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# MODERATING EFFECT OF SACCO FACTORS ON **RELATIONSHIP BETWEEN PRODUCTS AND FINANCIAL GROWTH OF SACCO MEMBERS IN BUNGOMA, COUNTY**

# **Atola Dorcus**

MBA Student, Department of Accounting and Finance, School of Business and Economics, Masinde Muliro University of Science and Technology, Kakamega, Kenya

# Ondiek B. Alala 🔤

Lecturer, Department of Accounting and Finance, School of Business and Economics, Masinde Muliro University of Science and Technology, Kakamega, Kenya ondiekalala@yahoo.com

# Ngala Consolata

Lecturer, Department of Accounting and Finance, School of Business and Economics, Masinde Muliro University of Science and Technology, Kakamega, Kenya

## Abstract

In Kenya people join savings and credit co-operative societies with an aim of improving their economic status. SACCOs have uplifted the economic standards of most of their members by giving them with affordable loans and other products. This has led to the expansion and growth of SACCOs across the County. The objective of the study is to determine the moderating effect of SACCO factors on relationship between SACCO products and financial growth of SACCO members in Bungoma County. The target population for the study was 12, 000 members in Bungoma County from the following Savings and Credit Co-operative Societies; Ng'arisha, Mwalimu, Metropolitan and Mt. Elgon. A sample size of 387 members was selected using stratified random sampling. A descriptive survey research design was adopted and data gathered by use of guestionnaires and interview schedules. Both gualitative and guantitative data was collected using structured and unstructured questionnaires. Descriptive and Inferential statistical analysis was employed on the quantitative data collected. Data was presented by use



tables. The study found out that SACCO factors of liquidity and share capital affects operational efficiencies of teachers SACCO products which in the long run lead to members' financial growth. Regression coefficient results depicted that the elements of teachers SACCO products, that, is BOSA loans, investment products and FOSA loans contributes significantly (p=0.00,  $\alpha$ =0.05) to the financial growth of members thus an increase in financial growth of members by 1 units leads to an increase of 0.223, 0.656 and 0.305 units use of BOSA loans, investment products and FOSA loans respectively. The study concluded that there is a positive and significant relationship between investment products, FOSA loan products and BOSA loan products on financial growth of SACCO members in that order. The study recommends that SACCO factors of liquidity and share capital should be controlled because they play a greater moderating role in influencing the relationship between teachers SACCO products and finance.

Keywords: Sacco Factors, Products, Financial growth, Kenya

## INTRODUCTION

Savings and credit cooperative societies (SACCOs) are organizations created by people and registered by the societies' Act. SACCOs are deposit taking institutions that enable their members to save money and borrow loans usually four times the amount of their accumulated shares at a lower rate compared to commercial Banks. They were invented in south Germany in 1846 at the time of agricultural crisis and continued severe drought in Europe, by two community business leaders: Reifeisen and Schultze (1846) who are considered as the founding fathers of the saving and credit cooperatives (SACCO) movement. The history of SACCO Societies or Credit unions shows that they were formed critically for the relief of the poverty among the poorer economic classes in Europe, U S and India.

In Kenya, nearly every profession or group of persons working under an employer organize themselves into a SACCO. Teachers for example, who work under the TSC, belong to various SACCOs. According to co-operative societies rules (2004) the SACCOs are either organized based on their sub-counties where they work or come from. Teachers' SACCOs are formed to assist members access loans at reasonable rates so that they can improve their economic well-being. They have been in existence for long and have contributed to the growth of the Kenyan economy through creation of employment opportunities and giving out loans which in turn improve the cash flow within the economy.



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As per the co-operative societies Amended Act (2004) Savings and credit cooperative societies for teachers usually based at the district (sub-county) draws membership from teachers mainly from primary school teachers from within that particular sub-county.

They are supposed to encourage teachers to save and obtain loans at affordable interest rates so that they can afford to pay for their expenses like school fees for their secondary and college going children. They also save a portion of their money so that upon retirement they can withdraw their accumulated savings to help them financially. SACCOs in Kenya are "currently among the leading sources of the co-operative credit for socio-economic development" (Alila & Obado, 1990). 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 (Gamba & Komo, 2012).

The day to day expenses in the life of a teacher such as purchase of plots, building of houses, farming and daily upkeep require money and yet teachers' monthly earnings are not enough to finance them adequately. There is a variety of SACCO products innovated as per the revised Ng'arisha Credit policy (2013) which enable teachers to live up to their daily needs of money and has created a vicious circle of poverty where teachers are trapped in a 'rat race' a situation by borrowing to re-finance and as a result they remain poor making them indebted to the SACCOS to the point of not earning any money at the end of the month. In most cases the purpose for which the loans are put to are usually for consumption and do not generate any income for the teacher.

Management of the SACCOs on the other hand raises questions as many are reported in newspapers for being unable to pay dividends or even have no enough reserve funds for the teachers to continue borrowing. Ndung'u (2010) states that SACCOs are encompassed by mismanagement and poor investment decisions. This study therefore is intended to find out whether teachers' SACCO products have actually helped the teachers' grow economically and whether the SACCOs have been managed in a way as to make their objectives of improving the welfare of teachers in the county.

## Statement of the Problem

In Kenya SACCO societies are supposed to be formed a source of funds for credit, which shall be lent to qualified members at a fair and reasonable rate of interest as compared to commercial banks and other financial enterprises Ng'arisha SACCO (2014) amended by-laws of (BTS). As per Ng'arisha Annual Audit report (2017), the members' loan portfolio increased from 889,067,756.99 in 2015 to 1,069,584,806.80 in 2016.



Mudibo (2005), posits, the objective of SACCO Societies is to empower members through savings mobilization, disbursement of credit and ensuring SACCOs' long-term sustainability through prudent financial practice. Ademba (2010) did research on problems facing SACCOs and found out that poor governance and lack of member's confidence were some of the problems that they face. Ndung'u (2010) established that SACCOs are encompassed by mismanagement and poor investment decisions. The above researchers did little on SACCO products and growth on members that is why the researcher felt that it necessary to research on this topic.

From the above information trend of loans have been increasing year by year but the lifestyle of Members remains the same. Therefore, the researcher seeks to ascertain what hinders most of the SACCO members from growing financially when they enjoy a variety of products from their SACCO, is it as a result of low TSC pay in terms of salary? Unfavorable interest rates making the cost of borrowing high to them? or it is due to lack of financial discipline. Most of the SACCOs tailor their products to meet the requirements of their members thus increasing the loan portfolio of the members. This could be as a result of favourable products offered by the SACCOS. However increased loan portfolio may not necessarily mean financial growth of the members as most of them are still challenged financially.

## **Objectives of the study**

To determine the moderating effect of SACCO factors on relationship between SACCO products and financial growth of SACCO members in Bungoma County.

## **Research Hypotheses**

 $H_{01}$ There is no significant moderating effect of SACCO factors on the relationship between SACCO products and financial growth of members in Bungoma County

## Significance of the study

The study findings may form a basis of literature for future researchers in this area. The study findings may be important to the members of the teachers SACCOs as it will assist them in being enlightened on SACCO products and their benefits.

The findings may help SACCO members in accessing various products at cheaper rates at convenient times. This will guide members on which investments to undertake that may be profitable.



# Scope of the Study

The study was undertaken in Bungoma Town, Bungoma County, for a period June 2016 to June 2017. Both qualitative and quantitative data was gathered and analyzed by use of descriptive and inferential statistics. Questionnaires, interview schedules were used to gather data and results presented in the form of tables, graphs and charts.

# Limitations and delimitations of the study

The researcher was exposed to limitations like non-response from respondent due to the nature of information to be gathered thus the researcher ensured high level of confidentiality and honesty.

# **Conceptual Framework**

This study independent variable was Teachers SACCO products and the dependent variable was the financial growth of members. It means members' growth is dependent on the efficiency of BOSA loans, investment in assets to raise profits and FOSA loans. Moderating variable is the SACCO factor that is liquidity and share capital.







#### LITERATURE REVIEW

#### **Theoretical framework**

#### The Social Capital Theory

The theoretical framework is based primarily on the social capital theory advanced centuries ago by John Dewey, Thomas Aquinas, Bourdieu Pierr and Coleman Bourdieu, (1972) and Coleman, (1988)

The social capital theory emanates from the social capital which is the institutions' relationships, the attitudes, and values that govern interactions among people and contribute to economic and social development. According to Basargekar (2010) social capital is the abilities of people to work together towards resolving community /social issue and promote equitable access to benefits of development. Social capital can therefore be considered as a tool of economic development among people which also affects their environment and community Rankin, (2002) states that either positively or negatively based on their collective action for mutual benefit of a group of people or a community.

The social capital theory covers various aspects of social capital which include the type of social networking, relationship and interaction which comprises the rules, regulations and norms that govern social actions and the trust among members including the benefits that accrue to them (Anderson, locker and Nugent, 2002). The theory also focuses on collective responsibility that enhances better loan repayment (Basargekar, 2010). It postulates that when people act or function in a group as in a cooperative society, it leads to the economic and social development of the group, individuals in the group and the community.

The theory therefore is instrumental in defining the role of capital in wealth creation and social cohesion in repaying the loan so as to borrow more. Unless an individual obtains a loan from a SACCO which is comparatively cheaper than those gotten banks wealth creation will remain a myth. Members come together and contribute their cash which is pooled and bulked together in a SACCO. The cohesion helps members to guarantee one another, to oversee that the loan is put to good use and most importantly that the loan is repaid on time in order to qualify for another loan.

This research examines the extent to which members financial status improves as a result of SACCO activities including the loaning and investment. Of greater concern is whether the SACCO has actually enabled its members to grow financially or due to the many products which are well managed by the SACCO and members it has contributed to the financial improvement



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# The Neo-Classical Growth Theory

The neo-classical growth theory argues that the rate of growth is exogenously determined using the Harrod Damar model or Solow model. Solow-Swan class growth theory which focuses on capital and labor indicates that capital is added when SACCOs invest but is lost due to depreciation. The indication is that there is capital growth in wealth only when the investment exceeds depreciation (Gartner, 2006). The investment should insist on keeping the capital growing to achieve capital growth.

That increase in capital yields leads to an increase in growth of SACCOs' Wealth. The theory explains growth as a factor of accumulation of capital. This model is strongly supported by Harrod Damar Model of development economics (1946) which explains the growth rate in terms of saving and productivity of capital. It explains that increase in investment leads to accumulation of capital.

# Co-Operative Life Cycle Theory

This theory explains the stages that the SACCO which is a co-operative undergoes. There are five stages involved that is, birth, survival, success, decline and revival. The primary purpose and activity of a SACCO at the birth stage is to set the direction of corporate development for the foreseeable future. To fight for survival in the global market, the firm need to call on its innovation function (Water) to cope effectively with the changes in the customers' needs (Fire). The focus is on how to provide effective solutions to their members who are teachers. Organizations in this stage tend to formulate a profit-oriented and sustainable direction. It is the result of the interaction between innovation and marketing functions, the mirror of the Water-Fire effect. Specifically, the Water-Fire effect aims at creating profitable orders through innovation. It could be realized through the tradition triangle, strategy & D, production, and financing functions.

The survival stage is characterized by the strong organizational learning effect and increasing competitiveness. This stage involves increased production, new recruitment, and the development of strong brands through focused marketing activities. Companies continuously devote most of their time and money to R & D as well as production activities at this phase to enrich and deepen their organizational learning experience. This is the manifestation of the Earth-Water effect, as a result of which a firm consolidates its valuable experience of operations into its corporate culture or the theory of business. As firms move through the survival stage, the fundamental assumption of corporate culture and the mindset of the top management (Water) are continuously examined, questioned, and modified by the capability of execution of the



operations function (Earth). Consequently, firms could increasingly enhance their competitiveness by cost reduction through the effect of learning curves.

As SACCOs move through the success stage, they enjoy superior financial performance relative to competitors but face declining learning capabilities. They always get profitable orders and turn in a high-level performance throughout this stage. However, why are some successful companies unable to sustain their growth? One plausible answer might rest on their worsening learning abilities. This would account for the myth why (or the turning point when) some firms' growth deteriorates after the success stage. The weakening of learning capabilities (the Earth-Water effect) would continue to exit and lead to the decline stage. It also explains why firms at the success stage always sow the seeds of failure. Sull (2003) argued that superior financial performance relative to competitors would result in a sense of satisfaction with the status quo and slacken managers' motivation to change. Moreover, superior performance would enhance their confidence that they have found an effective formula for competing.

In fact, the best time for refreshing organization learning arrives near the end of the success stage. Before firms stumble into the decline stage, they would become aware the problem of the deteriorating corporate-wide learning abilities but still benefit from steady orders. Actually, there is a best option of the moment for these firms to utilize their slack resources to rebuild their learning capabilities. If a firm could revitalize the corporate learning before the end of the success stage, it would prevent itself from falling into the decline (Sull, 2003)

The downfall of the organizational learning abilities and deteriorating profit and loss of market share outline the problems of the corporation at the decline stage. As firms suffer from the declining performance, they always face external problems such as the emergence of new competitors, fierce competition, falling prices. In addition, internal issues like overstaff, increasing expenses, and exhausted innovation might dull their motivation to stay in the industry. The declining phase may trigger the reflection of managers on launching the transformative change at corporate level. The lack of profit and loss of market share would be likely to provoke the demise of the firms unless they are determined to fight for their survival through transformative changes.

The renewing firms always experience three processes of change: unfreezing, learning, and refreezing. Evolutionary learning and change goes on all the time. Organizations are dynamic systems interacting with constantly changing environments. The process of change always starts with some form of survival anxiety (Schein, 1999). The decayed competitiveness, stemming from the weak Fire-Metal effect, has posed a direct threat to a firm's existence. It forces a firm to break the spell of its past success formula and commit itself to new and effective organization learning.



The companies endeavor to develop their learning capabilities after they have unlearned something that worked well in the past. They attempted to relearn to do the right things faster, better, and more productively than their competitors. The organizational learning abilities are likely to stopped declining; however, their corporate performance would still be inferior to their competitors' and the decayed competitiveness continues.

The final step in the renewal stage is to rebuild a new sustainable direction. Miller and Friesen (1984,) argued that periods of birth and revival are accompanied by a bold, innovative, organic orientation. Organizations have to invent and internalize the new concepts leading to the high-performance behaviors before the end of the transformative change process. The relearning efforts have effectively fertilized firms' capabilities to manage the next ideal future business.

#### **METHODOLOGY**

#### **Research Design**

The study was executed using a combination of methods and designs. According to Churchill (2011) it is appropriate where the study seeks to describe the characteristics of certain groups, estimate the proportion of people who have certain characteristics and make predictions.

The study adopted descriptive survey research design in order to collect a large pool of data across the county using questionnaires, interview schedules and observation schedules. A detailed description was necessary since respondents have to give personal experiences they have had with the products of the SACCO. The study was both qualitative and quantitative. The mixed approach was used to enable the researcher get an objective account of how SACCO products are managed and how they have grown over time as well as to get a proper perspective from members' point of view how the SACCO products have impacted on their lives.

## **Study Location**

The study was carried out in Bungoma County in Western part of Kenya. Bungoma County has four teachers' SACCOS namely: Ng'arisha, Metropolitan, Mwalimu and Mt. Elgon. The county has a large number of teachers who are active members of SACCO's.

## Population, Sampling and Sample size

Bungoma County is a County in former Western Province of Kenya. It has a population of 1,375,063 and an area of 2,069km<sup>2</sup>. The economy of Bungoma County is mainly Agriculture,



centering on sugarcane and maize industries. The County is mainly occupied by the Bukusu people (website.go.ke).

The target population for the study included all teachers in Bungoma County who are registered members of SACCO's and they are totaling to 12,000 members (Ministry of Cooperative, 2016). Stratified random sampling technique was employed in order to consider and proportionately on the sample. The random sampling method was used because sampling is a statistical determination of the appropriate sample size which can be generalized to present the entire target population (Handy 1991). Random sampling ensured that every teacher in a SACCO has an equal chance of being included in the sample (Warwick and Lininger, 1975).

## Sampling of SACCO members

All SACCOs in Bungoma County involved in the study and there are four (4) SACCOs in Bungoma County. This included: Metropolitan, Ng'arisha and Elgon and Mwalimu SACCOs. The total population was 12,000 teachers registered with the SACCOs according to the Ministry of Co-operative (2016). The following formula was employed in determining the sample size.

 $n = \frac{N}{1 + e^2 N}$ Where N= whole population e=0.05  $n = \frac{12000}{1 + (0.05)^2 12000} = 387.096$  $\frac{12000}{31} = 387.096$ n=387.096

	SACCO	POPULATION	SAMPAL SIZE
1	NG'ARISHA	7,000	226
2	MWALIMU	2,800	90
3	METROPOLITAN	1,200	39
4	MT. ELGON	1,000	32
	TOTAL	12,000	387

	Table	1:	Sampl	ing	frame
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Source: Bungoma County Ministry of Co-operative and Marketing office (2016)

#### **Data Collection**

Questionnaires were used for data collection. Orodho, (2005) observed that questionnaires have a major advantage of time efficiency and anonymity. Mugenda and Mugenda, (1999)



argued that questionnaires are suitable tools for collecting data on a large sample size. It is on these advantages that the current study preferred to use questionnaires over other tools of data collection.

#### Validity of Research Instruments

According to Orodho, (2008), validity is the degree to which the empirical measure or several measures of the concept, accurately measure the concept Content. It is aimed at establishing whether the items in the instruments measure what they are supposed to measure. In this study, the instruments were given to researcher's supervisors for examination and determination of their content validity.

#### **Reliability of Research Instruments**

The research instruments were piloted in two SACCOs in Trans Nzoia County which was not part of the selected SACCOs for study involving 39 respondents because using a sample size of 389, Mugenda and Mugenda (2012) recommends a thumb rule of 10%. The reliability was calculated using the split half procedure. The procedure involved scoring two halves (odd items versus even items) of a test separately for each person after which a reliability coefficient for the two sets of scores was calculated using Pearson's product moments technique. The reliability score of the variables constructs were all above acceptable Cronbach Alpha coefficient of 0.70 with an overall reliability of 0.857.

## **Data Analysis and Presentation**

Data was analysed by use of both descriptive and inferential statistics. The particular inferential statistics used were correlation and regression analysis.

Data collected from secondary sources and from the questionnaires were tabulated because tabulation makes the data orderly and easier for presentation. The results were presented using tables and figures to give a clear picture of the research findings at a glance.

This study used a multiple regression model to establish the relationship between the dependent variable and independent variables. The multiple regression analysis was used because of having several independent variable constructs. The model equation was as follows:  $Y=a+\beta_{1}x_{1}+\beta_{2}x_{2}+...\beta_{n}x_{n}+e$ 

 $=\alpha + \beta_{1X1}M_1 + \beta_{2X2}M_2 + \dots \beta_n x_n M_n + e$ 

Y= Financial growth,  $X_1$ =BOSA loans,  $X_2$ = Investment,  $X_3$ = FOSA loans

M1-M2n = a moderating variable,  $\beta$  and  $\alpha$ -constants and e-Is the error term which is assumed to be normally distributed with mean zero and constant variance



## **Ethical Consideration**

The researcher first sought an authorization letter from Masinde Muliro University. Thereafter, the researcher applied and obtained permission from the National Commission for Science, Technology and Innovation (NACOSTI) to conduct the study. Thereafter, the researcher sought permission and authorization letter from the county commissioner office before visiting the selected SACCO's for study. After being granted the permission the researcher visited selected SACCO departments to inform them about the researcher's intensions, present a research permit and the authorization letter. The researcher also sought consent of the respondents before collecting data.

# **RESULTS AND DISCUSSIONS**

Inferential data Analysis

Correlation analysis of teachers' SACCO product, SACCO factors on financial growth of SACCO members

		Financial growth of
		Members
	Pearson Correlation	.443**
BOSA loan products	Sig. (2-tailed)	.000
	Ν	286
	Pearson Correlation	.652
Investment products	Sig. (2-tailed)	.000
	Ν	286
	Pearson Correlation	.464**
FOSA loan products	Sig. (2-tailed)	.000
	Ν	286
	Pearson Correlation	1
Financial growth of Members	Sig. (2-tailed)	
	Ν	286

Table 2: Teachers' SACCO product and financial growth of SACCO members' correlation results

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

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

Correlation results in Table 2 reveal that there is a positive and significant relationship between teachers SACCO products and financial growth of members at 99% level of confidence (p=0.000;  $\alpha$ =0.01; r=+). Further, the results show that there is a higher correlation between



investment products and financial growth of members (r=0.652), followed by a moderate correlation between FOSA products and financial growth of members (r=0.464), and lastly BOSA products and financial growth of members (r=0.443). From the results, it is clear that teachers who acquire the SACCO investment products are likely to financially grow faster compared to acquiring FOSA and BOSA products. The study findings are in agreement with past research findings that found out that teachers SACCOs product leads to increase financial growth of SACCO members (Adugna and Heudhes, 2000; Kablan, 2010; Auka, 2013; Ajiambo, 2013; and Cheruiyot, 2012).

		Financial growth of Members
	Pearson Correlation	.560
BLPSF	Sig. (2-tailed)	.000
	Ν	286
	Pearson Correlation	.726**
IPSP	Sig. (2-tailed)	.000
	Ν	286
	Pearson Correlation	.660**
FLPSF	Sig. (2-tailed)	.000
	Ν	286
	Pearson Correlation	
Financial growth of Members	realson Correlation	1
	Sig. (2-tailed)	
	Ν	286

# Table 3: Teachers' SACCO product, SACCO factors and financial growth of SACCO members' correlation results

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

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

Study findings as depicted by Table 3 show that introducing SACCO factors strengthened the relationship between teachers SACCO products and financial growth of members as illustrated by a higher correlation coefficient compared to when the factors are excluded. The results also indicate that there are positive and significant relationships between financial growth of members, SACCO factors and teachers SACCO products like: investment products (r=0.726;



p=0.000); FOSA products (r=0.660; p=0.000); and BOSA products (r=0.560; r=0.000). The study results can be interpreted as, SACCO factors, that is liquidity and share capital plays an important role in increasing the financial growth of SACCO members.

# Regression analysis of teachers' SACCO product, SACCO factors on financial growth of SACCO members

The results show the test of hypothesis on the effect of teachers' SACCO products and financial growth of members in Bungoma County, Kenya. The F-statistic generated by regression results was used to test the goodness of fit (Hoe, 2008) or simply significance of the regression models (Blackwell III, 2005). The study used the correlation **r** (Beta,  $\beta$ ) to test the hypotheses. The test criteria is set such that the study rejects the null hypotheses if  $\beta_1 \neq \beta_2 \neq \beta_3 \neq 0$ , otherwise the study will have failed to reject the null hypothesis if  $\beta_1 = \beta_2 = \beta_3 = 0$  (Elam, 1979).

Model	R	R Square	)	Adjusted R Square	Std. Error	of the Estimate
1	.708	8 <sup>a</sup> .501	.501 496		.46863	
a. Pred	ictors: (Constant)	), FOSA loan products,	BOSA I	oan products, Investm	ent products	
ANOVA	Ą <sup>a</sup>					
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	62.151	3	20.717	94.334	.000 <sup>b</sup>
1	Residual	61.931	282	.220		
	Total	124.081	285			

Table 4: Teachers' SACCO product and financial growth of SACCO members' regression results Model Summarv

a. Dependent Variable: Financial growth of Members

b. Predictors: (Constant), FOSA loan products, BOSA loan products, Investment products

## **Coefficients**<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
	(Constant)	108	.121		889	.375
1	BOSA loan products	.223	.052	.198	4.295	.000
1	Investment products	.656	.068	.481	9.716	.000
	FOSA loan products	.305	.066	.214	4.594	.000

a. Dependent Variable: Financial growth of Members



Model summary results in Table 4 indicate that there is a very high positive relationship between teachers SACCO products and financial growth of members (R=0.708). The results also reveal that teachers SACCO products to 50.1% of financial growth of members while 49.9% of financial growth of SACCO members is as a result of other factors a part from teachers SACCO products ( $R^2$ =0.501).

ANOVA results in Table 4 show that the overall multiple regression model is appropriated in measuring the relationship between teachers SACCO products effects on financial growth of members. This is shown by a significant F-statistical test (F=94.334; p=0.000).

Regression coefficient results in Table 4 depict that the elements of teachers SACCO products, that, is BOSA loans, investment products and FOSA loans contributes significantly (p=0.00,  $\alpha$ =0.05) to the financial growth of members thus an increase in financial growth of members by 1 units leads to an increase of 0.223, 0.656 and 0.305 units use of BOSA loans, investment products and FOSA loans respectively. The results also indicate that investment products leads to more financial growth of members followed by FOSA loans and BOSA loans in term of increase in members; assets, income and business ownership.

From the results, the overall multiple regression model is as shown below;

Y (financial growth of members) = -0.108+0.223BP+0.653IP+0.305FP

Where: BP= BOSA loan products; IP=Investment products; and FP=FOSA products. 0.223, 0.653 and 0.305 represents  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  respectively. Since  $\beta_1 \neq \beta_2 \neq \beta_3 \neq 0$ , the study rejects the first three research null hypotheses and concludes that there is a significant and positive relationship between BOSA loans, investment products and FOSA loans on the financial growth of members. The study findings are in agreement with past research findings that found out that teachers SACCOs product leads to increase financial growth of SACCO members (Adugna and Heudhes, 2000; Kablan, 2010; Auka, 2013; Ajiambo, 2013; and Cheruiyot, 2012). In order to test the research fourth hypothesis, the researcher introduced SACCO factors into the regression model between teachers SACCO products and financial growth of members. The results were as shown in Table 5.

# Table 5: Teachers' SACCO product, SACCO factors and financial growth of SACCO members' regression results

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.736 <sup>a</sup>	.541	.536	.44929

a. Predictors: (Constant), FLPSF, BLPSF, IPSF



Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	67.157	3	22.386	110.899	.000 <sup>b</sup>
1	Residual	56.924	282	.202		
	Total	124.081	285			

#### **ANOVA**<sup>a</sup>

a. Dependent Variable: Financial growth of Members

b. Predictors: (Constant), FLPSF, BLPSF, IPSF

#### **Coefficients**<sup>a</sup>

Model		Unstandardiz	ed Coefficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
	(Constant)	.751	.064		11.751	.000
4	BLPSF	.007	.028	.015	.236	.814
I	IPSF	.291	.040	.554	7.355	.000
	FLPSF	.108	.039	.198	2.751	.006

a. Dependent Variable: Financial growth of Members

Model summary study results in Table 5 indicate that in presence of SACCO factors, there is an increased positive relationship between teachers SACCO products and financial growth of members (R=0.736). It also evident that combination of teachers SACCO products and SACCO factors can explain 54.1% of the financial growth of members ( $R^2$ =0.541). The results can be interpreted to mean that SACCO factors contribute a lot to the financial growth of members thus plays a very significant moderating role. ANOVA results in Table 4.9 reveal that the overall multiple regression model is appropriate in measuring the relationship between teachers SACCO products, SACCO factors and financial growth of members. This is shown by a significant F-statistical test (F=110.899; p=0.000).

Multiple regression coefficient results in Table 5 depict that introducing SACCO factors in BOSA loan products is insignificant (p=0.814,  $\alpha$ =0.05) in explaining the financial growth of members but is significant when SACCO factors are introduced to FOSA loan products (p=0.006,  $\alpha$ =0.05) and investment products (p=0.00,  $\alpha$ =0.05).

From the results, the overall multiple regression model is as shown below;

Y (financial growth of members) = 0.751+0.007BPSF+0.291IPSF+0.108FPSF

Where: SF=SACCO factors; BP= BOSA loan products; IP=Investment products; and FP=FOSA products. 0.007, 0.291 and 0.108 represents  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  respectively. Since  $\beta_1 \neq \beta_2 \neq \beta_3 \neq 0$ , the



study rejects the fourth research null hypothesis and concludes that SACCO factors have a significant moderating effect on the relationship between teachers SACCO products and financial growth of members.

## CONCLUSIONS AND FURTHER STUDIES

#### SACCO factors and its effect on SACCO products and financial growth of members

Based on the study findings, it can be concluded that SACCO factors of liquidity and share capital affects operational efficiencies of teachers SACCO products which in the long run leads to members financial growth. It can also be concluded that introducing SACCO factors strengthened the relationship between teachers SACCO products and financial growth of members thus generating a higher correlation coefficient compared to when the SACCO factors are excluded. Finally, it can be concluded that BOSA loan products is insignificant in explaining the financial growth of members but FOSA loan products and investment products are significant when SACCO factors are introduced to them.

A replica study for SACCOs in other sectors in order to test whether the findings of this study will hold true thus helping in generalization of the study findings.

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