# Lender Characteristics Influencing Loan Default by SMEs in Kitui Central Sub-County

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#### Abstract

The Small and Medium Sized Enterprises (SMEs) are considered as the power driving many countries' economies. It has been argued that SMEs are the lifeblood of most economies around the world and any government cannot afford to ignore the sector. Access to financial capital can be a critical factor for the success of SMEs, particularly in their early vears. Commercial banks constitute the anchor of the growth of other sectors by providing them access to credit facilities in the form of loans. A recent Central Bank of Kenya (CBK) survey shows these SMEs topped the list of biggest loan defaulters in the first quarter of 2015. The objective of this study was to assess the lender factors influencing loan default by the SMEs operating in Kitui Central Sub-county. It is an extension of empirical work on the loan default. This study investigated two lender factors; the structure of interest rate and mode of loan repayment. The study targeted all the registered SMEs operating in Kitui Central Sub-County. This study adopted simple random sampling method to select 20% of the registered 407 SMSEs in Kitui Central Sub-County. Primary data was obtained by use of a structured questionnaire which was administered to the Chief Executive Officers of each specific enterprise. The data was edited, coded and analyzed using statistical package for social sciences (SPSS). Descriptive analysis was done and the respective statistics computed. Inferential statistics were also performed; multiple correlations and regression analysis. The correlation was used to investigate the association between the variables under study. Multiple regression analysis was used to measure the effect of lender factors on loan default by SMEs. The findings of this study revealed that there was a medium positive correlation and a significant relationship at 99% confidence level between the mode of loan payment and loan default (r=0.644, p=0.000). There was also a strong positive correlation and a significant relationship at 99% confidence level between the structure of interest rate and loan default (r=0.774, p=0.000). The mode of loan repayment and the structure of interest rate highly influenced loan default. The study recommends that the Lenders in Kitui Central Sub-County should revise their lending policies so that they can reduce loan repayment problems arising from the two lender characteristics investigated.

## Background of the Study

## INTRODUCTION

Small and Medium sized enterprises (SMEs) are those enterprises whose annual turnover ranges between five hundred thousand and five million shillings; and which employs between ten and fifty people (Sinkey, 2007). The Small and Medium sized enterprises (SMEs) are considered as the power driving many countries' economies. It has been argued that SMEs are the lifeblood of most economies around the world and any government cannot afford to ignore the sector (Ayyagari, 2007). SMEs access credit from financial institutions.

According to Nene (2014) the main reason for failure of credit repayment by small and medium enterprises in Kenya is due to loans given out without any form of security to clients and lack of structure where funds are well projected over the period of repayment and portion money for such repayments. High default rates in SMEs lending should be of major concern to policy makers in developing countries, because of its unintended negative impacts on SMEs financing (Ntiamoah, 2014). The evidence of the default pattern of loans to individual firms in emerging markets in general and the new EU member states in particular is still missing (Beck, 2013). It is in this regard that this paper sought to highlight institutional factors that influence loan defaulting by SMEs, based on Kenyan perspective.

A World Bank policy research working paper on Non Performing Loans (NPLs) in Sub-Saharan Africa revealed that NPLs are caused by adverse economic shocks coupled with high cost of capital and low interest margins (Fofack, 2005). Guy (2011) stated the accumulation of NPLs is generally attributable to a number of factors, including economic downturn, macroeconomic volatility, and terms of trade deterioration, high interest rate, and excessive reliance on overly high-priced inter-bank borrowings, insider borrowing and moral hazard. Nawai and Shariff (2013) also posited that the underlying repayment factors can be basically classified fewer than four headings, namely, institutional, lender, and loan characteristics affecting repayment performance.

According to Atsmegiorgis (2013) the factors affecting repayment performance can be grouped into three categories namely type of the financial institution, Ioan factors and lender factors. Lender characteristics are the factors within the financial institution that may influence Ioan repayment. Institutional factors include the time lag between Ioan application and disbursement, collection procedures, interest rate structure, access to business information and penalty for lateness to group meetings (Nawai & Shariff, 2012). A study by Kibosia (2012) established that poor credit analysis and interest rate structure and Ioan collection procedures also contributed to Ioan defaults by SMEs.

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## Loan Default by SMEs

Loan default can be defined as the inability of a borrower to fulfill his or her loan obligation as at when due (Foos, 2009). High default rates in SMEs lending should be of major concern to policy makers in developing countries, because of its unintended negative impacts on SMEs financing. Packer (2012) stated that some of the impacts associated with default include: the inability to recycle funds to other borrowers; unwillingness of other financial intermediaries to serve the needs of small borrowers; and the creation of distrust. As noted by Makorere (2014), the costs of loan delinquencies would be felt by both the lenders and the borrowers. The lender has costs in delinquency situations, including lost interest, opportunity cost of principal, legal fees and related costs. For the borrower, the decision to default is a trade-off between the penalties in lost reputation from default versus the opportunity cost of forgoing investments due to working out the current loan.

In the context of this study therefore, a bad loan is the consequence of an SME not being able to repay its loan, resulting in a negative financial effect on a financial institution. Default on borrowed funds could arise from unfavorable circumstances that may affect the ability of the borrower to repay (Messai, 2013). According to Nene (2014) the main reason for failure of credit repayment by small and medium enterprises in Kenya is due to loans given out without any form of security to clients and lack of structure where funds are well projected over the period of repayment and portion money for such repayment. Onyeagocha (2012) witnessed that relationship gaps between SMEs and small lending institutions results in bank default. The issue of loan defaults becoming an increasing problem that threatens the sustainability of microfinance institutions. High default rates in SMEs lending should be of major concern to policy makers in developing countries, because of its unintended negative impacts on SMEs financing (Ntiamoah, 2014).

## SMEs in Kitui Central Sub-County

Kitui Central Sub-County is an arid and semi arid zone and hosts the headquarters of Kitui County. The Subcounty hosts the highest number of SMEs in Kitui County. The SMEs in the region can be grouped in to two groups made of goods and services. Kitui Central Sub-county borders Kitui west Sub-county, Kitui south Subcounty, Mwingi central, Kitui rural and Kitui east Sub-county. The SMEs in Kitui Central Sub-county operate businesses dealing in both goods and services. Most owners of SMEs in Kitui Central Sub-county invest mostly in retail and wholesale businesses. The managers and owners of these SMEs access credit from both banks and microfinance institutions. According to the Ministry of Trade, Investments and Cooperatives in Kitui County, there are 512 SMEs in Kitui Central Sub-County (across all the 5 wards ; Kitui Township, Kyangwithya West, Kyangwitha East, Miambani And Mulango Wards) and of which only 407 SMEs have had access to credit facilities.

## Statement of the Problem

SMEs access credit from financial institutions i.e. Banks and MFIs. High default rates in SMEs lending should be of major concern to policy makers in developing countries, because of its unintended negative impacts on SMEs financing (Ntiamoah, 2014). According to Bank supervision report by (CBK, 2011), delayed payments and provisioning of loans, and high interest rates led to downgrading of loans accounts by banks thus impacting negatively on the quality of assets. As a result, non-performing loans (NPLs) increased by 36 per cent to Ksh.147.3 billion in December 2015 from Ksh. 108.3 billion in December 2014. Similarly, the ratio of gross NPLs to gross loans increased from 5.6 per cent in December 2014 to 6.8 per cent in December 2015 The report also shows that non-performing loans (NPLs) increased by 45.5 percent to KShs 214.3 billion in December 2016 from KShs 147.3 billion in December 2015. Similarly, the ratio of gross loans increased from 6.8 percent in December 2015. Similarly, the ratio of gross loans increased from 6.8 percent in December 2015. Similarly, the ratio of gross loans increased from 6.8 percent in December 2015. Similarly, the ratio of gross loans increased from 6.8 percent in December 2015. Similarly, the ratio of gross loans increased from 6.8 percent in December 2015 to 9.2 percent in December 2016. Most of these were attributed to default of loans by SMEs (CBK, 2016).

Default occurs when a debtor is unable to meet the legal obligation of debt repayment. Bad loans result from the inability of debtors to repay their loans and their interests within the specified time (Warue, 2013) resulting in adverse effects on the financial condition of the creditor. (Ochung, 2013) did an investigation into the factors leading to loan defaults of micro- enterprises financed by Cooperative Bank in Kangemi and Kawangware areas in Nairobi, Kenya and established that many Micro-enterprises were mainly constrained by irregular income, poor management and high competition from the well established businesses. Kibosia (2012) investigated the causes of the high rates of default in the repayment of Constituency youth enterprise funded loans among youth groups in Kitui Central Constituency and established various factors, which influence loan repayment. Most of the previous studies reviewed established that there are different factors influencing loan default some of which are significant based on the context of study while other are insignificant on a different perspective. In addition, most of the studies have concentrated on different sectors other than the SME sector and thus their results cannot be generalized to the SME context. It is against this backdrop that this paper seeks to investigate financial factors that influence loan defaulting by SMEs, based on Kenyan perspective.

## **Research Objectives**

To investigate the lender characteristics influencing loan default by SMEs in Kitui Central Sub-county, this study was guided by the following objectives:-

- i. To examine the effect of the structure of interest rate on loan default by SMEs in Kitui central Subcounty
- ii. To find out the effect of mode of loan payment on loan default by SMEs in Kitui central Sub-county.

## **Theoretical Review**

This study was guided by two theories; the moral hazards theory and information asymmetry theory.

## a) The Moral Hazard Theory

The Moral hazard theory was developed by Stigliz & Weiss (1981). The theory states that that the lender does not use the interest rate as a sorting device because changes in the interest rate may affect the riskiness of the pool of borrowers. The model assumes that riskier borrowers have access to riskier projects with lower probability of success but a higher return if they succeed, while safe borrowers have projects with higher probability of success but a lower return. The moral hazard theory asserts that, a risk arises when one party to a contract changes his behavior to the detriment of the other party once the contract has been concluded. Moral hazard arises when individuals, in possession of private information, take actions which adversely affect the probability of bad outcomes (Mirrlees, 1999). Moral hazard theory is relevant in this study in that in most cases lenders are not certain that once a loan is advanced to the borrower (SMEs), it was used for its intended purpose, or that the borrower applies the expected amounts of complementary inputs, especially effort and entrepreneurial skill which is the basis for the agreement to provide the loan. If these inputs are less than expected then the borrower may be less able to repay it (Fatemi, 2006). Loan diversion leads to moral hazards, which may in turn, affect loan repayment by small and medium enterprises since the loan was diverted from its intended business purpose.

According to Agyapong (2011) the fact that these borrowers can use the funds for other purposes other than those stipulated in the loan agreement then this means that banks should not only investigate the credit worthiness of the small business borrowers but should also monitor their activities once they have obtained the loans. The situation of moral hazard therefore is brought about by failure of the lender to monitor the actions of the borrower once credit is obtained. This theory has been criticized because it presents a narrow model of human motivation and that it makes unnecessary negative moral evaluations about people. Focusing on self-interested behavior makes it possible that for the wider range of human motives to be ignored, including the need for achievement, altruism, respect and intrinsic motivation towards an inherently satisfying task (Agyapong, 2011). (Kuperman, 2008a) argues that Moral hazard theory does not focus solely on the relationship between the borrower and the lender to explain why the borrower would change his behavior to the detriment of the lender once the contract has been concluded.

## b) Information Asymmetry Theory

The Information Asymmetry Theory was developed by (Akerlof, 1970). This theory states that each party of an economic transaction should have the sufficient knowledge about the other party to be able to make accurate decisions. A key assumption for the theory to hold is that the characteristics of all products traded on the market should be equally observed by all agents. When such assumption fails to hold; when information is symmetric, prices are distorted and do not achieve optimality in the allocation of resources. The asymmetric information theory asserts that the market participants often hold this information asymmetrically (Messai, 2013). Akerlof (1970) showed how we could obtain adverse selection in the markets in the presence of informational asymmetries. Murumba (2013) demonstrated that informed economic agents in such markets may have incentives to take observable and costly actions to credibly signal their private information to uninformed agents, so as to improve their market outcome. This theory is relevant in this study in the sense that SMES as borrowers usually do not disclose all the relevant information to the lender which in turn results in adverse selection by the lender. With regard to SMEs, the asymmetric information theory assumes that SME managers and insiders possess private information about the enterprise characteristics or the borrower posses some critical information on the type on the financial institution of return stream or investment opportunities that are rarely known by financial institutions.

Financial institutions know the credit risk breakdown among their borrowers, but due to information asymmetry, they are not able to identify individual amounts of default costs for particular borrowers due to their monitoring and control systems which vary from the individual institutions. According to Karim (2010) in the event adverse selection, the lender lacks information on the riskiness of its borrowers while the borrower has critical information on the financial institution. Riskier borrowers are more likely to default than safer borrowers, and thus should be charged higher interest rates to compensate for the increased risk of default. Warue (2013) test the implications of the asymmetric information model in the term life insurance market and find no evidence of market failure. The authors suggest that it is cost efficient for insurers to overcome informational asymmetries. Insurers deal with applicant information all the time, both in their role as insurers and as

underwriters. It may not be true that the insurance purchasers have superior information; in fact the company may have better estimates of an individual's health risks than does the individual himself or herself.

Chappori (2000) test for asymmetric information in the French market for automobile insurance and echo the conclusions of (Warue, 2013). Where asymmetric information models predict that, among observationally identical individuals, those with more coverage should have more accidents. Chiappori (2000) found no correlation between unobserved riskiness and accident frequency. The theory of moral hazard is wanting in that it ignores the fact that SMEs are rational investors and they always make the best investment decision. Moreover, it is assumed that borrowers always assume a risk-taker attitude but not a risk averse or a risk neutral attitudes. According to the information asymmetry theory, the borrower holds more information about the contract. However in the modern society sharing information using databases is has been made easy. This is because the database would acts as a medium from which people could retrieve the necessary information for decision making purposes.

## **Empirical Review**

This section presents a discussion of the institutional factors that the previous studies suggest may influence loan default by SMEs. Various scholars have examined loan default and their determinants in the past. Several factors have been identified in different studies as having an impact on loan repayment.

## Lender Characteristics and Loan Default

Makorere (2014) examined the factors affecting loan default behavior in Tanzania because experiences show that many financial institutions still are facing poor loan recovery. The study employed a cross sectional design because the study was done once in point of time. The study sample size was 100 respondents because the study was a pilot study. The study employed convenience sampling technique based on the accessibility and willingness of respondents to participate in the study. Questionnaire method was used in capturing primary data, while descriptive statistic was used in analyzing of data using frequencies and percentages. Results show that majority of the borrowers who comprised of 32% of the respondents interviewed failed to pay loan balances on time and the high interest rates imposed was the main reason mentioned.

In this instance, financial institutions should impose reasonable and competitive interest rates to ensure effective repayment. In most cases, high interest rates discourage business to grow in the sense that a big part of the profit generated goes back to the financial institution to service the loan that was once given to the borrower. In a study done by Maina (2014) where they assessed institutional factors contributing to loan defaulting in MFIs in Kenya. The study used primary data. The study target population compromise 59 MFIs. A descriptive survey design was used to carry out a census of 59 microfinance institution in Kenya. The data was collected through a structured questionnaire and administered to MFIs loan officers for response. The findings indicated that all the three factors tested had a significant impact on the loan default rate which are credit policies, loan recovery procedures, and loan appraisal process that are viewed as critical drivers of loan delinquency occurrence.

Evusa (2015) did a study on causes of loan default among the customers of Equity bank. A sample of 80 Respondents out of 240 respondents which comprised of both the bank managers and loan defaulters at Equity Bank were used in the study. In the evaluation of the causes of nonperforming loans, the paper considered the contribution of the factors such as the banks' lending practices as well as the economic backgrounds and financial decision making among loans recipients at Equity Bank Ltd. Microsoft Excel Data analysis Tools were used to establish the relationship between amounts of loan advanced to an individual and the amount of loan defaulted. The paper established that the major factors influencing nonpayment of borrowed loans were both internal and external. The paper recommended that banks' credit policies be reviewed to match the highly volatile economic trends within financial markets with a strong emphasis on institutional appraisals on credit worthiness.

Njeru (2011) examined the credit rationing technology of lenders and the repayment behavior of borrowers at a rural financial institution based on 504 sample observations. Loan rationing equation and loan repayment equations estimated employing Tobit model using survey data at Guyana Cooperative Agricultural and Industrial Development Bank revealed that only 33% of the criteria utilized identified credit worthy borrowers implying that the screening technology was not efficient and needed to be repaired. The results also indicated that tightening the loan contract terms by reducing the grace period on loans and rejecting applications which had long processing times enhanced the pool of credit worthy borrowers.

## **Research Design and Target Population**

This study used a descriptive research design. This was an ideal design as the study was carried out in a limited geographical area (Mugenda and Mugenda, (2003). The target population in this study comprised of all the registered SMEs in the Sub-county and had access to credit. Kitui Central Sub-county has 512 registered SMEs in and only 407 SMEs have had access to credit facilities across the 5 wards (Ministry of trade, investments and cooperatives, 2016).

## Sample Size and Sampling Techniques

This study adopted simple random sampling method to select 20% of the total number of registered SMEs (407) in all the five wards in Kitui Central Sub-County. Since Mugenda and Mugenda (2003) and Kothari (2008) recommend a sample of between 10% and 30% of the target population for generalization of the findings to the whole population in a population of less than 10,000 elements. The study sample consisted of 81 SMEs which were selected across the following five (5) wards in the sub-county; Kitui Township, Kyangwithya West, Kyangwitha East, Miambani and Mulango wards.

Table 1: Sample size					
Ward	Target Population	20% of Target Population	Sample Size		
Kitui township	179	0.2*179=35.8	36		
Kyangwithya west	42	0.2*42=8.4	8		
Kyangwitha east	56	0.2*56=11.2	11		
Miambani	69	0.2*69=13.8	14		
Mulango	61	0.2*61=12.2	12		
Total	407	0.2*407=81.4	81		

#### **Data Collection Instruments and Procedures**

This study used primary data which was collected directly from specific SMEs by use of structured questionnaires. The questionnaires contained both open and closed-ended questions. The structured questions were used in an effort to conserve time and money as well as to facilitate in easier analysis as they are in immediate usable form while the unstructured questions were used so as to encourage the respondent to give an in-depth response without feeling held back in revealing of any information.

#### **Ethical Considerations**

The data collected was handled with confidentiality. The data collected from the SMEs were also not altered to meet any hidden or personal interest. The researcher ensured informed consent so as to inform the respondents about the study. The respondents were also informed that they were at liberty to exit from the study as they wished whenever they felt threatened or at risk.

#### Data Analysis

The data collected for this study was accurately scored and systematically organized in a manner which facilitates analysis in order to enable the researcher make sense of the data. Data analysis was done after all data had been collected and cleaned. The data from the field was coded according to the themes studied in this study. Statistical package for social sciences (SPSS) package version 21 was used to aid in the analysis. The type of data analysis tool that was used depended on the type of data that was used: qualitative or quantitative (Walsh & Wigens, 2003). Quantitative data was analyzed through the use of a combination of descriptive statistics particularly frequency distributions tables. Inferential statistics were also performed; correlations and multiple regression analysis; to determine whether the independent variables together predict the dependent variable at 99% confidence level (0.01 significance level). ANOVA and T- tests were used to test the significance of the model in measuring the effect of measured lender characteristics on loan default by SMEs at 99% confidence level and 1% significant level.

## **Descriptive Statistics**

#### RESULTS

The researcher administered questionnaires to 81 study participants but two of them did not return their questionnaires hence N=79 questionnaires were completed and returned. The data collected from the 79 questionnaires was entered and analyzed to form the basis for the findings of this study.

#### Gender of the Study Participants

Table 2: Gender of the study participants					
		Frequency	Percent	Cumulative Percent	
Valid	Male	55	69.6	69.6	
	Female	24	30.4	100.0	

The findings of this study revealed that majority (69.6%) of the study participants were male while the females were 30.4%.

#### **Duration in Business Operation**

		Frequency	Percent	Cumulative Percent
	less than 1 year	10	12.7	12.7
Valid	1-5 years	31	39.2	51.9
	6-10 years	24	30.4	82.3
	10 years and above	14	17.7	100.0

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The results suggested that majority of the SME owners (39.2%) had been in business operations for the period between 1 and 5 years while the least number of the study participants had been in the business for less than 1 year. Those who had been in business for duration of 6-10 years and more than 10 years were 30.4% and 17.7% respectively.

#### Study Participants' Level of Education

Table 4: Level of education of study participants						
Frequency Percent Cumulative Percent						
	Primary level	14	17.7	17.7		
Valid	Secondary level	31	39.2	57.0		
valid	College/University	28	35.4	92.4		
	None	6	7.6	100.0		

The results revealed that majority of the study participants (39.2%) had secondary level of education while the least (7.6%) had not achieved any level of education. The Primary and College/University level consisted of 17.7% and 35.4% respectively.

## Mode of Loan Repayment (MLR)

The researcher had four modes of loan repayment: direct cash deposit, raised standing orders, continued saving deposits and electronic money transfers. The findings of this study on the mode of loan repayment used by the study participants were summarized in table 6.

Table 5: Mode of loan repayment				
		Frequency	Percent	Cumulative Percent
	Direct cash deposit	47	59.5	59.5
Valid	Raised standing orders	10	12.7	72.2
vana	Continued savings deposits	13	16.5	88.6
	Electronic money transfers	9	11.4	100.0

The findings revealed that majority of the study participants (59.5%) used direct cash deposit as the mode of loan repayment while the least (11.4%) used electronic money transfers. Raised standing orders and continued savings deposit were used by 12.7% and 16.5% respectively.

#### **Inferential Analysis**

This study examined the effect of the structure of interest rate and the mode of loan repayment on loan default by SMEs in Kitui Central Sub-county. The structure of Interest Rate (IR) consisted of 1: Flat Rate and 2: Reducing Rate. The modes of loan repayment were four: 1: direct cash deposits, 2: Raised standing orders, 3: Continued savings deposits and 4: Electronic money transfers. The study participants were asked were asked to state if they had ever defaulted payment of their loan installments. Their responses were either 1 for Yes or 2 for No. Correlation analysis was performed on their responses to determine the association between lender characteristics and Loan Default. The findings were summarized in table 7.

Table 6: Correlation Analysis							
Loan default Mode of Loan Repayment Structure of Interest Rate							
Loop default	Pearson Correlation	1	.644	.774			
Loan delault	Sig. (2-tailed)		.000	.000			
Mode of loan	Pearson Correlation	.644	1	.495**			
repayment	Sig. (2-tailed)	.000		.000			
Structure of IR	Pearson Correlation	.774**	.495**	1			
	Sig. (2-tailed)	.000	.000				

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

## Lender Characteristics and Loan Default

The results in table 7 suggested that there was a medium positive correlation at 99% confidence level between the mode of loan repayment and loan default (r=0.644, p=0.000). Since 0.000 is less than 0.01, it was concluded that there was a significant relationship between the mode of loan repayment and loan default. The findings also revealed that there was a strong positive correlation at 99% confidence level between structure of interest rate and loan default (r=0.774, p=0.000). Since 0.000 is less than 0.01 it was concluded that there was a significant relation of IR and IC IR IR IR IN IT IS IN IT IS IN IT IN IT IS INTERED. THE IS IN IT IS INTERED. THE IS IN IT IS IN IT IS INTERED. THE IS INTE

## **Regression Analysis**

The researcher used multiple regression analysis to test the effect of change of independent variables on the dependent variables. The regression was used because it could give an equation which would help in the prediction of the dependent variables from a given independent variable and vice versa. It could also show how a unit increase or decrease of the independent variable would affect the dependent variables. The model summaries indicated the predictors of the loan default.

## **Model Summary**

The model summary for the predictors and their different levels of predicting loan default are as shown in table 4.7 below.

Table 7: Model summary Table						
Model R R Square Adjusted R Square Std. Error of the Estimate						
1	.861 <sup>a</sup>	.742	.724	.264		
		() <b>D</b>				

a. Predictors: (Constant), Mode of Loan Repayment, Structure of IR

In view of the results in table 8, the value of R (0.861) suggests a strong positive correlation between the lender characteristics influencing loan default among SMEs in Kitui Central Sub-county. In view of the coefficient of determination (R-square) of 0.742, the two predictors account for 74.2% of variability in loan default by SMEs in the study area. Table 9 presents coefficients and p-values associated with the study variables.

	Table 8: Regression Coefficients <sup>a</sup>						
Model -		Unstandardized Coefficients		Standardized Coefficients		Sig	
		В	Std. Error	Beta	ι	Sig.	
	(Constant)	141	.192		737	.463	
1	Mode of loan repayment	.140	.034	.290	4.133	.000	
	Structure of IR	.547	.076	.535	7.165	.000	

a. Dependent Variable: Loan Default

The regression function extracted from the table is presented below.

Regression model:  $LD = K + \beta_1 LF + \beta_2 LF + \varepsilon$ 

Missed payment of installments = Loan Default (LD)

Specific Regression Model: LD = -0.141 + 0.140(MLR) + 0.547(SIR)

Loan Default= -0.141 + 0.140(mode of loan repayment) + 0.547(structure of interest rate). The regression analysis in table 9 shows how a unit change of the independent variable changes the dependent variable. The betas for mode of loan repayment, structure of interest rate are positive indicating that every unit increase in any of the two independent variables would cause a positive change in the dependent variable with the following quantities: mode of loan payment (0.140), structure of interest rate (0.547). The summary in table 9 also shows a statistical significance of each independent variable. Mode of loan repayment and structure of interest rate were found to be statistically significant in explaining loan default since both had a p value of 0.000, less than 0.01 respectively. An analysis of variance (ANOVA) was also carried out to test the goodness of fit with respect to the model overall and summarized in table 4.9 below

	Table 9: ANOVA <sup>ª</sup> Table							
	Model	Sum of Squares	df	Mean Square	F	Sig.		
	Regression	14.635	5	2.927	42.013	.000 <sup>b</sup>		
1	Residual	5.086	73	.070				
	Total	19.722	78					

a. Dependent Variable: Loan default

b. Predictors: (Constant), Mode of Ioan repayment, Structure of IR.

The results in table 10 indicated that F-statistic was 42.013 with a p-value of 0.000 (which is less than the significance level of 0.01) indicating that the overall model was statistically significant. Therefore, mode of loan repayment, and structure of interest rate have a significant effect on loan default in the area of study.

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## DISCUSSION

According to the findings of this study, majority of the study participants used direct cash deposit as their mode of loan repayment. The section below is a discussion of the two objectives studied in this study.

## a) Lender Characteristics and Loan Default

Ón the lender characteristics studied, the findings of this study revealed that there was a positive relationship between the mode of loan repayment and loan default as well as between the structure of interest rate and loan default. The interpretation of these findings is that use of more advanced modes of loan repayment or shifting from simple to more advanced or technologically complex methods of loan repayment is likely to increases cases of loan default by borrowers in the study area. The findings of this study were different from the findings of the other studies reviewed in this study because they focused on how loan default was influenced by factors other than the mode of loan repayment.

For instance, there is a study which was carried out by Makorere (2014) in Tanzania. He examined the factors affecting loan default behavior because experiences showed that many financial institutions were still facing poor loan recovery. The results of the study established that in most cases, high interest rates discouraged business to grow in the sense that a big part of the profit generated went back to the financial institutions should impose reasonable and competitive interest rates to ensure effective repayment. In another study done by Maina and Kalui (2014) where they assessed institutional factors contributing to loan defaulting in MFIs in Kenya, it established that credit policies, loan recovery procedures, and loan appraisal process had a significant impact on the loan default rate or loan delinquency occurrence.

In another study carried out by Evusa (2015) on the causes of loan default among the customers of Equity bank it was established that the major factors influencing nonpayment of borrowed loans were both internal and external. The paper recommended that banks' credit policies be reviewed to match the highly volatile economic trends within financial markets with a strong emphasis on institutional appraisals on credit worthiness. According to Hunt (2006) who examined the credit rationing technology of lenders and the repayment behavior of borrowers at a rural financial institution based on 504 sample observations, it was established that tightening the loan contract terms by reducing the grace period on loans and rejecting applications which had long processing times enhanced the pool of credit worthy borrowers.

## Summary of the findings

Considering all the independent variables used in this study, it was evident that, the independent variables; Mode of loan repayment, the structure of interest rate adopted by the lending institution, were significantly associated with loan default. Generally, all the lender characteristics studied were statistically and significantly associated with loan default.

## CONCLUSIONS

Based on the findings of this study, it was concluded that there was a significant relationship between lender characteristics and loan default. Shift of the mode of loan repayment from simple to more technologically advanced modes increases the likelihood of loan default and vice versa. A change of the structure of the interest rate from flat rate to reduced rate increases the probability of loan default.

## Recommendations

The first recommendation goes to the policy makers such as the Central Bank of Kenya, Credit bureau authority and other policy makers; there is a need to develop policies that will standardize and ensure uniformity in the financial institutions especially in the area of credit so as to reduce cases of loan default. This is because the characteristics of the lender were found to have a significant relation with loan default in the study area. However, the financial institutions should also consider revising their lending policies so that they can reduce loan repayment problems associated with lender, loan and institutional characteristics. The second recommendation goes to the financial institutions themselves; this study recommends that the lending financial institutions in the study area should ensure increased and improved attention on the customer needs as far as lending is concerned.

This is specifically when choosing the loan repayment methods to the customers as well as putting emphasis on credit risk management, training of staff and adoption of credit scoring in vetting SMEs customer loan requests. The third recommendation goes to the academicians and the researchers where this study suggests that there is need for more investigation into the area of factors associated with loan default among SMEs in Kenya. There are many questions which have not been answered by the findings of this study. The study is also recommending more investment in further research to provide a wider knowledge as well as deeper understanding of these and other factors which may influence loan repayment or may contribute to loan default in the area of study and similar areas in Kenya.

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