Analysis of rural credit market performance in north west region, Cameroon

M.-J. Bime[1], J. A. Mbanasor[2]

[1]Department of Agricultural Economics, Faculty of Agronomy and Agricultural Sciences, University of Dschang, Cameroon
[2]Department of Agricultural Businesss, Faculty of Agricultural Business & Management, Michael Opkara University of Agriculture, Umudike, Abia State, Nigeria

Abstract

The study was conducted to access the performance of rural credit markets in the North West Region of Cameroon. Specifically, it identifies the various participants in credit markets, estimate as and analysis the credit demand and supply functions. Data were primarily gathered through a multi-stage sampling technique involving 360 households and 60 credit institutions. Results reveal that interest, income, household size, farm size, education age and sex of respondents were determinants of credit demand while Interest paid, gross income and source of loan determined credit supply. It was recommended that interest should be kept low to encourage proper functioning of credit markets.

Key words

Performance, formal, informal, credit demand, credit supply.

Introduction

One major way to improve agricultural production is through the adoption of disseminated technology. However, low adoption rate which is an impediment to this approach is mainly caused by insufficient capital. A common way to satisfy the capital needs of new technology is to provide rural people with low interest rate credits. Over the years credit has been an important policy instrument aimed at promoting production and the use of modern technologies (Mittendorf, 1986). Farm credit is a crucial factor in the development of the rural sector. According to Musugi (2002), credit is not merely a tool to increase productivity and raise farm income but is used to fulfill the social function of enhancing the lives and welfare of the rural people. Credit is a transaction in which command over resources is obtained in the present in exchange for a promise to repay in the future, normally with a payment of interest compensation to the lender (Saulnier 1982). According to Atieno (2001), the lack of an efficient credit market constitutes one of the factors responsible for the declining productivity in the rural economy.

Rural credit markets play an important role in capital formation, (Wall, 1987). In developing countries, several efforts are being made to establish modern financial institutions to assist rural people enhance their productivity and income earning capacity, (UNDP, 1999). Rural credit markets can be described as any place where creditors and debtors are brought together. It can be regarded as any arrangement for the mobilization and purveyance of finance for investment in the rural sector, (Thorn, 1976; Awosika and Nwoko, 1983). Rural credit markets are aimed at placing credit facilities at reasonable terms within easy reach of rural dwellers, increasing productivity of rural sector, promoting and expanding the rural economy in an orderly and effective manner. In rural credit markets, there is a smooth flow of funds from surplus spending units to deficit spending units, (Hoff and Stigliz, 1990; Von Pischke et al, 1983). Rural credit markets are made up of formal sector (banks, credit unions, cooperatives societies) and the informal sector (Rotating Credit and Savings Association, Non-Rotating Credit and Savings Associations, landlords, moneylenders, friends, and church associations). Many governments have over the years tried to reach the rural people through subsidized credit programmes. However, failure of these programmes through the formal sector has resulted in the emergence of informal institutions aimed at administering credit to meet demand, (Yaron et al, 1997).

Cameroon's credit market shows the dualistic structure of both formal and informal sectors typical of developing countries. The performance of the financial sector in Cameroon in providing loans and mobilizing savings to rural people has met with a lot of criticism, Schrieder, 2000). Government approaches to preferential interest rates have limited the amount available to rural people. Also bureaucratic bottlenecks, criterion of credit worthiness as well as delays in loan processing and disbursement have reflected in the existing unsatisfied demand. The existing credit policy has resulted I great disparity between credit demand and supply. These problems of the formal sector have contributed to make the informal sector an alternative source of credit and means of mobilizing savings, Angyie, 2004). Besides the problem of bank distribution or spread which is generally biased in favour of the big urban cities, the Cameroon formal financial sector equally suffers from problems of linked to foreign domination as well as stiff competition from the informal sector.

Khalilly and Meyer (1993) observed that until recently, a supply led approach has been used by many institutions to provide credit to the rural people. According to Miller and Ladman (1983), although land size is an important factor in the decision to borrow or not to borrow, it is not important in determining the loan size to borrow. Also loan delinquency and default have continued to plague credit supply. Factors that affect credit demand have been identified by Zeller, (1994) to include individual characteristics, labour assets and household events. Also due to imperfect information and fragmented markets, a number of conceptual difficulties have been identified in estimating credit demand. It is therefore difficult to identify the credit demand schedule using information on observed loan amounts since this reflects only the existing supply.

The government of Cameroon has over the years established rural credit scheme to provide credit to rural people. Despite these initiatives to bridge the financial gap in rural areas there are still indications that these attempts have limited effects and the problem of access to credit has continued. It is also argued that the government instituted some of these credit schemes because rural people lack the ability to organized self-help activities and therefore require cheap credit for their rural occupational activities. Despite government intervention in the creation of alternative institutions for credit, these have failed to drive the traditional rural market operators out of the market. However, despite these attempts at improving credit markets, credit has remained a limiting factor to improving

agricultural production. In view of these, this paper is aimed at studying the performance of rural credit markets. Therefore this study aims at accessing the performance of rural credit markets in the North West Region, Cameroon. It also aims at ;

- identifying the various participants in credit markets.

- estimating and analyzing the credit demand function for formal and informal credit users.

- estimating and analyzing the credit supply function.

- identifying the problems of the various participants and institutions

- determining factors that discriminate between users of formal and informal credit institutions.

Methodology

The study was carried out in the North West Region, Cameroon. It is one of the ten (10) regions that make up the country. It is made up of seven (7) divisions which are further divided into subdivisions. The people of the region are predominately farmers growing crops such as maize, beans, irish potatoes and vegetables. They are also engage in small scale businesses, hunting, and handicraft works. Financial institutions found in the area include commercial banks, cooperatives, credit unions (formal), RCSA, Non-RCSA, welfare associations, mutual assistance groups and moneylenders (informal).

For this study, a multi-stage sampling technique was adopted. Firstly, four divisions were purposively selected out of the seven. Secondly, two (2) subdivisions were then selected from each of the four divisions making a total of eight (8). Thirdly, from each of the subdivisions, three (3) villages were purposively selected. This was to ensure that villages selected had at least a credit institution. Finally from each village fifteen (15) respondents were randomly selected, thereby making a total of 360 respondents. The respondents were made of credit institutions, formal credit users and informal credit users.

Addressing the research questions requires an integrated approach towards credit demand, credit supply and the various sources. Well structured questionnaire were used to elicit information from the various respondents. Results were analyzed using descriptive statistics, 2 stage least square regression analysis and the discriminant analysis which was use to determine factors that discriminate between formal and informal users. Finally the

chow test was use to test if there is any significant difference between amount of credit demanded from formal and informal credit institutions.

The implicit model for credit demand was:

$$Cd = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, U) \qquad (1)$$

Where:

Cd = credit demanded

X_1 = household income

X_2 = interest paid

X_3 = age

X_4 = educational level

X_5 = household size

X_6 = farm size

X_7 = years of experience

X_8 = distance to credit source

X_9 = membership of association (belong to association = 1, non membership = 0)

X_{10} = gender (1 = male, 0 = female)

The implicit model for credit supply is given as:

$$Cs = (Cd, X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, U) \qquad (2)$$

Where:

Cs = Credit supplied

Cd = Credit demand

X_{11} = years in business

X_{12} = gross income in one year

X_{13} = interest received

X_{14} = transaction cost

X_{15} = proportion of loan repaid

X_{16} = source of loan (1 = formal institutions, 0 = informal institutions)

The chow test was used to test if there was any significant difference between amount of loan repaid for both formal and informal credit institutions. This entails the computation of calculated F-values.

$$F^* = \frac{\sum e_p^2 - (\sum e_1^2 + \sum e_2^2)/K}{\frac{(\sum e_1^2 - \sum e_2^2)}{N1} + N2 - 2k}$$

Where:

$\sum e_p^2$ = residual sum of squares for pooled data

$\sum e_p^2$ = residual sum of squares for formal users

$\sum e_p^2$ = residual sum of squares for informal users

N1 = total number of formal users

N2 = total number of informal users

K = number of parameters estimates

Results

Socio-economic characteristics

The results of the socio-economic characteristics of loan recipients are shown in table 1. The mean ages were 50years for formal users and 48years for informal users. This indicates that young farmers patronize mostly informal credit institutions which are willing to offer loans to young people who are active and likely to adopt new innovations. The table shows that 56.5percent of formal users and 51.5 percent of informal users had at least a secondary school education. The level of literacy attained by borrowers suggests that they are capable of understanding the rules and procedures of acquiring and using loans. Household in the study refers to the number of people living under one roof and feeding from the same pot. The average household for formal users was 6persons and 9persons for informal users. This indicates large house hold sizes for developing countries.

Experience was measured by the number of years the respondent have been engage in farming. The mean year of experience for formal users was 8years and 11years for informal users. This indicates that most of the respondents have stayed long in their occupation and could have acquired skills to better manage their loans effectively. The mean values for farm size was 3hectares for formal users and 2.6hectares for informal users respectively. This shows the small nature of holdings which is typical of developing countries.

According to table 1 also, 39.14 percent of the respondents obtained loans from formal credit institutions while 60.86perceent obtained loans from informal credit institutions. This is because informal credit institutions are readily available. According to the reasons given for participating in rural credit markets, 20.76percent of the respondents wanted to improve their farm production, 27.54percent wanted to venture into small scale businesses while 7.42percent wanted to settle debts.

The average loan obtained from formal institutions was 1,500 000 FRS and 375,000 FRS for informal institutions. This indicates that loans from informal institutions are small, popular, active and easily available. Amongst reasons given for constrains to effective credit market performance were high collateral demands, lack of guarantors, high interest rates and long disbursement lag. Also according

to table 1, the most critical institutional problems faced by credit markets were corruption among leaders (38.7%) and leadership problems (29.0%).

Credit demand and supply analysis

The estimated credit demand function for formal and informal credit users are given in table 2. According to table 2, interest payment, income of respondent, household size farm size, number of years in business (experience), distance to credit institution and sex of respondent were all statistically significant variables that affect credit demand in formal institutions. For the formal users, the R^2 value was 0.843 while the F-value was 63.7. The table further shows that variables that determined credit demand in informal institutions include age of respondent, farm size, interest payment, income of respondent and distance to credit institutions while the R^2 value was 0.853 while the F-value was 100.2.

The estimated credit supply function is presented in table 3. According to the table, the value of the R^2 is given as 0.969 while the F-value was 448.1 and was significant at 1 percent. The coefficients of credit demand, interest payment, gross income, and source of loan were all statistically significant and positively related to credit supply. On the other hand, number of years in business was also significant but negatively related to credit supply.

Discussion

The values of R^2 of 0.843 and 0.853 for formal and informal institutions respectively implies that the included variables were able to explain about 84.3% and 85.3 of total variations in the amount demanded from formal and informal institutions. The significant F-values in both cases imply that the joint effects of all included variables in credit demand were significant.

The negative significant coefficient interest for formal institutions implies that the higher the amount of credit demand, the lower the interest paid. This result is in line with that of Desai and Mellor (1993) who also reported a negative relationship between interest payment and credit demanded. The personal income of a respondent is an important variable determining the amount of credit a respondent can obtain from a credit institution. This is because the personal income acts as an assurance for the respondents ability to repay the loan whenever due. Also the positive relationship between farm size and credit demand implies that the larger the farm size, the bigger the amount of loan an individual can obtain. This is because farm size acts as collateral for security of

the loan being requested at any given point. With a higher number of years of experience, it will act as a guide in the optimal and maximum utilization of credit obtained. However the result of distance being directly related to credit was contrary to a priori expectations. This can be explained that the further a respondent has to travel to secure a loan, the higher will be the amount he/she will demand. Also the positive significant coefficient of sex implies that more males demand credit form formal institutions than females.

In the informal institutions, the indirect relationship between age and credit demand implies that as a respondent gets old, the less credit will be demanded. This is because older persons are more interested in immediate consumption and less concern with risk taking and long term investment. The coefficient of education which was positive and in line with the findings of Nwaru (2004) who reported that educated farmers in Imo state, Nigeria are more willing to take risk than non-educated ones. Also educated persons can better manage loans and most often, credit institutions prefer clients who are able to read and write. Interest payment, income of respondent and distance to source of loan were also significant.

The R^2 value of 0.969 for credit supply implies that the included variables are able to explain about 96.9% of the total variations in credit supplied in the study area. The positive relation ship between credit supply and credit demanded implies that lenders respond more to higher levels of loan request by adjusting upwards their supply. The positive relationship between experience and credit supply implies that old banks supply more credit than new ones. This is because they generate more income and are customer friendly. Also gross income was positively related to credit supply implying that the financial status of institutions plays an important role in credit supply. Also in agreement with a priori expectations, interest was positively related to credit supply. This implies that credit institutions are willing to supply more credit in order to generate more income from interest payment. However, Adams and Vogel (1986) noted that interest rates on loans should be kept minimal to promote development. Also Nwaru (2004) noted that low interest choke off supply of credits in credit markets. Finally the positive relationship between source of loan and credit supply implies that formal institutions supply more credits than informal institutions.

The chow test result implies that there is a significance difference between loan demanded from formal and informal credit institutions.

Conclusion

Considering the results of the study, it is concluded that most rural people have continue to patronize informal institutions more than formal ones possibly due to non-availability, bureaucratic and cumbersome nature of loan procedures. Therefore, government of Cameroon should enact credit policy programmes aimed at strengthening the informal sector to enable it contribute to the development of rural areas. Also since credit is best used when it is likely to increase returns to the user, effective management of rural credit markets in the study area will go a long way in enhancing development. Finally, it is concluded that since both supply credit, formal and informal credit institutions can be complementary rather than competitors. In view of the findings, it is therefore recommended that:

-	Education should be encouraged amongst the rural people to enable them better understand the workings of credit markets.

-	Since interest rate was an important determining factor in credit demand and supply, interest rates policies that make for optimal credit provision should be encouraged.

-	For effective credit use, financial institutions should put more emphasis on credit management training to assist farmers better manage their loans.

Corresponding author:
Mary-Juliet Bime
Department of Agricultural Economics,
University of Dschang,
West Region, Cameroon.
E-mail: mimeliet001@yahoo.com

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