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Determinants of informal savings amongst vegetable farmers in North West Region, Cameroon

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The study was aimed at determining the socio-economic determinants of informal savings amongst vegetable farmers in the North West Region, Cameroon. Savings and savings mobilization in any economy is undertaken by formal, semi formal and informal institutions. Possibly as a result of this poor bank distribution, one is able to clearly see how the region is highly dominated by the informal sector. Data for the study were obtained from 180 farmers with the aid of well structured questionnaires through a multistage sampling technique. Data were analyzed using descriptive statistics and multiple regression analysis. Results obtained showed that vegetable farmers were on the average 36 years with average household size of 7. Average farm size of 0.5 ha cultivated indicates small nature of holdings. Results from the multiple regression analysis showed that interest paid, farm size, income, education and distance were positively significant while gender, age and household size were also significant and negative .This implies that all factors play a significant role in determining informal savings amongst vegetable farmers. It was recommended that farmers should be encouraged and enlightened on the need of savings as well as encouraged to form savings cooperatives.

Key words: Determinants, informal, savings, vegetable, farmers, North West Region.

INTRODUCTION

Savings of an individual and households form a substantial part of capital accumulation in any given society. In any society, everyone at one point in time saves something of value. The rural/poor people in particular make sacrifices to ensure that they keep some reserves, especially for precautionary reasons and to protect themselves against idiosyncratic risks such as sickness and covariate risks like drought and disease outbreak (Zeller et al., 1997). Savings can be seen as that part of disposable income which is not spent on consumption. It can also be said to be the net change in equity between periods. Included in this, are the different changes in monetary assets such as jewelry, gold, land, stored crops and livestock. According to (Bime, 2008),

savings go beyond capital formation. To her savings are catalysts for capital formation but equally a major determinant of the cost of credits based on the law of scarcity which holds that 'when the former is low and scarce, it becomes more costly to obtain'. Savings can be classified into financial and non-financial savings (savings in kind). Savings lodged in banks and other financial institutions are usually known as savings deposit and can be in different forms of account such as savings account, fixed deposit account, and current account.

The role of savings in economic development is very important and it can be described as a driving force necessary for economic growth. Economic theory postulates that capital accumulation is the pre-requisite for both economic growth and development. Savings is influenced by individual habits. The saving habits of a person is measured by his or her marginal propensity to save which is in turn is determined by the disposable income and the marginal propensity to consume, which is

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in turn determined by a number of factors. According to a World Bank report (1995) in developing countries, households save an average of 13% of the Gross National Product (GNP), and invest 6% of it thereby leaving a savings surplus of 9% of the GNP. On the other hand businesses save about 7% of GNP but invest more than 15% of the GNP. The report further concludes that, households as a group, finances all their investment from savings while businesses finance 45% of their investment through borrowed funds.

Savings and savings mobilization in any economy is undertaken by formal, semi formal and informal institutions. The formal institutions include banks, financial institutions, cooperatives and the post office. In addition to these, numerous semi formal and informal institutions like tontines, Credit and savings associations that take savings and mobilized savings deposits in rural areas (FAO, 1995). Adera (1995) stressed on the influence of certain factors on the supply of savings and empirically showed the existence of a negative correlation between the rate of savings and the costs/ risks incurred by customers. These include transportation cost and the risk involve in moving with large sums of money through long distances. However, whatever motive an individual may have for savings, the rate of savings in any given society depends on the available savings institutions which themselves must fulfill conditions like an efficient number, diversity, accessibility, attractive terms of operations, perfect knowledge on their existence and the usefulness and trust people have on them.

Despite the fact that capital investment and financial profitability is on the increase in Cameroon, the number of commercial banks and formal financial institutions has remain low. The current number of banks and their branches are inadequate considering the number of people and the surface area they are expected to cover/serve. Possibly as a result of this poor distribution, one is able to visibly see how the North West Region of Cameroon is highly dominated by the informal sector. According to Kammogne (1988) and Sika and Strasser (2001), 90% of the Cameroon economy is controlled by the informal financial sector while the remaining 10% by the semi-formal and formal sectors. The low number of commercial banks and formal financial institutions generally explained the complete absence or lack of financial services in the rural areas. Many big towns in the North West Region like Jakiri, Wum, Nkambe, Mbengwi, Bali, and Ndop whose populations range between 25 000 and 40 000 inhabitants go without a single bank branch. Thus since savings is a major characteristic associated with the " Modern Man" many of those deprived of these services are usually forced to develop unorthodox savings facilities as ROSCAs, Njangis family meetings, church associations, age grade meetings. Vegetables (huckleberry) or popularly known as njama-njama is mostly cultivated in the North West

Region of Cameroon. It can also be found growing in other countries like Nigeria, Liberia, Ethiopia, South Africa, Europe Asia, New Zealand, (Fontem and Schippers, 2004). The leaves and fresh shoots of njama-njama are widely used as cooked vegetable which can be eaten with fufu corn, cocoyam, plantains, and yams. They can also be used as medicinal plants, fodder for cattle and goats as well as a source of dyes or as a kind of ink (Edmonds and Chweya 1997; Fontem et al., 2006; Schippers, 2004).

Rural communities of some countries may save jointly for a variety of purposes generally not for lending but for the bulk purchase of farming inputs and for various social functions (FAO, 1998). Until the early 1980s most attention was focused on formal finance. During the late 1980s however, research showed that informal finance played an important role in rural development especially for the poor, small farmers, landless people, micro-entrepreneurs and particularly women within these groups. It also became apparent in a number of countries that the informal system operated more efficiently and equitably than did the formal financial sector (Schrieder, 1989).

Because of the prevalence of informal savings institutions in the North West Region, most vegetable farmers patronize these institutions because it gives them easy access to withdrawing their money at any point in time and also, the farmers have full knowledge on how these unions/associations functions (Bime, 2008). According to Anderson and Baland (2002) informal associations are characterized by widespread phenolmenon with membership of about 50 to 90% in Cameroon, Togo, Nigeria, Liberia and Gambia and are often the sole savings and credit associations found in rural areas. They further explained that in Cameroon, half of the national savings are mobilized by these informal associations. For informal savings association members, contributions represent percent of their income and 14% of their households' incomes. They also represent 5% of all incomes of all households. However poor market structure, inaccessible roads, activities of middlemen and the perishability nature of the product serve as co-factors affecting savings amongst vegetable farmers in the North West Region (Bime, 2008). According to Schrieder (1989), in many areas more people participate in informal associations than deal with formal financial institutions. She went further to say that in Cameroon, recent research suggest that the volume of deposits moving through informal associations may sometimes be larger than amounts held in banks. Thingan (1985) and Adewunmi (1996) observed that savings are low amongst rural farmers because their output is quite low. Also, Yarron et al. (1997) explained that low income of farmers is as a result of their high marginal propensity to consume and low marginal propensity to save. Surprisingly, according to FAO report (1995), large amounts of savings deposits can be mobilized even in

low income countries and more people who would fall in the category of being called poor, when a reliable and effective system for doing so exists.

Hence this paper aims at examining the socio-economic characteristics of vegetable farmers as well as ascertaining which of these characteristics significantly determines savings in informal associations. It also identify the types of informal associations as well as the various problems of informal savings amongst vegetable farmers This study is justified because understanding the determinants of informal savings amongst vegetable farmers will provide basis for policy makers in the country to develop appropriate policy mix which will ensure that most informal association are registered to enhance proper functioning as well as encouraging formal financial institutions to locate branches in the rural areas.

METHODOLOGY OF STUDY

The study was conducted in the North West Region, Cameroon. It is one of the ten regions that make up the country. North West region has population of 1.8 million as at 2001 and is located on latitude 5° 40' and 7° and on longitude 9° 45' and 11° 10'. It shares boundaries with Nigeria in the north, Western Region in the south, South West Region in the west and Adamawa Region in the east. It has seven departments and majority of the population are farmers and cultivate crops such as maize, potatoes, beans, groundnuts, cocoyam, vegetables of different varieties and so on. Also, animals like cows, pigs, goats, sheep and fowls are reared.

A multi-stage sampling technique was employed for the study. In the first stage, 3 departments (Bui, Ngokitujia, Donga Mantum) where vegetable production is predominant were purposively selected. Next, 2 sub-departments were also purposively selected from each department making a total of 6. The third stage involved the selecting of three (3) villages from each sub-department making a total of 18 villages. The final stage involves randomly selecting 10 vegetable farmers from each village with the aid of leaders of informal associations thereby making a total of 180 respondents.

The study made use of primary data obtained through well structured questionnaires supplemented with oral discussions. Data covering socio-economic characteristics such as age, family size, educational status, and experience with saving institutions, as well as farm size, income, reasons for savings, and reasons for preference of informal associations were elicited from the respondents.

Data collected were analyzed through the use of descriptive statistical tools such as means and percentages as well as multiple regression technique of analysis. The estimated model for determinants of informal savings amongst vegetable farmers is implicitly shown as follows:

$$Y = F(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, U)$$

Where Y = Amount Saved (CFA); X_1 = interest paid on savings (CFA); X_2 = gender; X_3 = Age (years); X_4 = household size; X_5 = farm size (hectares); X_6 = distance to savings institution (KM); X_7 = income (CFA); X_8 = educational level (yrs spent in school); U = error term

RESULTS AND DISCUSSION

The result of the socioeconomic characteristics of informal savers is summarized in Table 1. The average age of vegetable farmers is 36 years which indicate that the farmers are young, active, energetic and in their productive age. Also young people are believed to save more. The mean family size is 6 indicating that large family size which is typical of a developing country like Cameroon. Large family saves less since the needs of other members of the household have to be met. Also the mean farm size of 0.54 ha indicates the small holdings of much vegetable farmers. From Table 1, it can also be seen that most of the respondents (36%) had at least a primary school education while only 10% of the respondents had post secondary education and 23% had no formal education. Most vegetable farmers who use informal saving institutions are females (69%). Also most of the vegetable farmers (44%) save to raise lump sum to finance their projects. Table 1 also shows that most farmers (43%) prefer informal savings institutions because they are readily available. It can also be seen small farm holdings (55%) and large family size (40%) are some of the problems that hinder vegetable farmers from saving.

The result of the multiple regression analysis for the determinants of informal savings amongst vegetable farmers in the linear functional form is presented in Table 2. The linear functional form was chosen based on the high value of the R^2, more significant coefficients and expected signs. Education had a coefficient 0.114 and was significant at 10% level. Interest had a value of 3.826 and was significant at 10% level while the positive coefficients of farm size, distance and income which were significant at 1, 1 and 10% level were 1362.611, 94.119 and 0.332 respectively. However gender, age and household size had negative values of 932.982, 129.945 and 569.450 and were significant at 1, 5 and 1%, respectively. The R^2 value of 0.804 obtains indicates that about 80.4% of observed variation in informal savings by vegetable farmers could be attributed to the combined influence of the various independent variables included in the regression equation.

The implication of the positive and significant explanatory variable of interest payment is that the higher the interest payment on savings, the more the farmer is encouraged to save. Also the positive coefficient value of income indicated that the higher the income the more revenue the farmer generates from his produce and the more he is encourage to save. Also the bigger the farm size, the more the farmer produces and the higher is the revenue generated which will in turn enhance savings.

Age with a negative value implies that younger people have a higher capacity of saving than older people. Also the negative value of household size implies that larger household saves less because they have little disposable income after household expenditure. Gender with its negative sign indicates that women save more and patronize informal institutions more than men. The predominance of women may be seen as a response to their lack

Table 1. Summary of selected socio-economic characteristics of vegetable farmers.

Variable	Value
Mean age (years)	36
Mean household size	7
Mean farm size	0.5
Mean years of experience in saving	4
Educational level (%)	
No school	23
Primary school	36
Secondary school	31
Post secondary education	10
Sex (%)	
Males	31
Females	69
Savings mobilization instruments (%)	
High interest rate	31
Nearness of savings institution	31
Safety purpose	38
Reasons for savings (%)	
To get lump sum to finance projects	44
For security purposes	19
For precautionary motives	23
To minimized the rate of spending	14
Reasons for preference of informal savings institutions (%)	
Readily available	43
Full knowledge of institution	27
Ease of withdrawing money	30
Factors hindering savings (%)	
Large family size	40
Small farm size	55
Lack of saving institutions	5

Source: Data analysis.

Table 2. Summary of linear regression analysis between informal savings and selected determinants.

Determinant variable	Linear co-efficiency
Constant	426.919(4176.938)*
Interest (X_1)	3.826(0.606)***
Gender (X_2)	-932.982(1849.790)*
Age (X_3)	-129.945(150.519)**
Household size (X_4)	-569.450(356.628)*
Farm size (X_5)	1362.611(1183.637)*
Distance (X_6)	94.119(160.689)*
Income (X_7)	0.332(0.035)***
Education (X_8)	0.114(1.863)**

Table 2. Contd.

R^2	0.804
F-value	48.037***

Source: Data analysis; * = significant at 1% level; ** = significant at 5% level; *** = significant at 10% level.

of access to sources of savings which their male counterparts have access to. Also literate farmers will save more than illiterate farmers having understood the advantages of savings.

Conclusion

The results obtained from the study reveal that income, level of education, interest payment, farm size, distance, household size were the major factors determining informal savings amongst vegetable farmers. Based on the results obtained, it is recommended that farmers should be encouraged and enlighten on the need of savings. Also savings mobilization organizations should adopt demand oriented approach in designing savings programs by considering the socio-economic characteristics of the farmers. Finally, farmers should also be encouraged to form cooperatives and register in other formal financial institutions.

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