Loan Repayment and Sustainability of Government Funded Micro-Credit Initiatives in Murang'a County, Kenya

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Abstract

In the attempt to alleviate poverty and empower the poor, many non-governmental organizations and Government line agencies have been providing credit money and social services to rural dwellers in Kenya. The role of these credit schemes is to help the rural poor, to earn a decent living, through their on-going income-generating activities. The government of Kenya overtime has formulated a series of rural development programmes to counter the problem. The most notable and current, is Youth Enterprise Development Fund and the Women Enterprise Fund which were both conceived in 2006 and 2007 respectively. In these programmes, identifying the marginal borrower has not been a simple affair owing to the complex interplay of costs, returns, and risks in credit markets. The role of the government in providing start-up funds and their relationship to sustainability is crucial. The main focus of this research was to analyze the loan repayment and sustainability issues of government micro-credit initiatives in Murang'a County. The specific objective of the study was to establish the effect of borrower characteristics to micro-credit repayment in Murang'a County. The study adopted a positivism philosophy of research, where the researcher was independent on what was being observed and what was studied. Descriptive survey design was used to determine the level of government funded micro-credit loan repayment and its effect on sustainability for other borrowers. The target population was 1520 social and economic groups in Murang'a County. Clustering and Simple Random Sampling techniques were applied to select a sample size of 307 groups including a census of 16 constituency credit officers, who were interviewed. This, in total accounted to 19.5% of the total population. A questionnaire and an interview schedule were used to collect data. Descriptive data were analysed using tables and charts. Qualitative data were analysed using Chi-square, Analysis of Variance and Logit Regression Model. Hypothesis testing revealed statistically significant results, for borrowers' characteristics effect to loan repayment and sustainability. The study found that due to problems of high risk and high cost of borrowing, uncertainity of repayment capcity on the rural borrower has been reported high due to irregular income streams. Systems should be developed to ensure consistent incomes and expenditure to reduce/remove uncertainty. The study found some spouses who had run away from homes after receiving loans, to evade repayment or to evade the nugging demands from their partners or to part with some/all the amount borrowed. This may be one of the explanations of wife/husband buttering in Cental Kenya reported by the local media.

1.1 Background to the Study

Micro-finance can be illustrated as financial instruments, such as loans, savings, insurance and other financial products that are tailored to the poor. The fund is set up in an economy to lessen poverty and to particularly benefit the poor in the society. Micro-credit on the other hand, is the lending side of micro-finance. Access to micro-credit loans help the poor to be involved in income-generating activities, which motivate them to accumulate capital needed for investment and consequently improve their standards of living (Mokhtar, Nartea & Gan, 2011).

Thorsten & Augusto, (2006) stipulate that, access to finance is related to access to basic needs such as safe water, health services and education that is vital for living and lack of it is associated to many problems that are reported by developing countries. Access to finance refers to the availability of supply of reasonable quality financial services at reasonable costs, where reasonable quality and reasonable cost have to be defined relatively to some objective standards.

Access to general financial services including micro-credit or outreach of the financial system has become a major concern for many policy-makers in developing countries (Peachey & Roe, 2004). Moreover, while the use of financial services which measures the access to having deposit accounts with all finance institutions reaches over 90% in developed countries, in many less developed countries, the use of formal financial services is still limited to a small number of firms and households. Indeed, the zealous financial sector reforms undertaken by many developing countries over the past ten years which are: doing away with interest rate controls and directed credit, liberalizing entry and privatizing state-owned financial institutions have not led to the type of broadening of access to financial services that was initially expected, particularly for lower-income households and small and medium-sized enterprises.

Broad access to finances is related to the economic and social development agenda as stipulated by Boynton, Victor & Pine (1993). The study signified the importance of a well-developed financial system in a country for economic development and poverty alleviation. Access to micro-credit services results to broader access to external funds which in turn allows talented newcomers to be empowered, and freed from the disadvantages that would arise from their lack of inherited wealth and absence of connections.

Barnett, Barrett & Skees (2007) note that, targeting anti-poverty measures to such areas and groups noted above, would be cost-effective and a way of reducing and alleviating poverty. Policies and strategies that would increase consumption of the poor in general, should be the principal component of pro-poor development programmes that should be given preference.

Odudho (1988) argue that, it should be the role of every government to come up with policies that are pro-poor that would dismantle the poverty trap prevailing in the economy. This is because poverty is likely to be associated with activities that have negative externalities on growth of a country which include; unsustainable exploitation of financial and natural resources, spread of crime and diseases, a lot of social unrest and political instability.

1.1.1 Micro- Credit Programmes in Kenya

Micro-credit is the extension of small loans (micro-loans) to deprived borrowers who typically lack collateral, steady employment and a verifiable credit history. It is designed not only to support entrepreneurship and alleviate poverty, but also to empower the neglected groups of the society in order to uplift entire communities by extension. The issue of the central government of Kenya intending to take resources down to the rural village has been there since Kenya's independence in 1963 (Cheya, 2006). The most

Different governments overtime, have had almost similar plans but on different outfits for decentralization and poverty alleviation, though their implementation has in all cases fallen far from anticipation. The most recent is the Women Enterprise Fund and the Youth Enterprise Fund conceived in 2006 and 2007 respectively. The Women Enterprise Fund (WEF) was established in Kenya basically to provide accessible and affordable credits and to support women start and/or expand business in order to create wealth and employment. On the other hand, the Youth Enterprise Development Fund (YEDF) was established by the government of Kenya, with the main aim of reducing unemployment among the youth, who account to more than 61% of the total population in the country. The fund was to target 13 million youths aged between 18 to 35 years in the country (Sagwe, Gacheru & Mahea, 2011). According to foregoing study, the development of YEDF came as a result various complaints of neglecting of the youths overtime. The complaints have gained a lot of support from the public, since the population of women and the youths has been growing at a very high rate, and employment opportunities have not matched to that growth. This scenario therefore shifted the focus to empowering the two important groups in order to enable them to become entrepreneurs and future employers.

1.2 Statement of the Problem

Government of Kenya has initiated several micro-credit schemes towards alleviating youth and women unemployment since independence.

However, high default rate has affected the sustainability of the micro-credit initiatives. Studies done on government funded initiatives in Kenya show a lot has been disbursed, but very little recovered (Hulme, Kashangaki and Muwanga, 1999; Wakuloba, 2006 and Opiyo, 2013).

In Murang'a County, according to Public Accountability Statement (GoK, 2012), out of Kshs. 4.35 million disbursed to the women groups about Kshs. 2.68 million have been recovered. The recovery rate was slightly above 50% since its inception in 2007. A study done by Karaka, Koboa and Katuolo (2013) on Micro, Small and Medium term Enterprise loan recovery in 14 constituencies distributed in Nairobi, Nyeri, Nakuru and Kakamega respectively showed an average loan repayment rate of 72%.

Youth Fund Status Report (GoK, 2009) notes the loan repayment rate in two constituencies in Murang'a County, namely; Kandara and Maragua was 40%. Out of the Ksh.4 million lent out since inception of the youth enterprise fund, only Ksh.1.5million has been recovered. There is a general fear that, if the main reason(s) behind multiple micro-credit borrowing and high defaulting on the YEDF and WEF is not addressed substantially, the sustainability of the revolving funds will be elusive and other borrowers will find it difficult to access the same fund for development. It's on this basis that this thesis was conducted to establish the effects of loan repayment on sustainability of government micro-credit initiatives in Murang'a County, Kenya.

1.3 Objectives of the Study

The study was guided by the following objective: To establish the effect of borrower' characteristics to micro-credit sustainability in Murang'a County, Kenya

1.4 Research Hypothesis of the Study

The study was guided by the following Hypothesis; there is no statistical significant relationship between the borrower' characteristics to micro-credit loan sustainability in Murang'a County, Kenya.

Literature Review

2.1 Theoretical Literature

2.1.1 Classic Public Administration Theory

Classic public administration theory focuses on the idea that the role of politics and administration in a democratic society that determines and enacts the will of the state and sets a policy by which majority rules. However, public policies are rarely unanimous, whether voted by the legislature or the people. The role of government is to serve as the "balance wheel" of the new systems of collaborative problem-solving. Its function is to activate the needed partnerships and to make sure that public values, broadly conceived, are effectively represented in the collaborative systems that are formulated. The government of the day since independence has tried to make the public values a reality through introduction of resources for the public service. The study suggests a paradigm shift from a democratic state to a democratic society in which "government is a crucial instrument of the public service, providing leadership, resources, tools, and rules" (Hersey, 2010).

2.2.2 Group Lending in Theory

The study focused on youth and women group micro-credit loan borrowing and repayment respectively. Group lending in theory also referred to as solidarity group theory was the main theory applied in this study which is the first and most often- discussed "solution" to information asymmetries in developing countries. Adverse selection and moral hazards are dealt with by effectively changing the responsibility of screening, monitoring, and enforcement from the lender to clients (Karlan & Morduch, 2009).

2.3 Empirical Literature

2.3.1 Sustainability of Micro-Credit Initiatives

Sustainability relates to the ability of a programme to continuously maintain its activities and services to meet its objectives. For micro-financing operation to be effective and successful there should be sustainability (Jamal, 2003). Study by Desta, (2009) postulates that, the issue of micro-credit sustainability has been receiving high attention recently as micro-credit lenders try to reduce poverty in developing economies. The challenge noted by the study was lack of evaluation and mapping out the progress made by beneficiaries of micro-credit towards sustainability, so that, decision-makers could be able to monitor and evaluate effectiveness of the program, and adjust accordingly.

The study asserts the need to cover costs that micro-lender incur by charging high interest rates, to cover operation costs and grow at the same time. The study also points out the need to reduce external reliance and dependence on external sources including the government for sustainability to be realized. The borrowers on the other hand, need to be provided with financial literacy education and micro-credit lender to work closely with village leaders to ensure smooth operations and development of programmes, improve marketing/promotion and re-engineering delivery systems so as to perfect on financial sustainability.

2.3.4 Effect of Borrower Characteristics to Micro-Credit Sustainability

2.3.4.1 Spouses Influence and Loan Sustainability

Evidence from India and some other counties show that, even in financially successful micro-credit programmes, women are not necessarily the actual users of loans accessed in their names. Even when women use loan for their own activities, most of them remain confined to a narrow range of female low income activities. Increasing access to loans cannot be taken as an automatic indication of benefit to women (Jameela, 2003).

The above study on micro-credit employment and diversion of loans observed that, the appearance of a woman in the loan register as beneficiary does indicate the woman was the beneficiary and does not imply that she actually used the loan for the purpose for which it was sanctioned. The study asserts that, diversion of use of loans is found at considerable rate among women and that they divert the loan to other uses due to poverty and circumstances prevailing at the moment. Sometimes the situation is too bad, like in sickness and money borrowed must be diverted to take care of the emergency in absence of the spouse input.

2.3.4.2 Loan Diversion

Khaleque (2010) asserts that diversion of loan is defined as the quotient of the difference between the total amount of loan received and the total amount of loan used for proposed purpose and the total amount of loan received. Alternatively, diversion of loan index is applied, which equals to the ratio of amount of loan used in proposed activity and total amount of loan received. The diversion rate lies between 0 and 1, and hence referred to as loan diversion index.

$$\text{Loan diversion Index (LDI)} = \frac{\text{Amount of loan not used in proposed activity}}{\text{Total amount of loan received}}$$

If LDI = 0means the household has not diverted its credit from its proposed activity.
If LDI = E (1, 0**)** means the household has partially diverted its credit from its proposed activity. For example, if LDI is equal to 0.25, then it will mean that the household has diverted 25% of the received loan to other purposes other than the proposed ones. LDI = 1means the household has fully diverted its credit from its proposed activity

2.3.4.3 Informal Borrowing and Loan Sustainability

Credit usage studies show that while there has been improvement in credit provided by the formal sector in rural areas, the formal sector only accounts for the tip of the iceberg of source of rural credit. A large part of rural financial flows are transacted in the informal sector and larger part of it appears to be unreported and poorly understood, (Mahajan & Ramola, 2006).

The Kenyan micro-lending industry as noted by Mohane (2000) is a rapidly growing market, given the increased disposable income and accompanying need for credit in the emerging market in our economy. The highly sophisticated formal banking sector according to the study provides services to established businesses and middle to high-income individuals, but limits services to low-income individuals and micro-businesses, almost entirely to the operation of savings accounts. This sector of the market is viewed by the formal micro-finance institutions as high risk and provides unsustainable profits because of the small size of the loans and related transaction costs that are proportionally high.

Mahajan & Ramola (2006) note that, a large part of rural financial flows are transacted in the informal sector in India and larger part of the transaction goes unreported. Governments in most developing countries have been hostile to informal money-lenders whose transactions have been unreported, and have viewed them as exploiters of helpless citizens. World Bank (2004) asserts that, interest rates guidelines given by most governments have been perceived as exorbitant and exploitative. Some have gone as far as legislating against the money-lenders. Regardless of this hostility, the outfits have survived in the developing world. This is because the outfits (Money-lenders) have been more adaptable to rural conditions and more acceptable to rural people than formal sector credit agencies.

Women in India have depended largely on money-lenders to meet their urgent and immediate credit needs sometimes to pay loans that need immediate attention despite the exorbitant rate of interest charged (Jameela, 2003).

Rosemary (2001) postulates that; although it is not obvious that demand for credit far outweighs the supply, there are significant obstacles to the transformation of potential demand into revealed demand. The absence of supply creates a lack of demand expressed in low revealed demand. Due to market failure in the credit market, the transaction cost involved in obtaining credit was considered greater than the utility, prompting households to switch profits between activities as a way of financing working capital. This explains the existence of informal credit markets alongside formal credit institutions. The above study noted lack of clear policy environment that affects the necessary incentive for enterprise, and also indicated the need for expanding the sources of rural credits, to enable increase of potential lending to SMEs, and need of institutions' concern on loan default and administration to reach more potential borrowers.

Lapenu & Zeller (2001) postulated that, socially cohesive groups pool risks by diversifying the members' asset portfolio so that their repayment performance is improved even in communities with high risk exposure. Groups with higher level of social cohesion as measured by the number of common bonds, have a better repayment rate. Results also indicated that; it is not the level of physical and human assets of group members but the degree of variance of such assets among members, which leads to better repayment, by pooling risks among group members.

Kibaara (2006) notes that, in Kenya the challenges that the community faces influence access to sustainable source of rural credits. The study reported the following challenges: Insecurity that has infiltrated the rural areas in Kenya, the targeted robberies that attracts the money kept in the safe and that on transit in credit institutions, poor infrastructure and lack of proper policy framework to spur the growth of rural financial services. The study notes that the community associations' offer unregulated rural credit services which are not recorded anywhere. In case of the collapse of the association, the members have no recourse of recovering their deposits. The community association's personnel lack the necessary management skills required to run credit institutions and at times high interest rates charged by credit institutions discourages borrowing.

Graig, Alain & Elisabeth (2004) observe that group lending typology is classified into three types: Village Banking (VB) where institutions make loans to groups of 20 or more, require no collateral, use joint liability, require savings as a mandatory part of the lending package, do not conduct extensive screening, and generally charge higher interest rates and give smaller loans than other institutional lenders. The Solidarity Group (SG) lenders; lend to joint-liability groups of approximately five individuals, usually require some kind of collateral, screen clients' businesses prior to lending and disburse bigger loans at lower cost on more flexible terms and the Individual Lenders **(**IL) disburse loans to individuals and require a larger degree of collateralization, conduct much more screening, and give the largest loans and the best terms.

The above study stipulates that, merry-go-round were composed of less than 20 members who contribute a specified amount of money regularly. Members vote on who is to be given lump sum amount. The merry- go-rounds was most common with women mainly for the purposes of buying household items. The Rotating Savings and Credit Association (ROSCAs) variant is an advanced version of merry-go round where the members contribute some monthly shares and also disburse loans to members. They have their roots in the traditional mutual guarantee system. The actual number of ROSCAS in Kenya is not known, however, these associations provide credit to many low-income people. A typical ROSCA involves a group of 5 to 30 members. The merry-go round is embedded in the model. The association offers short-term loans to members at interest rates that range between 5-20% per period. Some ROSCAs and especially in Rift Valley are financially very strong and have managed to buy assets such as land and buildings.

2.3.4.4 Credit Scheme and Loan Sustainability

Linderman & Thurmier (2000) asserts that, the government of Sierra Leone has been silent on the matter of informal sources of credit. Attention has, however, been focused on the establishment of credit schemes including the Agricultural and Credit Loans Scheme (ACLS), the Registrar of Cooperatives Loan Fund (RCLF), the Integrated Agricultural Development Projects QADPs) and the Credit Guarantee Scheme (CGS) for small-scale farmers. These programmes had failed to meet their objectives and most of them have collapsed in Sierra Leone.

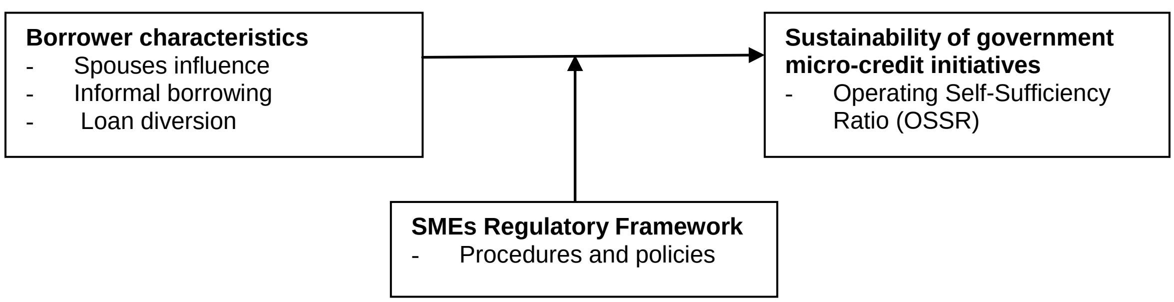
The Rural micro-finance institutions (RMFIs) were established to replace these failed schemes with a view to mobilizing savings and providing credit to rural residents. In Kenya, the situation is almost similar as collapse of loans schemes and starting of new ones is the order of the day. This has been due to high default rates, high transaction costs, mismanagement of financial institutions, charging interest rates that are below the rate of inflation, so as to remain in business.

Karlan & Morduch (2009) stipulate that competition maturity distinguishes the competent from the incompetent, the hardworking from the lazy, and the lucky from the unlucky. It thus adds to the risk that firms and individuals face. Ultimately, most people are better off, but the ride is not always pleasant, and some do fall off. The micro-financial services markets over the years have become increasingly competitive. The pace of change in market has been extremely rapid and customers have become much more sophisticated regarding financial matters, not hesitating to explore all the possibilities in order to find the best deal. The rate of technological change too, has been phenomenal, enabling micro-finance institutions and other financial institutions to provide a range of high-tech financial services.

The above study notes that, as competition and moral hazards continue to increase peer-group pressure which is vitally important to the success of group-based loans also rises. Women are vulnerable to peers pressure, and this partly explains why the group-based methodologies are more successful with women. Community pressure is very common where the group members themselves decide to "burn" any defaulter, by means of rejecting the person and begin to identify him/her in the whole community as that person who "never pays". So the person in question is rejected so that he/she can't enter into any other group in the vicinity of the area. Community pressure exists in towns, but will not be so influential like in the rural settings.

2.4Conceptual Framework

Independent variables **Dependent variable**



Moderating variables

Figure 2.1 Schematic Diagram
Source: Researcher (2014)

The dependent variable was measured by finding the amount received by micro-credit institutions, and compared with the total costs to the institutions to determine the operating self-sufficiency ratio (OSSR). The operating self-sufficiency according to Guntz (2011) shows whether revenue earned is sufficient to cover all operating, financial and loan expenses. If the trend is positive and the (OSSR) ratio greater than 1, implies that financial suitability has been identified. The effect of the borrowers' characteristics was measured by the presence of spouse influence, informal borrowers and credit schemes among others in the county.

3.0 Research Methodology

The study adopted a positivism research philosophy which is an epistemological position that advocates an observable social reality that allows replication and end product that can be generalised elsewhere (Saunders, Lewis & Thornhill, 2009).

3.1 Research Design

The study adopted a cross sectional descriptive survey research design using quantitative approach to data collection, analysis and reporting through some elements of qualitative approach of data. The design was chosen because it ensured complete description of the situation, making sure that there is minimum bias in the collection of data and allowed data collection from sizeable population in an economical way (Cooper &Schindler, 2008)

3.2 The Empirical Model

Discrete regression models like the probit, discriminant and logit models as indicated by Gemma (2014) are ideal to use when the dependent variable is of a binary choice. Generally, any of the three models can be used as they tend to generate more or less similar results. The choice of any of the model is a matter of convenience. This study employed the logit model to examine the sustainability or (non-sustainability) of government-funded initiatives as a matter personal preference. The following logit model was adopted, as modeled by Gemma (2014):

$$Pr(Yi = 1|Xi) = f(\beta 0 + \beta i\ Xi + \varepsilon i) \quad \text{------------------------------------} \ \textbf{(3.1)}$$

Where the function (f) takes on a linear function, it is known as a linear probability model (LPM)

This outcome has more than one independent variable. The outcome of the logistic regression will be 0 or 1, where 1 indicates that the outcome of interest is present, and 0 indicates the outcome is absent. Both logit and probit models are preferred because they help in overcoming weaknesses inherent in linear probability models such as heteroskedasticity and linearity problems (Muathe, 2010).

Quantitative data was analysed using descriptive statistics and inferential Statistics (Logit Regression) using SPSS data analysis software program. The models helped to establish whether there was a zero-order relationship among the variables

3.3 Measurement and Operationalization of Variables

The explanatory variables included in the model are described and categorized borrower characteristics. They are operationalized and hypothesized to influence government micro-credit repayment and sustainability in a certain direction greater than or less than 1 as shown in Table 3.1

Table 3.1: Operationalization and Measurement of Variables

Borrower characteristics	Spouse influence (X1)	Extent of spouse influence to borrow	Dummy variable based on actual data If =1, spouse influence available otherwise 0	Uncertain
	Informal sector influence (X2)	Perception informal lenders	Sum of management judgment	Positive
	Loan diversion (X3)	Extent of loan diversion	Dummy variable based on actual data If =1, loan diversion preference otherwise 0	Uncertain

Source: Researcher (2013)

3.4 Target Population

The target population was 1,520 respondents which include 1504 groups and 16 constituency credit officers or fund managers from the socio-economic women and youth groups, dealing with government funded micro credit found in the county as per the youth enterprise board (2013) and the Women Enterprise Board (2013).

Table 3.2: Distribution of the Population

STRATA Districts in the County	WEF groups Year 2013	YEDF groups Year 2013	Total (N)	Percentage of the total
Gatanga	253	100	353	23%
Kandara	151	100	251	16.5%
Murang'a South	62	77	139	9.14%
Kigumo	42	67	109	7.17%
Mathioya	137	91	228	15%
Kiharu	79	40	119	7.8%
Kahuro	78	40	118	7.76%
Kangema	116	71	187	12.3%
Constituency credit officers	8	8	16	1.05
Total	**926**	**594**	**1520**	**100**

Source: Researcher (2013)

Table 3.2 shows the WEF and YEDF groups that are registered with the ministry of culture and youth services in Murang'a County. The county has been sub-divided into 8 districts out of which 7 constituencies have been curved. Kiharu Constituency serves both Kiharu and Kahuro districts. Results from the table 3.2 indicate that most groups for both WEF and YEDF were found in Gatanga District with 23% of the groups respectively. Kigumo and Kahuro Districts had the lowest number of groups with 7.17% and 7.76% respectively. The total groups in the County for both WEF and the YEDF are 1504, and have 16 constituency loan officers as indicated on the table 3.2 above totalling to 1520 respondents.

3.5 Sampling Design and Procedure

Clustering and Simple Random Sampling techniques were applied to select a sample size of 307 respondents which included 291 groups and 16 constituency loan officers. From every group sampled, one executive official was sampled using simple random sampling. In addition, a census of 16 constituency loan officers which entitled 8 constituency loan officers or the YEDF and 8 constituency loan officers for WEF were interviewed. This, in total accounted for 19.5% of the total population.

Table 3.3: Sample Determination

STRATA Districts in the County	Total WEF and YEDF groups in Murang'a county (N)	Percentage of the total	Sampling rate	Sampled WEF and YEDF per district
Gatanga	353	23%	**19.5%**	69
Kandara	251	16.5%	**19.5%**	50
Murang'a South	139	9.14%	**19.5%**	27
Kigumo	109	7.17%	**19.5%**	21
Mathioya	228	15%	**19.5%**	44
Kiharu	119	7.8%	**19.5%**	23
Kahuro	118	7.76%	**19.5%**	23
Kangema	187	12.3%	**19.5%**	36
Constituency loan officers	16	1.05	**100%**	16
Total	**1520**	**100**		**307**

Source; Researcher (2014)

Table 3.3 shows the sampling procedure to arrive at the number of respondents. Probability sampling technique where the chance or probability is known and is usually equal to all cases was applied, Sauders, et al., (2007). After adding the WEF and YEDF together, a common rate of 19.5% per constituency was applied. To arrive at 307 respondents, 100% of the constituency loan officers was also included in the sample.

3.6 Data Analysis

Several methods were adopted in this study in order to describe, illustrate and analyze data statistically. Descriptive survey data were summarized in tables and figures. Descriptive statistics allowed the researcher to digest and understand large quantities of data and effectively communicate to users the research study purpose (Cooper & Schindler, 2006). Content analysis by finding themes, patterns and relationships derived from structured interviews and observations was applied to analyze qualitative data. All the independent variables had an accompaniment of a number of factors which were combined and averaged to find the composite index. For empirical analysis of the study and for drawing inferences from population sample, logit model was applied to test the extent to which the independent variables predicted the sustainability of government micro-credit initiatives.

The overall fit of the model was tested using the log-likelihood and associated chi-square statistics. The contribution of each predictor variable was tested using Wald statistics. Similarly, the open-ended questions were analysed through content analysis (ANOVA) where the researcher grouped common themes and drew inferences from the findings. Cooper and Schinder (2003) note that content analysis helps to bring issues into the forefront that would not have otherwise been captured through the use of structured questions in the questionnaire.

Table 3.5: Summary of Data Analysis Techniques

Borrower characteristics	Spouse influence	Nominal	Frequency, Kurtosis	Multicollinearity analysis, logit analysis, Type 1 and II test, ANOVA tests
	Informal borrowing	Nominal	Frequency	
	Loan diversion	Nominal	Frequency	

Source: Survey data (2013)

4.0. *Research Findings*

4.1. The Response Rate and Descriptive Statistics

From the study, the study population was 307 respondents who were sampled from the target population of 1502. A total of 261 respondents filled and returned the questionnaires; in addition 10 loan officers were available for interview. This response rate was 85.60% of the total population. Mugenda & Mugenda (2003) and Saunders, et al., (2007) have argued that a response rate of 50% and above is sufficient for a study and therefore response rate of 85.60% for this study was very good. This high response was attributed by appropriate introduction done to the group, the training and good service rendered by the research assistants. It also reflects the high expectation, which the respondents had, that their challenges and problems could be solved through better financing of their groups

4.2. Borrower Characteristics to Micro-Credit Loan Sustainability

The study intended to find out the effect of borrowers characteristics to micro-credit sustainability in Murang'a County, Kenya. The respondents were initialy asked to indicate whether there was micro-credt loan diversion from the intended purpose; that they were aware of and, their approximate number. Figure 4.2 below indicates the findings from the respondents:

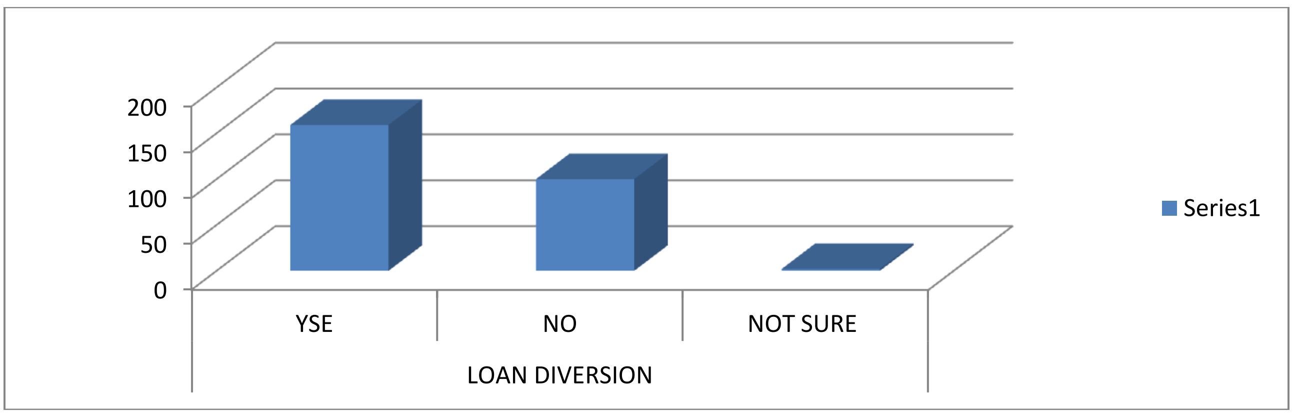


Figure 4.1: Loan Diversion from Intended Purpose
Source: Survey data (2014)

Results on figure 4.1, most of the respondents indicated that loan diversion was thriving (Yes= 61%). Those respondents that had not come across members who had diverted their loans was 38%. The respondents were requierd to indicate the actual number they had come across

Table 4.1: Loan Diversion

Category		Frequency	Valid Percent
Number of group members that have diverted loans per group	Between (0 – 5)*	94	36.0
	Between (6-10)	59	22.6
	Between1(1 – 15)	13	5.0
	Above 15 groups	9	3.4
	Not applicable	85	32.6
	Total	261	100.0

Source: Survey data (2014)

Results from Table 4.1 show that most of the respondents (36%) indicated that there were (0-5) members that had diverted their loans in their respective groups. The respondents were requested to indicate what they thought was the main reasons for group members to divert their loans to other users. The feedback is indicated in Table 4.2

Table 4.2: Reasons of Loan Diversiom

Category	N	Mean	Std. Deviation	Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Poor business performance causes loan diversion	261	4.86	.918	3.321	.300
Domestic problems are main causes of loan Diversion	261	4.72	1.079	1.514	.300
Literacy and low level of education are the main causes for loan diversion	261	4.65	1.176	.692	.300
Prevailing shocks in the economy are main causes of loan diversion	261	4.73	1.015	.599	.300
Circumstances at disposal compels the group members to divert loans	261	4.69	1.180	1.518	.300
Valid N (list wise)	**261**				

Source: Survey data (2014)

Results on Table 4.2, show that most of the respondents (M = 4.86) with a (stdv = 0.918) and the highest (Kurtosis = 3.2121) indicated that poor business performance was the main cause of loan diversion; illiteracy circumstances compelling group members and domestic problems on the other hand had lower respondents of (mean = 4.65, mean = 4.60 and mean = 4.72). The results support (Jameela, 2003) who states that loan diversion was due to poverty and circumstances compel the borrowers to use the loans in different ways. Sometimes the situation is too bad and money borrowed becomes diverted. The study recommended the relationship between micro-credit loan repayment and the purpose of borrowing and continuous supervision of the loan repayments ensured.

4.3. Spouse Loan Influence

The respondents were also requested to indicate whether there were spouse loan influences in the groups. Table 4.3 presents the results.

Table 4.3: Spouse Loan Influence

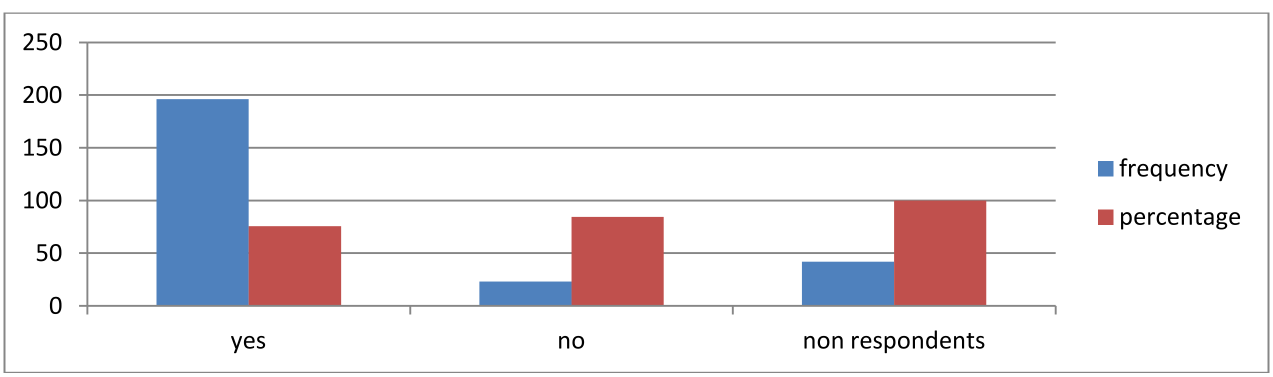
Category		Frequency	Valid Percent
There is spouse loan influence	yes	172	64.2
	No	63	23.5
	Not applicable	26	9.7
	Total	**261**	**100.0**

Source: Survey data (2014)

Results on Table 4.19 shows that majority of the respondents 64.2% had noted spouse loan influence in their groups. The results suppot Jameela (2003) who argues that in India and some other counties show that, even in financially successful micro-credit programmes, women are even not necessarily the actual users of loans accessed in their names.

4.4.. Money Lenders and Credit Schemes

The respondents were requested to indicate whether there exist informal money lender and credit schemes in the constituency they live and state the main reasons why they flourish or not flourishing.



Source: Survey data (2014)

Figure 4.2: Money Lenders and Credit Schemes

Results on Figure 4.2 show majority of the respondents (73.1%) indicating that there was high presence of informal money lenders and credit schemes. About (8.8%) of the respondents indicated lack of informal lending in the constituencies. The results suppot World bank (2004) study on leasing which indicated that regardless of the hostilities, money lenders have survived in the developing world. The respondents were also requested to indicate the main reasons why the informal sector was flourishing in most districts of Murang'a County. Table 4.4 indicates the analysis of the respondents.

Table 4.4: Variables Making Informal Money Lendinng to Flourish

Category	N	Mean	Std. Deviation	Std. Error Mean
Informal money lenders provide quick loans	261	4.65	.948	.056
Informal money lenders are not gender bias	261	4.56	.942	.055
Informal money lenders do not demand mandatory savings	261	4.18	1.345	.079**
Informal money lenders are convenient as funds are steadily available	261	4.49	1.005	.059
There is a lot of discouragement and yelling from credit officers	261	4.19	1.394	.082

Source: Survey data (2014)

Results on Table 4.4 show that most respondents (M = 4.65) with a (stdv = 0.948) indicated that informal money lending was found to be flourishing due to the fact that the informal money lenders and other credit schemes provide their loans very quickly, unlike others who are very slow. A high number of respondents (M = 4.56) also indicated that the informal sector was flourishing due to low or non-gender bias, when dealing with clients, which is a common phenomenon with micro-credit initiatives under study. The least respondents (Mean = 4.18) indicated that the informal money lenders and credit schemes do not demand mandatory savings as required by most micro-credit institutions and mainstream financial institutions. The results support the study by Jammela (2013) who notes that women in India have largely depended on money lenders to meet their urgent and immediate credit needs.

The respondents were asked to state their perception of the groups towards government micro-credits and why some borrowers were not repaying loans and the reason for increased credit schemes. Table 4.5 below provides the analysis from the responses.

Table 4.5: Perception on Governent Funded Micro-Credit

	N	Mean	Std. Deviation	Kurtosis	
Category	Statistic	Statistic	Statistic	Statistic	Std. Error
Most borrowers are taking government micro-credits as grants	261	4.33	1.055	1.726	.300
There is high presence of snowballing within groups	261	4.35*	.988*	2.547	.300
There is limited access to YEDF	261	4.34	.955	2.031	.300
Credit agencies are on the rise due to limited access to WEF	261	4.35	.902*	2.191	.301
Valid N (list wise)	261				

Source: Survey data (2014)

Results on Table 4.5 show that most of the respondents (M = 4.35) indicated high presence of snowballing on the government micro-credit loans as they argue that if others are not paying, why make them pay. Taking the government loan as a grant was also rated high taking (M = 4.33). Credit schemes according to respondents were on the rise because of limited access to both the youth fund and the women fund (M = 4.34 and M = 4.35) respectively. From the findings, very many groups have applied for the loans but only a handful have benefited.

The results support Mishikin and Eakins (2007) who note that the major reason why the institutions have not been active in lending to some enterprises and was the so called absence of loan repayment culture, which was costly when borrowers treat loans as grants or gifts.

4.5. Hypothesis Testing

The previous results had presented descriptive statistics on loan repayment and sustainability, however, to draw inferences about the population on the basis of the sample, there was need to empirically analyse data using logit model. In addition, to estimate the fit of the model, the "forced entry" method of logit regression was used. This was in line with Karki and Bauer (2004) argument that this is an appropriate method for theory testing.

Measuring of the Multiple Logit Regression Models

Table 4.31: Parameter Estimate of Logit Model

Loan sustainability	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Loan operation procedure	-.018	.292	.004	1	.048	.982	.554	1.741
Social-economic factors	-.838	.264	10.064	1	.002	.432	.258	.726
Borrower characteristic	-.965	.341	8.005	1	.005	.381	.195	.743
Use of technology	-.519	.285	3.317	1	.069	.595	.340	1.040
Constant	1.618	.230	49.475	1	.000	5.04		
Chi-square	22.761				0.000			
Predicted overall performance	73.4*							
-2log likelihood	344.29							
Negelkerke R^2	0.402							

Source: Survey data (2014)

The regression results of the logit model in Table 4.6 are reflected by the regression coefficient standard errors t-values, Wald statistics and p- value. The logit model generates a chi-square value of 22.761 and p-value of 0.000 which was statistically significant because the p= value was less than∞ = (0.05). The results indicated that borrower characteristics had a significance level of 0.005< 0.05. Results on borrowers' characteristics (Jamaela, 2003; Kheleque, 2010; Mahajan and Ramola, 2006 and World Bank, 2004) noted that increase in access to loans could not be taken as automatic benefits to women and loan diversion considered to be of high rate among women, loan diversions to other uses was reported to be high and spouse influence, the informal borrowing shows that large part of rural financial cash flows was transacted in the informal sector and regardless of hostility put across, in the informal financial outfits have survived in Kenya. On the same note women in Kenya have depended on money lenders to meet their urgent and immediate needs. The results conclude that borrower characteristics had statistical significance to loan repayment and sustainability. With diversion, spouse influence and informal lenders will influence the amount borrowed and repaid.

Table 4.32: Summary of Hypothesis Testing

H3	There is no statistical significance effects of borrower characteristics to micro-credit sustainability	Reject null hypothesis	Significance level 0.005 < 0.05

Summary, Conclusions and Recommendations

5.1 Summary

The main objective of the study intended to establish the effect of borrower characteristics to micro-credit sustainability in Murang'a County.

The study derived frequency distribution tables, histograms and pie charts to capture spouse influence, informal borrowing and loan diversion as factors influencing loan repayment and sustainability. Composite index was also established to make one variable that was to be regressed. After the logit regression analysis, the results indicated that the null hypothesis was rejected and the alternative was taken, that there is a relationship between borrower characteristics to micro-credit loan sustainability in Murang'a County.

5.2 Conclusion

There is a dire need to reduce external reliance by weaning the WEF and YEDF away from dependence of external sources including the government. Borrowers need to be provided with financial literacy education and micro-credit lenders to work closely with village lenders to ensure smooth operation and development of programmes. The study by Fisher and Sriram (2002) noted the need to combine outreach or access to financial services and sustainability of the services provided. The need to address the issue of how savings might be increased among lower income families was a great concern and to initiate a country saving policy that is acceptable to all has to be put in place.

5.3 Conntribution of the Study to the Existing Body of Knowledge

The study noted increased issues on loan diversion and spouse influence during the time of borrowing and repayment in almost all the groups that took part in this research. Some spouses were reported to have run away from homes after receiving the loans to evade repayment or to evade the nugging demands from their partners or to part with some/all the amount borrowed. This may be one of the explanations of wife/husband buttering in Cental Kenya reported by the local media.

Some groups indentified prosecution of defaulters as a solution to some of the problems they are currently facing. Due to problems of high risk and high cost of borrowing, uncertainity of repayment capcity on the rural borrower has been reported high due to irregular income streams. Systems should be developed to ensure consistent incomes and expenditure to reduce/remove uncertainty

5.4 Recommendations

The study noted irresponsible lending and borrowing that has caused stress and deaths to some group members. The operation structure of both YEDF and WEF funds may be contributing to this behaviour; most of the constituency loan officers are volunteers on stipend payment which affects their morale in service delivery. Due to the structures, circumstances make some loan officers to be irresponsible in their actions which affects supervisory and monitoring of groups in their jurisdiction. Improvement of the YEDF and WEF structures needs to be re-looked to adequately provide resources and systems to capture and monitor groups.

5.5 Recommendations for Further Research

With respect to the findings of the study, the researcher made the following recommendation for further study:
A similar research be carried in other counties particularly counties with rural phenomena like Murang'a County on a larger scale comparison of the findings of the study. A study can also be carried out to determine the impact of government micro-credit to household/ business income over time when the funding has been made available in both rural and urban setup.

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Questionnaire

Appendix 3 :Group Executive Member Questionnaire

This questionnaire is aimed at collecting data on loan repayment and sustainability of government funded micro-credit initiatives in Murang'a County. It intends find out your satisfaction on the government micro-credit initiative at your disposal. Kindly respond to the following questions as honest and accurately as possible. The information you give will be useful only for the purpose of this research.

Section A: Preliminary Information

Division ____________ Name of Group (optional) ___________ Number of members _____

1 Kindly indicate your Gender

Male [ ] Female [ ]

2. Group Position Held (Tick): Chairman ☐ Treasurer ☐ Member ☐

Marital status

Single ☐ Married ☐ Widowed ☐

3. What is your highest level of Education of most of your group members? (Tick as applicable)

a) Diploma [ ]

b) Degree [ ]

c) Post graduate [ ]

d) Others (specify) ………………………………………………………

Borrower Characteristics to Micro-Credit Loan Sustainability

20. Are there groups that have diverted their loan from the proposed purpose you know of?

Yes ☐ No ☐

How many are they in number?

i. Between 0 – 5 groups ☐
ii. Between 6 – 10 groups ☐
iii. Between 11 – 15 groups ☐
iv. Above 15 groups ☐

21. To what extent do you agree on the statements below on loan diversion?

Statement	**5**	**4**	**3**	**2**	**1**
Poor business performance is the man cause of loan diversion					
Domestic problems are the main cause of loan diversion					
Literacy and low level of education are the main cause for loan diversion					
Prevailing shocks in the economy are the main causes of loan diversion					
Circumstances compel the group members to divert loans					

(1**-means strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree).**

22. Do you have spouse loan influence in your group?

Yes ☐ No ☐

Please rate the influence

	5	4	3	2	1	
High						ow

23. To what extent do you agree on the statements below on loan spouse influence on loans?

Statement	5	4	3	2	1
Spouses have strong influence on most loans borrowed					
Spouses should not dictates on the use of borrowed loans despite being not responsible for its repayment					
Loan should not be a means to separate spouses, they are one and should all decide on the use of the funds and take part in repayment together					
Husbands/wives who borrow without the knowledge of their spouses are on the rise					
Spouses should be independent when borrowing, use and repaying of borrowed micro-credits					
Irresponsible borrowing is the main cause of distress and divorces among spouses					
Irresponsible borrowing has caused death to some group members around					

(1-means strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree).

24. Are there money lenders or credit schemes around where you live?

Yes ☐ No ☐

. If yes, to what extent do you think they flourish in your vicinity?

Reasons	5	4	3	2	1
They provide loans quickly unlike others who are very slow					
They provide their services to all unlike others that are gender bias					
Do not demand mandatory savings and other cost that are common with other sources					
Despite of their high interest rate, they are convenient and funds readily available to the extent of the borrower					
There is a lot of discouragement and yelling from credit officers and members are trying to avoid this					

(1-means strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree).

25. To what extent do you agree with the following statements in your vicinity?

Extent	5	4	3	2	1
Many people have taken government micro-credit initiatives as grants and are not repaying					
Some people are not paying loans because others are not paying too (snowballing)					
Credit schemes are on the rise in the recent past due to limited access of YEDF					
Informal credit agencies are on the rise in our vicinity due to limited access of the WEF					

(1-means strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree)