



**RELATIONSHIP BETWEEN OPEN MEMBERSHIP POLICY AND LOAN PERFORMANCE IN SELECTED SACCOs IN MERU COUNTY, KENYA**

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**Chokera F. M.,<sup>1\*</sup> Baimwera, B.,<sup>2</sup> & Muriuki, M.<sup>3</sup>**

<sup>1\*</sup> Master Scholar, School of Business and Economics, Kenya Methodist University [KEMU], Kenya

<sup>2</sup> Ph.D, Lecturer, School of Business and Economics, Kenya Methodist University [KEMU], Kenya

<sup>3</sup> Lecturer, School of Business and Economics, Kenya Methodist University [KEMU], Kenya

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**ABSTRACT**

*The purpose of the study was therefore to examine the relationship between open membership policy and loan performance in selected SACCO's in Meru County. The research objectives were to establish how financial risk contributes to loan performance in selected SACCOs in Meru County, to establish how repayment period contribute to loan performance in selected SACCOs in Meru County, to determine how loan security policy contributes to loan performance in selected SACCOs in Meru County and to determine how loan processing period contributes to loan performance in selected SACCOs in Meru County. The theories underpinning the study were agency theory, asymmetric information theory and loanable fund theory. The study adopted a descriptive research design and primary data was collected from the respondents while secondary data was retrieved from the published data. The researcher used questionnaire as the data collection instrument. The population of the study was seventy nine respondents from the selected SACCO's in Meru County. The study adopted a census where all the elements in the population were examined. A pilot study was conducted to establish the validity and reliability of the research instruments. The collected data was analyzed using SPSS and further explained using descriptive statistics to enhance understanding thereafter presented in descriptive tables. Multiple linear regression was used to test the relationship between the variables in the study. The study established that all the open membership policies including Financial Risk Policy, Loan Repayment Period, Loan Security Requirement and Loan Processing Period when regressed severally against loan performance have significant effect. Joint regression of all the open membership policies with loan performance revealed that only Loan Processing Period failed to have a significant effect on loan performance. The study therefore concluded that all the four variables had a significant relationship with the dependent variable and further recommended that SACCOs should put an emphasis on all the variables in the study among other factors to aid in the improvement of loan performance while at the same time having policies that enhance the performance of loans in the SACCOs.*

**Keywords:** Open Membership Policy, Loan Performance

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## INTRODUCTION

Since the establishment of SACCOs the main aim was to ensure subscribed members in various SACCOs benefit through savings and credit. This means that, if one is not a subscriber they could not enjoy the services offered. This over time has raised debates and concerns due to the stiff competition in the financial markets to date. SACCO membership is based on a common bond, a linkage shared by savers and borrowers who belong to specific community, organization, place of employment or people conducting the same form of business (Ombado, 2011). A Savings and Credit Cooperative is a type of cooperative whose objective is to pool savings for the members and in turn provide them with credit facilities (Okwany, 2010). The general objective of SACCOs is to promote the economic interests and general welfare of its members.

The first industrialized SACCOs were in Great Britain and France in the 1840s with the aim of promoting working class families in the face of the social disasters caused by industrial revolution. The second generation of the pioneers of modern cooperation emerged, in certain European rural environments in the late 19th century (Amiry, 2013). In the 1860s, these pioneers created the models of agricultural cooperatives and savings and credit cooperatives inspired by the success of the consumer cooperatives formula in Great Britain and based on old traditions of rural solidarity aimed to meet the primary economic needs, which went unsatisfied. Agricultural cooperatives then enabled families of farmers and livestock raisers to organize their own supply systems of agricultural inputs and market their products and no longer depended on merchants and business men in the cities. The SACCOs helped them to stop depending on moneylenders and to find the credit necessary to modernize their agricultural cooperatives (Mwakajumilo, 2011).

SACCOs in Kenya are currently among the leading sources of the co-operative credit for socio-economic development (Gachuhi, 2015).

Cooperatives in Kenya were started in 1908 and membership was limited to white colonial settlers. The first cooperative was established at Lumbwa, present day Kipkelion area. In 1944 colonial officers allowed Africans to form and join cooperatives (Tshishonga & Okem, 2016). The initial attempt to encourage African farming co-operatives was initiated by the need to implement the recommendations of the 'Swynnerton Plan' of 1953. The Swynnerton Plan was formulated to improve African farming, specifically the growing of cash crops and is recorded to have encouraged the progress and growth of African cooperatives (Atola & Oduor, 2017).

Today, the co-operatives are an integral part of the Government economic strategy aimed at creating income-generating opportunities particularly in the rural areas. On estimate, at least one out of every two Kenyans derives their living from the cooperative movements and the cooperative movements contribute over 45% of Kenya's economy.

Over the years, the co-operative movement remained predominantly agriculturally oriented. However, over time to present, cooperatives have undergone significant diversification and growth and ventured into savings and credit. Other non-agro-based co-operatives have also emerged and ventured into areas such as housing; Jua-Kali, building and construction, handicrafts, transport and small scale industries (Wanyama 2014). SACCOs are one of the leading sources of rural finance and in many rural areas, the local SACCO is the only provider of financial services. While the exact number of SACCOs operating in Kenya is not known, estimates states that Kenya has over 19,600 registered corporative SACCO's (SASRA, 2013). However most SACCOs have not embraced open membership policy and this could be a limiting factor when it comes to loan performance. Opening membership would increase share capital thus increasing the amount of loans taken by members leading to better performance in terms of interests.

Open membership policy in SACCO's allows people who are not in the common bond to join the SACCO and become members of the SACCO (Osoro & Ogeto, 2014). He continues to state that SACCOs over time have been operating under common bond membership where they only allow members from a particular community to join, people who share the same business, people who work for the same organization or people who have the same products. Open membership policy would allow people from outside to join even if they do not share the same business, organization, products or even do not come from the same community as long as they have the capacity to become members and agree to the terms and conditions (Minhas & Remmer, 2015). Opening membership to everyone who can be able to meet the terms and conditions of the SACCO would contribute to customer growth and SACCO growth in terms of deposits which translates to greater loan volumes which will be taken by the customers.

Loan performance can be looked at in various ways including loan being paid effectively and efficiently putting into consideration the stipulated time, loan being paid without default, loan issued to customers growing in volume and also the processing period of loans shortened meaning money to disburse to the applicants is readily available (Schmidt & Cohen, 2015). Loan performance can be measured through the number of loan applications, loan interest, and the loan amounts applied for. Performing loans are the assets that are currently generating income in an organization (Van Greuning, Scott & Terblanche, 2011). According to CBK (2009), loan performance refers to that loan which is serviced without delay and without fail and the correct amount. Performing loans has seen to the growth of SACCO's in Kenya and across since the profits are used as assets that contribute to credibility of SACCO's (Oloo, 2011). Therefore SACCO's should try to device measures that should help their clients use the loans given for the intended purpose to ensure they are able to pay back effectively. This will see to

the growth of the SACCO's and also retain their customers meaning ready market throughout.

The savings and credit cooperatives have in a great way contributed to the growth of the economy of Kenya in that it has improved the livelihood of low-income earners. They enable their customers to save at high interests and borrow at very low interest rates. This has seen to the tremendous growth of SACCOs over the recent past with the regulating body for SACCOs SASRA giving a report that they have registered over 73 deposit taking SACCO's. SACCO's are expected to give periodic reports of their operations and the services they offer range from front office operation to taking deposits and giving credit to the clients (Standard Financial Report, 2013). Kenya is the largest sub-sector in Africa with over 19,600 cooperative societies, where 10,000 of these are savings and credit cooperatives and over 14 million members which represents 33% of the Kenyan total population (SASRA, 2013).

Through advancement of credit to members, SACCO play a significant role in fighting poverty and creating job opportunities to citizens impacting on the economy in terms of growth. In Kenya there are deposit taking and non-deposit taking SACCO societies and they play different roles. According to Jagongo and Kinyua (2013), deposit taking SACCOs comprise of those SACCOs that have both withdrawable and non-withdrawable deposits. Odhiambo (2014) on the other Hand states that non deposit taking SACCO's comprise of the SACCO's whose business is limited to deposit mobilization and the deposits are not withdrawn but used as loan collateral and can only be withdrawn upon seizing SACCO membership.

In Meru County the number of SACCOs has grown over time leading to stiff competition and also affecting performance of loans in a great way (SASRA, 2017). This means that most of the SACCOs are struggling to survive and others consider closing down since they cannot sustain their employees and pay for their residence. SACCOs in Meru County have considered various ways to try and improve

their loan performance but still challenges have persisted. They have tried to encourage members to form groups to help them qualify for loans and also for easier repayment but this has proven not to be the solution to the loan performance problem (Kiringa, Jagongo, Kiio, Njuguna, Muguongo, Nganyi & Qiao, 2017). This is so because cases of loan defaults has become higher since members relax and leave the group members to pay the loans for them. Maina, Muturi & Oluoch (2018) in their study on non- performing loans in cooperatives realized that cooperatives were not able to totally cover the market well leading to reduced number of loans applied for while on the other hand leading to poor loan performance for the already issued loans since they do not try new avenues which could be through open membership policy in the effort to try and capture the whole market.

### **Statement of the Problem**

SACCOs provide a wide range of products as compared to other financial institutions starting from loan offering at a cheaper rate as compared to banks, their interest on savings is also high leading to a high population of Kenyans not having bank accounts but go to SACCOs (Fin Access, 2009).

There is untapped market whereby in terms of loan lending and customer subscription, up to 48% of Kenyans do not have accounts whether in banks or SACCOs (UK Essays, 2018). Most SACCOs do not have open membership policy where anyone is free to join as long as they can be able to deposit savings and have the minimum requirements in terms of share capital thus the performance on their loans stagnates or in some cases go down due to the competition in the market. The level of risk SACCO's are willing to take in terms of financing determines the level of gain realized. Currently, loan performance has gotten poor over time since many SACCO's are too cautious on the level of financial risk associated looking at factors like repayment period and the security policy in place. This in turns leads to queuing in loan processing as they take time to evaluate the repayment power and risk attached if a collateral is not present or the

guarantors do not have the capacity to cover the loans thus needs change or revision (Adhiambo, 2015).

A study carried out by Eric, Willy and Oluoch (2018) sought to find the effects of Non- Performing loans Management practices on loan recovery performance of deposit taking savings and credit cooperatives in Kenya and found out that the one of the limiting factors was the fact that SACCOs never had open membership policy which would allow them to grow their share capital and deposit which would lead to a positive curve on the performance of loans. Therefore, this study will attempt to fill the gap of knowledge and find out the relationship between open membership policy and loan performance in selected SACCOs in Meru County.

### **Objectives of the Study**

To general objective of this study was to investigate the relationship between open membership policy and loan performance in selected SACCOs in Meru County. The study was guided by the following specific objectives;

- To assess how financial risk policy under open membership affects loan performance in selected SACCOs in Meru County
- To determine how loan repayment period under open membership affects the loan performance in selected SACCOs in Meru County
- To determine how loan security requirement under open membership contributes to loan performance in selected SACCOs in Meru County
- To determine how loan processing period under open membership contributes to loan performance in selected SACCOs in Meru County

## **LITERATURE REVIEW**

### **Agency Theory**

The agency theory was developed by Mitnick and Barry (1973) and they were trying to look at decision variations in relation to the principal and

the agent within the members of a particular group. The theory was also interested in looking at the differences that exist between the two parties, which are caused by unclear goals. It continues to explain that the principle where in this case is the SACCO and the agent in this case the credit analysts do not look at issues from the same perspective and also may be having different goals leading to differences. This is so since the predetermined goals have different impact on different individuals thus the diverse kind of results. An agent acts as a link between the principal and the members thus the information they give to the members is going to yield the results.

The theory is relevant in this study since SACCOs have employed agents who see to the issuance of loans to customers, they also ensure customers subscription to the SACCO, they also ensure that the policies and regulations are well known to the clients before they join the SACCOs and also share information on loans. The agents are also responsible for ensuring the clients have the necessary loan security putting into consideration the financial risks associated while on the other hand ensuring the loans are processed within the stipulated period of time to ensure they do not lose the customers to the competitors. This therefore would lead to recruitment of the members who meet the criteria thus improved loan performance in the respective SACCOs.

#### **Asymmetric information theory**

The asymmetric information theory was developed by George, Joseph and Michael (1970) where they sought to explain the effect of having two agents where one agent has more information than the other giving them some added advantage. This also extend to the members also where they may seem to have more information than their fellow members or even that the agents themselves. Mokaya and Kipyegon (2014), states that separating a good borrower from a bad borrower is the biggest challenge in most situations since in the first instance almost everybody seems genuine until the loan is issued and payment commences. By the

virtue of members having more information about the lenders, it could mean more subscribers if the information is good while on the other hand, If the information is negative it means ruining the organization in the sense that even the members who had subscribed would tend to leave while discouraging others not to join. The number of the subscribed members would in turn make a significance difference in the performance of an organization in whatever perspective. The theory is significant to the study in that it will help the agents to be more keen and aware of the kind of members to enroll and trust when it comes to giving of loans since they could be able to monitor and have more information about the borrowers. It could also help the agents to be more assertive and want to gather as much information as possible about the borrowers before they could process a loan.

#### **Loanable Funds theory**

According to Dennis Roberston (1937) and neo-classical economists the price or the rate of interest is determined by the demand for and supply of loanable funds. The market for loanable funds consists of arrangements and procedures to carry out transactions between people who want to borrow money and people who want to lend money. According to this theory, rate of interest is determined by the demand for and supply of loanable funds. In this regard this theory is more realistic and broader than the classical theory of interest (MacLachlan, 2005). In a business set up there has to be the party willing to give and another one willing to take. This theory exists for the purpose of explaining transactions that occur between the borrower and the lender to be able to balance the demand and supply for money. This theory is relevant to this study since it shows how interest is accrued for the SACCOs as well as indicating the demand and supply curves in the SACCOs. Through the borrowing and payment behavior of customers, SACCOs are able to predict the level of income as well as interest.

## Empirical Review

An evaluation done by (Kenneth, 2017) on the impact of credit risk and the profitability of banks in Nigeria concluded that profitability in the banks was significantly influenced by the risk management procedures. It was evident the procedures laid down in the financial risk policy were not being fully implemented thus posting poor loan performances. Further it was concluded that the non-performing loans, customer deposits and the amounts of loans and advances contributed a lot in the profit margins in the banks. Epure (2012) did a study on bank performance in Costa Rican banking industry in comparison to the risk associated and came to a conclusion that the existing regulations on financial risk to a great extent influenced the overall bank performance. The study further found out that the net interest margin is influenced by capital adequacy and the loans that are not performing impact negatively on the return on asset and efficiency. According to a study conducted by (Al-Khouri, 2011) on the impact of specific risk characteristics in banks and the overall performance of the banks operating in six of the Gulf Cooperation Council countries, the conclusion revealed some aspects that contributed to the overall performance. These factors included liquidity risk, credit risk and capital risk. While performance is achieved through various variables and parameters, the study put more emphasis on the above three as they form the larger fraction of performance in the financial institutions. The study also established that Most of the SACCOs did not have provisions for these risks thus putting them at risk of losing funds. The study continued to state that profitability measured by return on equity is majorly affected by liquidity risk.

A study carried out on the determinants of loan repayment period and loan performance in Addis credit and savings institution Addis Ababa in Ethiopia, concluded that most of the credit consumers were unable to cope with the strict repayment periods that were set by the institution arguing that the period was too short and people

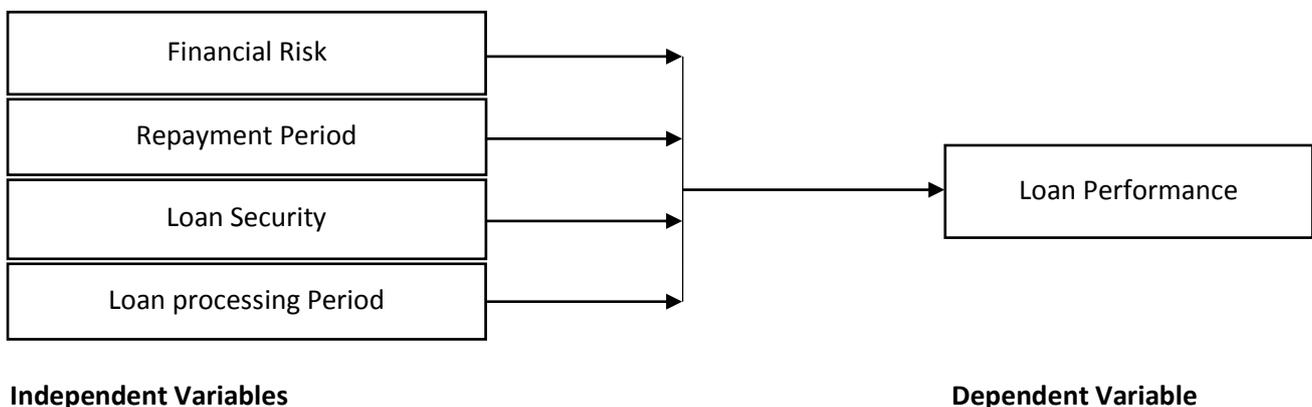
could not be able to take huge amounts since the servicing period was not sufficient enough (Reta, 2012). The study further noted that SACCOs were not flexible so as to consider adjustment of the loan repayment periods in relation to loan amounts taken. According to a research conducted by (Walsh, 2013) on the relationship between loan repayment period and loan default in SACCOs, it concluded that members are to some extent discouraged by the repayment period which they consider short thus the temptation of salary diversion and commitment to other loans. Short loan repayment periods tend to have high monthly installments that become a burden to the clients who in most cases earn very little to be able to service the loans. Streams (2012) did an analysis on borrower repayment capacity and loan repayment in banks and concluded that the ability of a loan to perform greatly lies in the borrower's ability to pay. Thus the ability to repay loans can be affected by short loan repayment periods since the shorter the period, the higher the installments per month. If the loans are spread out over longer periods of time then it means that the installments will be smaller thus encourage the clients to pay as they look at the amount as small and get the motivation to pay.

Njiru (2018) conducted a study in coffee cooperative societies in Embu district on loan security and credit risk and concluded that members had multiple subscriptions in various cooperatives within the same locality and used the same collateral as security. This therefore had implications when it came to repayment of the loans since there was not much income from the same for them to be able to service their loan leading to default which in turns led to poor loan performance in the respective cooperatives. Information search would have served a great deal in ensuring that duplication of these procedures was not there where one member was given loans by different cooperatives within the same locality with a common collateral. Omino (2014) in a study on borrower characteristics and loan default trends observed that in some cases the

characteristics that borrowers have to some extent contributed to the cases of loan default if the borrower is not willing to pay even if they have the money. On the other hand, the borrower could be influenced by the lender characteristic which could stimulate the borrower towards payment of the loan or pull them away to not paying the loan. Chaplin (2012) in a study on credit worthiness and loan performance and found out that policies and guidelines on the loans is an important tool toward enhancing loan security. There was need to emphasize on background check of the clients before entrusting them with loans. This check is for the purpose of ensuring that the client is worth the amount they are applying for. Giving loans to members before you understand their worth may lead to loan default as they may not have the capacity to repay back the monies given to them leading to default and poor loan performance.

HSBC Mortgages (2010) in their analysis on banks in Japan states that the process of acquiring loans from financial institutions is tedious and very complicated that people shy away from applying for loans considering the volume of documents

requested for and the period taken for verification of the same. Hoffmann (2017) analyzed a financial report by the sunflower producers (2006) and established that the SACCO needed to adopt some aspects that were not given much emphasis such as time taken to offer services to the customers and have in place systems that are user friendly for example in terms of customer reports generation. Some SACCOs had a very long waiting period even before one could get a simple report or a statement of account and this discouraged many from becoming members. A study conducted by (Otieno, 2014) on factors affecting loan performance in SACCOs in Kenya established that the operational efficiency greatly affected loan performance in such a way that most SACCOs lost their customers to the institutions that had an efficient system that could handle customer requests in a timely and most convenient manner. The study further identified that SACCOs did not have clear policies and guidelines ready for implementation in relation to the time taken between application of loans and disbursements as long as the clients have met all the requirements.



**Figure 1: Conceptual Framework**

**METHODOLOGY**

The study adopted a descriptive research design. The target population of the study included all the seventy nine respondents from the selected SACCOs in Meru County and it included the Credit analyst, loan sales officers and loan collection officers. The population was selected since the

listed SACCOs had adopted open membership thus the assumption was that they had information about the open membership that would be helpful for the study. The target population is the total number of items under investigation (Kothari, 2004).

Stratified sampling was used to derive a sample from the population. This study adopted a census where the whole population was tested to enable the researcher come up with the information required which comprised of seventy nine respondents from the selected SACCOs in Meru County. Structured questionnaires taking the form of qualitative and quantitative were used to collect primary data while secondary data was acquired from the published data files. Data collected was checked for completeness and comprehensibility then it was summarized, coded, tabulated and entered into SPSS (Statistical Package for the Social Science) for analysis. Linear regression analysis was also used to establish the relationship between the dependent and independent variables.

The regression equation of the linear regression analysis is:

$$LP = \alpha + \beta_1*FRP + \beta_2LRP + \beta_3*LSR + \beta_4*LPP + \epsilon_t$$

Where;

LP – Loan Performance

FRP – Financial Risk Policy

LRP – Loan Repayment Period

LSR – Loan Security Requirement

LPP – Loan Processing Period

$\alpha$  – Regression intercept

$\beta_1$  – Coefficient of Financial Risk Policy

$\beta_2$  – Coefficient of Loan Repayment Period

$\beta_3$  – Coefficient of Loan Security Requirement

$\beta_4$  – Coefficient of Loan Processing Period

$\epsilon_t$  – Regression error term

## RESULTS AND DISCUSSIONS

The study adopted a census approach in targeting respondents for the study. The researcher collected 60 out of a population of 79 respondents, which formed 75.95 percent return rate. According to Mugenda and Mugenda (2003), a response rate of 70% is appropriate for generalizing the sample results to the population.

**Table 1: Analysis of Variance for Combined Independent Variables**

Model	Sum of Squares	df	Mean Square	F	p-value
Regression	342.177	4	85.544	90.047	0.000 <sup>b</sup>
Residual	44.650	47	0.950		
Total	386.827	51			

a. Dependent Variable: Loan Performance

b. Predictors: (Constant), Loan Processing Period, Loan Repayment Period, Loan Security Requirement, Financial Risk Policy

Analysis of variance tests the null hypothesis that loan performance have no linear relationship to the independent variables (Financial Risk Policy, Loan Repayment Period, Loan Security Requirement and Loan Processing Period). Rejecting the null hypothesis means that at least one predictor is a linearly related to the dependent variable. The

observed p-value in Table 1 for the F-statistics was 0.000 ( $P < 0.05$ ). Therefore, the study rejected the null hypothesis hence leading to the conclusion that there is a linear relationship between the independent variables and the dependent variable (loan performance).

**Table 2: Model Summary for Combined Independent Variables**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
0.941 <sup>a</sup>	0.885	0.875	0.97468	1.621

a. Predictors: (Constant), Loan Processing Period, Loan Repayment Period, Loan Security Requirement, Financial Risk Policy

b. Dependent Variable: Loan Performance

Pearson's coefficient of multiple correlation (R) was 94.1%, which indicated a strong correlation

between loan performance and the independent variable (Financial Risk Policy, Loan Repayment

Period, Loan Security Requirement and Loan Processing Period). This further corroborated the findings for Analysis of Variance.

**Linear Regression Loan Performance in selected SACCOs against Financial Risk Policy**

The linear relationship between loan performance in selected SACCOs and financial risk policy was in accordance to general form below

$$LP = \alpha + \beta * FRP + \epsilon_t$$

Where;

LP – Loan Performance

FRP – Financial Risk Policy

$\alpha$  – Regression intercept

$\beta$  – Coefficient of Financial Risk Policy

$\epsilon_t$  – Regression error term

LP =	1.321	+	0.694*FRP'	..... (1)
<i>t</i> -statistic	1.567		14.080	
<i>p</i> -value	0.124		0.000	

R	0.894 (89.4%)
R-square	0.799 (79.9%)
F-statistic	F = 198.253; p = 0.000

$H_{01}$ : There is no significant relationship between financial risk policy and loan performance

In equation 1, loan performance is the dependent variable while financial risk policy was the independent variable. The results showed that loan performance has a significant positive relationship (R=89.4%) with financial risk policy, implying that both variables moves in same direction in significantly close proportions. Pearson’s coefficient of determination, (R-square=0.799) shows that financial risk policy explains 79.9% of variations in the loan performance of SACCOs in Meru County. Equation 1 further showed that marginal increase in financial risk policy leads to 0.694 increase in the loan performance while holding other factors constant. The *p*-value of the coefficient of financial risk policy was 0.000 (*p*<0.05). Therefore,  $H_{01}$  was rejected hence concluding that at a significance level of 5%, financial risk policy is significantly related to loan performance of SACCOs in Meru County. These results concurred with those of Al-

Kouri (2011) in a study on the impact of specific risk characteristics and bank performance in Gulf Cooperation Council countries and realized that liquidity risk, credit risk and capital risk significantly influenced the financial performance of Banks.

**Linear Regression of Loan Performance in selected SACCOs against Loan Repayment Period**

The linear relationship between loan performance and loan repayment period was presented in the general form below

$$LP = \alpha + \beta * LRP + \epsilon_t$$

Where;

LP – Loan Performance

LRP – Loan repayment period

$\alpha$  – Regression intercept

$\beta$  – Coefficient of loan repayment period

$\epsilon_t$  – Regression error term

LP =	1.721	+	0.675*LRP	..... (2)
<i>t</i> -statistic	1.963		13.090	
<i>p</i> -value	0.055		0.000	

R	0.880 (88.0%)
R-square	0.774 (77.4%)
F-statistic	F = 171.337; p = 0.000

$H_{02}$ : There is no significant relationship between loan repayment period and loan performance

In equation 2, loan performance was the dependent variable while loan repayment period was the independent variable. The results showed significant positive relationship (R=88.0%) between loan repayment period and loan performance. This implied that both variables moves in same direction in significantly close proportions. The coefficient of determination, (R-square=0.774) showed that loan repayment period explained 77.4% of variations in the loan performance of SACCOs in Meru County. Equation 2 further showed that marginal increase in loan repayment period leads to 0.675 increase in the loan performance while holding other factors constant. The *p*-value of the coefficient of loan repayment period was 0.000 (*p*<0.05). Therefore,

$H_{02}$  was rejected hence concluding that at a significance level of 5%, loan repayment period is significantly related to loan performance of SACCOs in Meru County. The results concurred with those of Walsh (2013) in a study on the relationship between loan repayment period and loan default in SACCOs which concluded that an increase in loan repayment period or adjustment in the repayment period eliminates the crisis of non-performing loans thus good financial records and credit worthiness.

### Linear Regression of Loan Performance against Loan Security Requirement

The linear relationship between loan performance and loan security requirement was presented in the general form below

$$LP = \alpha + \beta * LSR + \epsilon_t$$

Where;

LP – Loan Performance

LSR – Loan Security Requirement

$\alpha$  – Regression intercept

$\beta$  – Coefficient of Loan Security Requirement

$\epsilon_t$  – Regression error term

LP =	1.813	+	0.663*LSR	..... (3)
<i>t-statistic</i>	1.865		11.698	
<i>p-value</i>	0.068		0.000	

R	0.856 (85.6%)
R-square	0.732 (73.2%)
F-statistic	F = 136.839; p = 0.000

$H_{03}$ : There is no significant relationship between Loan security requirement and loan performance

In equation 3, loan performance was the dependent variable while loan security requirement was the independent variable. The results showed that loan performance has significant positive relationship (R=85.6%) with loan security requirement. This implied that both variables moves in same direction in significantly close proportions. The coefficient of determination, (R-square=0.732) showed that loan security requirement explained 73.2% of variations in the loan performance of SACCOs in Meru County. Equation 3 also showed that marginal increase in

loan repayment period leads to 0.663 increase in the loan performance while holding other factors constant. The p-value of the coefficient of loan security requirements was 0.000, which was less than 5% (0.05). Therefore,  $H_{03}$  was rejected hence concluding that at a significance level of 5%, loan security requirement is significantly related to loan performance of SACCOs in Meru County. The results are in agreement with those of Chaplin (2012) who did a study on credit worthiness and loan performance and concluded that loan security is enhanced through policies and guidelines in place to regulate loan issuance and compliance to the same.

Chaplin (2012) in a study on credit worthiness and loan performance and found out that policies and guidelines on the loans is an important tool toward enhancing loan security.

### Linear Regression of Loan Performance against Loan Processing Period

The linear relationship between loan performance and loan processing period is in the general form below

$$LP = \alpha + \beta * LPP + \epsilon_t$$

Where;

LP – Loan Performance

LPP – Loan Processing Period

$\alpha$  – Regression intercept

$\beta$  – Coefficient of Loan Processing Period

$\epsilon_t$  – Regression error term

LP =	5.684	+	0.460*LPP	..... (4)
<i>t-statistic</i>	5.226		6.899	
<i>p-value</i>	0.000		0.000	

R	0.698(69.8%)
R-square	0.488 (48.8%)
F-statistic	F = 47.595; p = 0.000

$H_{04}$ : There is no significant relationship between loan processing period and loan performance

In equation 4, loan performance is the dependent variable while loan-processing period was the independent variable. The results showed that loan performance has significant positive relationship

(R=69.8%) with loan processing period, which implied that both variables moves in same direction. The coefficient of determination, (R-square=0.488) showed that loan-processing period as an independent variable explains 48.8% of variations in the loan performance of SACCOs in Meru County. Equation 4 also shows that a unit increase in loan processing period leads to 0.460 increase in the loan performance while holding other factors constant. The p-value of the coefficient of loan processing period was 0.000, which was less than 5% (0.05). Therefore,  $H_{04}$  was rejected hence concluding that at a significance level of 5%, loan processing period is significantly related to loan performance of SACCOs in Meru County. The results concurred with the results of a study conducted by Otieno (2014) on the factors affecting loan performance in SACCOs in Kenya and concluded that efficiency in operations in terms of processing of loans applied by clients enhances loan performance and also build customer confidence and loyalty since they believe in their systems in

terms of handling customer requests in a timely and efficient manner.

**Multiple Linear regression of Loan Performance against Open Membership Policy**

The linear relationship between loan performance and open membership policies was presented the general form below;

$$LP = \alpha + \beta_1 * FRP + \beta_2 * LRP + \beta_3 * LSR + \beta_4 * LPP + \epsilon_t$$

Where;

LP – Loan Performance

FRP – Financial Risk Policy

LRP – Loan Repayment Period

LSR – Loan Security Requirement

LPP – Loan Processing Period

$\alpha$  – Regression intercept

$\beta_1$  – Coefficient of Financial Risk Policy

$\beta_2$  – Coefficient of Loan Repayment Period

$\beta_3$  – Coefficient of Loan Security Requirement

$\beta_4$  – Coefficient of Loan Processing Period

$\epsilon_t$  – Regression error term

The regression equation of the linear regression analysis is:

$$Y = -0.076 + 0.229FRP + 0.284LRP + 0.194LSR + 0.075LPP + e \dots\dots\dots (5)$$

<i>Std. error</i>	0.701	0.088	0.075	0.072	0.048
<i>t – stat</i>	- 0.109	2.601	3.769	2.687	1.588
<i>p-value</i>	0.914	0.012	0.000	0.010	0.119

R	0.941(94.1%)
R-square	0.885 (88.5%)
F-statistic	F = 90.047; p = 0.000

Equation 5 showed the results from the multiple linear regression analysis with all open membership policies of the study entered jointly as the independent variables while loan performance was the dependent variable. The results contain t-statistic and the corresponding p-values that were used to form conclusions on the study’s hypotheses. The beta coefficients for each open membership policy show the increment of loan performance with respect to the marginal increment of each respective open membership policies.

The p – value corresponding to financial risk policy was 0.012 (p<0.05), hence the null hypothesis was rejected. Therefore, financial risk policy significantly affects loan performance of Sacco banks in Meru County while holding other factors constant. Marginal increase in financial risk policy leads to 0.229 increase loan performance of Sacco banks in Meru County while holding other factors constant.

The p – value corresponding to loan repayment period was 0.000 (p<0.05), hence the null hypothesis on loan repayment period was rejected.

Therefore, loan repayment period significantly affects loan performance of Sacco banks in Meru County while holding other factors constant. Marginal increase in loan repayment period leads to 0.284 increase loan performance of Sacco banks in Meru County while holding other factors constant.

The  $p$  – value corresponding to loan security requirement was 0.010 ( $p < 0.05$ ), hence the null hypothesis on loan security requirement was rejected. Therefore, loan security requirement significantly affects loan performance of Sacco banks in Meru County while holding other factors constant. Marginal increase in loan security requirement leads to 0.194 increase loan performance of Sacco banks in Meru County while holding other factors constant.

The  $p$  – value corresponding to loan processing period was 0.119 ( $p > 0.05$ ), hence the null hypothesis on loan processing period is not

rejected. Therefore, loan processing period does not significantly affect loan performance of Sacco banks in Meru County while holding other factors constant. Marginal increase in loan processing period leads to 0.075 increase loan performance of Sacco banks in Meru County while holding other factors constant.

The study established that all the open membership policies (Financial Risk Policy, Loan Repayment Period, Loan Security Requirement and Loan Processing Period) when regressed severally against loan performance have significant effect as shown in equations 1, 2, 3 and 4. Jointly regression in equation 5 of all the open membership policies with loan performance revealed that only Loan Processing Period failed to have a significant effect on loan performance.

A summary of the regression results were provided below.

**Table 3: Hypotheses Summary based on Independent Linear Regressions**

Null Hypothesis	P-Value Simple Regression	P-Value Multiple Regression
$H_0$ : There is no significant relationship between financial risk policy and loan performance	0.000	0.012
$H_0$ : There is no significant relationship between loan repayment period and loan performance	0.000	0.000
$H_0$ : There is no significant relationship between loan security requirement and loan performance	0.000	0.010
$H_0$ : There is no significant relationship between loan processing period and loan performance	0.000	0.119

Table 3 showed that all our hypotheses of the study were rejected according to the simple linear regression ( $p = 0.000 < 0.05$ ). However, loan-processing period failed to have a significant relationship ( $p = 0.119 > 0.05$ ) with loan performance when the entire research constructs were regressed jointly. This meant that loan processing period in the presence of financial risk policy, loan repayment period and loan security requirement is not significant.

### CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the financial risk policy may not be made available to all or even may not be understood by all. The policy on financial risk may

also be present but not in practice thus posing a risk to the SACCO since finances may be lost due to laxity and lack of seriousness in practice. Operation risk policy was not totally utilized thus led to losses in some instances as the funds were not used for the purpose intended fully leading to poor overall performance of loans. Some SACCOs did not consider the risk factors associated with loans and developments hence suffered losses and poor performance of loans. While the business could have chances of thriving and outperforming its competitors, failure to assess the market risk was evident in some SACCOs that made the loans perform poorly especially were they were not aware of what the market offered and what it was

ready to take. Most SACCOs had a liquidity policy that enabled them to account for finances in terms of assets and be able to anticipate for any possible loss associated with the loans.

The study also concluded that there were guidelines in place to regulate the loan repayment period to ensure all are complying though in some cases, clients were unable to comply since they felt the installments period was not sufficient for loans taken thus loans did not perform as expected. Most SACCOs allowed a grace period after disbursement of loans though not all the SACCOs allowed the grace period. This period was meant for clients to reorganize themselves even as they start repayment of installments as per the loan agreement. In the event of normalcies, loan restructuring was considered in some SACCOs allowing the loans to be serviced with reduced cases of defaults. Late payment was treated with a lot of seriousness and follow up was keenly done in most of the SACCOs. This helped in ensuring the loans were fully paid and ensured loan performance was on a positive curve.

Objective three concluded that SACCOs had loan security policies that provided a guideline on the securities that were acceptable for one to qualify for a loan. The guidelines provided for a guarantor policy that explained the qualifications one needed to have to qualify to be a guarantor. All the SACCOs required one to have a guarantor as a form of security for a loan to be issued. This enhanced trust and confidence that the clients would pay since they had a link to access the client in case in default. Savings were also a requirement in all the SACCOs for one to qualify for some loan. They served as a security for loans applied for since they are easily accessible to the SACCOs that are issuing the loans. Anyone who had a loan in the SACCOs also had savings as per the policy on loans and savings. Those applying for loans needed to have accounts with the respective SACCOs and also upon application of loans they were required to have statements of accounts as evidence they were regular on their savings and also as security they

had some form of regular income hence some form of assurance on loan repayment capability and credit worthiness. Upon loan application, the assets offered as collateral needed to have ownership document thus all the SACCOs needed one to produce the ownership documents as security that in case one is not able to pay they could recover their monies by disposing the assets. This gave confidence to the SACCOs to issue loans with the security documents in their possession while on the other hand the clients committed to repay the loans for fear of losing their assets thus enhance loan performance.

Finally, loan processing period was an essential factor in ensuring performance of loans in the SACCOs. This was because loans meant to help in sorting out needs and once they take too long to be disbursed then it is a discouraging factor towards application of the loans. SACCOs tried not to accumulate loan forms for the loans applied and reduced the processing period through quick action on the loans applied for. The loan waiting periods in some SACCOs was not defined and this would make the loans delay hence affecting performance of loans and also loss of confidence from the clients. Some SACCOs had specific amounts to be disbursed in a day thus affecting the number of loans to be processed and issued in the effort to comply to the daily limit for loan disbursements. This in the long run affected the performance of loans since it limits on the period of processing and rate at which loans are issued as they avoid violation of the maximum disbursement policy. Some SACCOs have too much of requirements before they can process a loan thus delaying the whole process and in some other cases, the required documents are difficult to get thus some loans ends up being declined thus affecting the overall performance of loans in many SACCOs.

It was recommended that SACCOs should come up with a practical operational risk policy that should be known to all and practiced by all to enhance the performance of the SACCO as a unit in all aspects. Further, there should be a working credit risk

premium that takes care of all the credit risks in the SACCO which also takes care of finances in form of assets to enhance performance of loans in the SACCO. It is paramount for all the SACCOs to conduct a market analysis to ensure they are aware of what is happening in the market in terms of loans before they formulate policies concerning loans to be able to understand the trend in the market, know their competitors and at the same time know what the market takes and what it offers. This could help in enhancing loan performance as the SACCO offers what is required and hence be able to compete favorably in the market. It is also important to have a working liquidity risk policy in order for SACCOs to understand their worthiness in terms of assets and credit. This will help in establishing to what level the organization extend its risk in terms of credit.

SACCOs have varied repayment periods as per their policies and guidelines. It was recommended that SACCOs should consider allocating sufficient repayment periods for loans issued to reduce chances of non-payment of loans to avoid recording poor loan performance. It is also recommended that SACCOs should consider allowing some grace period after they disburse loans to allow for the client to reorganize themselves and be in a position to start paying the installments. This was in the faith that one has put their monies to work and that it has started bearing some returns. Further the study recommends that if one is not able to fully and regularly service the loans given, they can be considered for loan restructuring to avoid cases of loan default and also ensure the loan is still performing. The study also recommends that cases of late payment of loans should be treated individually since the cases are not identical for the SACCO to know the most appropriate action to take as per the individual case to ensure enhanced loan performance.

On the loan security objective, it is recommended that loans should always have a form of security which guarantees recovery in the event the loan is not paid as per the agreement. Further a guarantor

policy should be well developed and designed and made a mandatory requirement that all clients understand the implications before committing to be a guarantor. This would help in ensuring that follow up on loan payment is an initiative for both the SACCO, the client and the guarantor thus commitment to repay. In addition the study recommended that savings contribution should be made a mandatory requirement done regularly even after the loan is issued to ensure there is more security for the loan. The study also recommended that the statements of account should be a mandatory requirement and that all of them should be certified to ensure they are genuine and can be considered a security for credit worthiness and a tool to show history on the previous loans and savings. If collateral is offered it is recommended that all ownership documents should have a serial numbers that match the items upon verification. This will help during auction in the event the loan is not paid as per the agreement thus enhance loan performance.

Finally, on loan processing period, the study recommended that forms should be acted upon as fast as possible to ensure they do not accumulate causing delays in loan process and disbursement ruining the opportunity to serve more customers and earn more income in form of interests earned through loans. It is also recommended that the loan processing waiting period should be shortened to encourage more clients to borrow and also to be able to outperform your competitors in terms of efficiency and effectiveness. Further, the study recommended that SACCOs should review the amounts allocated as daily disbursement and try to settle for a figure that accommodates more disbursements to allow for more loans to be disbursed in a day. This will improve on loan performance as clients will not have to queue awaiting disbursements while on the other hand reduces forms accumulation. On the other hand, the study recommends that if possible the loan policy should have minimal requirements that are very necessary and reduce on too much paperwork

that may be unnecessary and not even mandatory to the process. This will reduce on the number on discouraged clients who at some point in time feel the requirements are way too many in some SACCOs and tend to look for other financial facilities. If this is accomplished and the client volume increases then it leads to improved loan performance in SACCOs.

#### Areas for Further Research

The results from the study pointed out a number of opportunities for further research;

- There is need to carry out a similar study in other sub-counties in order to see if the results are similar.
- There is need to investigate whether open membership policy has been established in different SACCOs
- There is also need to establish the most appropriate open membership policy to be adopted in SACCOs.

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