FACTORS AFFECTING THE CREDIT REQUIREMENTS OF AGRARIAN REFORM BENEFICIARIES IN LEYTE

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ABSTRACT

A total of 120 agrarian reform beneficiaries from 10 municipalities in Leyte was selected through proportional sampling to determine their credit needs. The average farm loan requirements of the respondents were ₱1,003, ₱1,035 and ₱2,038 per hectare for wet, dry, and both seasons, respectively. Farm size was directly and significantly related to credit requirement. Household size, educational attainment and farming experience were positively but not significantly related to farm credit requirement. Provision of irrigation water had a significant effect on credit requirement while net family income was negatively related to credit requirement.

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INTRODUCTION

Small rice farmers in the Philippines are confronted with the problem of low income due to low farm productivity. To increase their productivity and enable them to avail of new technology, farmers should spend more on farm inputs, land improvement, wages for hired labor, and other production costs. Such additional expenditures must be financed either from their savings or through loans. Generally, small farmers have very limited financial and physical resources such that if they want to produce more, they need additional resources that credit can offer them.

Presidential Decree 717, issued on May 29, 1975, provides credit and financing system for agrarian reform beneficiaries through production and other types of loans for acquisition of work animals, farm equipment and machinery, seeds, fertilizer, poultry, livestock, feeds and other items (Montemayor, 1976). Despite its implementation, studies have shown that many farmers do not have adequate financing for their farms (Tablante, 1964; Octavio, 1974; Nicolas, 1976; and Srinilta, 1977). This might be traced to a dearth of information on the socio-economic conditions and credit needs of agrarian reform beneficiaries.

This study presents an estimation of credit needs of the agrarian reform beneficiaries in Leyte. Through an analysis of their farm business and socio-economic conditions, it is possible to determine the type and amount of credit needed.

METHOD

A total of 120 agrarian reform beneficiaries was selected through proportional sampling using the following formula:

$$Mi = \frac{120\,(Ni)}{N}$$

where: Mi = number of respondents (rice farmers) per barrio
Ni = total number of agrarian reform beneficiaries in the barrio
N = total number of agrarian reform beneficiaries of all sample barrios.

The respondents were chosen from 10 municipalities of Leyte, namely: Merida, Burauen, Albuera, Jaro, San Miguel, Tolosa, Mahaplag, Baybay, Inopacan and Hilongos.

The analytical procedures used were: (1) Tabular and descriptive analysis of the respondents' characteristics and other socio-economic factors (size of the farm, household size, educational attainment, farming experience, irrigation water, net family income) that may affect the estimation of their credit requirements; and, (2) Multiple regression analysis to determine the relationships and effects of some socio-economic factors on credit requirement of respondents.

RESULTS AND DISCUSSION

Credit Requirements.

Results showed that the average short-term loans required by the respondents were ₱1,003, ₱1,035 and ₱2,038 per ha for the wet, dry and both seasons, respectively (Table 1). The average amount of loan borrowed by agrarian reform beneficiaries was ₱720 for both seasons. The biggest amount of short-term loan was needed for paying the wages of hired labor, purchase of fertilizer and purchase of food for labor. The difference in the amounts needed between seasons might be attributed to the slightly higher amount of labor (number of man-days) during the dry season than during the wet season.

Some Socio-Economic Factors Related to Credit Requirements

The average size of rice farms was 0.95 ha. Farm size was found to be significantly and directly related to credit requirement at 1% probability level (Table 2).

Household size was positively related to credit requirement (Table 2). As the number of household members increased, credit requirement increased. The average house-

Table 1. Average loan requirement per hectare of rice farmers in Leyte.

ITEM	SEASON WET	DRY	BOTH
Hired labor	₱ 575	₱ 609	₱1,184
Food for labor	123	123	246
Seeds	4	4	4
Fertilizer	216	217	433
Pesticides	31	29	61
Tools and equipment	15	15	29
Fuel and oil	2	2	5
Miscellaneous (Irrigation fee, repairs, etc.)	37	36	73
TOTAL	₱1,003	₱1,035	₱2,038

*$1 = ₱7.50

Table 2. Regression coefficients, t-values and levels of significance of six independent variables related to credit requirement.

VARIABLE	Regression Coefficient	t-Value	Level of Significance
Farm size	1,793.3055	16.04	0.01
Household size	2.8771	0.10	n.s. *
Educational attainment	17.0029	0.67	n.s. *
Farming experience	6.1703	1.11	n.s. *
Irrigation water	327.5631	2.47	0.01
Net family income	-0.0172	-0.93	n.s. *

d. f. = 119
R^2 = 0.7458
* n.s. = Not significant beyond 10% level of confidence.

hold had 5 members.

Farmers had an average schooling of 4 years. Educational attainment was positively but not significantly related to credit requirement (Table 2).

The farmers had an average farming experience of 24 years. Farming experience was positively related to credit requirement but was not statistically significant even at 10% probability level (Table 2).

Seventy-five percent of the farms were irrigated. Provision of irrigation water has a significant effect on credit requirement. Farmers usually apply more material inputs, like fertilizer, if the farms have adequate water because these inputs assure them of more yield.

Table 3. Regression coefficients, t-values and levels of significance of predictive independent variables.

VARIABLE	Regression Coefficient	t-Value	Level of Significance
Farm size	**1,778.27**	**18.30**	**0.01**
Irrigation water	**356.73**	**2.78**	**0.01**

d. f. = 119
R^2 = 0.7412

Net family income was negatively related to credit requirement (Table 2). As net family income increased, credit requirement decreased. This is expected since farmers who have bigger net family incomes need less credit because they can afford to pay more for production expenses.

Thus, the prediction equation can be formulated as follows:

$$Y = -368.1914 + \underset{(97.19)}{1778.2749X_1} + \underset{(128.42)}{356.7285X_5}$$

where: Y = credit requirement of agrarian reform beneficiaries
-368.1914 = Y-intercept, a constant
X_1 = Farm size
X_5 = Irrigation water

As the above equation shows, the highly significant determinants of credit requirement were farm size and irrigation water (Table 3). As farm size becomes bigger, credit requirement also becomes bigger.

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