

ABSTRACT

The problem of agricultural credit cooperative' arrears on the Agricultural Development Bank (ADB) loans has been a growing one since the early 1970's. As a result of government's concern, the Department of Cooperative Development started amalgamating small societies with unlimited liability into larger and supposedly more efficient societies.

The specific objectives of the study are to identify factors affecting efficiency in societies, assess causes of low membership participation displayed through poor loan discipline and its implications for the operations of the ADB as well as to assess the possibility of supplementing ADB loans and networth with savings deposits.

The methodology of this research can be divided into four stages. Having identified a problem in the initial stages of the study, in the area of agricultural cooperative credit, literature on the subject was reviewed and a number of observations were made. Agricultural credit cooperatives still have an important role to play especially in developing countries as the demand for agricultural credit far exceeds what is supplied by all institutional credit agencies.

There are idle surpluses in rural areas which need to be mobilised and utilized for productive purposes and that although small farmers are capable of saving, few are creditworthy. Formal lenders are reluctant to lend to numerous small farmers because of high lending costs. On the other hand, small farmers find it very difficult to obtain loans from

formal lenders as they do not meet the creditworthiness criteria and also because of high borrowing costs. A compromise situation is to disburse group loans. Group lending is an innovation favourable to both lenders and small farmers. Credit cooperatives are used as conduits for channelling credit to farmers.

A theoretical framework was formulated including a model of efficiency of operation of agricultural credit cooperatives in Trinidad. The model states that growth in network (Δ^Y_t) depends on the volume of loan principal P, the number of shares, the interest margin ($i_m - i_c$), the operating costs (C) and arrears as follows:-

$$\Delta^Y_t = 0.05 P + P (i_m - i_c) - C - D \quad \text{--- (1)}$$

Clearly, the volume of credit demanded by individual members influences the growth of their societies' network.

In order to evaluate the performance of cooperatives in Trinidad, three models were specified viz. a lagged network ($^Y_t - 3$) model; a current network (Y_t) model; and a rate of growth of network ($\frac{\Delta^Y_t}{^Y_{t-1}}$) model.

From equation (1) above, it was hypothesised that efficiency in societies is influenced by the participation of members (L), the training and experience of secretaries (M), the level of agricultural activity in the environs of the cooperative, the assets of societies (S), lagged network four periods ($^Y_{t-4}$), the economic trend (T) of performance of the economy, loans obtained in current period (X_t) and the last three periods $^X_{t-1}$, $^X_{t-2}$ and $^X_{t-3}$. These are:-

$$^Y_{t-3} = a_0 + a_1L + a_2M + a_3A + a_4S_{t-3} + a_5T + U_{t-3} \quad \text{--- (2)}$$

$$^Y_t = b_0 + b_1L + b_2M + b_3A + b_4S_t + b_5T + b_6^Y_{t-4} + b_7^X_t + b_8^X_{t-1} + b_9^X_{t-2} + b_{10}^X_{t-3} + U_t \quad \text{--- (3)}$$

$$\frac{\Delta^Y_t}{^Y_{t-1}} = c_0 + c_1L + c_2M + c_3A + c_4S + c_5^Y_{t-4} + c_6^X_t + U_t \quad \text{--- (4)}$$

In the second stage of the study, data sources were identified, questionnaires prepared, samples of members and secretaries selected and time-series, cross-sectional and other data collected. The OLS technique of regression was chosen for estimating the above models so as to evaluate the efficiency of societies.

In the next phase, the results of the surveys were analysed and the models were evaluated for statistical significance, goodness of fit, overall significance, auto-correlation and multi-collinearity using the first order and second order tests at the 10 percent level of significance.

All the explanatory variables in the lagged networth model were statistically significant implying that they all influence efficiency. Together they explained 71.67 percent of the total variation in networth. Seven out of ten variables in the current networth model are statistically significant and therefore influence efficiency. These are participation, assets, economic trend, lagged networth (four years ago) and loan variables X_t , X_{t-1} and X_{t-2} . They explained 95.75 percent of the total variation in current networth. In the growth model, three variables namely : current loan, assets and lagged networth (four years) were statistically significant explaining 30 percent of the total variation in the rate of growth. The overall regressions are significant. Positive auto-correlation was detected in the lagged networth and current networth models with Durbin Watson statistic of 0.9 and 1.47 respectively and 2.41 in the growth model which was inconclusive. There was no perfect multi-collinearity between explanatory variables as indicated by very small partial correlation co-efficients.

The above results indicate that efficiency of societies is influenced by all the explanatory variables except loan variable X_{t-4} . However the participation of members, the training and experience of secretaries and the economic trend of the economy are very important variables by virtue of their large co-efficients.

From the results of the survey, the following observations were made. The efficiency of societies is influenced by the low participation of members as displayed through default. Wilful default was the more important source of poor discipline as opposed to lack of real ability to pay. It arose out of members' attitude to the ADB funds and was aggravated by apathetic management.

Results indicate that the inefficiency of societies displayed through growing arrears increased ADB costs of lending so much so that about 25 percent of the ADB loans had not been recovered. This explains the decapitalization of ADB and the inability to continue lending in 1983. Societies cannot mobilise savings to supplement ADB loans and networth as commercial banks have effectively done so. Therefore developing a good credit rating with the ADB by being efficient is the best way to ensure sustained growth under prevailing circumstances. In the fourth stage of the study the results were evaluated for reliability and usefulness for policy-formulation.

It was concluded that the efficiency of operation of societies which also influences the operation of the ADB is influenced by participation

of members, training of secretary, activity, assets of societies, economic trend, lagged networth (four years) and current loan and past loans of which participation, training and experience of secretaries and economic trend are the most important.

It was recommended that to enhance the efficiency of societies, that the active participation of members be stimulated through an education programme, the management (secretary and board members) be trained and rotated and motivated, that societies be vertically integrated to inspire confidence and for solidarity and that the staff of the Department of Cooperative Development be allowed to use their discretion to recover arrears.