IMPACT OF INFORMAL AGRICULTURAL FINANCING ON AGRICULTURAL PRODUCTION IN THE RURAL ECONOMY OF KWARA STATE, NIGERIA

DR. W. A. LAWAL, FCIB
DR. I. B. ABDULLAHI
DEPARTMENT OF ACCOUNTING AND FINANCE
FACULTY OF BUSINESS AND SOCIAL SCIENCES
UNIVERSITY OF ILORIN
PMB 1515
ILORIN, NIGERIA

ABSTRACT

The rural farmers who constitute a large percentage of food producers in Nigeria have problem of access to financial resources from the formal financial institutions because of the institutions’ stringent conditions and location. In effect, most of the rural farmers have to rely mainly on the informal financial institutions for funding. The objective of this study was to examine the impact of informal agricultural financing on agricultural production in the rural economy of Kwara State, Nigeria. The source of data for this study was mainly primary that was collected using structured questionnaire from sampled farmers who were participating in three informal financing schemes namely: (i) periodic savings; (ii) money lending; and (iii) rotating savings in nine Local Government Areas spread through the three senatorial districts of Kwara State, Nigeria. Employing a multi-stage random sampling method, a total of 1,350 farmers were selected for the study. The returned 1,249 copies of questionnaire were then processed using Ordinary Least Square method of regression analysis. The findings indicated that the institutions had positive impact on agricultural production through only rotating savings being statistically significant at 10% level of significance and t-value of 1.41. Based on the results, the study recommended that the rotating loans should serve as an impetus to agricultural financing among the farmers in the rural areas with the improvement on the other informal financing sources with a view to increasing the membership drive of all the informal institutions.

Introduction

The financial systems of most developing countries including Nigeria are made of two sectors: the formal and the informal financial sectors that operate side by side. The formal sector, also known as the organized sector is made up of the Central Bank, Commercial Banks, Development Banks, Building Societies, Insurance Companies etc. These institutions are mostly found in the urban and semi-urban settings. On the other hand, the informal financial sector also known as un-organized sector consists of individuals such as money lenders, relatives, friends, neighbours, landlords, traders and group of individuals that operates mainly in the rural setting, (Mehrteab 2005). While the formal financial sector is an inheritance from the colonial administration or a legacy of foreign systems whose activities are being regulated by the Government, the informal financial sector is an age-long one, an ancient one, that dates back at least to the 16th century, the activities predate those of the formal financial system but are not subjected to Government regulation, (Iganiga et al 2008; Siebel and Damachi 1982). Aryeetey and Udry (1995) discussed the type of informal financial units in Africa.

Accordingly, there are three types of informal units, these include (i) savings mobilisation that do little or no lending, that is, periodic savings; (ii) lending units that seldom engage in savings mobilisation (money lenders); and (iii) units that combine deposit mobilisation with amounts of lending, albeit to members of distinct associations or groups, that is, rotating savings. They went on to describe the first units which are available in virtually all the countries of West Africa as savings collectors. They do not engage in lending and the member merely collects what he or she saved at the end of the agreed period. The second category of informal financial units include money lenders as may be found in relations, friends, landlords and neighbours who seldom engage in savings mobilisation, but, in lending money, while the third unit of the informal market include savings and credit associations and credit unions that take deposits and so lend in various forms to members only. Mehrteab (2005) also reported that in a number of countries like Nigeria, Ghana, Liberia, Togo, Cameroon and Senegal, there are also other financial institutions such as Savings and Credit Cooperatives and Credit Unions which are generally classified as semi-formal financial institutions because they are neither controlled by the countries’ banking laws nor by Central Bank regulations.
For instance, they are not meant to comply with the reserve requirement regulations prescribed by Central Banks, even though they are attached to the formal financial sector through legal regulations under the commercial laws of countries. The semi-formal financial institutions are outside the scope of this paper. As stated earlier, the informal financial institutions are more prominent in the rural settings and as such the rural populace including the rural farmers therefore mostly depend on the services of these informal financial institutions for funding. A vast majority of the rural populace depend on agriculture for their livelihood, (Ezengo, 1998, cited in Henri-Ukohia 2011). The objective of this paper therefore is to examine the impact of these informal financial institutions on agricultural production in the rural economy of Kwara State, Nigeria.


2.1 Agricultural Development in Nigeria

Agriculture has been defined as the production of food and livestock and the purposeful tendering of plants and animals, (Ahmed, 1993). He stated further that agriculture is the mainstay of many economies and it is fundamental to the socio-economic development of a nation because it is a major element and factor in national development. In the same view, Okolo (2004), describe agricultural sector as the most important sector of the economy which holds a lot of potentials for the future economic development of the nation as it had done in the past. Before the discovery of oil in Nigeria, agriculture accounted for over 60% of its Gross Domestic Product (GDP) as well as being a major source of foreign exchange earnings. It provided food and employment for the teeming population and raw materials for the growing industries. Ogen (2007) stated that from the standpoint of occupational distribution and contribution to the GDP, agriculture was the leading sector in the 1960s. Also, the Nigerian economy, like that of Brazil, could reasonably be described as an agricultural economy during the first decade after independence.

This is because agriculture served as the engine of growth of the overall economy of the two countries. During the period of 1960s, Nigeria was the world’s second largest producer of cocoa, the largest exporter of palm kernel and the largest producer and exporter of palm oil. It was also a leading exporter of other major commodities such as cotton, groundnut, rubber, as well as hides and skins (Alkali, 1997; Lawal, 1997). Despite the reliance of Nigerian peasant farmers on traditional tools and indigenous farming methods, these farmers produced 70% of Nigeria’s exports and 95% of its food needs. The agricultural sector however suffered neglect during the hey-days of the oil boom in the 1970s. Ogen (2007) stated that agricultural sector accounted for less than 5% of Nigeria’s GDP in 2004. Ever since then, Nigeria has been facing serious poverty challenges and the insufficiency of basic food needs (NEEDS, 2004). It is further revealed by the NEEDS Policy Paper, 2004 that it is estimated that two-thirds of Nigerians live below the poverty line of US$1 per day, most of them in the rural areas. The root of this crisis lies in the neglect of agriculture and the increased dependency on monocultural economy based on oil.

2.2 Impact of Informal Agricultural Financing on Agricultural Production and Review of Literature

In spite of the important role which the agricultural sector plays in the development of a nation, successive Nigerian governments at the Federal, State and Local Government levels have not been able to adequately address the specific constraints in an attempt to increase agricultural production in Nigeria. For example, the Minister of Agriculture was reported to have said that “nevertheless, the agricultural sector’s contributions to the economic growth and development are yet to be fully exploited since Nigerians are still very vulnerable to hunger and poverty” (Ruma, 2008). The poor who live in the rural and urban centers usually constitute a large percentage of the population in the country and they are the dominant producers of food and other essential materials; yet the formal financial institutions have not adequately provided financial services to them as a result of their stringent conditions for making funds available to farmers as well as the lack of access to available funds. This is because most of the financial institutions are located in the urban areas far from the reach of the farmers who live in the rural areas. These peasant farmers therefore rely essentially on the informal financial institutions in their areas. Konare (2001) stated that the issue of inadequate access to credit by rural farmers, among others, has remained the central concern for farmers and a key constraint to the modernisation and diversification of their activities. The poor in the rural area whose main occupation is farming and who can contribute significantly to the development of the sector do not have access to banking services. Mehrteab (2005) opined that, the main hurdle confronting the farmers when trying to acquire loans from formal financial institutions is the demand for collateral by those institutions.
In addition, the process of acquiring a loan entails a lot of paperwork and many bureaucratic procedures which lead to extra transaction costs. The formal financial institutions are not motivated to lend to farmers. These institutions show a preference for large scale transaction over small scale transaction and non-agricultural over agricultural loans (Mehrteab, 2005). For instance, Mehrteab (2005) stated that in Africa, only 5% of the farmers had access to formal credit; hence this situation calls for a shift in attention by the Government to the recognition and development of the informal financial institutions that are predominantly found in the rural areas where agriculture thrives. Besides, there are little or no existing studies known to the author on the evaluation of the impact of informal financing on agricultural production in the rural economy of Kwara State, Nigeria. This explains the need for this study.

Okurut and Thuto (2007) affirmed that the informal financial sector plays a key role in resource mobilization and allocation in developing economies. Bouman (1995) reported that in Cameroon, approximately 50% of the national savings and 27% of the total credit requirements was provided by the informal sector while Jones et al (1998) noted that 55% of all private savings in Ghana were mobilized through informal sources. In India, it was reported by Timberg and Aiyar (1984) that informal credit markets accounted for approximately 20% of total commercial credit outstanding; while Bagachwa (1995) observed that approximately 55% of star-up capital for micro entrepreneurs in urban and rural areas in developing countries was provided by the informal financial sector. Okurut and Thuto (2007) stated that informal credit is demanded for both productive investment (agriculture production or business) and consumption smoothing. It was further reported by Okurut and Thuto (2007) that a survey conducted by Morewagae et al (1995) on 1140 informal micro enterprises in Botswana revealed that 74% relied on informal sources for investment credit, as cited in Okurut and Thuto (2007). Verhoef (2001) reported the great impact of “Stokvels”, which is a type of Rotating and Savings Association (ROSCA) in South Africa, as informal market savings mobilizers. He stated that overtime “Stokvels” developed into a network of highly diversified savings and credit organization to suit the needs of all income groups. He went further to state that the “Stokvels” eventually emerged as a strong intermediary in the informal financial sector that the South African Reserve Bank had to include them in the regulatory framework of the financial institutions in 1994.

Floro and Ray (1997) reported that the activities of the informal credit sector in the Philippines have been very prominent in the last three decades especially in the rice-growing areas where marketing agents’ informal lending activities resulted in the rapid commercialization and intensified trading activity in the rural areas. This is a measure of the impact of informal financial institutions on the economic lives of the Philippines. Cristensen (1993) reported that the impact of the informal financial institutions on informal sector activities differs from country to country depending on the level of the development of the financial markets. He stated the informal financial sector increased in importance in proportion to the level of underdevelopment.

There is no gainsaying that the informal financial institutions in the developing countries are playing significant roles in the development of the national economy particularly in the rural areas where they abound. Spio and Groenewald (1997) stated that these institutions take different forms and perform different functions in different parts of the world. For example, in Asia, indigenous financial institutions such as “the curb market in Korea”, “the financial companies in India” and “the chit funds in Thailand” tend to engage in a considerable volume of business and trade finance for even large-scale enterprise. They affirmed that the poor performance of the formal finance sector in some areas has caused the informal sector to re-emerge as the main source of financial services for most rural firms and households. Heidhues (1985) in Spio and Groenewald (1997) estimated informal finance to have constituted over two-thirds of all agricultural credits in Africa. They further stated that the informal financial institutions are used almost exclusively to finance household consumption, investment or small-scale business enterprises. The market is said to facilitate both consumption and input use during the periods between planting and harvesting.

According to Adeoye (2005) and Olaiya (2005), these informal financial institutions are the major providers of funds for the promotion and development of small-scale businesses in the rural areas. Adeoye (2005) citing Onoh (1980) listed the functions of the informal financial institutions to include the following among others:

(i) the mobilization of savings from members’ resources;
(ii) the provision of credits to all accredited financial members;
(iii) they engage in developmental functions of providing finances for local projects like the execution of town halls, health care and road projects; and
(iv) giving mutual aid to members.
All of the above studies although are on informal sector financing, none of them has related informal sector financing to rural agriculture. While Rweyemamu, Kimaro and Urassa (2003) conducted their study on the semi-formal financial institutions in Tanzania, this study was conducted on informal financial institutions in the rural economy of Kwara State, Nigeria.

3.0 Methodology
3.1 Model Specification
The model relates the types of informal financial institutions. There are three types of informal agricultural financing institutions (IFIs) under study earlier identified from literature (Aryeetey and Udry, 1995) that are presumed to impact on agricultural production in the rural areas. They include (i) savings mobilization units, that is, periodic savings, (ii) lending units (moneylenders) and (iii) deposit mobilization units with some amount of lending to members only, that is, rotating savings.

In specifying the model, emphasis was placed on the impact of informal agricultural financing on agricultural production in the rural areas of Kwara State. Following Rweyemamu, Kimaro and Urassa (2003) method of estimating the impact of informal agricultural financing, the model in this study is also stated as follows:

\[ APRAs = f(TIFIa,HHc) \]

where \( TIFIa = f(Ajo, ML, Esu) \)

\[ HHc = f(Loca, Age, HHs, Edu, Ms, Gder) \]

when equations 3.2 and 3.3 are substituted in to equation 3.1, it becomes:

\[ APRAs = f(Ajo, ML, Esu, Loca, Age, HHs, Edu, Ms, Gder) \]

where \( APRAs = \) Agricultural Production in the Rural Areas proxied by income generated from agricultural produce in the rural areas, (that is the aggregate of the proceeds of sale of farm produce)

\( HHc = \) household characteristics

\( Ajo = \) amount received from periodic savings- ajo

\( ML = \) amount received from moneylenders

\( Esu = \) amount received from rotating savings-esusu group

\( Loca = \) location (Local Government)

\( Age = \) age of respondent

\( HHs = \) household size

\( Edu = \) educational background of respondent

\( Ms = \) marital status of respondent

\( Gder = \) gender of respondent

and \( U_t \) is stochastic error term or disturbance error term.

On transformation, equation 3.4 can be in linear form of the type;

\[ APRAs=a_0+b_1 Ajo+b_2 ML+b_3 Esu+b_4 Loca+b_5 Age+b_6 HHs+b_7 Edu+b_8 Ms+b_9 Gder+U_t \]

A- priori Expectations or the expected patterns of behaviour of the independent variables (Ajo, ML, Esu) on the dependent variable (APRAs) in the model are: \( b_1>0, b_2>0, b_3>0, b_4>0, b_5>0, b_6>0, b_7>0, b_8>0, b_9>0 \)

3.2 Data Source
A survey aimed at gathering primary data on the Socioeconomic and Demographic data/ Characteristics of the respondents and the Impact of Informal Financial Institutions on agricultural production in rural areas of Kwara State, Nigeria was conducted through the distribution of copies of structured questionnaire on sampled farmers who were participating in the three identified informal financial schemes in nine Local Governments Areas covering the three Senatorial Districts of the State. Multi-stage random sampling method was used for selecting the respondents, by selecting 50% of the Local Government Areas in each of the senatorial districts, three (3) rural areas from each Local Government and fifty (50) farmers from each of the rural areas. A total of 1,350 farmers were selected for the study but only 1,249 farmers or 92% of the farmers satisfactorily completed the copies of the questionnaire which formed the basis for the analysis. The questionnaire was backed with oral interviews to elicit more information from the rural farmers

3.3 Data Analysis
The analysis was based on inferential statistics using regression analysis. An alpha level of 0.05 was chosen as a-priori as the level of significance. The relationship was estimated using Least Square regression technique.
4.0 Results and Discussions

Table 4.1 Socio-Demographic Characteristics of the Respondents in the Rural Areas of Kwara State

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age of the Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>&lt; 20</td>
<td>68</td>
<td>5.44</td>
</tr>
<tr>
<td>1</td>
<td>21 – 30</td>
<td>331</td>
<td>26.50</td>
</tr>
<tr>
<td>1</td>
<td>31 – 40</td>
<td>430</td>
<td>34.43</td>
</tr>
<tr>
<td>1</td>
<td>41 – 50</td>
<td>336</td>
<td>26.90</td>
</tr>
<tr>
<td>1</td>
<td>51 – 60</td>
<td>79</td>
<td>6.33</td>
</tr>
<tr>
<td>1</td>
<td>&gt; 60</td>
<td>05</td>
<td>0.40</td>
</tr>
<tr>
<td>2</td>
<td>Educational Status of Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Informal</td>
<td>487</td>
<td>39</td>
</tr>
<tr>
<td>2</td>
<td>Primary</td>
<td>400</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>Secondary</td>
<td>300</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>Tertiary</td>
<td>62</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Marital Status of Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Single</td>
<td>328</td>
<td>26.26</td>
</tr>
<tr>
<td>3</td>
<td>Married</td>
<td>871</td>
<td>69.74</td>
</tr>
<tr>
<td>3</td>
<td>Widow/Widower</td>
<td>44</td>
<td>3.52</td>
</tr>
<tr>
<td>3</td>
<td>Others</td>
<td>6</td>
<td>0.48</td>
</tr>
<tr>
<td>4</td>
<td>House Hold Size of the Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1 – 3</td>
<td>346</td>
<td>27.70</td>
</tr>
<tr>
<td>4</td>
<td>4 – 6</td>
<td>680</td>
<td>54.45</td>
</tr>
<tr>
<td>4</td>
<td>7 – 10</td>
<td>186</td>
<td>14.89</td>
</tr>
<tr>
<td>4</td>
<td>&gt; 10</td>
<td>37</td>
<td>2.96</td>
</tr>
<tr>
<td>5</td>
<td>Gender of Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>573</td>
<td>45.88</td>
</tr>
<tr>
<td>5</td>
<td>Female</td>
<td>676</td>
<td>54.12</td>
</tr>
</tbody>
</table>

Source: Author’s Computation 2010

4.1 Socio-Demographic Characteristics of the Respondents

The age, educational status, marital status, household size and the gender of farmers are given in the table 4.1 above. Majority of the farmers (34.43%) fell within 31 to 40 years of age cohort. Quite negligible proportion of the respondents was younger than 21 years (5.41%). Those above 60 years were equally negligible (0.4%). The result implies that the farmers were in their active productive years. This is expected to impact positively on their productivity. Given sufficient financial mobilization for the farmers, it is expected that their age would not have negative influence on productivity. The educational status of the respondents as shown in table 4.1 indicates that majority of the farmers had primary (32%) and secondary (24%) education while only 5% had tertiary education. 39% had no formal education. This pattern of distribution is expected because the study area is a rural setting.

The distribution of the respondents by marital status shows that most of the farmers (69.74%) were married. This is typical of Nigeria rural setting because family members often serve as a source of additional labour on the one hand, and the cultural value attached to marriage on the other. Next to this category of those married were those that were single (26.26%).

The distribution of the respondents by household size shows that more than half of the respondents (54.45%) had between four to six household members. Household in the context of this study refers to total number of people eating from the same pot.

The gender distribution of the respondents shows that female farmers (54.12%) were greater in number than male farmers (45.88%) in the study area. It has been discovered that 60% of labour force in agriculture in Nigeria are women (Ajetomobi, Olamide and Ayanwale 2003).
Table 4.2: Regression Results of the Impact of Informal Financial Institutions on Agriculture in the Rural Areas of Kwara State

<table>
<thead>
<tr>
<th>Variables</th>
<th>Kwara State</th>
<th>Kwara Central</th>
<th>Kwara North</th>
<th>Kwara South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept (t)</td>
<td>10.13(28.53)</td>
<td>9.61(9.67)</td>
<td>8.99(10.80)</td>
<td>9.99(12.26)</td>
</tr>
<tr>
<td>Ajo (t)</td>
<td>1.01E-005(1.02)</td>
<td>0.03(2.46)**</td>
<td>2.86E-006(0.17)</td>
<td>1.41E-005(1.07)</td>
</tr>
<tr>
<td>ML (t)</td>
<td>1.37E-006(0.97)</td>
<td>-0.00(0.00)</td>
<td>1.32E-006(0.98)</td>
<td>-0.000(-2.15)*</td>
</tr>
<tr>
<td>Esu (t)</td>
<td>0.021(1.41)*</td>
<td>0.12(0.26)</td>
<td>0.12(2.00)*</td>
<td>0.005(0.27)</td>
</tr>
<tr>
<td>Loca (t)</td>
<td>0.006(0.28)</td>
<td>-0.21(-0.33)</td>
<td>0.10(1.33)*</td>
<td>0.044(0.57)</td>
</tr>
<tr>
<td>Age (t)</td>
<td>0.008(1.52)*</td>
<td>0.03(2.52)**</td>
<td>0.008(1.08)</td>
<td>0.011(1.04)</td>
</tr>
<tr>
<td>HHs (t)</td>
<td>0.048(2.92)**</td>
<td>-8.2E-005(-0.002)</td>
<td>0.067(0.79)</td>
<td>0.094(3.22)**</td>
</tr>
<tr>
<td>Edu (t)</td>
<td>-0.007(-0.106)</td>
<td>0.026(0.19)</td>
<td>-0.035(-0.28)</td>
<td>-0.028(-0.29)</td>
</tr>
<tr>
<td>Ms (t)</td>
<td>0.14(1.40)</td>
<td>0.13(0.54)</td>
<td>0.14(1.01)</td>
<td>0.07(0.40)</td>
</tr>
<tr>
<td>Gder (t)</td>
<td>0.12(1.79)</td>
<td>-0.08(-0.39)</td>
<td>0.008(0.98)</td>
<td>-0.14(-0.90)</td>
</tr>
<tr>
<td>(R^2) adjusted</td>
<td>0.75</td>
<td>.28</td>
<td>.10</td>
<td>0.12</td>
</tr>
<tr>
<td>(F_c)</td>
<td>3.48</td>
<td>2.15</td>
<td>2.09</td>
<td>2.56</td>
</tr>
<tr>
<td>(F_i)</td>
<td>2.01</td>
<td>2.01</td>
<td>2.01</td>
<td>2.01</td>
</tr>
<tr>
<td>No of observations</td>
<td>1,249</td>
<td>283</td>
<td>436</td>
<td>530</td>
</tr>
</tbody>
</table>

*Statistically significant at 10% level  **Statistically significant at 5% level

Key: Ajo = Amt rcd frm periodic savings. ML = Amt rcd frm moneylenders. Esu = Amt rcd frm rotating savings, \(F_c\) = Calculated F Statistic, \(F_i\) = Table F Statistic, \(F_c > F_i\)

Source: Author’s Computation 2010

4.2 Impact of Informal Agricultural Financing on Agriculture

In this section, we examined the impact of the informal agricultural financing on agricultural production in the rural areas of Kwara State. Three units of the informal financial institutions were the focus of this study. These are (i) periodic savings scheme, (ii) money lending and (iii) rotating savings scheme. In the model, these institutions are the independent variables; that is, the various savings collections/credit from the institutions while agricultural production in the rural areas proxied by income generated from agricultural produce in the rural areas is the dependent variable. The results of the regression analysis of the impact of informal agricultural financing on agricultural production are presented in Table 4.2. Starting with the result in the whole state, the results of the regression analysis of the impact of informal agricultural financing on agricultural production shows \(R^2\)-square of 0.75. This means that 75% variation in the dependent variable (agricultural production) is explained by the explanatory variables, periodic savings, money lending and rotating savings. The error term of 25% takes care of the variables in the study that cannot be included in the model because of certain qualitative features such as household characteristics, for example, age of the respondent, household size of the respondent, educational background of the respondent, marital status of the respondent, gender of the respondent. At 5% level of significance, \(F\)- statistic of 3.48 shows that the model is useful in determining if any relationship exists between agricultural production and the independent variables mentioned above.

The computed \(F\)- statistic which is 3.48 is greater than the tabulated \(F\)-statistic of 2.01, showing that the explanatory variables have significant influence on agricultural production in the study area. Holding the vectors of household characteristics constant, the co-efficient and the associated t-values of the impact of informal agricultural financing on agricultural production shows that periodic savings, money lending and rotating savings, all have fulfilled our a-priori expectations. With this result, it can be concluded that informal financial institutions impact positively on agricultural production in the rural areas of Kwara State. Statistically, only rotating savings is significant at 10% level. An analysis of the impact of informal agricultural financing by informal financial institutions on agriculture production was also conducted in the three senatorial districts. The result of the regression analysis shows that Kwara Central, Kwara North and Kwara South senatorial districts have \(R^2\)-square of 0.28, 0.10 and 0.12 respectively. An indication that less than 30% variation in the dependent variable was explained by the explanatory variables, periodic savings, money lending and rotating savings. The error terms of more than 70% take care of the variables in the study that cannot be included in the model because of certain qualitative features. At 5% level of significance, the \(F\)- statistic shows that the models are useful in determining if any relationship exists between agricultural production and the independent variables, periodic savings, money lending and rotating savings in the senatorial districts in the area of study.
As indicated in table 4.2, the F-statistics which are 2.15, 2.09 and 2.86 for the 3 senatorial districts respectively are greater than the tabulated F-statistic valued at 2.01. Holding the vectors of household characteristics constant the co-efficient and associated t-values of the independent variables show that only periodic savings and rotating savings fulfilled our a-priori expectations in the three senatorial districts, with money lending alone fulfilling our a-priori expectation in Kwara North senatorial district.

4.3 Discussion of the Results

The result of the impact of the institutions on agricultural production in the whole state and in the three senatorial districts of the state in table 4.2 shows that periodic savings and rotating savings impacted positively on agriculture in the study area. In terms of magnitude or strength, the rotating savings have more impact than periodic savings when viewed from the values of the co-efficient. This is expected because in rotating savings, the members appear to know themselves better than in periodic savings. Rotating savings is an association or collection of group of individuals who contribute fixed sums of money and the pooled sum is taken in rotation by the members. It is obvious that element of trust in that scheme is going to be higher where members, in most cases, appear to be close associates than in the periodic savings where the collector of money may be relatively unknown to some members. He only comes around to pick the savings at specific periods which may be daily or weekly. The higher degree of trust in rotating savings might have accounted for the higher magnitude of the impact of rotating savings than in periodic savings because of the larger sums of money the members will be willing to save under the rotating savings scheme. The result conforms to the oral views of some of the rural dwellers during interview who expressed the fear of default in payment of saved funds by the collector and custodian of funds. The result also conforms to the view of Adeoye (2005) under the review of literature that one of the constraints of informal financial institutions was the risk of default and total abscondment by the collector of money with the proceeds of collection without any means of insurance coverage.

The result in table 4.2 also shows that the use of money lending by the respondents is trivial. It was in Kwara North senatorial district alone that money lending slightly fulfilled our a-priori expectation at 10% level when viewed from the value of the co-efficient. This is in line with the findings of Oloyede (2005), Atieno (2001) and Rweyemamu, Kimaro and Urassa (2003). Oloyede’s study was on Informal Sector Savings Mobilization and Rural Development in Nigeria: Further Evidence from Ekiti State of Nigeria. That of Atieno was a study on Formal and Informal Institutions’ Lending Policies and Access to Credit by Small Scale Enterprises in Kenya: An Empirical Assessment, where it was reported that the moneylenders were least used, reflecting their relative inaccessibility due to their lending terms and conditions. This also conforms to the oral interview had with some of the respondents that moneylenders often charged discouraging high interest rates and under the review of literature where Rweyemamu, Kimaro and Urassa(2003) reported that the use of money lending was not common because of excessive high interest rates and exploitation through under valuation of collaterals which were the factors that had restricted the institutions from providing credit to farmers for agricultural purposes in Tanzania.

5.0 Conclusion and Recommendations

This study examined the impact of informal agricultural financing in the rural economy of Kwara State, Nigeria. Three units of the informal financial institution, namely, periodic contribution, moneylender, and rotating savings were the focus of the study. The study covered the rural areas of the three Senatorial Districts in nine Local Governments Area of the State. A total of 1350 copies of questionnaire were administered on randomly selected farmers who were participating in the three informal financial schemes. Only 1249 of the copies of the questionnaire were returned which formed the basis for the analysis. The analysis was based on inferential statistics using regression analysis. The findings indicated that all the three informal financial institutions impacted positively on agriculture production in the study area with rotating savings having the greatest impact with a t-value of 1.41 followed by periodic savings with a t-value of 1.02. Money lending had the least impact with a t-value of 0.97 and its impact felt in the Kwara North senatorial district alone. Oral interview with the respondents revealed that a low economic activity in the rural areas was a result of poor infrastructural facilities in the areas. Based on the findings this study, it was recommended that: (i) membership drive be further intensified. This will lead to higher participation and increased mobilization of funds, (ii) Government at all levels should improve infrastructure in the rural areas to boost economic activities as more money in the hands of the rural farmers will improve their propensity to save and enhance the informal financial institutions’ performance in further financing of agriculture in the study area. In this way, the activities of informal agricultural financing will be further enhanced.
REFERENCES


