Analysis Of Maize Farmers Credit Beneficiaries Provision Of Collateral And Fulfillment Of Other Preconditions Lay Down By The Commercial Banks In Three Agricultural Zones In Cross River State, Nigeria

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ABSTRACT
The study analyzes maize farmers credit beneficiaries provision of collateral and fulfillment of other preconditions lay down by the commercial banks in three agricultural zones in Cross River State, Nigeria. Data were collected from 150 respondents in the study area using Stratified random sampling technique was used to select the respondents. Data collected were analyzed using descriptive statistics and ordinary least square analysis/multiple regression analysis. The findings of the study revealed that majority of respondents (96.66%) collected agricultural credit and provided collateral and fulfillment of other preconditions lay down by the commercial banks before fund was released to them. This implies that commercial banks were afraid to give credit to maize farmers that did not have collateral, if credit beneficiary default in loan repayment their collateral would be sold to get money borrowed to borrower. that maize farmers were inefficient in use of resources   in production of maize in the study area. The result of the findings revealed that 84.67% of the respondent used local variety of maize in their farms. While 15.33% of them used improved variety of maize as planting seeds. This implies that minority of the farmers in the study area must have had knowledge of improved variety of maize and have adopted such. The regression result of the study also showed that double-log (Cob-Douglass production functional form) had the highest R^2 value of 65 and met other econometric criteria, therefore it was selected as the lead equation. The F-value was 0.431), while Durbin Waston value of 1.8 was within the specified range of between 0 and 2 indicated positive auto-correlation), therefore double-log production functional forms is a good equation compared to linear and semi-log production functional forms. The regression analysis also revealed that farm sizes and fertilizer were significant at 10% level of probability while loan size, interest rate charge, labour and maize seeds were significant at 5% level of probability.   In the double-log functional form, the coefficient of labour was negative. It was recommended that government should subsidize price of agricultural inputs. Extension agents should organize seminar to train maize farmers credit beneficiaries in the study area on resource use efficiency. Extension agents should create more awareness among maize farmers to enable more farmers to adopt improved variety of maize and adopt recommended maize production technologies that use labour saving tools and increase labour productively and resource use efficiency recommended by Cross River Agricultural Development Programme..
Keywords: Credit, beneficiaries, maize, collateral, preconditions

INTRODUCTION

Acquisition of credit by small- scale farmers would enable them to reap economics of scale, discover new method of production and cheaper inputs, create demand where more exists and provide utility to satisfy widening market. Furthermore, it will generate in him the optimisms in determination to venture into new fields (Ijere,1986). Lending therefore constitutes the power or key to unlock talents, abilities, visions and opportunities, which in turn act as a mover of economic development through increase productivity.

Agricultural credit also contributes to economic development by enhancing production and productivity, and thus increase income and improved standard of living of people. As long as resources are not misused but conserved, more credit is available for circulation (Famoriyo and Awagbo,1987). Farmers in developing countries need credit to increase productivity and improve their income level. In addition to that, increase in agricultural productivity would enable maize farmers not to default in credit repayment. Credit is the transaction between two parties in which one, the creditor or lender supplies money, goods and services or securities in return for promised future payment by the other (the debtor or borrower)(Ijere,1986). In the same vein Adeyeye and Dittoh (1985) defined agricultural credit as the process of obtaining control over the use of money, goods and services in the present in exchange of a promise to repay in future date.

In Nigeria, few maize farmers raise their own finance to run farm business, while majority of them obtained credit/loans from formal or informal sources. The formal sources of agricultural credit in Nigeria includes: Commercial Banks, Merchant Banks, Cooperative Societies, Agricultural Credit Guarantee Scheme (Aveke, 1991; Okoro, 2009; Edet, 2012). While informal credits are the one that no bank or government credit institution is being involved. Such credits are taken from friends, relations, local money- lenders, pledging of crop(s) and /or land which serves as mortgage whereby the owner (occupier of the land) give the creditor to use in the return for a cash advance. Esusu is another way of raising money. Esusu is an arrangement in which fund is created by a group of individuals, who make fixed contributions of money at fixe interval or a given period of time, with the total amount contributed by all members at a time is handed over to one member on rotational basis (Famoriyo, and Awagbo, 1987; and Aveke, 1991). According to Adeolu and Taiwo (2004), in the face of the glaring inability of formal credit source of finance to meet the needs of the rural poor farmers, the informal source (Esusu and money lenders) took the challenges of proving credit to rural poor farmers. Esusu is an important source of informal credit supply to farmers (Ovat, 2008).

Theoretical Framework

Types of farm lending / Agricultural lending

In Nigeria, maize farmers are in need of working capitals to facilitate maize production and to generate more income, reduce poverty and improve standard of living (Adinya *et al,* 2007). Farmers borrow money for different purposes, but farm lending could be classified on the basis of purpose of lending : the type of lending, method of disbursement, the arrangement as it affect repayment, the level of supervision and the expected productivity of the project financed (Aveke, 1991; Adinya *et al,* 2007).

 Government become involved in agricultural lending in the year 1930s, when it established Native Authority Advance System (NAAS) whose aim at that time was to encourage mixed farming in the Northern part of Nigeria with the Agricultural and Credit Cooperation in 1962 in Western Nigeria, while the Eastern part followed closely with the Agricultural and Industrial Development that was established in 1963. Nigeria Local Development Board in 1946 was the first that attempt to provide credit for both agricultural and industrial development (Famoriyo , 1980).This was later improved by the Three Regions Development Boards to ensure even coverage of the country (Aveke, 1991). Since these attempts met with some failures due to lack of finance, it gave room for the establishment of the Nigeria Agricultural Bank in 1973(Now Nigeria Agricultural and Cooperative Bank) which provide credits to farmers.

In 1977,the federal Government of Nigeria, using the Central Bank of Nigeria as an executing agent launched the Agricultural Lending Guarantee Scheme marked a great turning point towards credit supply in agricultural sector (Ijere, 1998), with this scheme in operation couple with the requirement of different monetary policies guidelines of the Central Bank of Nigeria (CBN), the reason was to influence both the volume of , as well as cost of credit to agricultural sector (CBN,1987; CBN,2012). The federal

government provided 60% of the amount involved in the scheme together with running cost, while the Central Bank of Nigeria provide 40% of the amount. After discovering the main sources of funds available to Nigerian farmers, one can simply feel that Nigerian farmers are free from funding their agricultural enterprises, but this is not true with small – scale farmers. Adinya et al, (2007) affirmed that "unless productive credit is made available on suitable terms, majority of small – scale farmers will be seriously handicapped in adopting profitable technology.

Types of agricultural credits:

Productive credit: This credit assists one in ownership of fixed inventory, farm machineries and implements (Adegeye and Dittoh,1985).

Consumption credit: Is meant for the purchase of articles for example the hiring of labour, purchase of seeds/ seedlings and or livestock, payment of salaries / wages(Adegeye and Dittoh, 1985).

Short term credit: These are loans/ credits that are payable now or within a period of one year.

Intermediate or medium term credit: These are loans that are deferred for a given period but which will be paid within few years like five years.

Long term credit: This credit is repayable within a long period of twenty years.

Credits and interest rates

Interest rates play a key role in determining the amount of credit to be accessed by the farmers. Agricultural credits given to farmers enable them to invest in farm businesses. Okorie (1998), pointed out that why Commercial Banks are reluctant in administering loans to the agricultural sector is as a result of non competitive interest rate prescribed for the agricultural sector by the monetary authorities. Interest rates in other sector vary from 9 to 11.5 percent, while the range in agriculture is 5 to 6 percent. The policy deprive Commercial Banks from making any profit, for instance, bank depositor earn a percent interest rate. While the same money is loaned to farmers at 9 percent interest rate.

Collateral and lending

Lending required collateral by formal financial institution is one of the major obstacles to affordable lending by micro-enterprise owners or group lending Haruna (2007), opined that micro finance begins with the fact that, the poor do not own assets usually pledged as collateral. He further explain that micro finance believes in people and not collateral. It recognized the credibility of people and trusted them. It use the approach of collective appraisal of loan utilization peer pressure and cross guarantee to enforce payment.

Agu (1998), ascertain that, proper function of collaterals is to minimize the rate of lenders, if for unforeseen aims, the expected income of the lender fail to materialized insufficient quality for the repayment of loan.

Easton (2005), maintain that household cannot get capital from banks because they do not have collateral to secure loans and banks do not want to take on the risks and costs of making small uncollateralized loans.

Statement of problem

In Nigeria, small – scale and medium farmers lack capital for investment in agricultural sector. According Ijere (1986) lack capital is a limiting factor to farm expansion and increased productivity. He further contended that small farmers especially, have relatively small household consumption relying heavily on traditional implements and family labour having limited access to and control over productive resources, limited income generating activities that yield low returns and poor savings which offers them little or no access to credit mostly from these formal leaders. Small – scale farmers continue almost indefinitely in their subsistence level while large scale farmers fail to carryout appreciable expansion programme due to inadequate provision of credit facilities to farmers (Idiong *et al*, 2010). In the study area, farmers are mostly operating in small – scale or medium scale and this affects productivity and income.

Research questions

This study intends to find answers or solutions to the following research questions:

(i)   What are the socio – economic characteristics of maize farmers in the study area ?

(ii)   Does the rate of interest in charged by formal credit institution affect maize farmers ability to repay loan ?

(iii)   What are inputs and output of maize produced in the study area?
(iv)   Are maize farmers allocatively efficient in maize production in the study area?
(v) What are the factors militating against the acquisition of credit from formal source of credit?

Objective of the study

The broad objective of this study is to analyze maize farmers credit beneficiaries provision of collateral and fulfillment of other preconditions lay down by the commercial banks in three agricultural zones in Cross River State, Nigeria.

The specific objectives of the study are to;

(i)   describe the socio – economic characteristics of maize farmers in the study area;
(ii)   analyze the rate of interest charged by formal credit institution and its effect on maize farmers ability to repay loan in the study area;
(iii)   analyze inputs and output of maize produced in the study area;
(iv)   determine allocative efficiency of maize farmers in the study area; and
 (iv) determine the factor militating against the acquisition of credit from formal source of credits

Significance of the study

Agricultural credit has increasingly been regarded as an important tool for raising the income of rural populations to increase in agricultural productivity.

Farmers in developing countries need credit to increase productivity and improve their income level. In addition to that, increase in agricultural productivity would enable maize farmers not to default in loan repayment. The findings of this study would serve as a guide to informal credit institutions to select group of maize farmers that qualify to obtain loan base on ability of loan repayment.

The result of the study would also enable farmers (who would intend to borrow money) to know the rate of interest charge by informal credit institutions.

Furthermore, the result of the findings would also guide scholars/ researchers and government policy makers to make new policies or adjust former policies in agricultural financing.

METHODOLOGY

Study Area: The research was conducted in Cross River State. The state occupies an area of about 22,342.176 square kilometers (Quarterly News Letter of the Ministry of Local Government Affairs, Cross River State, 2006). It is located on latitude 5° 25'N and longitude 25° 00'E. The soils of Cross River State are ultisol and alfisol but predominantly ultisol (FAO/UNESCO, 1974). There are eighteen Local Government Areas and one hundred and ninety-three communities in the state (five local government areas in Northern Senatorial Zone (Bekwarra, Yala, Ogoja, Obudu and Obanliku Local Government Areas), six local government areas in Central Senatorial Zone (Boki, Etung, Ikom, Obubra, Yakurr and Abi Local Government Areas) and seven local government areas in Southern Senatorial Zone (Calabar South, Calabar Municipal, Bakassi, Akpabuyo, Odukpani, Akamkpa and Biase Local Government Areas) (Quarterly News Letter of the Ministry of Local Government Affairs, Cross River State, 2006).

Cross River State is bordered on the North by Benue State, South by Bight of Bonny, and in the East by Ebonyi and Abia States, while in the West by Republic of Cameroon (Menakaya and Floyd, 1978). About 2,888,966 people inhabit the area, of which the Efiks, Ejaghams and Bekwarras are the major ethnic groups (Population census, 2006 in: Agbor, 2007 In: MOFINEWS, 2007).

Cross River State is endowed with much natural and human resources, being presently exploited; land, labour, forest products, oil, plantation crops, provide the state with a substantial income which ought to support a satisfactory standard of living. Unfortunately, the social indicators do not reflect the existence of a level of development that is commensurate with the state's abundant natural resources.   Cross River State has the largest rainforest covering about 7,290 square kilometers. It is described as one of Africa's largest remaining virgin forest harbouring as many as five million species of animals, insects and plants (MONFINEWS, 2004). The state is located within the evergreen rainforest zone. There are two distinct climate seasons in the area, rainy season from March to October and dry season from November to February. The annual rainfall varies from 2,942mm to 3,42mm (Cross River Agricultural Development Programme (CRADP, 1992). The average temperature is about 28^oc (CRADP, 1992). Cross River State is

characterized by presence of numerous ecological and zoo-geographically important high gradient streams, rapids and waterfalls.

Fishing and subsistence agriculture are the main occupations of the people. Crops grown in the locality include rice, maize, yam, cassava, plantain and banana. Population depends largely on natural water sources for all their water-related activities, as pipe-borne water supply is limited and grossly inadequate. Health services in the area require a lot of improvement. Level of hygiene in the communities is generally poor (Arene *et al,* 1991).

Source Of Data Collection: Both primary and secondary sources of data were used. The secondary sources of data include review of annual reports, books, census data, journals, statistical documents, whereas the primary source of data were mainly from field survey.

Sample Size and Population Of Respondents

The whole small-scale maize farmers in Cross River State Agricultural Zones constituted the study population. However, in determining the sample size, the nature of the population of the various zones was considered. So the size of the sample was taken in such a way that all the characteristics of the population were represented. The sample was drawn from the list of various zones in the population very carefully to ensure that the sample is not bias, so the sample that were drawn is a true representative of the entire population.

Sampling Techniques for Data Collection

Stratified random sampling technique was used to select the respondents. This procedure recognized the delineation of the study area into zones. The Cross River Agricultural Development Project (CRADP) divided this agricultural zone into Northern Zone (Ogoja agricultural Zone), Central Zone (Ikom agricultural Zone) and Southern Zone (Calabar agricultural Zone) of the state. There are 18 Local Government Areas in Cross River State. The agricultural zones consist of 17 blocks, 8 circles and 136 cells with 5200 contact farmers. At the first stage 10 villages were randomly chosen from each of the three agricultural zones of the state (therefore thirty villages were taken from the northern, central and southern zones). Five respondents were randomly selected from each of the selected farming villages. In all, 150 farmers (respondents) were randomly selected from a list compiled by the extension agents of Cross River Agricultural Development Programme.

Method of Data Collection

The researcher visited the villages to administer copies of the questionnaire to selected farm families as a pilot survey to pretest the instrument. Thereafter, the instrument was corrected based on the experience gained in the pilot survey. Thus, the problem of ambiguity and misperception was sufficiently dealt with and enough time was spent on the administration of interview schedule to ensure that the records are accurate. The complete interview schedules were checked for quality. In the course of doing this, 150 questionnaires were distributed to respondents in the three agricultural zones at the rate of 50, 50 and 50 to the northern, central and southern zones respectively.

Method of Data Analysis: Data for this study were subjected to different types of analytical tools. For this study, the following tools were employed in order to achieve the already stated objectives of the study:

i.   Descriptive statistics
ii.   Production Function Analysis
(i)   Descriptive statistic was employed in order to have a summary descriptive of the data collected. This involved the use of frequency distribution and simple percentages, This tool was used to achieve objectives (i),(ii) and (v) of the study
ii.   Production Function Analysis

In this study, the purpose of production function is to identify and measure how variable inputs is used to explain the variability in output. The greater the extent to which the variable inputs are able to explain the variability in outputs, the larger is the influence, which the inputs have on maize production. In the production process, inputs are converted into outputs. Therefore, the most fundamental relationship is that between the factors of production and product.

Hence, production function is defined as physical relationship between outputs and inputs used in the production of output . Therefore, the production function analysis was used to achieve objectives (iii) and (iv) of the study.

The data were fitted into various functional forms of production functions specified below:

a. Linear Production function (LPF)

b. The Cobb-Douglass Production Function (CPF)

c. Semi –Log Production Function (SPF)

The functional forms, together with others (e.g. quadratic and Square root functions) are collectively called Multiple Regressive Model. Multiple linear regression was used for an in-depth analysis of objective (iii) and (iv). Relevant data collected from field survey were fitted into the functional forms of the model and co-efficient of multiple determination (R^2) was obtained as a measure of goodness of fit. The equation with the highest R^2 value explains the variation best and was regarded as best fit . Other choice indicators are: the standard error of estimated co-efficient, significance of t-value and the adjusted (R^2) values. F-test on the other hand was used to establish the overall relation between the dependent variable and the independent variables.

Model Specification

The Model in its general form is implicitly stated as:

$Y = F (X_1, X_2, X_3, X_4 X_5 e)$

Where: Farm size (x1), Labour (x2), Maize seed (x3), Fertilizer(x4), Interest rate charge (x5), Loan size (x6)   .

RESULTS AND DISCUSSSION

Data collected from field survey were analyzed and interpreted. The findings of the study were discussed and results were related with the existing knowledge, to determine areas of divergence and agreement.

Table 1: Distribution of respondents according to gender of respondents

Gender	Total Frequency	Percentage
Male	86	57.33
Female	64	42.67
Total	150	100

Source: field survey 2017

Analysis of data in Table 1 revealed that the total number of respondents sampled for this study was 150, out of this 57.33% were males while 42.67% were females. This implies that male maize farmers outnumbered female maize farmers in the study area.

Table 2: Distribution of respondents according to marital status

Marital status	Total frequency	Percentage
Married	77	51.33%
Single	47	31.33%
Widowed	12	8.00%
Widower	6	4.00%
Divorced	8	5.33%
Total	150	100

Source: field survey, 2017

Data in table 2 revealed that 51.33% of the respondent is were married, 31.33% of them were single while 8.00%, 4.60% and 5.33% of them were widowed, widower and divorced respectively. This implies that majority of the respondent were married.
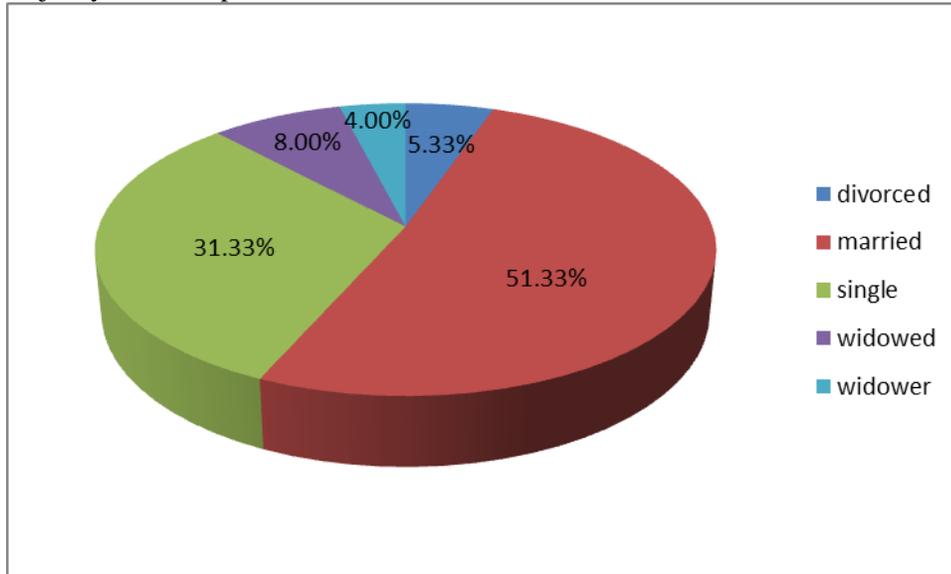

Figure 1: Pie chart showing the distribution of marital status of respondents.
Table 3: Distribution of respondent according to age

Age (years)	Total frequency	Percentage (%)
10 – 20	20	13.33
21 – 30	36	24.00
31 – 40	49	32.67
41 – 50	32	21.33
51years and above	13	8 .67
Total	150	100

Source: field survey 2017

Table 3 revealed that 32.67% of the respondent were between the ages of 31 – 40 years, 24% of them were between the ages of 21 – 30 years, 21.33% of the respondents were between the ages of 41 – 50 years, while 13.33% of them were between the ages of 10 – 20 years and 8.67% of them were between the ages of 51years and above.
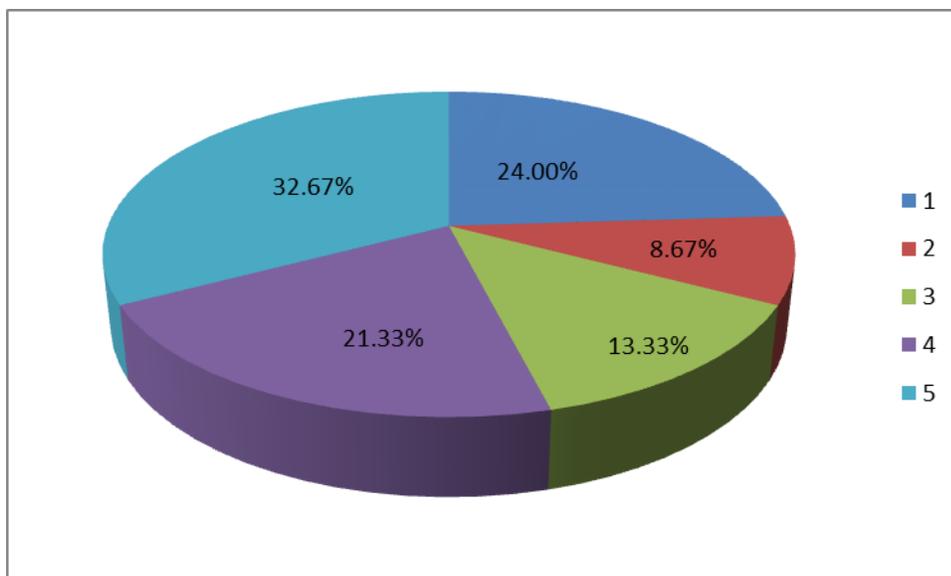
Figure 2: Pie chart showing the distribution of age of respondents in the study area.

Table 4: Distribution of respondents according to educational attainment

Educational attainment	Total frequency	Percentage
No schooling	19	12.67%
Ad	14	9.33%
FSLC	22	14.67%
JSSC	10	6.67%
SSSC	38	25.33%
OND/HND	19	12.67%
B.Agric/M.sc/PhD	28	18.66%
Total	150	100

Source: field survey, 2017

Table 4 revealed that 25.33% of the respondents have senior secondary school certificate (SSSC), 18.66% of them had Bachelor of Agriculture / Master of science degree / Doctor of philosophy. While 14.67%, 12.67%, 9.33% and 6.67% of them had first school leaving certificate (FSLC), Ordinary National Diploma (OND) Higher National Diploma (HND), adult Education certificate and Junior Secondary School Certificate (JSSC) respectively.
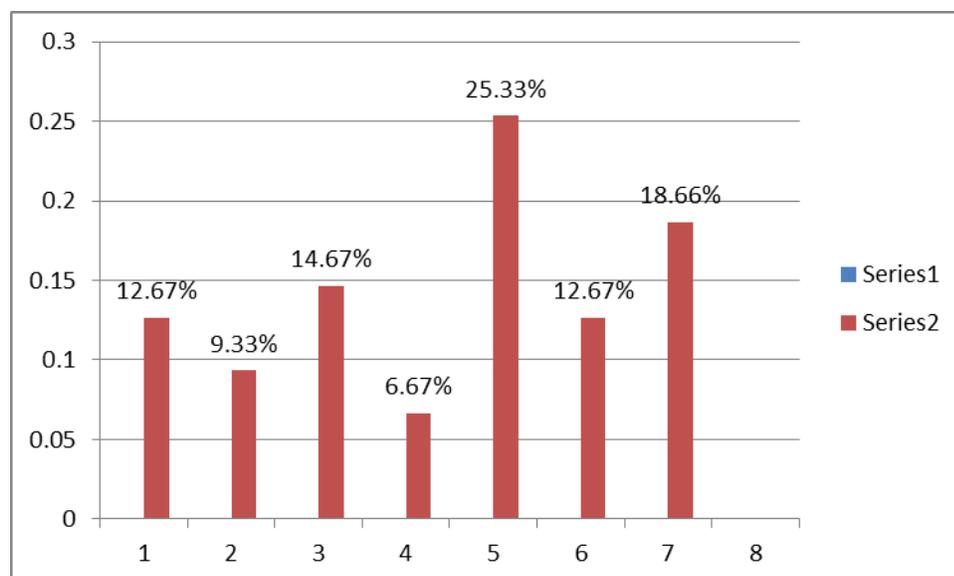
Figure iii: Bar chart showing educational attainment of respondents

Table 5: Distribution of respondent according to farming experience

Farming experience (years)	Total frequency	Percentage
Less than < 5 years	22	14.66%
5 – 10	38	25.33%
11 – 15	39	26.00%
16 – 20	33	22.00%
Above 20 years	18	12.00%
Total	150	100

Source: field survey, 2017

Table 5 above shows that 25.33% of the respondents had between 5 – 10 years of farming experience, 26% of them had between 11 – 15 years of farming experience, while 22%, 14.66% and 12% of them had farming experience of 16 – 20 years than 5 years and above 20 years. This implies that majority of maize farmers in the study were well experienced in the maize farming. The result of this findings agrees with the result of this findings of Ahmed (1996) that majority of maize farmers were well experienced in maize production.

Table 6: Distribution of respondents according to farm size

Farming size (ha)	Total frequency	Percentage
0.1 – 1	89	59.33%
1.1– 1.5	59	39.33%
1.6 ha and above	2	1.33%
Total	150	100

Source: field survey, 2017

Table 6   indicated that 59.33% of the respondent had farm maize between 0.1 – 15 hectare. Only 1.33% of the respondent had farm size of between1.6 hectare and above. The result of this finding agrees with the findings of Olayide and Atobatele (1980) who were of the opinion that 70 percent of the population of famers in Nigerian are small scale farmers cultivated 1.0 – 2 with limited capital resource and characterized by hand tool technology.
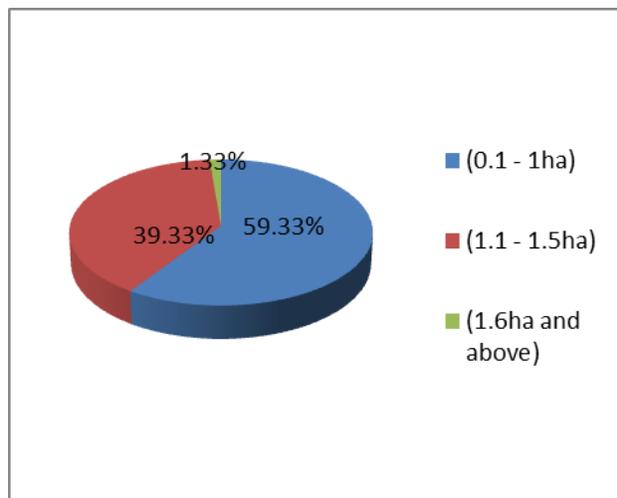

Figure iv: Pie chart showing the distribution of farm sizes in the study area.

Table 7: Distribution of respondents according to maize varieties and yield /output of maize from the farms in the study area.

Varieties of maize	Total frequency	Percentage
Improved variety	23	15.33
Local variety	127	84.67
Total	150	100

Yield of maize in tonnes		
1-2	**75**	**50.00**
3-4	**67**	**44.67**
5-6	**8**	**5.33**
Total	**150**	**100**

Source: field survey, 2017

Table 7 shows that 84.67% of the respondent used local variety of maize in their farm. While 15.33% of them used improved variety of maize as planting seeds. This implies that minority of the farmers in the study area must have had knowledge of improved variety of maize and have adopted such. Extensive agent should create more awareness to enable more farmers to adopt improved variety of maize. Further analysis of Table 7 reveals that 50% of respondents produced 1 – 2 tonnes of maize per hectare. While 44.67% of them produced 3 – 4 tonnes of maize per hectare. Only 5.33% of them produced 5 – 6 tonnes

of maize per hectare. This implies that some of the maize farmers (5%) who did not apply fertilizer planted maize on fertilized soil that fallowed for more than 8years.
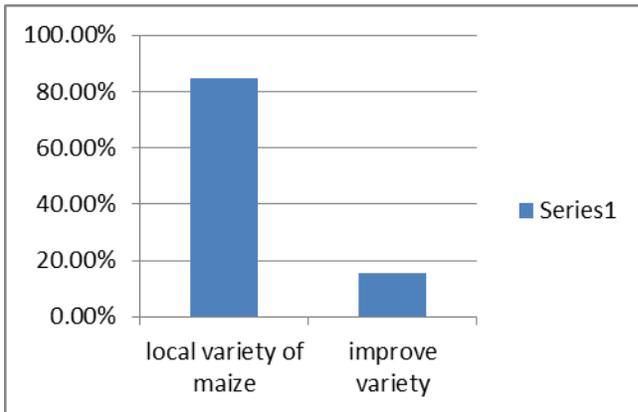

Figure V: bar chart showing the distribution of two varieties of maize used as planting seeds.

Figure vi : improved   maize seeds used planting material distributed to   contact farmers by extension agents in the study area

Table 8: Multiple Regression Analysis Result showing input and output relationship of maize production in the study area

Determinant	Linear (Coefficient)	Double-log (Coefficient)	Semi-log (Coefficient)
Constant	1654.21	126140	4136.51
Farm size(x_1)	463.61*	312.63*	845.65*
	(2.168)	(1.876)	(5.461)
Labour(x_2)	2.006**	3.009**	2.007**
	(0.018)	(-0.027)	(0.021)
Maize seed (x_3)	3.002**	3.007**	3.008**
	(0.006)	(6.089)	(0.009)
Fertilizer(x_4)	3.062*	5.095*	3.214*
	(0.051)	(2.781)	(0.127)
Interest rate charge	3.031**	4.769**	3.600**
	0.284	(6.007)	(1.007)
Loan size	5.132**	4.245**	3.312**
	(0.081)	(1.724)	(0.327)
R^2	0.081	0.065	0.057
R	0.245	0.231	0.284
Adjusted R	0.024	0.001	-0.000
F	0.198	0.431	0.310
Durbin Watson	1.76	1.831	1.537

Source: Computed from field survey data 2014
Foot Note: ** significant at 5% level, * significantly at 10% level.

Analysis of Table 9 reveals that double-log (Cob-Douglass production functional form) was selected as the lead equation because it has the highest R^2 value of 65 and met other econometric criteria (the F-value was 0.431), while Durbin Waston value of 1.831 was within the specified range of between 0 and 2 indicated positive auto-correlation), therefore double-log production functional forms is a good equation compared to linear and semi-log production functional forms. The regression analysis also revealed that farm sizes and fertilizer were significant at 10% level of probability while loan size, interest rate charge, labour and maize seeds were significant at 5% level of probability. In the double-log functional form, the coefficient of labour was negative.

Table 10: Estimated Allocative Efficiency of Resource used in Maize Production in the Study Area.

Variation	Mean	MVP = B.Y/X.py	Px	AEL = MVP / Px
Output (y)	8656.20	-	-	-
Farm size (x_1)	1.50	1036.51	20000	0.52
Labour (x_2)	250	6.75	6.70	1.01
Maize seeds (x_3)	2374	345	45	0.76
Fertilizer (x_4)	10	860.21	800	1.08

Source: Computed from field survey data, 2017.

Determination of allocative efficiency (AEL) of resources used in the study area. The allocative efficiency (AEL) of resources were determined by ratio of the marginal value product to the inputs prices of the variables was equal to the variables was equal to one. AEL = $\frac{MVP}{Px} = 1$

Table 10 shows the result of the estimated allocative efficiency of resource use in maize production in study area. The result revealed that forms size (x_1) and maize seed (x_3) were over utilized as the allocative efficiency index of these variables were found to be less than 1. While labour (x_2) and fertilizer (x_4) were under utilized as the allocative efficiency index of these variable were found to the greater than 1. The findings of the study showed that maize farmers in study area were inefficient in the use of resources in production of maize.

MVP	=	Marginal value product.
Px	=	Price of unit input.
B	=	Regression coefficient of variable used.
Y	=	Mean of output
X	=	Mean of input
Py	=	Price of unit output
AEL	=	Allocative efficiency index

Decision rule:
If AEL = 1 (maize farmers in efficient)
When AEL is > 1 = under utilization
AEL is < 1 = Over utilization.

Table 11: Distribution of respondents according to rate of interest charged by formal credit institutions

Rate of interest charge (%)	Frequency	Percentage
1-10(%)	-	-
11-20(%)	145	96.66
Total	150	100
Credit beneficiaries that provided collateral		
Yes	145	96.66
No	5	3.33
Total	150	100

Source: field survey, 2017

Table 11 revealed that majority of respondents (96.66%) collected agricultural credit and provided collateral and fulfillment of other preconditions lay down by the commercial banks before fund was released to them. This implies that commercial banks were afraid to give credit to maize farmers that did not have collateral, if credit beneficiary default in loan repayment their collateral would be sold to get money borrowed to borrower.   The findings of this study agrees with the earlier findings of Awoke, 2004; Saleem, et al (2014); Anigbogu et al (2014). Osakwe and Ojo (1986) reported that in Nigeria, large rate of loan default has been a perennial problem confronting most agricultural credit schemes organized and/or supported by different levels of government. In their study on loan repayment, Balogun and Alimi (1988), identified the major causes of loan default (non repayment) as loan shortages, delay in time of loan delivery, small farm size, high interest rate, age of farmers, poor supervision, non profitability of farm enterprises and undue government interventions with the operations of government sponsored credit programmes. According to Awoke (2004), acquisition and repayment of loan are fraught with a number of problems especially in the smallholder farming. Most of the defaults arose from poor management procedures, loan diversion and unwillingness to repay loans. Haruna(2007) reported in his study that, various researchers have put forward the benefits, problems, access, and role of credit for increased productivity. But prompt credit repayment is necessary for good credit worthiness. It is suffice to say that one thing is to obtain loan facility, and another thing is to repay the loan as at when due. According to

Awoke (2004), the ability of borrowers to repay amount of loan collected is crucial for the long term sustenance of the credit institutions.

Table 12: Distribution of respondents according to factors militating against the acquisition of credit from formal source of credits

Constraints	Frequency	Percentage
High interest rate		
Yes	145	96.66
No	5	3.33
Total	150	100
Collateral		
Yes	145	96.66
No	5	3.33
Total	150	100
Risk and uncertainty		
Yes	145	96.66
No	5	3.33
Total	150	100
Bank procedures		
Yes	145	96.66
No	5	3.33
Total	**150**	**100**

Source: field survey, 2017

Analysis of Table 12 revealed that majority of the respondents in the study area (96.66%) identified high interest rate, collateral, tedious bank procedures, risk and uncertainty as a constraints that militated against the acquisition of loans for their farming activities in the study area.

CONCLUSION

The findings of the study showed that maize farmers were inefficient in use of resources in production of maize in the study area. This study also revealed that 84.67% of the respondents used local variety of maize seed instead of using improved variety of maize seed that gave higher yield. Therefore, there is need to increase farm size, adopt new innovations and use resource efficiently to increase maize production in the study area. However, majority of the respondents in the study area (96.66%) identified high interest rate, collateral, tedious bank procedures, risk and uncertainty as a constraint that militated against the acquisition of loans for their farming activities in the study area. If problems identified are tackled maize farmers would make more profit after repayment of credit obtained from banks.

RECOMMENDATIONS

Based on the findings of the study, the following were recommended:
(i)   Government should subsidize price of agricultural inputs.
(ii)   Extension agents should organize seminar to train maize farmers on resource use efficiency..
(iii) Extension agents should create more awareness to enable more maize farmers in the study area to adopt recommended maize production technologies that used labour saving tools and increase labour productively and resource use efficiency.
(iv)   Agricultural credit should given to maize farmers on time because delayed release of fund to farmers leads to late planting of maize.

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