

Effect of Investment Decision on Financial Performance of Savings and Credit Cooperatives: The Case of Kitui Central Sub-County, Kenya

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Abstract

This research work focused on determining the effect of investment decision on financial performance of Savings and Credit Cooperatives in Kitui Central Sub-County. This is was due to the observed decline in performance of SACCOS in Kenya due to a low investment culture. The researchers adopted four objectives as a drive towards the research results as follows; to assess the effect of Replacement decision on Financial Performance of SACCOS in Kitui Central Sub-County, to find out the effects of Expansion Decision on Financial Performance of SACCOS in Kitui Central Sub-County, to investigate the effect of Renewal or modernization Decision on financial performance of SACCOS in Kitui Central Sub-County, and to evaluate the effects of Research and Development Decision on Financial Performance of SACCOS in Kitui Central Sub-County. The study adopted an empirical study design for a time-series data over a ten year period from 2006-2015. The research was undertaken on all twelve (12) SACCOS located in Kitui Town thus utilizing a Census technique in selection of respondents. Simple multivariate analysis was used for data analysis, while Karl Pearson's correlation was used in determining the correlation within variables. The results of study were produced using data analysis workbook; the statistical package for social sciences (SPSS-version 21). Data presentation was done using tables. The study findings indicated that only research and development decision had a significant effect to SACCO performance while expansion decision, replacement decision, and renewal decision had none. The study recommended that SACCOS should invest more in research and development decision as it had a significant effect to SACCO financial performance, the least variation to the expected results and the highest contribution to financial performance in respect to SACCOS.

Keywords: investment decisions, Financial Performance, SACCOS

INTRODUCTION

1.1 Background of the Study

It is stated by Simeyo, Bernard, Patrick & Francis (2013) that an investment is the outlay of a sum of money in an anticipation of a future return which more than compensates for the original amount plus a premium to cover inflation, interest foregone and risk. According to Pandey (2008) investment decisions entail a firm's decisions to invest its current assets most efficiently in the long-term assets in anticipation of an expected flow of benefits over a series of years; these investment decisions require very special attention as they influence a firm's growth, risk, they are difficult, and they are irreversible and involve commitment of large volume of funds. Investment decisions are composed of expansion decision, replacement decision, renewal decision and research and replacement decisions.

The expansion decisions entail addition of new products and line of operation, and addition of capacity or diversification of operations (James and John, 2010). Replacement decisions on the other hand focus on improving operating efficiency and cost reduction by replacing obsolete products with new ones in respect to environmental changes (Pandey, 2008). Renewal decisions are aimed at a change in operations in terms of products offered, methods of delivery and efficiency of operations. Finally Research and development (R&D) investment comprise inventive work undertaken on a analytical basis in order to increase the quantity of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to create new applications (Organization for Economic Cooperation and Development, OECD, 2008).

1.1.1 Financial Performance in Cooperatives

The Cooperative sector plays a key role in Kenyan Financial Sector. According to Njeru, Agnes, Florence, and

Ondabu (2015), it is estimated that 63% of Kenyans participate directly or indirectly in the cooperative development enterprises hence defining it as an avenue of increasing access to financial services in the country. Amalendu, Somnath and Gautam (2011) points out that, financial performance means a firm's overall financial health over a given period of time. Savings and Credit Cooperatives are unique in their operations and every decision made in them has to be approached in a unique way and so is their measure of their financial performance (Momanyi, 2014). Unlike other financial institutions, SACCOs use dividends declared and surplus or deficits announced as a measure of their financial performance (Momanyi, 2014).

1.2 Problem Statement

Investment decisions made by Cooperative management should lead to their increased growth, reduced risks and high survival rate. However, of critical concern to both practitioners and academia is that the investment culture for the Cooperative sector in Kenya is very low (Onchangwa, Ongoncho, Onchonga, & Njeri 2013). It is pointed out by Onchangwa *et al.*, (2013) that, most SACCOs in Kenya lack or have inadequate investment policy for SACCO member investment thus making member uptake to decline according to SASRA reports of 2009-2013. Clement, Martin, & Ambrose, (2012) found out that the Kenya SACCO sector is faced with the challenge in building enough wealth, through accumulation of institutional capital which is also attributed to investment approaches different SACCOs have adopted. If the Kenya SACCO sector which is ranked number one in terms of performance in Africa and number seven in the world (WOCCU Statistical Report, 2014); would successfully operate to overcome the investment decision challenges in it, this will be a key drive in realizing vision 2030 strategy (Njeru *et al.*, 2015).

It is as a result of this that the researchers studied the effects of investment decision on the financial performance of Savings and Credit Cooperatives in Kitui Sub-County

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to assess the effect of investment decision on financial performance of SACCOs in Kitui Sub-County.

1.3.2 Specific Objectives

- i. To assess the effect of expansion decision on financial performance of SACCOs in Kitui Central Sub-County
- ii. To find out the effect of replacement decision on financial performance of SACCOs in Kitui Central Sub-County
- iii. To determine the effect of renewal decision on financial performance of SACCOs in Kitui Central Sub-County
- iv. To ascertain the effect of research and development decision on financial performance of SACCOs in Kitui Central Sub-County

1.4 Research Questions

- i. What is the effect of expansion decision on financial performance of SACCOs in Kitui Central Sub-County?
- ii. What is the effect of replacement decision on financial performance of SACCOs in Kitui Central Sub-County?
- iii. What is the effect of Renewal decisions on financial performance of SACCOs in Kitui Central Sub-County?
- iv. What is the effect of research and development decision on financial performance of SACCOs in Kitui Central Sub-County?

2.0 LITERATURE REVIEW

2.2 Theoretical Review

The critical theories used in this study were the Q theory of investment, The Modigliani Miller Theory on investment, and the Accelerator Theory of Investment.

2.2.1 The Q Theory of Investment

This theory was developed by James Tobin and William Brainerd in the year 1968 and it argued that investment in capital plays a direct role in portfolio decision. The letter Q was used to indicate the value of capital normalized or related to its replacement cost. The theory states that, investors will increase on portfolio choice if $Q > 1$ and reduce on investment if $Q < 1$. However, the key challenge in this theory is determining of the marginal Q as only the average Q is known with certainty. This theory was important in this research as it geared towards determining SACCO financial performance as compared to costs incurred in investment (replacement) decisions (Yokinawa, 1980)

2.2.2 Modigliani-Miller Theorem

Modigliani and Miller (1958) demonstrated that under conditions of perfect capital markets, the cost of investment to firms is the same regardless of which methods of finance it chooses. The Modigliani-Miller theorem shows that under some conditions the decision about the amount to invest is autonomous of the decision about how to finance that investment, since the value of the firm is the same regardless of whether the firm is externally or internally financed. This theory states that investment means have no contribution to change in firm's value due to ever present market imperfections (Parker, 2009).

2.2.3 The Accelerator Theory of Investment

This theory is one among the earliest empirical investment models. The accelerator is a simple model that incorporates the kind of feedback from current output to investment that Keynes saw occurring through the effect of current output on investors' predictions. The accelerator model commences with an assumption that firms' desired capital-output ratio is roughly constant. This implies that the desired capital stock for any period t is proportional to the level of output in t , $Kt^* = \sigma Yt$, where σ (the lower-case Greek letter sigma) is the desired capital-output ratio. Thus, the simplest accelerator model predicts that investment is proportional to the increase in output in the coming period. In conclusion, this theory indicates a direct proportional relationship between investment capital and output (Parker, 2009).

2.3 Empirical Review

2.3.1 Expansion Decisions

According to Roger (2010) in his study "The Importance of Asset Allocation", he states that Asset Allocation Policy explains the 40, 90 and 100 percentage of fund performance since the manner on which a firm allocates funds among investment channels matters most on total performance of each channel of investment.

A study conducted by Richard, Jonathan, and Sharon (2014) concluded that, a country's business climate is an important predictor of foreign firm's expansion into that country. It is stated by Rose (2003) that modern day cooperatives have expanded their investments in services so as to raise more funds but are only allowed to invest as per the range prescribed by state regulations. Farok *et al.* (2007) states that service sector firms tend to get the gains of international expansion sooner than manufacturing firms.

It is noted by Vishal *et al.* (2007) that inventory turnover increases with sales growth rate. Their study found a strong evidence of diminishing returns to scale with reference to firm size.

2.3.2 Replacement Decisions

Siddika *et al.* (2007) suggests a combination of the performance characteristics, structural integrity and environmental performance of the boiler should be evaluated before replacement decisions are made and thus consideration should not only be on the age of asset in consideration for replacement.

James (2015) states that; enterprise system replacement is not financially important for revenue growth or operational efficiency. On the contrary, Jan *et al.* (2014) argues that, one standard deviation increase of performance expectation nearly doubles the coaches' dismissal probability. Supporting this was Mark and Robert (2008) who stated that comparative performance improvements are positively related to institutional shareholding and are greater when successor CEOs externally hired compared to internal hiring.

However, this is contrasted by René, Ursula, and Mariëlle (2010) who found out that the level of change in strategic and non-strategic levels and the extend of change in terms of the proportion of managers hired or leaving an organization do not influence subsequent firm performance.

2.3.3 Renewal Decisions

Yiming, Siqi, Thomas, and Thomas (2011) found a negative relation between loan renewal decisions and the financial performance of borrowers. This was supported by Jeffrey and Jeffrey (2012) who stated that the adoption of renewal options has a negative effect on lender's willingness to lend to a firm with renewal options. However, Martin *et al.* (2013) came up with a different view by stating that renewal decisions partially support for the impact of performance feedback on strategic renewal.

2.3.4 Research and Development Decisions

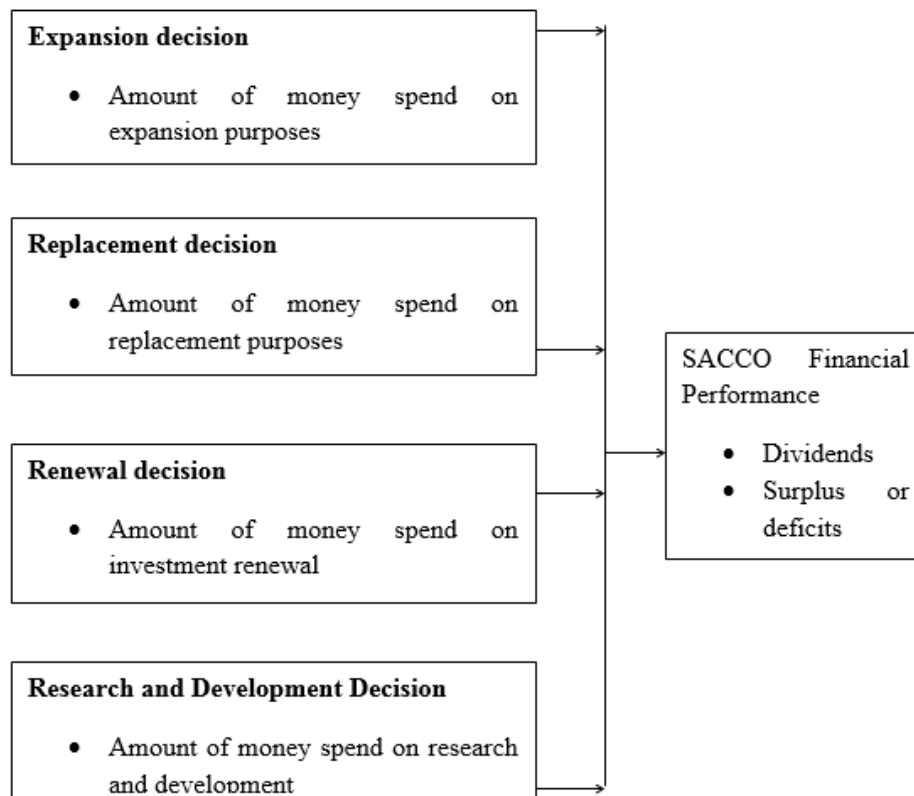
Li and Atuhene (2001) points out in their study that the impact of R&D marketing interactions depends on product newness and project formalization. Hassan, and Ibrahim (2014) found out that investment in R&D has a positive impact on firm's financial performance. This is supported by Boem *et al.* (2013) who found a significant evidence for positive productivity effect of the public R&D subsidy in that, the subsidy successfully raised R&D expenditure and value added productivity of the SMEs. It is also stated by Lawrence (2011) that there is a significant relationship between research and development outlay and market value in the medicine industry. A research conducted by Milkovich *et al.* (1990) found out that high R&D intensity organizations tended to have higher comparative base pay, higher comparative bonus pay and greater relative qualification for long-term incentive payments.

On the other hand, Kenneth (2010); in his study on whether current performance influences firm's incentive to disclose qualitative R&D related information found out that present performance is opposing to qualitative disclosure. This was supported by Shrihari *et al.* (2013) argues that research and development does

not increase firm sales.

2.4 Conceptual Framework

A conceptual framework involves forming an idea about the relationship between variables in a study and showing the relationship graphically or diagrammatically (Mugenda and Mugenda 2003)



Independent variables

Dependent variable

Figure 2.1 Conceptual framework

3.0 RESEARCH METHODOLOGY

3.1 Research Design

This research adopted an empirical study design as adopted by Ambrose and Vincent (2014) by employing scientific methods to explain the phenomenon the way it is. Time-series data was collected for the periods 2006-2015. This helped in integrating research with practice and identifying the dynamics of the situation. Observations were obtained for a ten (10) year timeline data from the population of study and analyzed.

3.2 Population of Study

The population of study consisted of twelve (12) SACCOS in Kitui Central Sub-County, located in Kitui Town as per the list obtained from Ministry of Cooperative report; Kitui County (2016).

3.3 Sample size and Sampling Technique

Since the targeted population was made of twelve SACCOS, the researcher targeted all SACCOS thus adopting a census technique. Intended data was collected from the finance officer from each SACCO in the targeted population.

3.4 Sources of Data and Data Collection Technique

This study used both primary data and secondary which was sourced from all the twelve SACCOS in the population of target. Collected data entailed the amount of funds which has been spend on various investment for a ten year period from 2006-2015. The researcher distributed a data tablet to the respondents which was researcher administered to save on time. Secondary data was obtained from published cooperative reports.

3.5 Data Analysis and Presentation

Collected data was sorted and grouped. It was then analyzed by the use of Simple multivariate analysis so as to determine the nature of relationship between investment decision and SACCO performance, whereas Karl Pearson's correlation method was also adopted to determine the direction of relationship. The outcome of the study was obtained using data analysis work book; the statistical package for social sciences (SPSS-version21). Analyzed data was presented by use of tables.

3.5.1 Model

According to Bertha and Melody (2013) a multiple or multivariable linear regression model has a continuous outcome and multiple predictors or response variables, and adopts longitudinal data and this was adopted for this research. They proposed that a regression model would adopt the format;

$$Y = \alpha + x_1\beta_1 + x_2\beta_2 + \dots + x_k\beta_k + \varepsilon$$

It is on this basis that this study adopted two regression models to reflect two different measures of financial performance in SACCOs (that is dividends and surpluses/ Deficits) as follows;

$$Y_1 = \beta_0 + \beta_1ED + \beta_2RD + \beta_3MD + \beta_4R\&DD + \varepsilon$$

$$Y_2 = \beta_0 + \beta_1 ED + \beta_2 RD + \beta_3 MD + \beta_4 R\&DD + \varepsilon$$

Whereby;

Y_1 = SACCO financial performance measured by dividends

Y_2 = SACCO financial performance measured by surplus or dividends

B_0 , = the constant term or the intercept

$\beta_1, \beta_2, \beta_3$ and β_4 ; were the Regression coefficients or slope of the regression line of the independent variables. They were used to indicate the relationship between the independent variables and the dependent variable

ED = Expansion decision

RD = Renewal decision

MD = Modernization decision

R&D = Research and development decision

ε = Represents the error term

4.0 Data Analysis, Findings and Presentation

4.1 Correlation Analysis

Correlation between investment decisions and SACCO performance was computed using Karl Pearson model on the two regression equations as earlier stated. In the first regression equation, the study focused on determining the direction of relationship between investment decision and performance as measured by dividends. The results of the analysis were as presented in table 4.1

Table 4.1 Correlation between Investment Decision and Dividends

		ED	RD	MD	R&DD	DS
Expansion decision (ED)	Pearson Correlation	1	.871	.699	.406	.485
	Sig. (2-tailed)		.001	.025	.244	.155
Replacement decision (RD)	Pearson Correlation	.871	1	.914	.361	.525
	Sig. (2-tailed)	.001		.000	.306	.119
Modernization decision (MD)	Pearson Correlation	.699	.914	1	.340	.534
	Sig. (2-tailed)	.025	.000		.336	.112
Research & development Decision (R&DD)	Pearson Correlation	.406	.361	.340	1	.953
	Sig. (2-tailed)	.244	.306	.336		.000

DS = Dividends

The study found the correlation to be positive illustrating that as per the direction of the relationship between investment decision and SACCO performance they were all moving in the same direction. This implied that, an increase in each of investment decision would result to an increase in SACCO performance while a decrease would result to a decrease in SACCO performance by above values

The regression equation two focused on determining the correlation between independent variables and SACCO performance as measured by surplus or deficits. The results were found as in table 4.2.

Table 4.2 Correlation between Investment Decisions and Surplus or Deficits

		ED	RD	MD	R&DD	S/D
Expansion decision (ED)	Pearson Correlation	1	.871	.699	.406	.738
	Sig. (2-tailed)		.001	.025	.244	.015
Replacement decision (RD)	Pearson Correlation	.871	1	.914	.361	.637
	Sig. (2-tailed)	.001		.000	.306	.048
Modernization decision (MD)	Pearson Correlation	.699	.914	1	.340	.547
	Sig. (2-tailed)	.025	.000		.336	.102
Research & development Decision (R&DD)	Pearson Correlation	.406	.361	.340	1	.501
	Sig. (2-tailed)	.244	.306	.336		.140

S&D = Surplus or Deficits

On measuring the direction of the correlation, all variables were found to have a positive correlation with SACCO's financial performance. This implied that, an increase in each of investment decision would result to an increase in SACCO performance while a decrease in each of investment variable would result to a decrease in SACCO performance by the above values.

4.2 Model Summary

Table 4.3: Regression equation one Summary

Model	Change Statistics								
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.981 ^a	.962	.931	1.25505E7	.962	31.345	4	5	.001

The first regression equation focused on determining the effect investment decisions have on SACCO performance as measured by dividends. Four predictors for the model consisted of expansion decision, replacement decision, modernization decision, and research and development decision. The study findings stated that, 96.2 % of SACCO performance was explained by investment decision while the other 3.8% is presented by other unexplained variables.

The second regression equation focused on determining the effect investment decisions have on SACCO performance as measured by surplus or deficits.

Table 4.4: Regression equation two Summary

Model	Change Statistics								
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.774 ^a	.599	.278	2.09756E7	.599	1.864	4	5	.255

There were four predictors in the model made of expansion decision, replacement decision, modernization decision and research and development decision. According to the equation, 59.9 % of SACCO performance was explained by independent variables while 40.1 % was explained by other factors not covered in the study.

4.3 Model coefficients

Table 4.5 Coefficients of Regression Equation one

Model 1	Un standardized Coefficients		Standardized Coefficients Beta	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	8.489E7	7195351.977		11.798	.000	6.640	1.034
ED	-.029	.041	-.152	-.722	.503	-.134	.075
RD	.154	.329	.170	.468	.660	-.691	.999
MD	.086	.119	.182	.728	.499	-.219	.391
R&D D	12.133	1.320	.891	9.194	.000	8.741	15.525

From the above table, only research and development was established to be significant. Equation one as per study results can be presented as;

$$Y_1 = 8.489 - 0.029X_1 + 0.154X_2 + 0.086X_3 + 12.133X_4$$

Whereby Y_1 =SACCO performance measured by dividends

The model coefficients for the second regression equation were represented as per the model 4.6,

Table 4.6 Coefficients of Regression Equation two

Model	Un standardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
1 (Constant)	2.292E7	1.203E7		1.906	.115	7996224.667	5.383E7
ED	.075	.068	.757	1.108	.318	-.099	.250
RD	-.141	.549	-.302	-.257	.808	-1.553	1.271
MD	.053	.198	.215	.266	.801	-.457	.563
R&D D	1.613	2.206	.229	.731	.497	-4.056	7.283

From the above table, none of the four independent variables was found to be significant to SACCO performance. Equation two as per study results can be presented as;

$$Y_2 = 2.292 + 0.075X_1 - 0.141X_2 + 0.53X_3 + 1.1613X_4$$

Whereby Y_2 = SACCO performance measured by deficits and surpluses

4.4 Analysis of variance (ANOVA)

The ANOVA analysis between investment decision and SACCO performance measured by Dividend is presented as per below table.

Table 4.7 ANOVA on regression line one

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	1.975E16	4	4.937E15	31.345	.001 ^a
Residual	7.876E14	5	1.575E14		
Total	2.054E16	9			

The first regression equation was found to have a significant effect. However as noted in the regression equation one, only research and development was found to be significant to SACCO financial performance. This significant level also illustrated that; the model can only vary from influencing SACCO financial performance by a margin of 0.001.

ANOVA analysis on regression line two was conducted and results presented as in table 4.8 below;

Table 4.8: ANOVA on Regression format Two

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	3.281E15	4	8.203E14	1.864	.255 ^a
Residual	2.200E15	5	4.400E14		
Total	5.481E15	9			

According to the researcher, the second model presented varying results as compared to the previous model. This was illustrated by the high significant level of variation at 0.255 indicating that the model has a high chance of varying results from the expected results of the study. This is also supported by the small F-test rated at 1.864 thus indicating a small general relationship among variables

4.5 Research Findings

The study thus found research and development as the only factor with a significant effect to SACCO financial performance measured using dividends. Therefore the board members should focus on investing more in research and development decisions as they have the highest contribution to performance and also the least variations from expected results as compared to expansion decision, replacement decision, and renewal decision which were portrayed as not significant to SACCO performance. It was also recommended that, great attention be given to investment decision when stakeholders are evaluating SACCO performance since investment decisions affect a large percentage of SACCO performance as compared to other non-explained variables.

4.6 Recommendations

The study focused only on investment decision and thus a research can be done on other finance functions including financing decisions, dividend decisions and liquidity decisions so as to determine their effect on performance. This research focused only on monetary part of investment and thus other researches can be done on areas like board composition, management styles adopted principal-agent relationships in place.

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