Factors Affecting Agricultural Loan Repayment among Beneficiaries of the Citizens Economic Empowerment Fund

A Research Report Presented to the Department of Agricultural Economics and Extension of the University of Zambia

By

SARAH KANEMA

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I dedicate this Report to my mother Astridah Chanda, and all my family for nurturing me with love and their dedicated partnership in the success of my life.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Factors Affecting Agricultural Loan Repayment among Beneficiaries of the Citizens Economic Empowerment Fund

Sarah Kanema
University of Zambia, 2012

Supervisor:
Mr. F. Maimbo

Farm credit can stimulate the transfer of technology into agriculture and hence lead to increased crop yield, hence improving the country's food sufficiency and economic development. However, most often than not farmers are faced with the problem of lack of cheap affordable credit. This study examined the factors affecting farmers in loan repayment in Lusaka district (A case study of farmers funded by the citizens' economic empowerment commission, CEEC.) CEEC is a government institution established by an Act of parliament, Act No. 9 of 2006.

The main objective of the commission is to empower the citizens of Zambia who have been marginalized or disadvantaged; one of the ways of achieving this goal has been through providing access to funds. A random sample of 30 farmers funded by CEEC from Lusaka district was used for the study. A well structured questionnaire was the main tool for data collection, while descriptive statistics and Probit model were the main analytical techniques. Empirical results from the Probit analysis found the level of Education, Disbursement period and years of Farming Experience at 95 % confidence level as significant predictors of farm loan repayment, with P values of $0.02, 0.000, 0.000$ respectively which are all less than 0.05, hence significant. Level of education and farming experience were positively significant while disbursement period was found to be negatively significant. Most borrowers were females and were less than fifty years of age; this can be attributed to the fact that the Commission targets the women and the youth in its Empowerment Programmes.

The study recommends that the application procedure should be revised to a simpler straight forward and friendlier procedure especially to those of low literacy levels to encourage their participation. Technical specialists should be employed in project appraisal and monitoring in order to assist farmers to engage in more profitable ventures. A special repayment schedule should be established for the sector as it is unlike the sectors with business all year round. Therefore, policy aimed to accelerate agricultural development in the area could be successful if these factors and problems are taken into consideration to improve participation in agricultural credit from CEEC and indeed other finance institutions.

CHAPTER ONE
INTRODUCTION

1.1 Introduction

Agriculture has always played a pivotal role in the history of Zambian economic development; providing food security, employment, foreign exchange earnings and poverty reductions. Despite the enormous contribution of agriculture to the Zambian economy it does have its challenges and one of the major challenges is the lack of credit. Agricultural credit has been for a long time been identified as a major contribution in the development of the Agricultural sector. In fact, the lack of adequate, accessible, and affordable credit is among major factors responsible for the systemic decline in the contribution of agriculture to Zambian development. It has been shown that farm level credit if well applied, encourages capital formation and diversified agriculture, increases resource production, size of farm operations, innovations in farming, marketing efficiency, value addition and net farm incomes.

According to Rahji (2000) credit or loanable fund (capital) is viewed as more than just another resource such as labour land, equipment and raw materials. Shepherd (1979) opined that from its ability to energize or motivate credit determines access to all of the resources on which farmers depend. Credit can be considered from its ability to energize or motivate other factors of production. It can make the latent potential or underused capacities functional. In such situation, credit acts as a catalyst or elixir that activates the engine of growth, enables it to mobilize its inherent potentials and to advance in the planned expected direction. It has therefore been argued that every segment of agricultural production requires the availability of adequate capital since capital determines access to all other resources on which farmers depend.

In spite of the importance of credit in Agricultural production, its acquisition, management and repayment are replete with a number of problems. In the year 1987, two government institutions; the Agriculture Finance Company and the Zambian Agriculture Development Bank were merged to create the Lima Bank (brownbridge, 1996b). Its main purpose was to provide small scale farmers with loans for the purchase of inputs as well as act as a buying agent for Agriculture

produce from farmers thereby providing a ready market. The absence of an efficient collection system, low recovery rates and erratic funding by the Government resulted in the bank's poor performance. Although it obtained cheap funds from the Ministry of Finance, it was forced to lend at rates which were too low to sustain its operations and was eventually liquidated (Maimbo, 2000). It has hence been reported that high rate of default arising from poor management procedures, loan diversion and unwillingness to repay loans has been threatening the sustainability of most public agricultural credit schemes in Zambia.

Therefore there is the need to critically assess the factors affecting loan repayments. A detailed understanding of these factors may provide necessary information towards designing a more effective and sustainable credit system that can serve resource poor farmers better.

1.2 Background

Zambia like many African nations is characterized by high rates of unemployment, income inequality and poverty. In terms of distribution of income (CSO Survey May Edition, 2008), the survey revealed that the bottom 80% of the population in terms of earnings were reported to have acquired only 31.3% of the total income, while the top 20% of the population claimed 68.67 percent of the total income. This shows that income is very unevenly distributed in Zambia. Economically, the conceptual thinking is that economic growth could be unsustainable in the long term without policies/ measures put in place that reduces the divide between the members of society.

In the 1990s, the government implemented the privatization programme which meant to transfer the majority of state assets to Zambian citizens. All these programmes which meant to empower citizens didn't attain the Governments intended results due to various factors. In order to ensure equity, ownership and control of the means of production and redress these imbalances in the economy mainly driven by unsatisfactory performance of past empowerment programmes an economic empowerment policy was developed. The Zambian government decided to form the Citizens Economic Empowerment Commission (CEEC). The Citizens Economic Empowerment

Commission was established in the year 2006 as an Act of parliament, Act No.9 of 2006 .The functions of the commission are; to promote the empowerment of citizens that are or have been marginalized or disadvantaged and whose access to economic resources and development capacity has been constrained due to various factors including race, sex, educational background, status and disability, CEEC aims at transforming Zambia into a nation where citizens are playing a key role in the economic activities with greater participation of targeted citizens, citizen influenced companies, citizens empowered companies and citizen owned companies.

In order to articulate the mandate of the CEEC, the empowerment programme is anchored by nine pillars of empowerment which are prime intervention areas intended for empowerment delivery. The pillars are not only tools for transformation but are also the expected outcomes.

The nine pillars of empowerment are:-

Equity / ownership, management and control of companies.

Preferential procurement. At least 50% of government and private sector expenditure should go to empowered companies and that at least 30% of the supplier companies be controlled by targeted citizens who are women, youth, disabled and people living with HIV/AIDS.

Skills development. Improve education and enhance ability to adapt modern business practice.

Access to finance. Establish the citizens economic empowerment fund (CEEF) special purpose vehicle to finance CEE projects for would be beneficiaries.

Transformation of society. To provide supportive culture, entrepreneurship for sustainable CEE.

Corporate and social responsibility. Encourage companies and communities to partner and uplift communities.

Good political and corporate governance. Creation of predictable legislation and regulatory framework for transparency and accountability.

Greenfield investment. Promote investments and partnerships between local and foreign investors.

Foreign direct investment. Encourage a foreign and local partnership approach to achieving citizens' economic empowerment.

From the above pillars of the commission, the study will focus on pillar 4 which is the Access to Finance; this basically the pillar that provides financial assistance to various institutions and individuals, this group is inclusive of farmers in the Agriculture Sector which is the target group under this study.

The government continues to maintain liberalized economic policies which have resulted in the country achieving GDP growth of 5% in recent years. The major contributor towards the GDP continues to be the mining sector. Other sectors of the economy such as construction, agriculture and trading are yet to take a leading role. Therefore Government felt the need to take deliberate measures to stimulate development of economic activities in rural areas through the empowerment programme.

1.3 Problem Statement

Agriculture lending involves giving out of credit (in cash and kind) to farmers for the purpose of farming. There is no doubt about the importance of credit in agricultural development. It has been noted that the lack of adequate accessible and affordable credit is one of the hindrances to the success of the Agriculture Sector. Every segment of Agricultural production requires the availability of adequate capital as capital determines access to all other resources. Subsistence farming is characterized by low production, poor access to land, poor access to inputs, infrastructure, information and most importantly poor access to credit for production requisites. Availability of adequate, affordable and timely credit will help in expanding the scope of operation and adoption of new technology as well as enhancing the purchase and use of some improved inputs which are not available on the farm.

Zambian farmers have however been faced with a lot of challenges in terms of accessing affordable credit. It remains as one of their major problem affecting their production capacity and level. Most financial institutions are characterized by high unfavorable interest rates which make borrowing for farmers costly and most farmers don't meet the collateral requirements set by the financial institutions making the loans not easily accessible. Farmers with lack of

4

collateral in terms of land and other assets will normally prefer to access credit through informal lenders who normally charge higher interests and thus relatively lower profits to borrowers. Most borrowers choose informal financial services because of easy access, variable loan sizes, flexible repayment schedule, personal guarantees, convenience and very short period needed to obtain loan approval.

Citizens Economic Empowerment Commission (CEEC) in its quest to empowerment to empower citizens has made a provision for citizens to access funds. They came up with the Citizens Economic Empowerment Fund (CEEF). CEEF was established under the CEE Act to support the development of broad based economic empowerment programmes. The funds disbursed are at a cost but the interest charged is at a lower rate than the market rate and charged between the Inflationary and Treasury bill rate. The funds are accessible by anyone and the commission has funded a total of 1334 projects from all sectors. The Agriculture is the highest funded, seconded by the trading sector.

The commission from inception to date has funded a total of 433 Agricultural projects amounting to ZMK 44,035,140,669.51 which is approximately 20% of the total disbursed funds. In spite of the importance of loans in the Agriculture production, its acquisition and repayment are fraught with a number of problems. It has been reported that large rate of default has been a perennial problem in most Agricultural credit schemes as was observed with the Lima Bank of the 90s.

A number of factors have been outlined in various studies carried out mostly in Ghana and Nigeria as what could be the causes of loan defaults but then there is no certainty on whether these are the same factors affecting loan repayment among farmers in Zambia.

This study is thus justified as understanding factors affecting farmers in loan repayment will provide insight for financial institutions on how best to cater for Agricultural projects and prevent defaults in Zambia. It will also provide basis for policy maker in developing appropriate policy mix which will ensure prompt payment by farmers while achieving the intended purpose of increased Agricultural production.

1.4 Objectives

1.4.1 General Objective

The overall objective of the study is to find out the factors affecting farmers in loan repayments in Lusaka District.

1.4.2 Specific Objectives

1. To assess whether the number of days between loan application and disbursement has an effect on the repayments
2. To determine if years of experience in farming has an effect on repayments
3. To assess if trainings of farmers on efficient management of loans has an effect on repayments

1.4 Rationale

Governments and donors have come to the realization that credit is a cost-effective weapon to fight poverty and it serves as a catalyst in the overall development of socio-economic conditions of the poor who have been kept outside the banking orbit on the grounds that they are poor and hence not bankable. However, it has been recognized by development agencies that if financial resources can be made available to poor people on terms and conditions that are appropriate and reasonable, poverty may be reduced considerably. Credit is one of the components of financial services considered fundamental in all production units. There has been a general awareness of the significance of credit as a tool for agricultural development. There has been a growing interest recently in understanding the impact of financial structure on production as well as on the efficiency of production.

According to development professionals, the lack of access to credit by poor rural households has negative consequences for agricultural productivity, income generation and household welfare. The role of credit cannot be overemphasized. Without credit accessibility, it will be

impossible to purchase the inputs needed for production let alone maximizing output from given resources or minimizing the resources required for producing a given level of output. Credit market literature distinguishes between access to credit and participation in credit markets. A farm household has access to credit from a particular source if it is able and entitled to borrow from that source, whereas it participates in the credit market if it actually borrows from that source of credit.

Farmers however face credit constraint, this basically the gap between the demand and supply of credit. Most farmers are poor and lack savings and investment culture; this makes it difficult for them to access funds as financial institutions feel farmers are likely to default. In most developing countries, agriculture is associated with low yield and price uncertainty. Argument is that banks/financial institutions need extra effort to recover loans from farmers and that many farmers have developed a habit of delaying payments or avoiding it altogether.

CEEC being a government organization is faced with the challenge of low repayments as most borrowers expect government to bail them out in the event of a default. The Agriculture sector is unlike the other sectors like construction or manufacturing where trading is all year round, the Agriculture sector is mostly seasonal; it's affected by climatic factors, it is highly risky as outcome is uncertain. This makes lending to this sector difficult. It has been reported that high rate of default arising from poor management procedures, loan diversion and unwillingness to repay loans has been threatening the sustainability of most public agricultural credit initiatives. This study is important as a detailed understanding of these factors may provide necessary information towards designing a more effective and sustainable credit system. Agriculture is the very backbone of Zambia as it ensures food security which is prime among government goals, and to achieve food security and food self sufficiency the sector requires credit. Therefore financial institutions just need to find the best way possible of minimizing loan defaults by farmers. Thus a study such as this one is very important to that end.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This section reviews relevant literature on definitions of key terms and will also give existing empirical evidence on factors affecting farmers in loan repayments. It will basically give what studies have been done so far.

2.2 Definitions of Key Terms

Economic Empowerment is about enhancing an individual or a group's capacity to make choices and transform those choices in to desired outcomes. The citizen's economic empowerment Act No.9 2006 defines citizens' economic empowerment as "An integrated broad based and multifaceted strategy aimed at substantially increasing the meaningful participation of targeted citizens and companies in order to decrease income inequalities"

"State institution" includes a ministry or department of the government, a public office or agency or institution, statutory body or company in which the Government has a controlling interest, a local government authority, a commission or body established under the constitution. "Targeted citizen" means a citizen who is or has been marginalized or disadvantaged and whose access to economic resources and development capacity has been constrained due to various factors including race, sex, educational background, status and desirability.

2.3 Known Findings

Abundant literature exists on loan repayments and credit worthiness of farmers. For instance, Khan (1991) in his study in Comilla Cooperation model in Bangladesh concluded that the extent of indebtedness, inadequate supervision from credit officers, improper utilization of loan were the factors causing repayment defaults. Bottomley(1993) and Nwamu(2004) discarried that there is a positive relationship between borrowers net income and loan repayment.

J .A. Afolobi carried out a study to analyze loan repayment among small scale farmers in South Western Nigeria. A discriminant approach was used. It specifically identified the socio-economic characteristics that discriminate between loan defaulters and non defaulters. A multistage sampling technique was used to select the respondents and structured questionnaire administered on them. A linear discriminant function considering the socio-economic characteristics postulated for the loan defaulters and non defaulters showed that six variables i.e age of farmers, gross farm income non farm income, net farm income, interest rate charged and farming experience were significant in discriminating between defaulters and non defaulters. The mean value (Z1) for non defaulters was 0.26276458 while the mean value (Z2) for defaulters was 0.35384001. The critical mean value (Z) for both groups was 0.3083029 and has the same variability for the two groups. This means if the value for any farmer is higher than Z (i.e 0.3083029), that farmer probably belongs to the group of defaulters. On the other hand, if the Z value is lower than Z (i.e 0.3083029) such a farmer probably belongs to the group of non-defaulters .According to Afolabi (2002) institutionalized sources of credit are not willing to extend loan to small scale farmers which may be due to low level of loan repayment among the small scale farmers as a result of small size holdings and hence gross income .He said that gross income, net farm income and non farm income had positive correlation with loan repayment.

Balogun and Alimi (1988) identified the major causes of loan default 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 intervention with the operations of government sponsored credit programmes while Akinwumi and Ajayi (1990) found out that farm

9

size, family size, scale of operation, family living expenses and exposure to sound management techniques were some of the factors that can influence the repayment capacity of farmers. This study however was aimed at examining the economic factors that can discriminate between loan defaulters and non defaulters. In our case we want to find out what factors affect farmers in loan repayment.

Idris Olabode Badiru carried out a similar study in Nigeria. This study basically reviewed existing knowledge on small-scale farmers' access to credit with particular focus on conditions for accessing credit, the maximum credit provided, repayment of credit, other factors limiting access, and the impact of credit on small-scale farmers. His findings were that the ratio of rural branches to total branches of formal credit institutions is low compared to informal and semiformal institutions and this constitutes a limitation of small-scale farmers' credit access in Nigeria.

2.4 Common Methods of Loan Repayment Analysis

Turkey (1991) in his research reviewed four alternative credit scoring Models for Agriculture loans, namely the Linear Probability Model, Discriminant Analysis, Logit and Probit Models. The Economic Models were based on 9,403 loan application from Canada's Farm credit Corporation. Results indicated that there was not a great deal of difference in underlying assumptions and statistical properties. The predictive accuracies of the four models were as follows. Discriminant Analysis 71.5%, Logit 69.7%, Probit 64.4% and linear probability Model 67.1%. In this study a Probit analysis was used to analyze the data collected.

10

CHAPTER THREE
METHODS AND PROCEDURES

3.1 Introduction

This section describes the methods and procedures that were used to achieve stated objectives. The section also describes the study area, sample used and the method of collecting and analyzing data.

3.2 Study Sites

This study was been done under the Citizens Economic Empowerment Commission (CEEC). The commission has funded various Agricultural projects all over the country. Therefore sampling frame comprised all the funded Agricultural farmers by the commission in Lusaka district, from which a sample was randomly selected. This was so as to ensure that a representative sample of the population is selected which so as to ensure that results of the study can be generalized to the population.

3.3 Sample Size

CEEC had funded a total of **44** farmers in Lusaka province hence the research only focused on a sample of **30** Agricultural farmers.

3.4 Data Collection and Analysis

The research will made use of both primary and secondary data. Primary data was collected through personal interviews using structured questionnaires which were carefully developed around the overall objectives of the survey. Secondary data was collected from the commission. The Commission carry out routine Monitoring and Evaluation visits, hence were able to provide secondary data required for the study.

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The *Probit model* was specified as follows:

$Pr(Y=1|X=x) = \Phi(x'\beta)$

Where:

β is a parameter to be estimated, and

Φ is the normal cumulative distribution function (CDF).

The dummy variable of involvement in the probit model is, Yi.

Y, can be represented by the equation;

$$Y_i^* = x'\beta + \varepsilon$$

Where;

ε is $N(0, \delta)$

$$Yi = 1(Y^* > 0) = \begin{cases} 1 & if\ Yi^* > 0 \\ 0 & otherwise \end{cases}$$

$i = 1, 2, 3, 4, 5\ldots$ n denoting the sample size to be surveyed.

Yi is the dependent binary or dichotomous variable which can take on two values representing involvement (Y=1) and non involvement (Y=0) of smallholder farmers in financial agricultural credit.

β is the set of parameters to be estimated which reflect the impact of changes in x on the probability.

X_i is a vector of independent variables that affects the possibility of a farmer getting involved in financial agricultural credit and

u is the independent normally distributed error term assumed to be normal with zero mean and constant variance. The independent variables to be studied are as outlined below;

Where Y is the independent variable, X's are the K-1 explanatory variable and Ui is error term.

In our case it is was as follows

$Y = \alpha + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + b6X6 + ei$

Where

Y = Age (years)

$X1$ = Gender (Male=1, Female=0)

$X2$ = Education

$X3$ = Farming experience (Years)

$X4$ = Loan delay (number of days between loan application and disbursement)

$X5$ = Training in loan management and repayment

ei = Error term

The data from questionnaires was analyzed using the Statistical Program for Social Sciences (SPSS) to generate tables, and bar charts. Estimates of the parameters β was estimated by Probit model that was run using STATA.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents and discusses the study findings. It begins with a presentation and discussion of the background information on the farmers, followed by the results from Probit analysis

4.2 Background Information on Farmers

4.2.1 Gender Distribution

CEEC funded both male and female and from our sample, according to figure 1, it was discovered that, 63.3% were female while 36. 67% of the farmers were male. It was evident that the majority of farmers who were funded were female famers. This distribution can be explained by the fact that the commission has target groups, these are basically the individuals that have been marginalized and are disadvantaged, these are youths, people living with HIV/ AIDS as well women, and this therefore explains the above results as the women are given priority in loan acquisition. This is so as to empower the women who in our societies have been marginalized.

Figure 1: Gender Distribution of Farmers Funded by CEEC
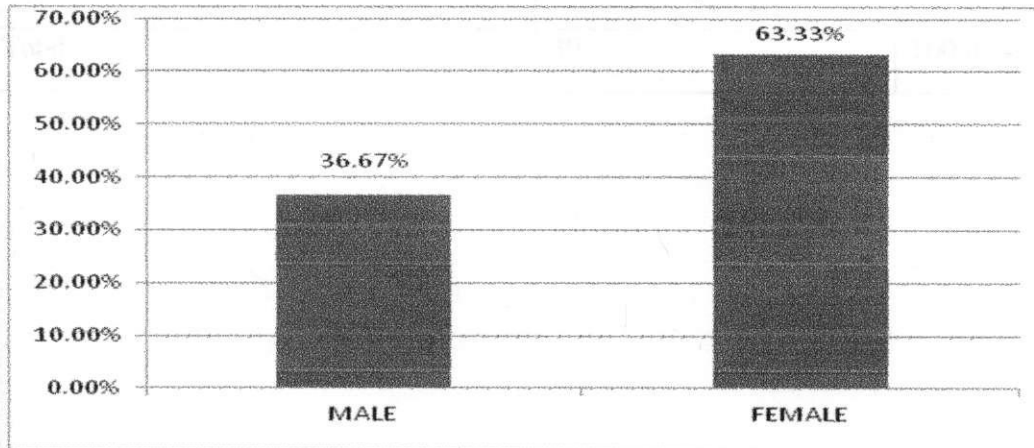
4.2.2 Distribution of Farmers by Scale of Operation

According to Table 1, the majority of famers that were funded by CEEC were small scale farmers standing at 76.7% while 23% were large scale farmers. It was concluded that, the majority of farmers funded were therefore small scale farmers. The main objective of the institution is to empower the citizens of this country, and one of the ways has been the provision of credit to citizens at affordable rates, these are the citizens who under the formal lending and banking institutions are characterized as unbankable. Mostly because the lending rates charged by the privates sector lending institutions are too high for the disadvantaged majority of the population. It can thus be argued that between a large scale and a small scale farmer, a large scale farmer is likely to be given a loan than a small scale farmer. This may be due to the fact that large scale farmers have a higher repayment capacity emanating from their large scale of operations unlike the small scaled farmers. The institution has therefore targeted to fund more small scale farmers as can be seen from the table below.

Table 1: Distribution of Farmers by scale of Operation

Type of Farmer	Number	Percent
large scale	7	23.3
small scale	23	76.7
Total	30	100.0

4.2.3 Age Distribution of Farmers

The majority of the farmers (30%) had ages between 30 and 39 years. About 26.7% constituted those that were between 40 and 49 years while 16.7 % were between 21 and 29 years. Further, 16.7% constituted those that were between 50 and 59 while 10% were between 60 and 69 years respectively. In conclusion the most funded were ranging from the ages 30-49 these fall in the group of youths that are among the groups targeted by the commission to empower. The majority of the Zambian population are the youths and they also the least employed therefore they are targeted by the commission so as to empower them.

Table 2: Distribution of Farmers by Age

Age Category	Number	Percent
21-29	5	16.7
30- 39	9	30.0
40-49	8	26.7
50-59	5	16.7
60-69	3	10.0
Total	30	100.0

4.3 Findings on Factors affecting farmers in Loan Repayments

4.3.1 Effect of Disbursement Period on Loan Repayment

The first specific objective was to assess whether the number of days between loan application and disbursement has an effect on the repayments. Out of the 44 farmers, 30 were asked by the researcher to indicate how long it took for them to get a long from CEEC. This information was to help the researcher to understand how long it takes for farmers to get a loan after application. According to table 4.3, 30% of the farmers got the loans within the period of 2 months, 33.3 % of the farmers got the loans after a period of 4 months and 63.7 % of the farmers got the loans after a period of 5 months or more. Therefore the majority of the farmers were funded late as the standard time for loan disbursement is 2 months.

Figure 2: How long did it take you to get a Loan from CEEC
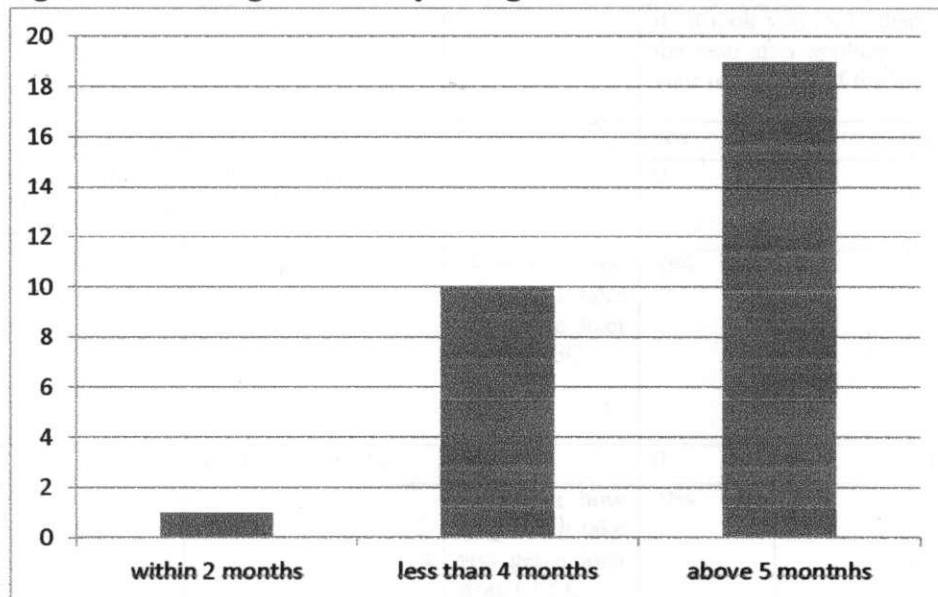
To find out if the late disbursement of loans by CEEC had an effect on the loan repayments, farmers were asked to indicate whether the fact that they got the loans late affected their ability and capacity to pay back   A cross tabulation between **two** variables was done, that is the late disbursement (which in our case was the period of 5 months or more) and loan repayment. Table 3 shows the results of the cross tabulation.

Table 3: Association between Disbursement Period and Loan Repayment

			if it took you more than 5 months to get the loan after application, did this affect your repayment of the loan			Total
			yes	No	not applicable	
how long did it take you get a loan from CEEC	within 2 month		0	0	1	1
		% within how long did it take you get a loan from CEEC	.0%	.0%	100.0%	100.0%
	less than 4 months		0	0	10	10
		% within how long did it take you get a loan from CEEC	.0%	.0%	100.0%	100.0%
	above 5 months		14	5	0	19
		% within how long did it take you get a loan from CEEC	73.7%	26.3%	.0%	100.0%
Total			14	5	11	30
		% within how long did it take you get a loan from CEEC	46.7%	16.7%	36.7%	100.0%

χ^2 = 30.000, df = 4, P-value= 0.001

According to table 4.3, the cross tabulation was only for the farmers who got their loans after 5 months. It was noted that of the 14 farmers who got their loans after 5 months, 73.7% of them indicated that the late disbursement affected their ability and capacity to pay back the loans. Moreover 5 farmers (26.3) felt that the late disbursement had no effect on their repayment of the loan. The farmers who were funded late argued that by the time they were getting the loans they

18

had already incurred debt and derailed their plans. Most farmers argued that late disbursement was a major contributor to funds being diverted into other things which were not initially part of the plan when they applied for the loan. Therefore farmers feel that if they get the loans on time to will help them stay on schedule with repayments.

4.4.2: Effect of Trainings of Farmers in Loan Management on Repayments

CEEC has made a provision for its clients to provide trainings in loan management and repayment. The researcher wanted to find out whether this initiative of trainings by the commission had any effect on the ability and capacity of the farmer to repay back their loans. In order to find out the effect of this programme, farmers were asked to state whether they attended these trainings or not. Figure 3   shows the distribution of the various responses given by the farmers.

From figure 3 below, the majority of the farmers (80%) attended training in loan management and repayment, while 20% did not attend any training.

Figure3: Training Attendance
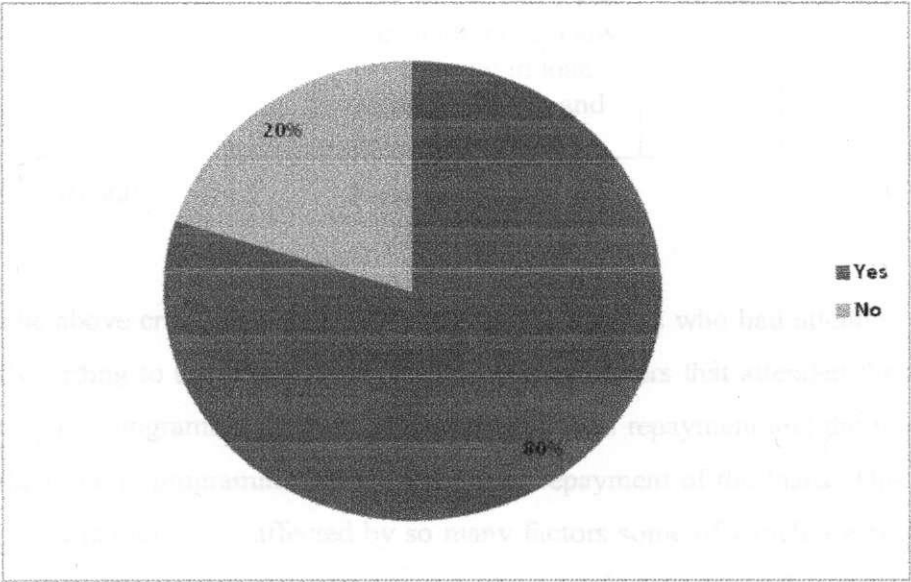
farming for 5-10 yrs said that they had problems paying back the loan, while 75% said that they did not have problems paying the loan back.10% of those who have been in farming for more than 10 yrs said that they had problems paying back the loan, while 90.0% said that they did not have problems paying the loan back.

It can be seen however from the table that as the number of year's increases, farmers find it easier to repay back the loan. For example from the table, only 10% of those who have been in farming for more than 10 years had problems paying back the loan while for the startups majority of them 85.7% had problems paying back the loans.

These findings can be explained by the fact that starting up a business is costly and may not do so well in the first years some businesses may even incur losses in the first years. Farmers with a longer farming experience on the other hand usually borrow for specific activities such as to acquire machinery or to expand therefore they are in a better position to pay back the loan. A farmer with farming experience is better placed to manage the crops they grow better and therefore produce enough to sell and repay their credit.

4.4.4 Probit Analysis Results

The Table below shows the results after running the Probit Model with confidence level of 95% Level of Education, Farming Experience and Disbursement Period were found significant at 0.05.

Table 5: Results after Probit Analysis

Variables	dy/dx	Std. Error	P>|z|
Constant	.0698694	.21456	0.745
Gender	.3093114	.17207	0.072
Level of Education	.3960187	.1702	0.020
Farming Experience	.3313538	.12176	0.007
Disbursement Period	-.992481	.01274	0.000
Training	-.1018912	.23601	0.666

(*) dy/dx is for discrete change of dummy variable from 0 to 1

4.4.5 Interpretation

Coefficient on level of education is positive meaning that education levels have a positive influence on loan repayment. Meaning farmers who are educated are in a better position to pay back loans. The positive relationship implies that the higher the level of education the higher the chances of paying back loans.

The coefficient on the disbursement period is negative, implying that the longer it takes for the farmer to get the loan the higher the chances of defaulting. But if it takes a short period of time to get the loan, it's less likely that the farmer will default. This is was argued on the basis that if the farmer gets the loan very late the higher chances of him diverting the funds, most of the respondents that got their loans late argued that by the time they finally got their loans they had accumulated a lot of debt and the funds acquired went straight into settling these debts. In the event that funds are diverted into activities that were not planned for, chances of failing to pay back become high.

Coefficient on the experience of farming is positive, implying that the more the years of farming the higher the chances of repaying the loan. The lower the experience of the farmer the more likely it is for the farmer to default. Farmers that borrow for startup businesses, that is borrowing money as capital to set up a business may encounter problems paying back the loan. This is because there are a lot of things involved in setting up a business, most of the money goes into setting up a business and returns in the first years may not be able to pay back the loans, some farmers may even incur losses in the first years of starting the business. On the other hand farmers who have been farming or a longer period of time may not necessarily be faced with the same constraints faced by startup businesses. They hence may find it easier to repay back loans as they have experience and they tend to borrow for specific activities therefore funds are not spread over numerous activities. These farmers are already established and may even have borrowing experience as it has been evidenced from the agriculture sector that it's difficult to finance farming businesses single handedly, as such most tend to borrow funds to manage their business. Therefore experience may positively affect loan repayments.

Coefficient on training of farmers is negative, implying that there is a negative relationship between training farmers and loan repayments. However most farmers argued that this training has minimal effect on how they repay back loans, as they are faced with various challenges some of which they can't control. So even though they are equipped with loan management skills some still default. This variable was found not be statically significant at 95% confidence level. Therefore it can be concluded that training farmers is not a guarantee that they will pay back the loans.

CHAPTER FIVE
CONCLUSION AND RECOMMANDATIONS

5.1 Introduction

This chapter presents the conclusion and recommendations of the study based on the findings and interpretations of the study.

5.2 Conclusion

It is a known fact that availability of credit is tantamount to the prosperity of the Agriculture Sector, thereby ensuring food security and self sufficiency of the country as a whole. The sector has however been faced with a number of problems with the lack of cheap affordable sources of credit at the top of the list, this is because most lending institutions feel that lending to the Agriculture Sector is a dead end.

This study was designed to determine the factors affecting farmers in loan repayments. Regression analysis was employed to analyze and discuss the findings of the research. The factors studied included Education level, gender, farming scale, training in loan management, disbursement period, farming experience. The factors which were identified as being statistically significant (with the Regression model) were gender, farming experience, and period of disbursement. The significance of each of these variables was discussed to reveal their effect on loan management.

The results of the analysis in terms of factors affecting farmers in loan repayment show that, there is a negative relationship between a loan being repaid and how long it takes to disburse the loan, meaning that the longer it takes to disburse a loan the higher the chances of a farmer defaulting, it was also deduced that training in loan management may not necessarily assure loan repayment this is because of the nature of Agriculture, there are various factors that are non avoidable like climatic conditions, market structure that may affect outcome, ultimately resulting in defaults. The farmers experience however in farming was found to have a positive influence

on the loan repayment. Farmers who have been in the business for a longer period may find it easier to repay back loans.

5.3 Recommendations

The initiative by the government to empower the Zambian citizen through the establishment of the Citizens Economic Empowerment Commission should be commended, in line of the agriculture sector, availability of credit is very important, therefore farmers should be encouraged to take advantage of the services provided by the institution, the institution should be well advertised so that we can have more farmer participation as they are offering credit at a cheap affordable rate compared to other lending institutions.

The general complaint in terms of application has been that there are various tedious procedures, the filling of paper work which should be revised to a simpler straight forward procedure; the disbursement period takes too long. Period of desk appraisal should be summarized so as to quicken the process of getting the loan. Even though the lending rate has been characterized as cheap and affordable, most farmers feel that the sector should have a lower rate as compared to other sectors, the argument is that Agriculture returns range around 5- 7% per annum, and if you have interest rates of 12% you are mostly working for repaying the loan.

Commission should be decentralized to various areas to increase availability and access to all members of the public. Farmers feel that the commission is corrupt in the allocation of funds and therefore are advocating for more transparency in the commission so that they benefits of the institution are spread out across all individuals.

The commission should employ more technical specialists in project appraisal as well as project monitors so as to assist farmers to engage in ventures that are profitable. The guidance and supervision of these technical specialists will be beneficial for both the commission and farmers as the farmers will be able to pay back the loans from their profitable ventures.

The nature of the sector calls for a special repayment schedule as compared to other sectors. This is because most agriculture activities are seasonal unlike the other sectors where business is all year round. Therefore there schedule of repayment should be scheduled in such a manner that it coincides with that particular farmers business calendars.

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APPENDIX I: QUESTIONNAIRE

Questionnaire serial number:

☐

Factors affecting Agricultural Loan Repayment among Beneficiaries of the Citizens Economic Empowerment Fund

Department of Agricultural Economics and Extension Studies

The University of Zambia - Lusaka

This questionnaire is for academic purpose only. Be rest assured that all the information you provide will be treated as private and confidential as possible. Feel free to answer all the questions honestly. Your cooperation in this regard will be highly appreciated.

Instructions: Please tick in the boxes provided and write in the blank spaces provided.

SECTION A: Background Information on Farmers

1) Gender 1 ☐ F 2 ☐ M

2) Level of education ☐ 1 no education ☐ 2 primary ☐ 3 secondary ☐ 4 tertiary

3) Marital status ☐ single ☐ married ☐ divorced ☐ widow

4) Age ☐

5) Type of farmer ☐ large scale ☐ small scale ☐

6) Level of Income per agriculture season ☐

7) Size of the farm in hectares ☐

Section B

8) How long have you been in farming(years)
   Start up (0-4 yrs) ☐ 5-10 yrs ☐ above 5 yrs ☐

9) How do you finance your farming
   Own savings ☐ credit ☐ both ☐

10) How long did you take you to the get the loan from CEEC (in months)

   2 months ☐ less than 4 months ☐ 7months and greater ☐

11) Do you think CEEC loans are accessible ☐ ☐

12) If No, give reasons why?

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13) Did you face any problem when getting/accessing the CEEC loan? yes ☐ no ☐

14) If yes, what problems did you face

....

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15) Have you ever gotten a loan from any other organization apart from CEEC

   Yes ☐ No ☐

16) If yes, how are accessible are the loans from other organization compared to CEEC loans.

Easy ☐   Fair ☐   Difficult ☐

17) Do you think that fact that you have gotten loans before makes management and repayment easier?

Yes ☐   No ☐

18) If yes, give reasons..

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19) Have you paid back the loan?

Yes ☐   No ☐

20) If No, are you on schedule with the loan repayment

Yes ☐   No ☐

21) Do you face problems paying back the loan you got from CEEC?

Yes ☐   No ☐

22) If yes, what are these problems you face

....

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....

23) Have you ever attended any training in loan management and repayment?

Yes ☐   No ☐

24) If yes, has the trainings improved your management and repayment of the loan?

Yes ☐   No ☐

25) How much did you borrow from CEEC? ....

26) What is the repayment period for the loan you acquired? ....

27) For what type of enterprise did you borrow the funds for? ....

28) Did you use the borrowed money for its intended purpose?
Yes ☐   No ☐

29) If not, give reasons...
....
....
....
....

30) Are you happy with interest rate charges?

Yes ☐   No ☐

31)   Do you think the loan was enough to cover the requirements?

Yes ☐   No ☐

32)   Do you face problems paying back the loan you got from the commission?

Yes ☐   No ☐

33)   If yes, what are these problems you face?
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34) What recommendations can you make to improve the
program...
....