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ASSESSMENT OF COOPERATIVE SOCIETIES' EFFECTIVENESS IN CREDIT DELIVERY FOR AGRICULTURAL ENTERPRISES IN BENIN METROPOLIS, EDO STATE, NIGERIA

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ABSTRACT
The study assessed the effectiveness of agricultural cooperative societies in credit delivery to members in Benin metropolis of Edo State, Nigeria. The specific objectives were to describe the socio-economic characteristic of small-scale farmers, determine the effectiveness of the cooperatives in credit delivery to members, determined to what extent the co-operatives have benefited members in financing their investments; and identified the challenges militating against the role of cooperatives in the provision of credit facilities to its members. The study used a multi-stage random sampling technique to select 120 respondents from 20 agricultural cooperative societies in the Benin metropolis. The data collected were analyzed using simple descriptive statistics and the Queue model. In terms of effectiveness of credit delivery, findings revealed that majority of the cooperatives studied were not effective in credit delivery as reflected by the queue model employed. With respect to cooperatives financing of members' investments, computed mean average indicates that majority were of the view that cooperatives have benefited members in financing their investments. However, there is room for improvement because the approval rate was 4.23, the overall idle time was 0.13 and the traffic intensity was 1.132 instead of 1. The major constraints militating against cooperative societies' effectiveness were low loan repayment and embezzlement of funds (poor management of funds) with respective means of 2.66 and 2.64. Based on the findings, it was recommended that any policy that will improve proper management of funds and higher loan repayment will improve the managerial ability of the cooperative management and increase the approval rate to 100 percent and the idle time to zero.

KEYWORDS: Effectiveness, credit delivery and agricultural enterprise

INTRODUCTION
Cooperative societies have remained one of the most valid avenues where people get together to achieve goals they would not have ordinarily achieved on their own. As it is obtained in every human society, the presence of a workable structure cannot be overemphasized. However, in most developing countries like Nigeria,

agriculture dominates the nation's economy. According to Obasi and Agu (2000), about 70% of Nigeria population are engaged in agriculture, while 90% of the total food production comes from small farms and 60% of the country's population earn their living from these small farms (Oluwatayo, *et al.*, 2008). However, inadequate finance has remained the most limiting problem of agricultural production (Balogun, 1990) and credit has long been identified as a major input in the development of the agricultural sector.

Ijere, (1998) reported that one major problem bedeviling small-scale enterprise including those of agriculture is inadequate capital. Credit has been considered a catalyst that activates other factors of production and makes under-used capacities functional for increased production. However, one major avenue for the small scale farmers sourcing funds for their enterprise is the cooperative societies (Ijere, 1998). The cooperative societies have been identified to be a better channel of credit delivery to farmer in terms of its ability to sustain the loan delivery function (Alufohai, 2006). Cooperatives are established by like-minded persons to pursue mutually beneficial economic interest to provide services like provision of farm input, farm implements, farm mechanization, agricultural loans, agricultural extension, members' education, marketing of members' farm produce as well as other economic activities and services rendered to members. Meanwhile, regular and optimal performance of these roles is crucial for the delivery of these services in order to accelerate the transformation of agriculture and rural economic development.

In spite of the importance of cooperatives in providing loans in agricultural production, its access is fraught with a number of problems such as credit ineffectiveness, institutional bottlenecks, bureaucratic procedures, restriction of credit for specific purposes, lack of collateral, as well as disbursement lag (Oyenucheya and Ukoha, 2007, Nwachukwu *et al.*, 2010 and Ajah, 2013). Kareem *et al.* (2012) opined that cooperatives have the ability to promote and support entrepreneurial development in farms that are compatible with the principles and objectives of the World Summit for social development held in Copenhagen in 1995. Aryeetey (2006) also recommends cooperatives as a means to tackle loan default problems in farm credit delivery.

Despite its microfinance power, the Cooperative Societies as an informal source of finance has serious setbacks including its efficiency as an economic tool (Oladejo 2013). The perceived benefits and problems of cooperative societies in the financial sector era is worthy of exploration. These problems brought about these questions: What are the socio – economic characteristics of small scale farmers in the study area? What is the effectiveness of cooperative societies in credit delivery for agricultural enterprises in Nigeria focusing on Benin metropolis, Edo State? To what extent have cooperative societies benefited members in financing their investments? What are the challenges militating against the role of cooperatives in the provision of credit facilities to its members?

Objectives of the Study

The broad objective of this study is to appraise cooperative societies' credit delivery for agricultural enterprises in Nigeria focusing on Benin metropolis, Edo State. The specific objectives were to:

i. describe the socio-economic characteristic of small scale farmers in this study area;
ii. determine the effectiveness of cooperative societies in credit delivery for agricultural enterprises in Benin metropolis;
iii. determine the extent to which co-operatives have benefited members in financing their investments; and
iv. identify the challenges militating against the role of cooperatives in the provision of credit facilities to members.

RESEARCH METHODOLOGY

Study Area

The study was carried out in Benin City metropolis of Edo State, Nigeria which comprises of three Local Government Areas viz Oredo, Egor and Ikpoba Okha. Edo State lies within the geographical coordinates of Longitudes 05° 04′ East and 06° 43′ East and Latitudes 05° 44′ North and 07° 34′ North of the Greenwich Meridian. It lies in the South-South geographical zone of Nigeria. It covers a total land area of about 36,825 km^2. It shares boundary with Delta, Ondo, and Kogi States in Nigeria.

Benin City is the capital and largest city of Edo State in southern Nigeria. It is the fourth largest city in Nigeria after Lagos, Kano and Ibadan, with a total population of 1,782,000 as of 2021. It is situated approximately 40 km (25 miles) north of the Benin River and 320 km (200 miles) by road east of Lagos. Benin City is the centre of Nigeria's rubber industry, and oil production is also a significant industry.

Sources of Data and Sampling Technique

Primary Data were collected from sampled cooperative associations in the study area through interviews of members while secondary data were sourced from online academic resources, ministry of wealth creation, bulletins, etc. A multistage sampling technique was employed for this study. First, was the purposive selection of Benin City metropolis comprising of Oredo, Egor and Ikpoba Okha Local Government Areas in Edo State owing to their cosmopolitan nature and a readily available list of functional and operational agricultural multipurpose cooperative associations. Secondly, simple random sampling technique was employed in the selection of 20 cooperative farmers associations in Benin City metropolis. The third and final stage involved random selection of six cooperative members from each of the twenty cooperative associations, giving a give a sample size of 120.

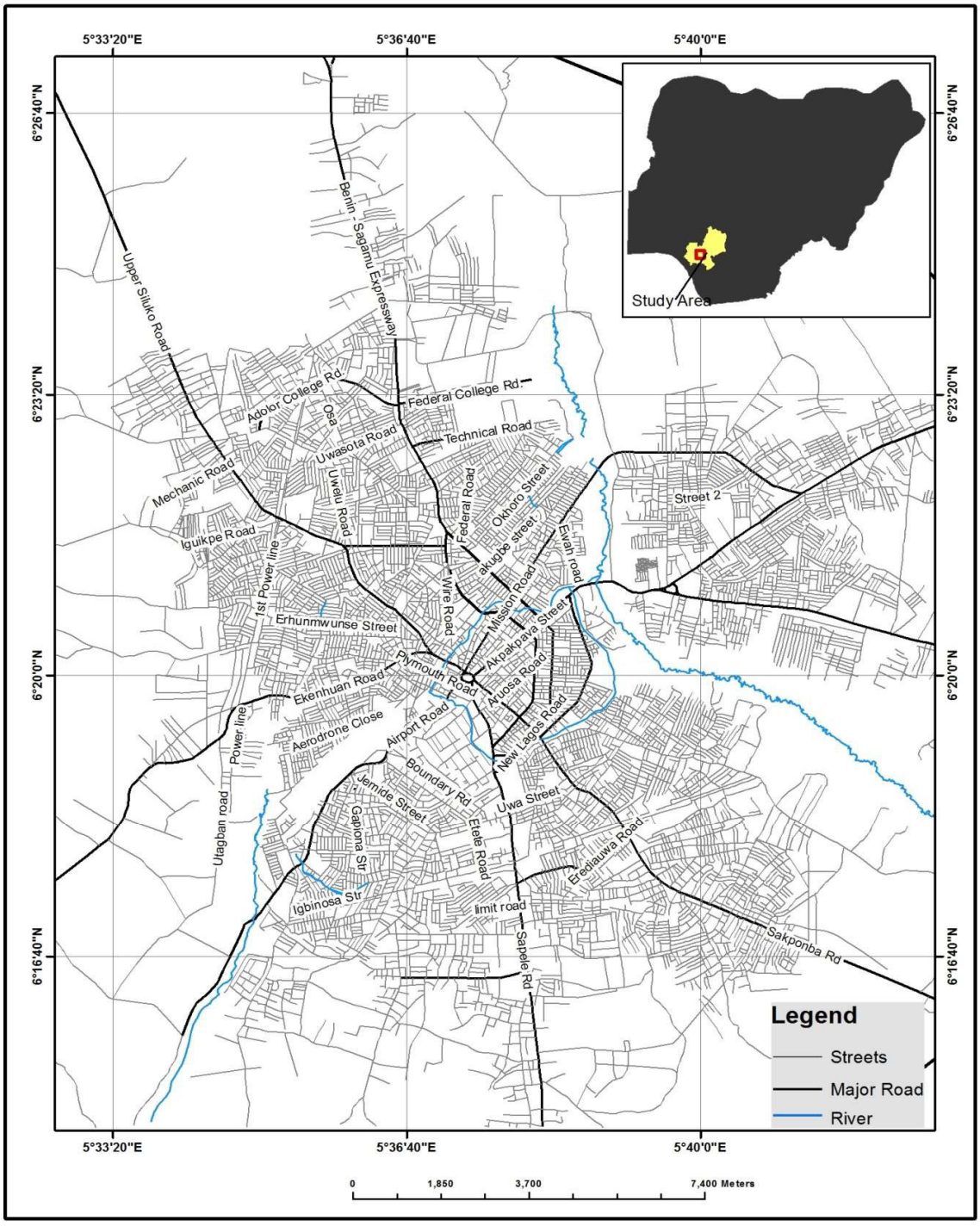

Fig. 1: Map of Benin Metropolis
Source: Floyd *et al.* (2016)

Measurement of Variables

i. Age of Respondents was measured in years.
ii. Household size is the total number of people living in the same house and eating from the same pot.
iii. Active members were measured by members that are registered and involved in cooperative activities.
iv. Passive members were measured by members that are registered but do not participate in cooperative activities.
v. Effectiveness was measured using queue model to determine the performance of cooperative society in credit delivery.

Analytical Techniques

Objective 1 was achieved using frequency counts, mean scores, standard deviation etc.

Objectives 2 was achieved using descriptive statistics and Queue Model as given by Olayemi and Onyenwaku (2009).

The queue model was used to determine the arrival rate of loan request of the cooperators, the service rate, the idle rate, and the traffic intensity of cooperative societies. These were computed as used by Omotosho (2002), Alufohai and Ahmadu (2005) and Izekor and Alufohai (2010) as follows:

$$Arrival\ rate = \frac{Number\ of\ Arrival}{Time} \text{ .. (1)}$$

$$Service\ rate = \frac{Number\ of\ Members\ Served}{Time} \text{ ..... (2)}$$

$$Traffic\ Intensity = \frac{Arrival\ Rate}{Service\ Rate} \text{ ..... (3)}$$

$$Idle\ Time = 1 - Traffic\ Intensity \text{ .. (4)}$$

For the purpose of this study arrival rate depicts the number of loan request per month, the service rate represents the number of application accepted, considered and loan actually provided. Idle time refers to the period when no application was attended to, even when they had been submitted. Effectiveness in queue management is achieved when the traffic intensity is unity, that is, arrival rate is equal to service rate. In this case no idle time (idle time =0).

Objectives 3 and 4 were analysed using mean and standard deviation on a 4-point Likert scale. The 4-point scale was graded as "Very serious" = 4, "Moderately serious" = 3, "Less serious" = 2, "Not serious" = 1. The level of seriousness was ranked using weighted mean (X). The mean score is 4+3+2+1 = 10/4 = 2.5 (benchmark). Therefore, using the benchmark of 2.50, any item with mean value of 2.50 and above was regarded as "Very serious" while items with mean value of less than 2.50 was regarded as "Not serious".

RESULTS AND DISCUSSION

Socio-economic Characteristics of the Cooperators

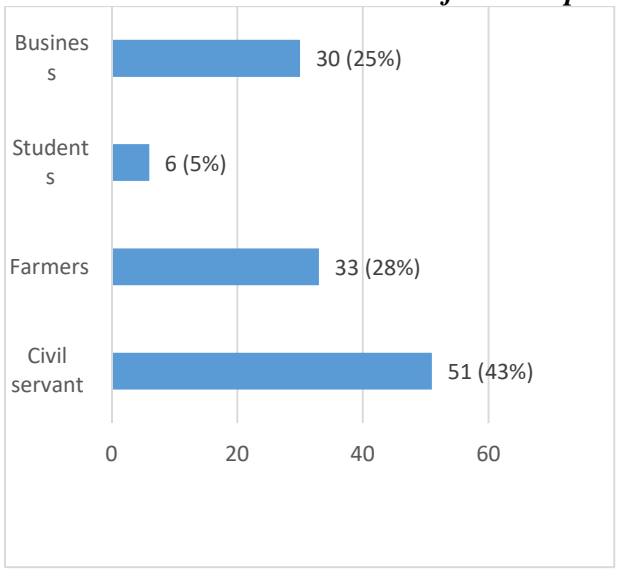

Fig. 2: Primary occupation of co-operators

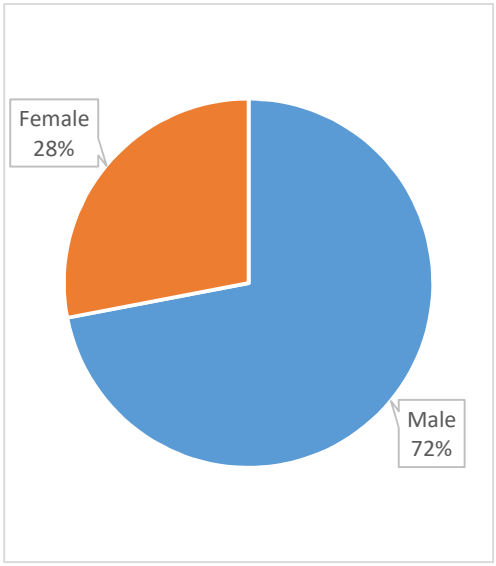

Fig. 3: Sex of the co-operators

From Figure 2, almost one-half of the cooperative members were civil servants (43%), 27% had farming as their primary occupation, 5% were students while 25% were into business of different kinds. With civil service being the predominant primary occupation of the cooperative members, it implies that they were more enlightened about the cooperative societies Fig 3 reveals that 72% of the respondents were males while 28% were females. This could have arisen owing to the fact that the males are the perceived head of the household in this part of the country and are expected to explore more means of generating income for the family.

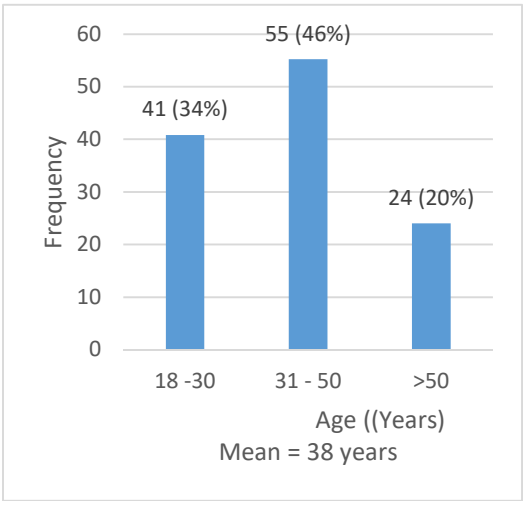

Fig. 4: Age of the Cooperators

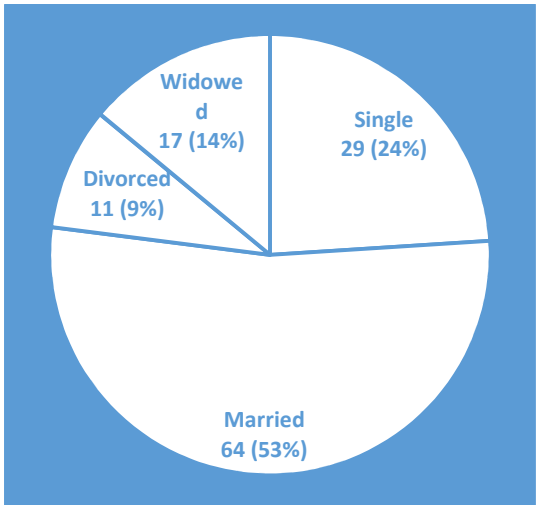

Fig. 5: Marital Status of the Cooperators

Figure 4 shows that most of the respondents fall within the age bracket of between 31 and 50 years. This result coupled with the mean age of 38 years reveals that members of the cooperative societies were in their active age and their involvement in cooperative activities will enhance the productivity of the cooperative society as well as their individual agricultural businesses.

Figure 5 shows that majority (53%) of the respondents were married. The result compares with the finding of Jibowo *et al.* (2003) who reported that majority of the cooperative farmers consist of married people thus their household will help in some farm activities, indicating that this motivated them to participate in the cooperative society.

Table 1: Participation in Cooperative Activities

Parameters	Category	Frequency	Percentage (%)
Years of participation	< 2	35	29.2
	2 -4	52	43.3
	4 -10	20	16.7
	Above 10 years	13	10.8
	Total	120	100.0
Form of Membership	Active	104	86.7
	Passive	16	13.3
	Total	120	100.0
Held any leadership position	Yes	29	24.2
	No	91	75.8
	Total	120	100.0
Types of cooperative societies	Marketing	17	14.2
	Livestock	20	16.7
	Fisheries	31	25.8
	Crop production	52	43.3
	Total	120	100.0

Table 1 shows that a greater proportion of the respondents (43.3%) have been into cooperatives for between two to four years; perhaps this might explain the low rate of loan application. Majority of the respondents were active members of the cooperative societies as represented by approximately 87% of the respondents (Table 1). Majority of the respondents (about 76%) have not held any leadership position in the cooperative societies. This shows that most of the existing cooperative societies are still in their early stage (between 2-4 years) of existence.

Result revealed that the cooperators belonged to one of the following four (04) cooperative societies viz marketing, livestock, fisheries and crop production cooperative society with the majority in crop production cooperative society (43.3%) (Table 1); implying that most of them were into crop production.

Effectiveness of cooperative societies in credit delivery for agricultural enterprises in Benin metropolis

In this section the researchers sought to analyse the average number of loan application and the loan approved by the cooperative societies.

Result from Table 2 revealed that in all, the cooperative societies sampled received a total of 254 loan applications and approved 224 within the period of five years giving an overall approval rate of 88.19%. This is an indication that farmers had good access to cooperative loans. This fact supports the observation of Unuigbe (2005) and Oluyombo (2010) who both observed in their studies that cooperative societies were mainly set up to assist members financially in granting of credit facilities to better their lot in business. They observed that cooperative societies readily grant credit facilities to members at a faster rate than conventional commercial banks with no needed collaterals other than the paid up capital of members.

Table 2: Average Number of Loan Application and Loan Approval

Year	Average number of application	Average number of approval	Approval rate (%)
2011	31	29	93.55
2012	58	46	79.31
2013	42	38	90.48
2014	60	52	86.67
2015	63	59	93.65
Total	254	224	88.19

Effectiveness of the Cooperative Societies in Credit Delivery

A 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 Onyenwaku, 2009). The queue model was used to determine the arrival rate of loan request of the cooperators, the service rate, the idle rate, and the traffic intensity of cooperative societies.

Table 3: Total loan Application, Accepted, Considered and actually provided

Year	Total loan Application for the year	Total loan accepted	Total loan considered	Total actually provided
2011	31	29	29	29
2012	58	46	46	46
2013	42	38	38	38
2014	60	52	52	52
2015	63	59	59	59
Total	254	224	224	224
Average	50.8	44.8	44.8	44.8

Table 4: Arrival rate; Service rate, Traffic Intensity and Idle Time

Year	Arrival Rate	Service Rate	Traffic Intensity	Idle Time
2011	2.58	2.40	1.07	-0.07
2012	4.83	3.80	1.27	-0.27
2013	3.50	3.20	1.09	-0.09
2014	5.00	4.30	1.16	-0.16
2015	5.25	4.90	1.07	-0.07
Total	21.16	18.60	5.66	-0.66
Average	4.23	3.72	1.132	-0.13

The study (Table 4) revealed that cooperatives had an average arrival rate of 2.58 and service rate of 2.4 for the year 2011 depicting that about 3 loan requests were received and 2 of them were considered, approved and loan disbursed. This shows that the service rate was not the same as the arrival rate. Also, in the year 2012 the arrival rate of 4.83 and service rate was 3.8 with a traffic intensity of 1.27 and an idle time of 0.27 indicating that in this year, about 5 loan requests were received and cooperative societies were effective in their credit delivery function in years 2013, in 2014 and 2015 respectively the arrival rates were 3.5, 5.0, and 5.25 with their corresponding service rates of 3.2, 4.3, and 4.9 respectively. Indicating that the service rate was in accord with the loan request, and their traffic intensities were 1.09, 1.16, and 1.07 respectively and their corresponding idle time were 0.09, 0.16, and 0.07. The overall results showed that the cooperatives were not effective and efficient in the queue management because the idle time was not zero (-0.13) and the traffic intensity was more than one (1.66) therefore were not very efficient in credit delivery because the approval rate was less than 100%. This result is in line with the study of Awotide *et al.* (2011), and Alufohai and Ahmadu (2005) and contrary to the work done by Izekor and Alufohai (2010), which opined that cooperative societies were effective in their credit delivery function.

Extent cooperatives benefited members in financing their investments

In this section, attempt was made to find out from the respondents the extent to which cooperative societies have benefited them financially in terms of credit access and delivery for financing their business investment. Items were rated on a 4-point Likert scale. With this a cut off mean point of 2.5 was arrived at as 'agreed' while any item with a mean value less than 2.5 was regarded as 'disagree'.

Table 5: Extent to which cooperatives have benefited members financially

S/N	Question	Mean	S.D.	Remarks
1	Cooperatives societies assist its members in savings management	3.23*	0.97	Agree
2	Most cooperative societies seek government's support in alleviating sufferings of its members	3.08*	0.96	Agree
3	Most cooperative societies assist its members in carrying out educational programmes and in mobilizing host communities.	2.72*	0.98	Agree
4	Most cooperative societies assist its members in carrying out projects	2.69*	1.24	Agree
	Overall	2.93		Agree

* = Very serious mean

Table 5 above shows that majority of the respondents are in agreement that the cooperatives are financially responsive towards their members in terms of assisting their members in enhancing their socio-economic status, mobilising host communities by embarking on laudable projects as well as assisting members in carrying out educational programmes. Above all, majority of the respondents agreed that cooperative societies encourage members of the society to contribute to the capital base of the society through encouraging them in savings management and saving towards a common purse. They also carry out financial benefits to enhance the socio-economic status of its members by also using borrowed funds to lend to members. This supports the views of Kareem *et al.* (2012) who observed in a study of credit delivery and capital formation of cooperatives in Ijebu-Ode that owing to the role of socio-economic enhancement of its members through credit grants, cooperatives are usually dubbed 'Alajeseku' in Ogun State which means, society of contented members.

Challenges militating against the role of cooperatives in provision of credit facilities

Table 6: Challenges facing cooperatives in provision of credit facilities

Challenges	Mean	Standard Deviation	Ranking
Inadequate finance	2.66*	1.11	1st
Loan repayment	2.64*	0.98	2nd
Embezzlement	2.52*	0.83	3rd
Insincerity of members	2.51*	1.15	4th
Government policy	2.46	0.98	5th
Conflict of interest	2.34	1.15	6th
Illiteracy	1.73	0.93	7th

* = Very serious mean

Table 6 above shows the ranking of constraints facing cooperatives in effective credit delivery to members. Previous studies have shown that cooperatives carry out the function of credit delivery to farmers but there is

ample evidence that farmers face difficulties in obtaining credit and problem of sourcing for capital still lingers on (Ndifon *et al.,* 2012). Result revealed that majority of the cooperative societies cited inadequate finance, loan repayments, embezzlement of funds and insincerity of members as the very serious challenges facing the cooperative societies since they all had means greater than 2.50.

CONCLUSION AND RECOMMENDATIONS

Based on the evidence presented in this study, it is concluded that cooperative societies were not very effective in credit delivery. However, there is room for improvement because the approval rate was 4.23, the overall idle time was -0.13 and the traffic intensity was 1.132 instead of 1.

Based on the findings, it was recommended that:

i. Loan repayment problem could be avoided if the co-operatives have well-trained personnel to accurately screen prospective loan applications and subsequent loan approval.
ii. The project that needs financial assistance must be inspected before its final appraisal and evaluation.
iii. Central banks should ensure that enough funds are made available to the cooperative societies.
iv. Any policy geared towards improving loan repayment capacity, capital base and increasing the managerial ability of the cooperatives will go a long way to increase the approval rate to 100%

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