# Efficiency of Cooperative Societies in Credit Delivery to Agricultural Enterprises in Yakurr Local Government Area, Cross River State, Nigeria

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***Abstract—*** *The study evaluates the efficiency of cooperative societies in credit delivery to agricultural enterprises in Yakurr Local Government Area, Cross River State. The specific objectives were to; describe the socio-economic profile of cooperatives societies, identify the sources of finance that are available and utilize for credit by cooperative societies, analyze the efficiency of cooperatives using the arrival rate of loan request and the service rate and identify the challenges militating against cooperatives as a means of providing credit facilities to farmers in the study area. random sampling method was used to select 30 Cooperative Societies in the Local Government Area. Data were obtained using well structured questionnaire and were analyzed using descriptive statistics and queue theory. Results from the study showed that most of the cooperatives were formed in 2011 with 16-20 members at inception, which stood currently at 21-40 members. The benefits derived from the society ranges from, provision of input for production, accessibility of loan and marketing of products. The large proportion of the amount disbursed to member's ranges from 11000 - 31000naira. The result revealed that the sources of finance available to members was mainly from members contributions .The result further showed that cooperatives were not effective and efficient in queue management because the average idle time (-0.26) and the average traffic intensity was more than one (1.26).*

*Also, findings showed that insufficient funds for disbursement(3.33), lack of qualified personnel (3.23), insincerity of members in credit management (3.16) and changes in government credit policies (3.16) were serious challenges that affected efficient delivery of credit by cooperative societies to agricultural enterprises in the study area, The study therefore recommended capacity building for cooperative members to enable them adequately source for funds and efficiently manage loan disbursement and repayment by members. Also, relevant government and nongovernmental financial institutions should be encouraged to channel credit facilities through cooperatives in other to build their financial base and make credit more accessible to agricultural enterprises.*

***Keywords— Efficiency, credit delivery, cooperative societies.***

## I. INTRODUCTION

In developing countries like Nigeria, agriculture dominates the economy. It has been established that about 70% of Nigeria population is engaged in agriculture while 90% of Nigeria total food production comes from small farms and 60% of the country population earn their living from these small farms. (Alufohai, 2009; Awotide, Aihonsu and Adekoya, 2011 and Ajah, Itam and Asuquo 2014). The fall in agricultural production could be attributed to inadequate infrastructure, under mechanization and inadequate finance (Oluwatayo, Sekumede and Adesoji, 2008). One of the major problems of agricultural development in Nigeria is that of developing appropriate organizational and institutional framework to mobilize and induce members of the rural sector to a greater productivity effort (International Cooperative Alliance, 2010). As such rural farmers who are characterized by low income, low resources utilization, small farm holdings and scattered nature of farmland, finds it difficult to pool their resources together in order to raise their farm income and substantially improve their living conditions (Ibitoye, 2012).

Inadequate finance has remained the most limiting problem of agricultural production. This is because capital is the most important input in agricultural production and its availability has remain a major problem to small scale farmers who account for the bulk of agricultural produce of the nation and credit has been identified as a major factor in the development of agricultural sector (Ndifon.,Agube and Odok, 2012). Credit is considered as a catalyst that activates other factors of production and makes under-used capacities functional for increased production (Ijere 2008).

Ijaiya and Bello (2009), define credit as financial resources obtained at certain period of time with an obligation to repay at a subsequent period in accordance with the terms and conditions of the credit obtained. Credit could come from banks, government cooperatives or individuals. Agricultural credits on the other hand are loans extended to farmers for production,

storage, processing and marketing of farm products. When farmers face credit constraint, additional credit supply can raise input use, investment and hence output, these they refer to as liquidity. Better agricultural credit facilities can help farmers smooth out consumption and therefore, increase the willingness of risk adverse farmers to take risks as consumption smoothing effect. Hence a better agricultural credit may lead to a higher volume of food output if the increased credit is used to increase fertilizer, private investment in machines and food crops (Edordu, 2010).

Agricultural credit could be obtained from either the formal sources which are the commercial banks and government owned institutions, or the informal sources which are the self-help- group (SHG), money lenders, cooperatives and Non – Governmental Organizations (NGO'S)(International Cooperative Alliance 2005). However, informal source of credit is more popular among small scale farmers which may be due to the relative ease in obtaining credit devoid of administrative delay, non- existence of security or collateral, flexibility built into repayment which is against what is obtained in the formal source. Also, Izekor and Alufohai (2010), noted that informal rural financial sources in Africa perform better than the formal system because the institutional lending system has failed to meet the objectives for which they were set up. The situation has attracted the attention of Nigeria Government and this had led to the creation of specialized institutions such as Nigeria Agricultural and Cooperative Bank (NACB) which later transformed into the Nigeria Agricultural Cooperative and Rural Development Bank (N.A.C.R.D.B) to cater for the credit need in the agricultural sector. However, Alufohai and Ahmadu (2005) studied its queue management and reported its ineffectiveness in credit delivery.

Following from the above, the small scale farmers are forced to source for capital from relations, money lenders and group contribution. All of these are known to be ineffective in providing capital for substantial increase in agricultural production. The last hope for the small scale farmers then lies with the cooperative societies. The cooperative societies have been identified as better channel of credit delivery to farmers in terms of its ability to sustain the loan delivery function (Nweze, 2003). International Cooperative Alliance (1995) defines cooperative society as an autonomous association of persons who unite voluntarily to meet their common economic, social, and cultural aspirations through jointly-owned and democratically controlled enterprises. Cooperatives are established by likeminded persons to pursue mutually beneficial economic interest. They provide services like provision of farm inputs, farm implements, farm mechanization, agricultural loan, and agricultural extension, member's education, marketing of members' farm produce and other economic activities and services. However, regular and optimal performance of these roles is crucial in order to accelerate the transformation of agricultural and rural economic development.

Cooperative societies are formed with the idea of mutual cooperation. Every cooperative society is formed to render services to its members rather than earn profit. In Nigeria, savings of members are usually very small due to low income status of the population (Yusuf and Iyaiya 2009) and as such majority of the cooperatives do not have enough fund to give out as loan to their members. Some give less than what members request for which may not be sufficient for the project members intend to utilize the loans on. Badiru(2010) identified lack of adequate funding of cooperatives as one of the inhabiting factor or the inability of most poverty alleviation strategies to yield result. Agbo (2009) discovered that poor cooperative education and illiteracy has been one of the greatest hindrances to growth of cooperatives. Adeyemo and Bemire (2005), also found out that education, training and re-training of cooperative members in general and officers in particular have been problems of cooperatives in Nigeria (Dogarawa 2005). Agbetunde (2007) stated that cooperative awareness is high in Nigeria but knowledge of the cooperative principle values, ideas and practices is very low. As such issues are handled as they come without proper knowledge and skills necessary to handle them. Infact some of them lack appropriate documentation, which continues to breed corruption within the organization.

The perceived benefits and problems of cooperative societies in the financial sector is worthy of exploration. Studies carried out by Izekor and Alufohai, (2010) and Ajah *et al.* (2014) on the effectiveness of cooperatives societies in agricultural credit delivery in IkpobaOkha Local Government Area, Edo and Cross River State respectively have shown that cooperative carry out the function of credit delivery to farmers but there is ample evidence that farmers still face difficulties in obtaining credit. More so the problem of sourcing for capital by agricultural enterprises still lingers. This may be unconnected to cooperative societies efficiency in credit delivery. It is against this backdrop that this study is designed.

## II. OBJECTIVES OF THE STUDY

The objectives are to;

1. Examine the socio-economic profile of cooperatives societies.

2. Identify the sources of finance that are available and utilize for credit by cooperative societies in Yakurr Local Government Area.
3. Analyze the efficiency of cooperative using the arrival rate of loan request and the service rate
4. Identify the challenges militating against cooperatives as a means of providing credit facilities to farmers.

## III. LITERATURE REVIEW

The theory that forms the framework for studies on credit delivery is the credit market clearing theory. It postulates that lending rate is the major and significant determinant of the amount of credit dispensed by the banking sector to the credit market. If collateral and other restrictions remain constant the interest rates is the only price mechanism.

An increase in demand for credit and customers supply leads to an increase in interest rate while a reduction in credit demand will reduce interest rates. There exist a positive relationship between the default probability of a borrower and the interest rate charged on the advance (Awoke 2004). It creates the impression that collateral has no effect on lending rate, and if a risky borrower would wish to face the same lending rate as a borrower with a lower risk. This brings about the moral hazard and adverse selection phenomenon. Firstly because of information asymmetry existing between the lender and borrower (Zella and Sharma, 1998).

**Several studies have been carried out on effectiveness and efficiency of credit delivery**

Awotide, Alhonsu and Adekoya (2011), in their study on Cooperative Society Effectiveness in Credit Delivery for Agricultural Enterprises in North Local Government of Ogun State discovered that the cooperative societies had approval rate of 88.4% with an average traffic intensity of 1.05 and an idle time of 0.05. This shows that the cooperatives were not very efficient in the queue management because the idle time was not zero and were not very effective in credit delivery because the approval rate is less than 100%

Izekor and Alufohai (2010), in their study on Assessment of Cooperatives Societies Effectiveness in Agricultural Credit Delivery revealed overall approval rate of 99.16%, arrival rate of 45%, service rate of 43 per month which resulted in a traffic intensity of 1.05 and idle time of -0.01. Empirical study showed that the cooperatives were effective in credit delivery.

The study by Alufohai (2006) on Sustainability of Farm Credit Delivery by Cooperatives and NGO's in Edo and Delta showed low capital formation rate of 0.1815 and 0.123 for cooperatives and NGOs respectively, cooperatives had zero subsidy Dependence Index (SDI) having no subsidies though with low loan volume. He also showed that cooperatives are more likely to sustain the credit delivery function than the NGOs but they may need to improve their capita. Also, Ajah, Itam and Asuquo (2014), in their studies on Analysis of Cooperative Societies Effectiveness in Credit Delivery to Agricultural Enterprises that are not less than 5 years in operation, revealed that cooperative societies had an average approval rate of 94.5% with an average traffic intensity of 1.06 and an idle time of -0.14. This showed that cooperative societies were not very efficient in the queue management.

Grace and Tosan (2013), in their studies on Assessment of Beneficiaries Satisfaction of the Management of Loan Contract Components by Farmers Cooperative Societies of Edo State, Nigeria, revealed that the main loan contract components to the loan volume, repayment regime, interest rate charged, default management, collateral required, timeliness and loan monitory. Average beneficiaries index was 4.28 out of 5 indicating high satisfaction originating from good queue management with traffic density of 1.12, moderate interest rate of 9%, actual loan monitoring, physical collateral, timely disbursement of loan and accommodation repayment regime. Only individual loan volume was low as a result of inadequate loan able fund.

Yusuf and Ijaiya (2009), in their study on the Informal Financial Institution and Poverty Reduction in the Informal Sector of a Town Kwara State, observed that Cooperatives have three main sources of finance. The most important sources are members as users and investors. Without this base, it is difficult to attract funds from others. The second source is redeemed especially in unallocated funds that are not assigned for distribution to members. These are known as institutional capital, which belongs to the cooperatives and can be liquidated only if the cooperatives incure losses or dissolves. Finally, external funding can also be readily obtained from commercial sources (though usually at a high cost) in a number of forms that include: Loans, equipment financing and even equity capital. In contract, external funding from donor or government sources is shrinking.

According to Fame and French (2000), in their study on Testing Trade-off and Pecking Order Prediction about Dividends and Debt revealed that Cooperatives can get tenancy to organize, operate and expand from two sources: equity capital and

borrowed capital. In a cooperative, equity capital is the portion of assets owned by members. It is also described as the risk capital because all other obligations must be met in case of liquidation before any equity capital is returned to its members. Borrowed capital is capital borrowed through the member's equity in the cooperative.

Inya, Solomon and Otu (2014), in their study on sources of capitalization of cooperative societies in Ebonyi State, Nigeria revealed that the sources of cooperative societies were mostly equity-based, with membership fees and membership certificate recorded 27.15% and 21.9% followed by deferred petrionese 14.43%, retention of unallocated reserve 14.16% revolving funds 14.6% common stock 1.4% and preferred stock 1.0% respectively. Asogwa, Umeh and Penda (2011), study on Analysis of Economic Efficiency of Nigeria Small Farmers observed that high level of cost inefficiency is highly attributed to the low profitability that result from inadequate organization of farmers into collective farmers institutions that can provide opportunities for risk sharing and improved bargaining power. According to Kareem, Arigbabu, Akuturo and Badmub (2012) in their study on Impact of Cooperative Society on Capital Formation: A Case Study of Yemidere Cooperative and Thrift Society Iyebu-Ode, Ogun State discovered that the challenges mostly faced by cooperative society was inadequate amount of capital that can be raised from the members of the cooperatives when compared to the need of small scale industrialists.

Odetola, Awoyemi and Ajijola(2015), studied Impact of Cooperative Society on Fish Farming Commercialization in Lagos State, Nigeria and discovered that cooperative society do not function efficiently due to lack of managerial talent. The members or their elected representative are not experienced enough to manage the society because of limited capital they are not able to get the benefits of professional management. According to Ayegba and Ikani (2013), the major limitations or challenges faced by agricultural cooperatives are high interest rates, bureaucratic bottlenecks, late approval of loan, and unnecessary request for guarantors and collateral. Philip, Nkonya, Pander and On (2009), stated that high interest rate and the short term nature of loan with fixed repayment periods do not suit annual cropping and thus constitute a hindrance to credit delivery. Although cooperatives have proved relatively successful in meeting the credit needs of agricultural enterprises, their limited resources restrict the extent to which they can effectively and sustainably satisfy the credit needs of theses farmers. This is because as agricultural enterprises expand in size the characteristics of loans they require become increasingly difficult for cooperatives to satisfy. (Aryeetey 1996).

## IV. MATERIALS AND METHODS

### 4.1 Study area

The study area is Yakurr Local Government Area which comprise of 13 wards. Yakurr is one of the LGA in Central Cross River State. The Local Government Area was carved out of Obubra in 1987. Yakurr lies between Latitude $5^0$ 37 and $5^0$ 58 North of the equator and Longitudes $8^0$ 00 and $8^0$ 19 East of the Greenish meridian. It is bounded to the North by Obubura Local Government Area, South by Biase LGA, East by Abi LGA and West by Akamkpa LGA. It has an area of 670km$^2$, density of 338.66inh/km$^2$. They speak loka with a population of 196,271 as at 2006 (National Population Commission 2006). The people of Yakurr Local Government Area are largely farmers .The arable crops grown in the area include: yam, cassava, plantain, okra, beans, maize, pumpkin, water yam, and cocoyam. The cash crops includes: oil palm, cocoa, cashew, ground-nut, raffia palm and rubber. The location of the Local Government within the tropical rainforest gives it the ecological basis for population of a wide range of tropical agricultural crop with wide range of potential for industrial convention.

### 4.2 Sample procedure and sample size

The population of the study consists of all registered Agricultural Cooperatives Societies in Yakurr Local Government Area (LGA), Cross River State. Simple random sampling method was used to select thirty (30) cooperative societies (representing 66.6%) out of forty five (45) cooperative societies in the local government area, from the list of all agricultural cooperative as obtained from the Cross Rivers State Ministry of Agriculture in Yakurr and Agricultural Development Programme (ADP) in Calabar.

### 4.3 Instrument of data collection

Data were obtained using primary and secondary sources. For the primary source, questionnaires were designed in line with the objectives of the study and used to obtain information from executives of the cooperative societies while the secondary source included information obtained from the records of the cooperative societies on loan request and loan approval within a period of two to four years. Descriptive statistics such as frequency and percentages were used to analyze the socio-economic profile of the cooperatives in the area, Sources of finance, farmer's access to cooperative loans and constraints they face in

the provision of credit facilities. The Queue model was used to analyze the efficiency in credit delivery to agricultural enterprises.

### 4.4 The queue theory

The queue is a waiting line; it is an array of items waiting to be served. The queue model is usually employed to determine the effectiveness of the performance of an organization (Olayemi and Onyewaku, 1999). The Queue model was used to determine the arrived rate of loan request, the service rate, the idle time and the traffic intensity of Cooperative Societies. This was computed using the formula in the equation below. Omotosho (2002), Alufohai and Ahmadu (2005), Izekor and Alufohai (2010), Olayemi and Onyenweku (1999), Awotide*et al* (2011) Ajah*et al*., (2014) and Webster (1992).

$$\text{Traffic Intensity} = \frac{Arrivalrate}{Servicerate}$$

$$\text{Arrival rate} = \frac{Number\ \ ofarrival}{Time}$$

$$\text{Service rate} = \frac{Numberserved}{Time}$$

$$\text{Idle time} = 1 - \text{Traffic Intensity}$$

The arrival rate depicts the number of loan request per year, the service rate represent the number of application accepted, considering the loan actually provided. Idle time refers to the period when no application was attended to, even when they had been submitted. Efficiency in Queue-management is achieved when the traffic intensity is unity that is arrival rate is equal to service rate and idle time is zero.

## V. RESULTS AND DISCUSSION

Results from this study show ocio-economic profile of cooperative societies in the study area. The result revealed that most (56.7%) of the cooperative societies were formed in the year 2011, (23.3%) in 2016, (10%) in 2012, while 2013, 2014, 2015 accounted for 1% each.(Table 1)

The result further revealed that most (50%) of the cooperatives had from 16-20 members at inception. This was followed by 23.3% who had from 5-10 members and 16.7% with 17-25 members at inception. The increase in membership at inception is due to the motivational packages or benefits that could entice more members. Awotide *et al.* (2011) obtained similar result. Their study revealed that the average membership at inception was 20.3% and 80% of the cooperative societies had more than 18 members at inception.

Result revealed that most of the cooperatives currently have large membership. Specifically, 40% had members ranging from 21-40, 23.3% have between 20-30 members, 20% have 51-60 members, while 16.7% currently have 41-50 members. The result showed that there was an increase in membership strength as compared to the period of inception. This could be due to enticing packages. The result is in line with that of Ajah *et al.* (2014). Their study revealed that 30% of the cooperative societies had 40.05 more members presently.

The study showed that the reason most members leave the cooperative was due to lack of awareness (43.3%), 30% was due to late approved rate, while 26.7% left owing to high interest rate. Most of the people join cooperatives without a good knowledge of their organizational objectives and had to leave because they do not believe the cooperatives can solve their problems. The result is in line with that of Agbo (2009) who concluded that people leave cooperative because they don't know about the cooperatives and as such, the trust is not there.

The result also showed that majority of the respondents operate in multipurpose (53.3%) cooperative, 26.7% operate in farmers cooperative, while 20% operate in thrift and credit cooperative. They high proportion of multipurpose is due to the fact that they have enough capital to help her members improve on their businesses.

The benefits derived from the society ranges from, provision of input for production (46.7%), accessibility of loan (26.7%) and marketing of products (20%). This is line with the objectives of multipurpose cooperative society.

The result of the study further revealed that most of the cooperatives (50%) perform the function of crop production, 26.7% are involved in agricultural marketing, and 13.3% are involved in livestock production, while 6.7% are into fisheries. The result shows that procurement of inputs and marketing of crop output is more favorable to that of livestock and fisheries. This

is in line with the findings of Sifa (2012), who concluded that the main categories of agricultural co-operatives fall into mainstream activities of agriculture including supply of agricultural inputs, joint production and agricultural marketing.

The result revealed that a total of ₦11,000- ₦30,000 (43.3%) was disbursed last year, followed by ₦31,000- ₦50,000 (26.7%) and ₦51,000- ₦70,000 (16.7%). This shows that relatively small amount was disbursed and this was used to finance small scale business.

The result also revealed that the membership strength of cooperatives increased from 2012 to 2016. The highest proportion of members was in 2016 (1521). Also, male accounted for the highest proportion of members. This was in line with that of Agbo (2009).

**TABLE 1**
**SOCIO-ECONOMIC PROFILE OF COOPERATIVES SOCIETIES**

| Variable | | Frequency | Percentage |
|---|---|---|---|
| Year of formation | 2011 | 17 | 56.7 |
| | 2012 | 3 | 10.0 |
| | 2013 | 1 | 3.3 |
| | 2014 | 1 | 3.3 |
| | 2015 | 1 | 3.3 |
| | 2016 | 7 | 23.3 |
| | **Total** | **30** | **100** |
| Number of members at inception | 5-10 | 7 | 23.3 |
| | 11-15 | 15 | 50 |
| | 16-20 | 5 | 16.7 |
| | 21-25 | 1 | 3.3 |
| | 26-35 | 1 | 3.3 |
| | Above 35 | 1 | 3.3 |
| | **Total** | **30** | **100** |
| Number of members currently | 20-30 | 7 | 23.3 |
| | 21-40 | 12 | 40 |
| | 41-50 | 5 | 16.7 |
| | 51-60 | 6 | 20 |
| | **Total** | **30** | **100** |
| | | | |
| Reason for leaving | High interest rate | 8 | 26.7 |
| | Late approved rate | 9 | 30 |
| | Lack of awareness | 13 | 43.3 |
| | **Total** | **30** | **100** |
| Type of cooperative society | Farmers | 8 | 26.7 |
| | Thrift and credit | 6 | 20 |
| | Multipurpose | 16 | 53.3 |
| | **Total** | **30** | **100** |
| Benefits derived | Accessibility of loan | 10 | 33.3 |
| | Provision of input for | 14 | 46.7 |
| | Marketing of products | 6 | 20 |
| | **Total** | **30** | **100** |
| Types of function performed | Crop production | 15 | 50 |
| | Livestock production | 4 | 13.3 |
| | Fisheries | 2 | 6.7 |
| | Agricultural marketing | 8 | 26.7 |
| | Farm input supply | 1 | 3.3 |
| | **Total** | **30** | **100** |
| Amount disbursed last year | <10,000 | 1 | 3.3 |
| | 11,000-30,000 | 13 | 43.3 |
| | 31,000-50,000 | 8 | 26.7 |
| | 51,000-70,000 | 5 | 16.7 |
| | 71,000-100,000 | 1 | 3.3 |
| | >100,000 | 2 | 6.7 |
| | **Total** | **30** | **100** |

***Source: Field Survey, 2017.***

### 5.1 Sources of Finance Available and Utilized for Credit to Cooperative Societies

Table 2 present the results of the sources of finance available and utilized for credit in the area. The result indicates that most of the respondent's source of finance was through members contributions (43.3%), individual savings (33.3%), members levy and dues (10%), loans from financial institutions (10%) and private money lenders (3.3%). The result revealed that most of the respondent sourced finance from informal sources. This may be due to relative ease in obtaining credit devoid of administrative delay, non-existence of security or collateral, flexibility built into repayment which is against what is obtained in formal sources (Awotide, Alhonsu and Adekoya, 2011). This was in line with that of Yusuf and Ijaiya (2009) who observed that Cooperatives have three main categories or source of finance and concluded that the most important sources are members as users and investors. Inya, Solomon and Otu (2014) also revealed that the sources of cooperative societies were mostly equity-based, with membership fees and membership certificate recording the highest percentages. The low percentage of private money lenders and loans from financial institutions could be due to the high interest rate charged and the rigidity in loan payment.

**TABLE 2**
**SOURCES OF FINANCE AVAILABLE AND UTILIZED FOR CREDIT BY COOPERATIVE SOCIETIES**

| Source of finance | Frequency | Percentage |
|---|---|---|
| Individual savings | 10 | 33.3 |
| Private money lenders | 1 | 3.3 |
| Contributions | 13 | 43.3 |
| Members levy and dues | 3 | 10.0 |
| Loans from financial institutions | 3 | 10.0 |
| Total | 30 | 100 |

***Source: Field Survey, 2017***

### 5.2 Efficiency of credit delivery by cooperatives in the study area

The efficiency of cooperatives in credit delivery was analysed using the arrival rate of loan request and the service rate ( Table 3). The result revealed that the cooperatives had an arrival rate of 131 and service rate of 105 for the year 2012 depicting that not all loan requests received were considered and approved. Similarly result was obtained for the year 2013, 2014, 2015 and 2016, the arrival rates were 148, 186, 200 and 234 with their corresponding service rates of 117, 147, 157 and 185 respectively. Indicating that the service rate was not in accord with the loan request, and their traffic intensities were 1.26, 1.27, 1.27 and 1.26, with their corresponding idle time of -0.26, -0.27, -0.27 and -0.26 respectively. This shows that there is need for improvement in credit delivery. The overall results showed that the cooperative were not effective and efficient in the queue management because the average idle time (-0.26) and the average traffic intensity was more than one (1.26). The finding is in line with that of Awotide, Alhonsu and Adekoya (2011), who obtained an approval rate of 88.4% with an average traffic intensity of 1.05 and an idle time of 0.05. Izekor and Alufohai (2010), obtained an overall approval rate of 99.16%, arrival rate of 45%, service rate of 43 per month which resulted in a traffic intensity of 1.05 and idle time of -0.01. Ajah, Itam and Asuquo (2014) also obtained an average approval rate of 94.5% with an average traffic intensity of 1.06 and an idle time of -0.14. All the study reviewed showed that cooperative societies were not very efficient in the queue management.

**TABLE 3**
**EFFICIENCY OF COOPERATIVE USING THE ARRIVAL RATE OF LOAN REQUEST AND THE SERVICE RATE**

| Year | Arrival rate | Service rate | Traffic intensity | Idle time |
|---|---|---|---|---|
| 2012 | 131 | 105 | 1.25 | -0.25 |
| 2013 | 148 | 117 | 1.26 | -0.26 |
| 2014 | 186 | 147 | 1.27 | -0.27 |
| 2015 | 200 | 157 | 1.27 | -0.27 |
| 2016 | 234 | 185 | 1.26 | -0.26 |
| **Total** | **899** | **711** | **6.30** | **-1.31** |
| **Average** | **180** | **142** | **1.26** | **-0.26** |

***Source: Field Survey, 2017.***

### 5.3 Challenges militating against Efficient Credit Delivery by cooperatives providing credit facilities to farmers.

The challenges militating against cooperatives as a means of providing credit facilities to agricultural enterprises in the study area were analysed by comparing the responses obtained through likert scale questions to a weighted mean value. A weighted mean value of 3.08 was used as a benchmark to rank the problems of cooperatives. A mean score of 3.08 and above indicate a 'serious' challenge while a mean score of less than 3.08 indicates a ' not serious' challenge. The result show that insufficient funds for disbursement (3.33), lack of qualified personnel (3.23), insincerity of members in credit management (3.16) and changes in government credit policies (3.16) were considered as serious challenges affecting efficiency in credit delivery by cooperative societies to agricultural enterprises in the study area.

**TABLE 4**
**CHALLENGES MILITATING AGAINST EFFICIENT CREDIT DELIVERY BY COOPERATIVES TO AGRICULTURAL ENTERPRISES.**

| S/N | Challenge | A | SA | D | SD | Cum | Mean |
|---|---|---|---|---|---|---|---|
| 1. | Insufficient fund for disbursement | 12(48) | 16(48) | 2(4) | - | 100 | 3.33* |
| 2. | Lack of qualified personnel | 12(48) | 14(42) | 3(6) | - | 97 | 3.23* |
| 3. | Insincerity of members in credit management | 7(28) | 21(63) | 2(4) | - | 95 | 3.16* |
| 4. | Changes in Government credit policies | 7(28) | 21(63) | 2(4) | - | 95 | 3.16* |

***Source: Field Survey, 2017..N= 30, n = 8, weighted mean score = 24.61/8 = 3.08, (X ≥ 3.08 = a serious challenge, X<3.08 = not a serious challenge), * = serious challenge, -= no response. A= Agreed, SA = Strongly agreed, D = Disagreed, SD= Strongly, Cum = cumulative frequency.***
***Figures in parenthesis = the number of those that agreed, strongly agreed, disagreed and strongly disagreed.***

## VI. CONCLUSION AND RECOMMENDATIONS

The study revealed inefficiency in credit delivery by cooperatives in the study area. This could be as a result of the constraints faced by these cooperatives in sourcing for fund (insufficient fund for disbursement) and lack of capacity of staff in fund management. Cooperative societies could be effective organs for credit delivery to agricultural enterprise, however, there is need for capacity development of cooperative members to enable them adequately source for funds and efficiently manage loan disbursement and repayment by members. Also, relevant government and nongovernmental financial institutions should be encouraged to channel credit facilities through cooperatives in other to build their financial base and make credit more accessible to agricultural enterprises.

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