.e. 24. In case profit was earned but was less than the annual instalment, score allotted was 20. Further when profit was not earned but wages earned were sufficient to meet annual instalment of the principle amount, 12 score was given. In case where wages were earned but were less than the annual instalment of the principal amount, 5 marks were given. In case where profit and wages were not earned but interest was earned, 2 score was given. In extreme cases where even interest was not earned, no score was given.

6. Recovery

The percentage of amount recovered to the demand raised during the year was taken into consideration for allotting the weight age under this parameter. Full score i.e. 18 was allotted to recovery rate above 95 percent. The recovery rate between 90-95 fetched 18 marks, between 80-89 got 15 marks, between 60-79 received 12 marks, between 40-59 was awarded 10 score and between 30-39 got 6 marks. Score 2 was given to the recovery rate below 30 percent. In case entire amount was overdue no score was awarded.

CONCLUSION

After awarding the score to each borrower under all the six parameters discussed above, total score for each borrower was calculated indicating the quality of his/her loan. As discussed with the bankers and economists the quality of credit was rated good if score exceeded 75, moderate if it was between 50 to 75 and poor if it was be. Such a weighting scheme would, of course, vary from region to region and from respondent to respondent, depending upon experts' attitude, professional skill and experience. Unfortunately no standard norms are provided by the RBI, Ministry of Finance or any statutory or official body are even in the internal management control system of the concerned commercial banks with regard to the assignment of weights to the different components of credit quality. Therefore, there is no escape fro a social science researcher from a possible or probable bias or subjectivity that might creep into the weighting scheme been far greater objectivity in weight assignment but the present base of 60 was considered quite dependable.

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