



## Effect of Credit Management on Financial Performance of Sweet Potato Marketing Cooperatives in Western Kenya

Gitau Beth Njeri

School of Agriculture, Natural resources and Environmental studies, Rongo University College, Kenya

### Abstract

The potential of sweet potatoes in helping meet food security needs and reduce poverty levels through income generation cannot be overemphasized. The study sought to determine how credit management influences financial performance of sweet potato marketing cooperatives in Western Kenya. The study design was descriptive research design. Secondary data was used for analysis. The target population was four sweet potato marketing cooperatives in western Kenya registered as at December, 2015 by the Commissioner of cooperatives in Kenya. Census sampling was used comprising of Homabay, Bungoma, Busia and Siaya counties. Secondary data over the ten year-period covering 2006-2015 was obtained. Data was collected using secondary data collection sheet and analyzed using multiple panel regression models. Limitations faced during data collection included high illiteracy levels amongst cooperative members. This was controlled by taking the officials through the facets of credit management to have them understand the concepts under enquiry. The study findings showed that credit management had significant influence on return on investment, a measure of financial performance of sweet potato marketing cooperatives in Western Kenya and tests for significance also showed that the influence was statistically significant. The study therefore recommends that all sweet potato marketing cooperative officials and members be trained on credit management aspects.

**Key words:** Credit management, financial performance, marketing cooperative societies.

### Introduction

Agriculture in developing countries, all over the world, is experiencing profound, fast-moving changes (Lucas & Timmer, 2005). In Kenya, an average of 60% of the population is dependent on agriculture. The sector contributes more than 60 per cent of the total export earnings and about 45 per cent of government revenue, while providing for most of the country's food requirements (Price house water Coopers [PWC], 2011). Agricultural enterprises have constantly played a vital role in the socio-economic development of a jurisdiction. The significant role they play in the development of output, employment and economic growth is being acknowledged universally (Beyene, 2002).

Sweet potato (*Ipomea batata* L.) is the third most important food crop in Kenya after maize and Irish potato. The area under production grew from 20,181 hectares yielding 227,470 tons (valued at KSh 3 billion) in 2009 to 22,989 hectares in 2011 yielding 300,267 tons valued at KSh 3.6 billion (provisional data, HCDA 2012). Sweet potato is produced mainly in Nyanza and Western province. Some cultivation of the crop is also carried out in parts of Eastern, Central and Coast provinces. Nyanza region accounts for over 50 percent of national sweet potato production. According to Economic Review of Agriculture (2010), Nyanza region accounted for 57 percent of national output of sweet potato in 2011. Generally, production of sweet potato in Kenya has steadily increased over the years MOA. (2010).

The average sweet potato yield in Kenya is about 10 tons/hectare (GOK, 2010) which is below the genetic potential of 32-37 tons/hectare (FAO, 2008). The average national per capita consumption of sweet potato is about 25 kg/person/year and is highest around Lake Victoria basin. The core objective of SACCOs is to ensure members empowerment through mobilization of savings and disbursement of credit (Ofei, 2001). Mudibo (2005) observed that financial stewardship being the routine financial decision-making of the SACCO, should embrace sound business practices. This should also revolve around the SACCOs' financial discipline with a profound effect on the success of all businesses conducted by the SACCOs.

Efficient working capital management is vital for the success and survival of the agricultural sector which needs to be embraced to enhance performance and contribution to economic growth (Padachi, 2006). A study by Michalski (2007) observed that an increase in the level of accounts receivables in a firm increases both the net working capital and the costs of holding and managing accounts receivables and both lead to a decrease in

the value of the firm. A study by Sushma and Bhupesh (2007) affirmed that putting in place a sound credit policy ensures proper debt collection procedures and is pivotal in improving efficiency in receivables management hence the performance of firms.

### **Statement of the Problem**

Despite the rise in output and good price of Sweet potatoes being a seasonal, rain fed and perishable product in Kenya, the high level of poverty in the producing region casts doubt on the contribution of the product to the wellbeing of its producers. This scenario calls upon any rational investor to question why this failure, and where are the mistakes.

Sweet potato farmers require inputs from the cooperatives and on credit during the onset of the rains. When the cooperatives do not get ready market for the perishable product, the stock is affected as there is glut. The marketing cooperatives sell the produce to the marketers on credit and are not able to pay farmers on time hence the liquidity problem. Bhattacharya (2006) states that for a business firm to be able to sustain its business operations and meet its goals and objectives it must manage its working capital effectively and prudently. The sweet potato business in Kenya is not an exception to this regard. Further, Sweet potato farming in Kenya is done in small scale, thus the sector faces many challenges affecting majority of SMEs in developing nations such as Kenya.

### **Research Objective**

To establish the influence of credit management on financial performance of sweet potato marketing cooperative societies in Western Kenya.

### **Hypothesis**

H<sub>0</sub>: Appropriate credit management do not influence the financial performance of sweet potato marketing cooperatives in Western Kenya.

H<sub>1</sub>: Sweet potato marketing cooperatives do not practice prudent credit management

### **Literature review**

A study by USAID (2001) found that co-operative autonomy was associated with success; governance structures need to be strong, transparent and honest a requirement in credit management; co-operatives needed to perform well to survive, endure and thrive; and support to co-operative development that creates dependency undermined the mutual self-reliance that is central to cooperation. The study recommendation was that co-operatives needed to develop professional management in order to adapt, innovate, and take rational risks to satisfy the expectations of their owners; and co-operatives succeeded when they consistently delivered value to their owners. The study by USAID very well showed the need for good stewardship and the need to deliver effectively but it did not emphasize on how debt management should be achieved.

Ekpebu (2006) revealed that the performance of the agricultural sector has been unsatisfying over the years due to insufficient funding of credit facilities, high cost of farm input and low technology base. Okoria (1986) identified some factors that have effect on loan repayment which includes the nature and time of disbursement, profitability of loan-receiving enterprise and the number of supervision visits by credit officers after disbursement. All the factors identified by Okoria when critically examined are associated to the ineffective management of the loans allocated to the sector both from the side of the regulatory authorities and the farmers as well. Trzeciak- Duval (2003) opined that agriculture like other sectors of the economy needs credit for increased output and development. The studies however failed to examine how debt opt to be managed within the farming enterprises.

Kaloi (2004) in another study found that there were delays in remittance; loan default; low monthly earnings and failure to invest in illiquid investments led to losses hence no growth of wealth. The study recommended that Ministry of Co-operative Development and Marketing should introduce sound remittance policies. The study by Kaloi (2004) only shallowly dwelt with issues that affected liquidity and financial stewardship but failed to show their contribution to performance of farming cooperative societies.

Adeyemo & Bamire (2005) in their study found that unavailability and inadequacy of credit was a major problem; loan repayment and amount of money borrowed were significant variables that influenced saving patterns; and fund borrowed significantly influenced investment patterns. They recommended that saving and investment level could be enhanced if loans were adequately made available and proper supervision and monitoring of funds were put in place. The study by Adeyemo & Bamire (2005) identified lack of funds and poor stewardship and the challenges to growth of wealth. The study did not identify measures to be undertaken in management of the inadequate credit allocation as a determinant of performance.

A study by Chege (2006) found that loan default was subjected to changes in interest rates, demographic changes,

credit scores effect, loan default and values of collateral to security. The recommendations were that there should be; lower interest rates; participatory involvement in regulating monetary policy; introduction of new loan products; and issue of loans of low value for growth to be experienced. The main concern of the study by Chege (2006) was loan default. The study never showed how this default affected the performance neither the influence of debt management on performance which would be expected to reduce on nonpayment.

In another study by Kaupelytė & McCarthy (2006) it was found that risk management related to credit union development stages such that as a SACCO Society matures, higher standards of risk management should be implemented. In some cases, these changes were accompanied by shifts in the regulatory framework. The study concluded that the regulatory regime was not always aligned with the stage of credit union development and indeed, reflected the economic policies of the country in which they operate. Nanka-Bruce (2006) conducted another study where it was found that good corporate governance practices positively impacted on performance and recommended that firms needed to impose effective good governance to grow.

Rintaugu (2005) conducted a study whose findings were that poor lending practices, cash flow problems experienced by debtors, lack of follow-up and unharmonized debt recovery statutes affected the growth of wealth within organizations. The study recommended that firms should increase level of commitment, harmonize existing legal statutes, intensify follow-up, intensive valuation of loanees, increase guarantors, and award loan based on merit. The study by Rintaugu (2005) failed to capture the relationship between debt facility management aspects and performance of the marketing cooperative societies and more specifically within the farming community.

A study by Juan & Martinez (2002) emphasized that firms can create value by reducing the number of days of accounts receivable, thus confirming the finding of Deloof (2003) who established that the length of receivables collection period has a negative effect on a firm's performance. Accordingly, study by Sushma & Bhupesh (2007) also affirmed that putting in place a sound credit policy ensures proper debt collection procedures and is pivotal in improving efficiency in receivables management hence the performance of firms.

## Research Methodology

Descriptive research design applied on secondary data involved collecting and analyzing data from cooperative societies over a period of ten years (2006-2015) where it was constituted and analyzed in form of panels. This research design is suitable in studies where both the cross-sectional and longitudinal characteristics of the units being studied are required (Gujarati, 2003).

## Research Results

The objective of this analysis was to find out if there exists a relationship between credit management practice (independent variable) and financial performance (dependent variable) and to this extent, the linear regression analysis which shows the relationship between the dependent variable which is performance as measured by ROI and independent variable which is credit management practice is used. For this variable, the regression model is summarized in Table 1.1.

**Table 1.1: Regression Coefficients –Credit management and ROI**

Model	Unstandardized	Standardized	t	Sig.	
	Coefficients	Coefficients			
	B	Std.Error	Beta		
Constant	12.48	.957		13.050	.000
DM	0.535	.031	.657	17.422	.000

Using the summary presented in Table 1.1 a linear regression model of the form

$Y = \alpha + \beta X_i$  can be fitted as follows:

$$Y = 12.489 + 0.535X_i$$

The results indicate that 1% change in credit management leads to 53.5% increase in return on amounts invested hence cannot be ignored.

**Table 1.2: Model summary -Credit management with ROI**

R	R Square	Adjusted Square	R	Std. Error of the Estimate
.657	.431	.430		4.12179

Table 1.2 presents the coefficient of determination R squared is 0.430 and r is 0.657 at 0.05 significance level. The coefficient of determination indicates that 43.0% of the variation in return on amounts invested as a measure of financial performance can be explained to by credit management. The correlation coefficient  $r = 0.657$  implies that there exists a positive significant relationship between credit management and financial performance as measured

by ROI.

**Table 1.3: ANOVA – Credit management and ROI**

Indicator	Sum of squares	df	Mean Square	F	Sig.
Regression		1	5156.467	303.516	.000
Residual	48.267	298	16.9		
Total	118.826	299			

Table 1.3 shows that credit management with ROI have the F-statistic of 303.516 and P-value is 0.00 which is less than 0.05. Results indicate that there is no significant mean difference of credit management with ROI. This implies that the model in use was significantly fit and can be used to make predictions. As we reject the null hypothesis  $H_0: b_0=b_1=0$  and conclude that at least one coefficient of the model is greater than zero. The meaning of this result is that credit management as a variable in this study cannot be ignored when explaining the factors that have an influence on ROI. In fact, credit management is therefore a significant variable that must be taken into account when studying the financial performance of sweet potato marketers.

## Discussion

The objective of the study was set to establish the influence of credit management on financial performance of sweet potato marketing cooperatives in Kenya. The findings revealed that credit management have a positive influence on the financial performance of sweet potato marketing cooperatives in Kenya. This finding is supported by the coefficient of determination which shows that the variations in ROI are explained by credit management. The influence of credit management on financial performance as measured by ROI is also statistically significant and hence the alternate hypothesis was accepted. This means that the influence is not by chance. There is need for the sweet potato marketing cooperatives to use debt management practice to grow their businesses and subsequently their ROI.

## Conclusion and Recommendations

Sweet potato marketing cooperatives should continue investing more on training of both cooperative officials and farmers on the need for credit management as compared to avoiding use of credit to fund the enterprises. The amounts of transaction that can be made by investing more funds into the farming venture accompanied by prudent management of credit can be tremendous resulting to higher returns. This helps in increasing volume of sales hence returns even to the international markets like the UK where demand for sweet potato is currently not being met. Sweet potato marketing cooperative societies should explore more ways of being funded to expand on their current levels of operations.

## References

- Adeyemo, R. & Bamire, A. S. (2005). Saving and investment Patterns of Co-operative farmers in Southwestern Nigeria. *Journal of Social Science*, 11(3): 183-192.
- Beyene, A. (2002). Enhancing the competitiveness and productivity of Small and Medium Scale Enterprises (SMEs) in Africa: An analysis of differential roles of National Governments through Improved Support Services. *Africa Develop.* 27(3): 130 – 156.
- Bhattacharya, H. (2006). *Working Capital Management: Strategies and Techniques*. New Delhi, Prentice Hall.
- Chege, A. (2006). An investigation in determinants of loan default within the Banking industry in Kenya. A case study of HFCK. MBA thesis, Moi University, Nairobi
- Deloof, M. (2003). Does Working Capital Management Affect Profitability of Belgian Firms? *J. Bus. Financial Account.* 30 (314): 573-587.
- Ekpebu, I. (2006). Review of the agricultural sector in Nigeria (1960-1989). *African journal of economy and society*. Vol.7, no.1.
- Food and Agriculture Organization (2008). FAO Database (2008). FAO Rome, Italy.
- HCDA. (2012). *Horticulture Validated Report 2012, Nairobi*: <http://www.hcda.or.ke/Statistics/2012/Horticulture%20performance%202010%20to%202012.pdf>
- Juan, P.G, Martinez, S. (2002). Effects of working capital management on SME profitability, Retrieved from <http://www.sagepublications> on 5<sup>th</sup> Feb 2010., *J. Bus. Financ. Account.*, 30(3–4): 1-14.
- Kaloi, J.M. (2004). *Factors contributing to liquidity problems on saving credit co-operatives*. MA thesis, Moi University, Eldoret, Kenya.
- Kaupelytė, D. & Mccarthy. O. (2006). Risk Management in Lithuanian and Irish Credit Unions: Trends and Impacts on Credit Union Development. *Journal of Rural Cooperation*
- Lucas, S. & Timmer, P. (2005). Connecting the Poor to Economic Growth: Eight Key questions. *Centre for Global Development*.

- Michalski, G.M. (2007). Small and Medium Enterprises Accounts Receivable Management with Value of Liquidity in View. Available at <http://ssrn.com>.
- Mudibo, E. (2005). Corporate Governance in Co-operatives the East African Experience. Conf. Pan-African Consultative Forum on Corporate Governance 2005, Dakar, Senegal.
- Nanka-Bruce, D. (2006). Corporate Governance, Capacity Utilisation And Growth. Case study of Nepal Cooperatives. *International Review*, 20,2.
- Ofei, K. (2001). Retooling credit unions: The case of credit union association of Ghana. IFLIP Research Paper 01 -3. Research Paper, International Labour Organization, University of Ghana, Legon.
- Okoria, A. (1986). Major Determinants of Agricultural Small holders Loans Repayment in a Developing Economy: Empirical Evidence from Ondo State, Nigeria. *Savings and Development* 10:1, 89-99.
- Padachi, K. (2006). Trends in Working Capital Management and its Effect on Firms Performance: An Analysis of Mauritian Small Manufacturing Firms". Retrieved from <http://www.emeraldinsight.com/> on January 2015. *Int. Rev. Bus. Res.*, 2(2): 45-58.
- PWC (2011). *Agricultural Companies in Kenya*, Retrieved from <http://www.pwc.com/ke/en/Industries/agriculture.jhtml>.
- Rintaugu, E. M. (2005). *An evaluation of factors affecting non-recovery of debt owed to National Housing Cooperation*. MBA thesis, Moi University, Eldoret, Kenya.
- Sushma, V. & Bhubesh, S. (2007). Effect of working capital management policies on corporate performance an empirical study. *Global Business Review*, 8, 267.
- Trzeciak-Duval, A. (2003): Agricultural Finance and Credit Infrastructure -Conditions, Policies and channels, *Agricecon-Czech*, 2003(3): 106-112.
- USAID. (2001). *Report to congress on the implementation of the support for overseas co-operative development act*. Washington: USAID.