

## Effect of Credit Management on Firm Profitability: Evidence Savings and Credit Co-Operatives in Kenya

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### Abstract

The purpose of this study is to examine the effects of credit management (CM) on the firm's profitability. The study used explanatory research design to establish causal effects of credit management on the firm profitability. The study targeted all the Sacco's within Uasin Gishu County. The study employed structured questionnaires as the instruments for data collection. Data was analyzed and presented with the aid of statistical package for social sciences (SPSS), which provided descriptive and inferential statistics. The findings indicated that credit debt collection, credit risk assessment, credit granting decision, credit debt collection and credit policy play an important role in improving firm profitability. Thus management needs to put in place sound credit management to prevent late payment by debtors hence an increase in profitability. It is also prudent for the management of SACCOs to ensure an efficient credit policy and also give assurance to the stakeholders on the SACCOs ability to meet its financial obligations as when due either in favorable or unfavorable economic conditions. The study affirmed a strong support for the argument that credit granting decision affects firm profitability at a high rate and thus management should be willing to implement it in order to increase financial viability. SACCOs should ensure that debts are paid in time so that they cannot face financial constraints due to bad debts.

### INTRODUCTION

Credit management is an important issue in any organization since most business operations are based on credit terms agreed by both parties. This is because without a proper management of firm's credit components, it is difficult for the firm to run its operations smoothly. That is why (Brigham and Houston, 2003), observed that about 60 percent of a typical financial manager's time is devoted to managing the firm's credit affairs. Hence, the crucial part of managing credit is maintaining the required liquidity in day-to-day operation to ensure firms smooth running and to meet its obligation (Eljelly, 2004).

According to (Kargi, 2011) the credit function of SACCOs enhances the ability of investors to exploit desired profitable ventures. Credit creation is the main income generating activity of SACCOs. However, it exposes the SACCOs to credit risks. The Basel Committee on Banking Supervision (2001), defined credit risk as the possibility of losing the outstanding loan partially or totally, due to credit events (default risk). Through the effective credit management SACCOs not only support the viability and profitability of their own business, they also contribute to systematic stability and efficient allocation of capital in the economy (Psillaki, Tsolas, and Margaritis, 2010), effective management of credit leads to the release of funds for other purposes since the unnecessary investment in working capital results to a decrease in returns (Filbeck, Kreuger, 2004), on the other side, supplying inadequate funds for working capital may lead to financial constraints and a liquidity problem as the firm is unable to satisfy its short-term liabilities (Lamberson, 1995, Appuhami, 2008; Viskari *et al.*, 2011), thus a value maximizing risk return trade-off is an all-time obsession of finance manager dealing with credit management and attaining desired firm profit targets.

The success of MFIs largely depend on the effectiveness of their credit management systems because these institutions generate most of their income from interest earned on loans extended to small and medium entrepreneurs. The Central Bank Annual Supervision Report, 2010 indicated high incidence of credit risk reflected in the rising levels of non-performing loans by the MFI's in the last 10 years, a situation that has adversely impacted on their profitability. This trend not only threatens the viability and sustainability of the MFI's but also hinders the achievement of the goals for which they were intended which are to provide credit to the rural unbanked population and bridge the financing gap in the mainstream financial sector. A Study on microfinance credit recovery systems is a topic of considerable interest by many researchers. However, most studies undertaken in the past few years have focused mainly on credit models used by MFI's and their impact on profitability (Migiri, 2002). Absence of empirical studies on credit recovery systems and recognition of the critical role that MFI's play in the economy are the principal motivation behind this study which sought to find out the effectiveness of credit management systems on loan performance among microfinance institutions. However, limited attention has been adhered to the credit management of SACCO's in developing economies with a few researches conducted in Kenya focusing on firms' with limited asset base such as SACCO's to evaluate how credit management affects their net profitability. Therefore, this paper seeks to investigate the affect of credit management on profitability of the firm. This paper is based on the following hypotheses:-

- $H_{o1}$ : Risk assessment has no significant effect on the firm profitability  
 $H_{o2}$ : Credit granting decision has no significant effect on the firm profitability  
 $H_{o3}$ : Credit debt collection has no significant effect on the firm profitability  
 $H_{o4}$ : Credit policy has no significant effect on the firm profitability

### Theoretical review

The original version of the trade-off theory grew out of the debate over the Modigliani- Miller theorem. When corporate income tax was added to the original irrelevance proposition (Modigliani and Miller, 1963), this created a benefit for debt in that it served to shield earnings from taxes since the firm's objective function is linear, there is no offsetting cost of debt; this implied 100% debt financing. To avoid this extreme prediction, an offsetting cost of debt is needed. The obvious candidate is bankruptcy (Kraus and Litzenberger, 1973), provide a classic statement of the theory that optimal leverage reflects a trade-off between the tax benefits of debt and the deadweight costs of bankruptcy. According to (Myers, 1984), a firm that follows the trade-off theory sets a target debt-to-value ratio and then gradually moves towards the target.

The target is determined by balancing debt tax shields against costs of bankruptcy several aspects of Myers' definition merit discussion. Firstly, the target is not directly observable as it may be imputed from evidence but that depends on adding a structure. Different papers add that structure in different ways. Second, the tax code is much more complex than that assumed by the theory. Depending on which features of the tax code included, different conclusions are regarding the target that can be reached (Graham 2003), provides a useful review of the literature on tax effects. Third, bankruptcy costs must be deadweight costs rather than transfers from one claimant to another. The nature of these costs is important too are the fixed costs? Do they increase with the size of the bankruptcy? Are the costs one-time costs like a lawyer's fees or are they permanent costs like the cost of a damaged reputation?

(Haugen and Senbet, 1978), provide a useful discussion of bankruptcy costs. Fourth, transactions costs must take a specific form for the analysis to work. For the adjustment to be gradual rather than abrupt, the marginal cost of adjusting must increase when the adjustment is larger. This assumed form of adjustment cost is rather surprising since one expects to see large fixed costs and perhaps roughly constant marginal costs. This implies a very different adjustment path (Leary and Roberts, 2004b), describe the implications of alternative adjustment cost assumptions.

### Risk Assessment and Firm Profitability

Credit risk management is very vital to measuring and optimizing the profitability of firms. The long term success of any firm depended on effective system that ensures repayments of debts by borrowers which were critical in dealing with asymmetric information problems, thus, reduced the level of financial losses (Basel, 1999), effective credit risk assessment system involved establishing a suitable credit risk environment; maintaining an appropriate credit administration that involves monitoring processing as well as enough controls over credit risk (Greuning and Bratanovic 2003).

Top management ensure, in managing credit risk, that all guidelines are properly communicated throughout the organization and that everybody involved in credit risk management understands what is required of him/her. Studies by Kithinji (2010) assessed the effect of credit risk management on the profitability of commercial banks in Kenya. Data on the amount of credit, level of non-performing loans and profits were collected for the period 2004 to 2008. The findings revealed that the bulk of the profits of commercial banks are not influenced by the amount of credit and non-performing loans, therefore suggesting that other variables other than credit and non-performing loans impact on profits. Other scholars that have researched on credit risk assessment such as Chen and Pan (2012) examined the credit risk efficiency of 34 Taiwanese commercial banks over the period 2005-2008. Their study used financial ratio to assess the credit risk and was analyzed using Data Envelopment Analysis (DEA). The credit risk parameters were credit risk technical efficiency (CR-TE), credit risk allocative efficiency (CR-AE), and credit risk cost efficiency (CR-CE). The key principles in credit risk management are; firstly, establishment of a clear structure, allocation of responsibility and accountability, processes have to be prioritized and disciplined, responsibilities should be clearly communicated and accountability assigned thereto (Lindergren, 1987). According to the Demircuc-Khunt and Huzinga (1999), the overwhelming concern on Bank credit risk management is two-fold. First, the Newtonian reaction against bank losses, a realization that after the losses have occurred that the losses are unbearable

### Credit Granting Decision and Firm Profitability

Studies conducted by Paul and Boden (2008) suggest that credit granting is not only a single institution's decision for this reason firms need to match normal industry terms to maintain their market competitiveness. If the credit granted by a firm is not competitive compared to firms in the same sector, this could have negative effects on firm profitability. The study revealed that in order to analyze the effect of varying industry terms they

did so by defining a dummy variable that takes value one for firms granting shorter trade credit periods than the industry mean, therefore testing the hypothesis from the study that differences in trade credit period related to industry terms lead to worse operating profitability but shorter credit periods than the industry mean reduced firm profitability

Firms may grant credit to their customers for various reasons which include but not limited to the following as noted by (Adeniyi, 2004). When there is a lot of competition in an industry, a firm may grant its customers credit so as to attract them for patronage. The nature of the business may demand that goods be sold on credit instead of in cash. For instance; some industrial products may be sold on credit than in cash. Credit granting decision should ensure that the period of credit or the discount for prompt payment is well determined; firms can sell their products at different prices depending on the demand elasticity of customers. In a long term perspective, trade credit might give future profits by establishing and maintaining permanent commercial relationships, according to Wilner (2000) Besides increased sales, trade credit may increase revenues through interest income (Emery, 1984) or reduction in transaction costs (Ferris, 1981; Emery, 1987). However, the provision of trade credit entails negative effects such as default risk or late payment, which may damage firm profitability

### **Credit Debt Collection and Firm Profitability**

Sacco's sustainability and levels of development basically depend on high recovery levels of its loan portfolio. Therefore, the policies and implementation of the collection actions and disciplines have unquestionable importance and must be carried out constantly and with the consistency required by the results of the analysis of the loan portfolio, Credit collection policies manual (2007). Hunt (2007) gives an overview of the debt collection industry and provides details about its institutional structure and regulatory environment. Hynes (2008) examines the process of debt collection in state courts and finds that consumers who are sued by creditors or debt collectors are drawn from areas with lower socio-economic characteristics. In contrast to the large corporate finance literature on investor and creditor rights that followed La Porta, Lopez-de Silanes, Shleifer, and Vishny (2002), there has been little work on lender rights in retail credit markets

According to Atrill (2006), there is evidence that many small scale enterprises are not very good at managing their working capital despite their high investments in current assets in proportion to their total assets and this has been a major cause of their high failure rates as compared to large businesses. According to him, majority of the small scale enterprises operate without credit control department implying that both the expertise and the information required to make sound judgments concerning terms of sales may not be available. They also lack proper debt collection procedures, hence, they tend to experience increased risks of late payment and default by debtors who tend to increase where there is an exclusive concern for growth; in this case, small scale enterprises may not be too willing to extend credit to customers who have poor credit risks. Also, in a recent study by Bowen *et al.*, (2009) debt collection was identified by 55% to be among the top five major challenges facing micro and small businesses, this not only threatens its profitability but also long term sustainability.

Arguments by Pike *et al.*, (1998) reveal that small businesses feel that the management of debtor days is the most important measurement of the effectiveness of their credit management processes (82 per cent of participants) followed by their achievement of cash collection targets. According to the study less than half of the participants reported that reducing bad debts and bad debt to sales ratio a being an important measure of credit performance within the firm. It is interesting to note that a number of countries are implementing or have implemented interest charges on late payments in an attempt to support small business. Generally the interest rates on these late payments are quite high. In Australia the Late Payment Bill was not passed but other government bodies are seeking remedies to the problem. Generally it was agreed that the longer a debt remains outstanding, the greater the risk of it becoming uncollectible (Amrhein & Katz, 1998). This eventually leads to a domino effect as small business not being paid cannot in turn service their account payable Wilson *et al.*, (1996).

### **Credit Policy and Firm Profitability**

Though the impact of trade credit policy on profitability and value is practically important in daily business practice, no studies have been carried out to capture this relationship. The only exception is Hill, Kelly, Lockhart, and Washam (2010), who studied the shareholder wealth implications of corporate trade credit policy but for a sample of large US firms. This research contributes to the financial literature in several ways. First, it tested the relation trade credit-profitability for a sample of Spanish SMEs because of their particular institutional setting, which makes Spain a country where trade credit is particularly important. Proof of this is that Spanish firms have one of the longest effective credit periods in Europe (Marotta, 2001), thereby providing an excellent context in which to study the implications of trade credit profitability

Seppala *et al.*, (2001) and Flannery and Ragan (2002) argue that a sound credit policy would help improve prudential oversight of asset quality, establish a set of minimum standards, and to apply a common language and methodology (assessment of risk, pricing, documentation, securities, authorization, and ethics), for

measurement and reporting of non-performing assets, loan classification and provisioning. Various scholars have come to consensus that credit policy should set out the bank's lending philosophy and specific procedures and means of monitoring the lending activity (Polizzato, 1990; Popiel, 1990). According to Simonson *et al.*, (1986), sound credit policy would help improve prudential oversight of asset quality, establish a set of minimum standards, and to apply a common language and methodology (assessment of risk, pricing, documentation, securities, authorization, and ethics), for measurement and reporting of non-performing assets, loan classification and provisioning.

The credit policy is put in place to strategize a firms lending philosophy and also provide specific procedures and means of monitoring the lending activity. The guiding principle in credit appraisal is to ensure that only those borrowers who require credit and are able to meet repayment obligations can access credit. Lenders may refuse to make loans even though borrowers are willing to pay a higher interest rate, or, make loans but restrict the size of loans to less than the borrowers would like to borrow (Mishkin, 1997). Financial institutions engage in the second form of credit rationing to reduce their risks, and increase their profitability.

Simonson and Hempel (1999), Hsiu-Kwang (1969) and IMF (1997) observe that sound credit policy would help improve prudential oversight of asset quality, establish a set of minimum standards, and apply a common language and methodology (assessment of risk, pricing, documentation, securities, authorization, and ethics), for measurement and reporting of nonperforming assets, loan classification and provisioning. The credit policy should set out the bank's lending philosophy and specific procedures and means of monitoring the lending activity evaluated in order to ensure sustainability in profits.

## RESEARCH METHODOLOGY

Explanatory research design was used in this study. This study targeted 18 Credit officers, 18 credit section managers, 63 Accountants and tellers and 45 Business development officers of all 18 SACCOs in Uasin Gishu County which provides a total of 144 respondents. According to County records (2013), there are 18 active SACCOs in Uasin Gishu County. The researcher used census technique since the population was small and manageable. To collect the requisite information for further analysis, structured questionnaires were used. Apart from collecting data on the types of credit management aspects covered by the study, data on credit management as well as SACCO's profitability were collected for further analysis by analyzing financial documents, Balance Sheets and SACCO's annual reports were scrutinized to get the Net Operating Profitability. The reliability of the questionnaire was tested using Cronbach's alpha. Prior to data analysis, the research instrument was assessed for its reliability as well as construct validity. Cronbach's alpha coefficient was computed for each variable to test for reliability (Tan et al, 2000).

## Data Analysis and model specification

The study adopted Correlation and Regression analysis to estimate the causal relationships between profitability variable and other chosen variables. SPSS software was used for Correlation and Regression analysis. The collected data was analyzed using multiple regressions and correlation analysis and the significance of each independent variable was tested at a confidence level of 95%. The regression model of the study was applied as shown below  $y = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \varepsilon$

Where, Y = Firm Profitability

$\alpha$  = Constant

$\beta_1 \dots \beta_3$  = the slope representing degree of change in independent variable by one unit of each independent variable.

$X_1$  = Risk assessment

$X_2$  = Credit granting decision

$X_3$  = Credit debt collection

$X_4$  = Credit policy

$\varepsilon$  = error term

## Analysis and Results

This section presents results of the study based on the formulated objectives and hypotheses as presented in chapter one. In overall, respondents were neutral on Credit Risk Assessment with a (mean = 3.23), with a standard deviation of 0.7323 (less than the mean and skewness of -0.374 which approaches zero. The findings affirmed that sufficient efforts have been made towards credit granting decision specifically decisions pertaining granting of credit are informed by whether granting of credit will be able to increase firm profitability. From the above findings, it is evident that there is a proper debt collection procedure and as a result, the SACCOs experienced less risks of late payment and default by debtors. Finally respondents were not sure if the SACCOs Credit policy was friendly with a mean of 3.412, standard deviation of 0.64494, skewness of -0.376 and kurtosis of 0.656. In general, performance by the SACCOs was above average as evidenced by a mean of

3.837, standard deviation of 0.66339, Skewness of -0.507 and a kurtosis of 0.308. Pearson Correlations results in table 1 showed Findings provided enough evidence to suggest that there was linear relationship between Credit risk assessment, Credit Granting Decision, Credit Debt Collections and Credit Policy with the firm profitability.

**Table 1 Descriptive Statistics and Correlation**

	Mean	Std. Deviations	Firm Profitability	Credit Risk Assessment	Credit Granting Decision	Credit Policy	Debt Collection
Firm profitability	3.837	0.66339	1				
Credit Risk Assessment	3.23	0.7323	.643**	1			
Credit Granting Decision	4.23	0.221	.682**	.624**	1		
Credit Policy	3.412	0.64494	.679**	.614**	.655**	1	
Debt collection	3.842	0.64465	.650**	.621**	.566**	.603**	1

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

### Multiple Regression Results/hypothesis testing

The regression results from table 2 affirmed that multiple regression model had a coefficient of determination ( $R^2$ ) of about 0.622. This means that Credit Risk Assessment, Credit Granting Decision, Credit Debt Collections and Credit Policy explain up to 62.2% variations of the firm profitability. Durbin–Watson statistic is substantially less than 2, confirming an evidence of positive serial correlation, although positive serial correlation does not affect the consistency of the estimated regression coefficients but it does affect our ability to conduct valid statistical tests as such concluding that the significant statistics are valid. Table 2 further reveals that the F-value of 139.914 with a p value of 0.00 significance at 5% indicate that the overall regression model is significant, hence, the joint contribution of the independent variables was significant in predicting the customer loyalty. Using the thumb rule, the interpretation of the variance inflation factor was carried out. From Table 4.8, the VIF for all the estimated parameters were found to be less than 4 indicating that the suggested multicollinearity does exist, it will not significantly influence the stability of the parameter estimates (Dielman, 1991).

### Test of Hypothesis

The study's first hypothesis stated that Credit Risk Assessment has no significant effect on firm profitability. The findings rejected the hypothesis as evidence by ( $\beta_1=0.169$ ,  $\rho<0.05$ ), and infer that credit risk assessment had positive effect on the firm profitability and thus increasing credit risk assessment will lead to an increase in the firm profitability as supported. Basel (1999), Risk assessment has the effect of keeping the business afloat by avoiding losses as a result of bad debts therefore managing credit is crucial. It is important for all individuals in an organization right from top management to ensure that all guidelines pertaining management of credit risk is well understood and are adhered to by those in credit risk management. The second hypothesis of the study stipulates that credit granting decision has no significant effect on the firm profitability as an evidence from the study results ( $\beta_2=0.279$ ,  $\rho<0.05$ ) hypothesis 2 failed implying credit granting decision has positive significant effect on the firm profitability and this showed that the more the credit granting decision level in the firm, The third Hypothesis of the study hypothesized that credit debt collection has no significant effect on the firm profitability as evidence from the study results ( $\beta_3=0.249$ ,  $\rho<0.05$ ) hypothesis 3 was rejected suggesting that credit debt collection has significantly positive effect on the firm profitability and thus failure by the firm to ensure credit debt collection in its operations will affect negatively on the firm profitability (t-test = 5.092). Finally, hypothesis four postulated that credit policy has no significant effect on the firm profitability. The study findings showed that hypothesis 4 was rejected as illustrated by ( $\beta_4=0.236$ ,  $\rho<0.05$ ), thus, credit policy has significantly positive effect on the firm profitability. Hence, enhancing credit policies in the firms will stimulate profitability. It is also in agreement with studies conducted by (Paul and Boden, 2008), who suggested that credit granting is not only a single institution's decision for this reason firms need to match normal industry terms to maintain their market competitiveness. If the credit granted by a firm is not competitive compared to other firms in the same sector, this could have negative effects on the firm profitability. This concurs with a recent study by (Bowen *et al.*, 2009), debt collection was identified by 55% to be among the top five major challenges facing micro and small businesses, this not only threatens its profitability but also long term sustainability. It is therefore important to operate with a sound credit management to avoid increased risk of late payment and

default by debtors which contributes a staggering growth of the entire firm. This is also in agreement with (Seppala *et al.*, 2001), (Flannery and Ragan, 2002), that a sound credit policy would help improve prudential oversight of asset quality, establish a set of minimum standards, and to apply a common language and methodology (assessment of risk, pricing, documentation, securities, authorization and ethics), for measurement and reporting of non-performing assets, loan classification and provisioning

**Table 2 Multiple Regression Results**

	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		Linearity
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	0.844	0.135		6.271	0.000		
Credit Risk Assessment Decision	0.153	0.044	0.169	3.517	0.000	0.479	2.089
Credit Debt Collections	0.233	0.04	0.279	5.802	0.000	0.479	2.088
Credit Policy	0.256	0.05	0.249	5.092	0.000	0.466	2.147
	0.243	0.048	0.236	5.118	0.000	0.521	1.918
R Square	0.622						
Adjusted R Square	0.618						
F	139.914						
Sig.	.000						
Durbin-Watson	1.336						

a Dependent Variable: Firm profitability

**Survey data (2014)**

**Conclusions and recommendation**

From the study findings, the oversight committee has ensured that the authority and role in management of the firm is in place and also the independence of the credit risk department. However, efforts need to be directed towards the board so as to ensure that they adopt a supervisory role which ensures adequate risk management process. Furthermore, the development of appropriate credit grading system that systematically grades the credit of loan accounts has not been realized.

The study also provides some precursory evidence on credit granting decision that seems to play an important role in improving firm profitability. Specifically, firms with appropriate credit granting decision, firm profitability is likely to increase. Basing on the results of the study, a process that monitors unsettled transactions is in place. Also the approval of all counterparties is obtained prior to the account being opened. Internal guidelines to approve and review counterparty credit limits have been established by the SACCOs, however, requests by clients for additional collaterals are catered for though not satisfactorily. In the same way, respondents were unsure if there was a proper reporting mechanism in place that identifies counterparties with a deteriorating credit rating.

The study results also suggest that debt collection has a momentous effect on firm profitability. A sound credit management put in place will in effect prevent late payment by debtors and the outcome of this leads to increased profitability. The study results show that there is effective debt collection hence the SACCOs are able to finance their accounts payable. There is a credit control department which makes it possible for the SACCOs to make sound judgment and enhance debt collection and as a result, there is reduced risk of late payment and an increase in growth due to proper debt collection. Finally the study concludes that credit policy increases the firm profitability basing on the results from the study, the management of the SACCOs has ensured an efficient credit policy and has also given assurance to the stakeholders on the SACCOs ability to meet its financial obligations as when they fall due either in favorable or unfavorable economic conditions and this has increased stakeholders' confidence thus leading to increased profitability. Thus SACCOs with an efficient credit assessment is likely to attract investors. Therefore the study advocates for risk assessment in order to increase the firm profitability. This is very important since the credit environment seems to prefer proper and efficient credit granting decision.

The study also revealed that debt collection had a significant effect on the firm profitability. Therefore SACCOs should ensure that debts are paid in time so that they are not put in financial constraints and loss through bad debts. This way, they will significantly increase the firm profitability. Finally, credit policy should be in check and once this is implemented, there will be credit administration and monitoring which will lead to

reduction in financial losses and this will also counter bad debts and the firm profitability realized. The limitation of this study is SACCOS in Uasin Gishu County. SACCOS from other counties in Kenya were not included in the sample. Thus, for future research, the researchers should try to include SACCOS from other counties and extend the research by investigating the actual credit management process in those SACCOS. Further the study should also put into consideration the influence of firm size on the relationship between credit management and firm profitability.

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