

# Determinants of Financial Performance of Agricultural Cooperative Societies in Baringo County, Kenya

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**Abstract:** Cooperative societies strive to perform well in order to grow and increase their value. However, many of these organizations societies in Kenya are yet to achieve their potential due to management and financial difficulties. Furthermore, they have not been able to serve their members as expected and their contribution to economic growth has been limited. Therefore, it was necessary to carry out a study on the determinants of financial performance of agricultural cooperative societies in Baringo County. The study was guided by cost of finance, internal control practices, risk management and social capital as independent variables and financial performance as dependent variable. Theories that relates to the study such as; Cost of capital theory, Merton risk model, Reliability theory and Social capital theory were reviewed. Target population of the study was all accountants and managers of cooperative societies in Kenya. Accessible population for the study was 19 accountants and 19 managers of agricultural cooperative societies in Baringo County, Kenya. Descriptive survey design was employed, involving all 38 respondents with questionnaires as the data collection instruments. A preliminary study was undertaken from 5 accountants and 5 managers of 5 cooperative societies in Nakuru County to determine the reliability and validity of the questionnaires. Data was processed and analyzed by descriptive and inferential analysis with aid of statistical packages for social sciences (SPSS) version 23. Findings were presented by statistical tables. The findings of the study indicated that cost of finance, internal control practices, risk management and social capital influences financial performance of agricultural cooperative societies. It was found that the level of interest rates as elements of costs of finance affected performance. There was positive relationship between risk management and financial management. A strong degree of association was portrayed between cost of finance, internal control practices, risk management and social capital and financial performance. Therefore, it was concluded that proper risk management practices could enable the cooperatives to reduce chances of losses thus improving returns from their operations. The study recommended for establishment of effective organizational financial policies to govern the costs of finance.

**Keywords:** Financial Performance, Agricultural Cooperative Societies, Cost of Finance, Internal Control Practices, Risk Management, Social Capital.

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## 1. INTRODUCTION

Cooperative societies are autonomous associations of persons unified voluntarily to meet their economic, social and cultural needs through jointly owned and democratically controlled enterprises (International Cooperative Alliance (ICA, 2010). They play an important role in economic growth and development of countries all over the world particularly through enabling members to achieve a common goal and also by providing employment opportunities (Mwangi, 2010). However, this is attained if there is effective financial performance. These organizations incur various charges and interests upon acquisition of funds they need to undertake their activities. Kumar and Gena, 2015, asserted that cost of each component of capital like shares, debt and capital reserves constitute the cost of finance of cooperative societies Organizations.

Cooperative Societies' financial performance is partly determined by internal control practices which contribute to production of reliable financial reports for controlling acquisition and utilization of resources (Amudo and Inanga, 2009). Control activities enable cooperative societies to address the financial and operational risks to create an effective platform for set goals and objectives. Companies are mainly exposed to credit and operational risks leading to uncertainty regarding the company's investments and investment opportunities due to product markets dynamics (Maina, 2015). However, financial performance can be adequately realized if appropriate risk management practices are employed to safeguard organization from unexpected volatility of returns. Members of cooperative societies have long term goals hence it is crucial to have trust upon the managers who are their agents (Francesconi and Heerink, 2011). Trust and loyalty are important elements of social capital in agricultural cooperative societies that contributes towards loss minimization as well as ensuring organizational financial performance.

Wambugu et al., (2011) noted that Kenya is dominated by agricultural cooperative societies mainly focused on coffee, dairy, pyrethrum, cotton and horticulture. They also engage in collection, processing, storage and sale of the produce from the members according to ministry of cooperative development report of the year 2012. Kenyan cooperative sector has annual turnover of Kshs. 436 translating to about 45% of the country's Gross Domestic product (GDP) thus have potential to contribute substantially to financial deepening and intermediation.

According to Mwangi, 2010, cooperative societies can provide more jobs to the unemployed and also make improvement in the provision of credit and financial advisory services to their members. They have however encountered various hindrances in their bid to perform well financially. These problems are highly associated with the way financial management is excised in cooperative societies thus members are living in poverty due to inappropriate financing structures of their organizations. Wanyama, 2007 found that Kenya had 10, 642 cooperative societies which included agricultural and non-agricultural organizations. However, Savings and credit co-operatives (SACCOs) constituted over 70 per cent of the non-agricultural co-operatives and they had been more than all agricultural co-operatives since the year, 2003. According to the annual report of year, 2013, by co-operative societies in Mogotio sub-county, Baringo County, agricultural cooperative societies are handling little volumes of produce contrary to the potential that exists in the area. Low volume of production leads to little income and growth which compels the organizations to huge external borrowing altering its capital structure. They have little financial capacities to offer better services to members.

Active agricultural cooperative societies in Baringo County realized a turnover of Kshs. 470,735,000 according to annual report of 2015 by Department of Industrialization, Commerce, Tourism & Enterprise Development, Co-operative Development and Marketing Division of Baringo County. The growth and strength of societies is strongly linked to volume of production. The capacities of societies had been put into doubt due to mismanagement that is hindrance to better services to the members. Therefore, low production limited the possibilities of societies to diversify into other areas of business as a result of poor operational and financial performance.

### **Statement of the Problem:**

Agricultural co-operative societies play a major role in resources mobilization, agro-processing and marketing of agricultural produce. However, their financial performance has been insufficient thus have not served their members effectively. They have of late experienced inadequate financial resources and low volumes of produce thus limiting their service delivery to the members. This situation compels them to seek external borrowing to keep organization going but leading them to unmanageable debts obligations. As such, their potential in the country has hence been hindered by inadequate financial performance. A study by Ondieki (2011) on the effects of external financing on the performance of cooperative societies in Kisii district found out that performance of cooperative societies was influenced by poor governance, lack of transparency and weak information technology infrastructure. However, this study and other research works relating to the existing problem have not sufficiently addressed the issues associated with financial performance of agricultural cooperative societies. Therefore, the current study is meant to fill the pertinent gaps by clearly assessing the determinants of financial performance of Cooperative Societies in Baringo County, Kenya.

### **Objectives of the Study:**

- i. To assess the effects of cost of finance on financial performance of agricultural cooperative societies in Baringo county.
- ii. To establish the influence of internal control practices on financial performance of agricultural cooperative societies in Baringo county.

- iii. To determine the effects of risk management on financial performance of agricultural cooperative societies in Baringo county.
- iv. To find out the effects of social capital on financial performance of agricultural cooperative societies in Baringo county.

**Research Hypotheses:**

**H<sub>01</sub>:** The relationship between cost of finance and financial performance of agricultural cooperative societies is not statistically significant.

**H<sub>02</sub>:** The relationship between internal control practices and financial performance of agricultural cooperative societies is not statistically significant.

**H<sub>03</sub>:** The relationship between risk management and financial performance of agricultural cooperative societies is not statistically significant.

**H<sub>04</sub>:** The relationship between Social capital and financial performance of agricultural cooperative societies is not statistically significant.

## **2. THEORETICAL REVIEW**

**Cost of Capital Theory:**

Graham, (2001) developed cost of capital theory which describes the return required by the financial institutions and other organizations providing finance to corporate or individuals for the purpose of acquiring assets and ensuring continuation of other business operations. The cost of acquiring funds must be reflected in the capital structure used to finance the investments by the cooperative societies hence inclusion of the cost of equity and debt is necessary. Investments with positive net present values at the cost of capital are accepted because they earn more than the investors' required rate of return and will add to their wealth (Barbuta, 2009).

The cost of capital therefore has a pivotal role to play in the financial management of cooperative societies through linkage between investment decisions and the finance decisions. They engage in other businesses in expectations of returns to expand their operations and serve members effectively. Cost of capital theory states that investments with potential for good returns are attractive to financiers such as banks who cooperative societies rely on for funds. This motivates them to make better decisions to guide establishments and management of investment projects with potential for sufficient returns (Pandey, 2009).

**Merton Risk Model:**

The Merton risk model was developed by Merton in (1974) and stated that organizations ought to understand their ability to meet financial obligations such as servicing of the existing debts. This model is applicable in cooperative societies who borrow to undertake their activities effectively and also guarantee their members for loans from financial institutions. They get to learn more about risk management and undertake appropriate measures to avoid getting into credit default. It is important for cooperative societies to retain solvency by clearly analyzing the debts accrued and the maturity dates. Credit risk concerns the possibility of financial losses due to changes in the credit quality of market participants (Bhamra et al., 2010). Merton's model provides both an intuitive economic interpretation and an endogenous explanation of credit defaults, and allows for applications of option pricing methods. Therefore, it does not only facilitate security valuation, but also address the choice of financial structure of an organization.

**Reliability Theory:**

According to (Mane, 2014), Reliability theory explains the capability of the control system to effectively undertake its role and accomplish it within the required amount of time. Therefore, it states how various organizational components of general internal controls can be integrated to spearhead the company to good financial performance. Each element of the system should work appropriately for the whole practice to bear fruits. The reliability of a component of internal control system is determined on the basis of indicating that it can contribute to the success of a company (Jokipii, 2010). Gnedenko et al., (2014) argues that internal control practices play a greater role in the identification, assessment and mitigation of risks. Poor internal control practices are uneconomical and the organization incurs huge operational costs leading to little net gains from their businesses. Reliability theory is of importance to both internal and external auditors in

cooperative societies since it helps them to gain more insight on the internal control practices thus helping them to ensure that the level of compliance is attained (Rausand, 2014).

#### **Social Capital Theory:**

Valentinov, (2004) asserted that through Social capital theory, social capital reduces costs in organizations since trust and reputation among the members and managers reduces the requirements for unnecessary and expensive pre-cautionary measures. Therefore, management is able to make decisions that enhance organizational financial performance without many hindrances (Gabre-Madhin, 2001). Social capital theory suggest that social capital contributes immensely to the cooperation in cooperative societies which leads to effective operations and costs minimization thus plays a major role in determining the success or failure of an organization (Krause et al., 2007). Agricultural cooperative societies are designed to bring members together to take farm produce, to create and coordinate resources and to undertake other activities for the interests of the members. Therefore, individual member farmers running their farms on their own are joined together voluntarily as one entity for their mutual benefits, participating in cooperative business as customers and owners and acting collectively (Lin, 2002).

#### **Empirical Review:**

##### **Cost of Finance:**

Onugu, (2014) carried a study on the financial performance of cooperative societies in Enugu state, Nigeria. The study found that cost of financing is the main issue considered by organization when deciding of the type of capital. The value of the investments and projects undertaken by cooperative societies is highly linked to the costs of financing them thus have to be put into account for the managers to make informed decisions. Cooperative societies find it difficult to measure the impact of financing costs on their capital structure decisions in regard to their investing activities. However, this study did not exhaust all aspects of cost of finance which contributes to the financial performance of cooperative societies at large.

Sikuka (2010) examined comparative performance of selected agri-business companies and cooperatives in the Western Cape of South Africa. The relative financial performance of cooperatives to companies were compared across different financial ratios mainly, through profit margin, return on assets (R.O.A), return on equity (R.O.E), current ratio, debt to asset ratio, asset turnover ratio, asset growth, revenue growth and economic value added. The overall results confirmed that, companies had the strongest relative financial performance in most of the financial ratios mainly profit margin, ROE, current ratio, debt to asset ratio, asset turnover ratio, asset growth, revenue growth and economic value added and their relative financial performance were improved. In this study, the concept of transaction costs which are connected to the funds for acquiring assets was not clearly explained.

Wanjiru, (2013) sought to find out the factors influencing financial performance of cooperative societies in Mathira, Nyeri county. The study indicated that the knowledge of the cost of finance and how it is influenced by financial leverage is useful in making decisions aimed at enhancing organizational financial performance. It is also important in many other areas of decision making such as dividend decision, working capital decision and so on. A firm generally finances its projects by utilizing various sources of funds such as common stock, bonds, debentures, long and short term borrowings and retained earnings.

Odetola et al., 2015 noted that appropriate decisions made on the cooperative capital funds assists in minimization of long-term average cost of finance. The cooperatives raise funds by issuing shares, borrowing loans and retaining earnings and also largely depend on borrowing from external financing agencies. The study did not elaborate on the fact that value of issued shares are subject to changes in economic conditions and is likely to affect organizational cost of borrowing.

##### **Internal Control Practices:**

Chaddad, (2012) carried out a study on Advancing the theory of the cooperative organization: the cooperative as a true hybrid. The study suggested that cooperative societies like other organizations should have procedures and policies to track, manage and report its financial resources and transactions as indicated in the financial statements such as cash flow statements, budget sheets, accounting systems and operating ratios. Internal control systems have to be installed for the organization to achieve their goals and objectives. These controls display seriousness about certain matters and are adopted largely to positively influence financial performance towards achievement of organizational goals. However, the success of systems in an organization requires full support of the top management. This has not been sufficiently explained in the study.

Robson et al, (2012) did a descriptive study of the management auditing methods used by public sector organizations conducting audits of workplaces and found that effective application of internal control measures helps to protect the assets of the entity from being misappropriated. Cooperative societies aim to deliver services to the members and ensure that they are all satisfied. This can be enhanced by effective internal control systems which aid implementation of management policies meant for attainment of goals. Failure to detect errors and frauds committed in the books of accounts results in financial mismanagement leading to increased inaccuracy and lack of reliability in cooperative societies.

A study by Karagiorgos et al., (2009), on the contribution of Internal Auditing to Management showed that poor financial performances of organizations cooperative societies included, are associated with ineffective financial control practices which causes financial mismanagement. As a result, they find themselves with inadequate funds to acquire and avail major farm inputs for production at the appropriate time and at the right prices to the members. Lack of stable financial control systems in cooperative societies has deterred government efforts to develop efficient and effective input procurement and distribution systems that would have ensured timely delivery of adequate quantity and quality of farm inputs to farmers. The study fails to describe how financial information of cooperative organization is availed and explained to members.

### **Risk Management:**

Mikes and Kaplan, (2014) in their study 'Towards a contingency; Theory of enterprise risk management, they noted that organizations are concerned with risk management practices of their organizations thus lay a great emphasis on this matter in order to balance between debt and equity for good financial performance. Cooperative societies are not an exception hence have to manage their risk exposure and conduct proper analysis to avoid losses and other financial problems.

Muriuki, (2014) however, asserted that most cooperative societies do not undertake proper risk analysis thus their returns are negatively affected and the members incur a lot of losses which makes them to remain in poverty. Credit risk management activities are influenced by the risk behavior of managers in cooperative organizations and if they adopt appropriate strategies for risks mitigation, financial performance can be enhanced. The study lacks detailed statement on the risk policy that should guide the organization.

Mwangi, (2013) undertook a study on the effects of liquidity on performance of deposit taking micro financial institutions in Kenya. He asserted that organizations ought to have policies in place that determine the amount to borrow and the appropriate time to do the same based on the loaning laws and regulations. Financial institutions such as microfinance are mostly concerned with the ability of the cooperative societies to repay the amount borrowed with all terms and conditions adhered to. Therefore, they have to work hard to raise their credit ratings as well as improving the confidence of the creditors.

A study by Ondieki (2011) sought to find out the effects of external financing on the performance of Cooperative societies in Kisii District. He found out that poor governance, lack of transparency and weak Information technology infrastructure influenced risk management thus financial performance of cooperative societies. Organizations utilize credit risk management practices to mitigate risks as a basis for objective credit risk appraisal by relying on the discretion and ability of portfolio managers for effective credit risk management practices (Chirwa, 1997). Borrowing from external sources alone did not cover the issue of financial performance of cooperative societies in regard to risk management.

### **Social Capital:**

Tsujinaka, (2002) did a study on the cultural dimension in measuring social capital in Japan. It was found that the linkage among cooperative members was contributed by social capital. They have similar goals and this leads to tight internal relationships thus reinforcing identities and strengthening networks. Members of agricultural cooperative societies are required to be committed to market their produce and purchase their inputs through the cooperative because the financial performance of their organizations depends on their ability to establish and maintain trust and confidence among themselves. However, the study did not state what should be done in order to maintain the link and the confidence among cooperative members in the long term.

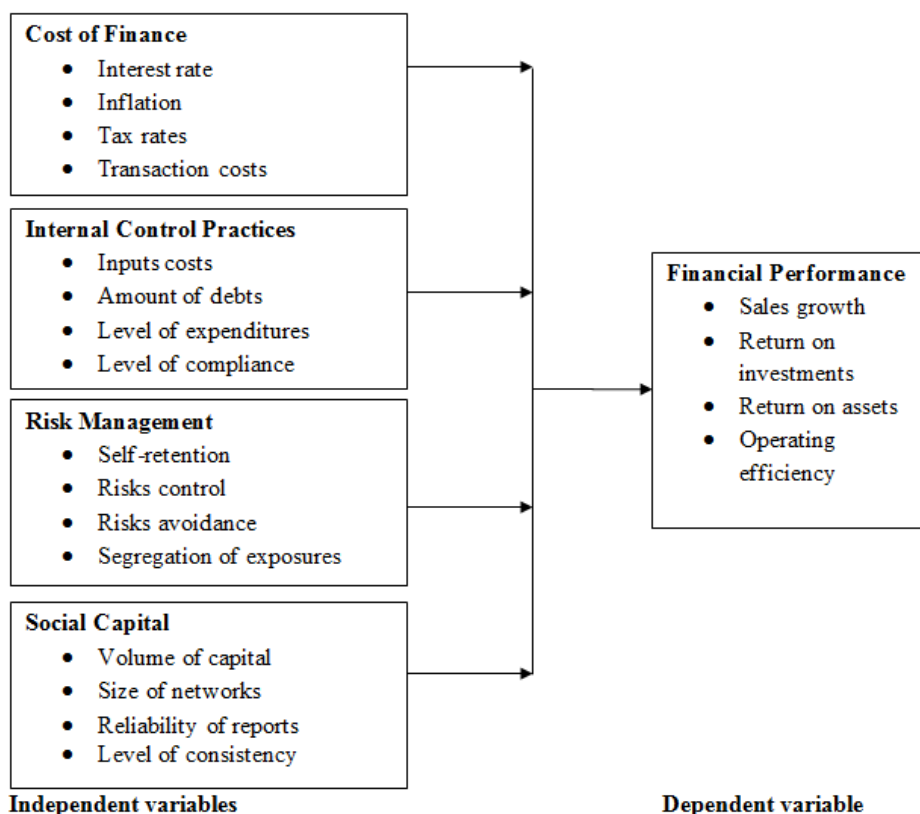
A research work by Fischer and Qaim, (2012) on linking smallholders to markets; determinants and impacts of farmer collective action in Kenya showed that cooperative members expect to obtain advantages from the coordination of production decisions, shared access to inputs, enhanced market power and more effective bargaining capacity. Therefore, these commitments are intrinsically based on mutual trust and reciprocity among members. Social capital is an essential factor in the financial performance of cooperative societies. In this context, voluntarism does not only depend on

individual choice but also on the surrounding institutions, norms and social networks. The study lacks strategies in place for the cooperative management to influence member’s commitments and reciprocity.

Francesconi and Heerink, (2011) carried out a study on Ethiopian agricultural cooperatives in an era of global commodity exchange. It was noted that cooperatives management ought to enhance trust among members and ensure that they are loyal to the organization so as to create social networks to facilitate joint decision-making and access to information for collective action that are vital to maintain delivery commitments with the group. High trust and reciprocity are vital to control free-riding since better organized and more integrated agricultural cooperatives are more reliable on financial market agencies and thus have easier access to finance. Collective action is considered as an asset for economic growth and poverty alleviation. This claim is based on the key role of bonding social capital for successful management of common pool resources, considering that cohesion in social networks contributes to both higher resource use efficiency and improved welfare. The study did not indicate the platforms upon which cooperative members could have been linked to the financial market agencies to enhance their financial performance.

**Conceptual Framework:**

Conceptual framework outlines the association between independent and dependent variables. In this case, Figure 2.1 illustrates the relationship between (cost of finance, internal control practices, risk management and social capital) and the financial performance of cooperative societies.



**Figure 2.1: Conceptual framework for determinants of financial performance of agricultural cooperative societies in Baringo County**

**3. METHODOLOGY**

**Research Design:**

Research design is the framework under which the study is undertaken (Kothari, 2008). The current study adopted descriptive survey design to come up with sufficient and relevant information for the research. It was deemed appropriate since it enhanced collection of data from respondents without manipulation and the description of concepts under the study. It also enabled detailed description of each study variable in a bid to emphasize on the issue of financial performance of agricultural cooperative societies.

### Target Population:

According to Mugenda and Mugenda, 2009, population means the aggregate number of people or individuals with similar features or characteristics. The target population of the study was all the accountants and managers working in agricultural cooperative societies in Kenya. Accessible population is the part of target population that the researcher access to draw a study sample. Therefore, the accessible population for the study was 19 accountants and 19 managers from 19 agricultural cooperative societies in Baringo County.

### Census Survey:

The current study adopted census survey technique. Therefore, respondents comprised of all 19 accountants and 19 managers of 19 agricultural cooperative societies in Baringo county.

### Data Collection Instruments:

The researcher used structured questionnaires to collect data from the accountants and the managers. These questionnaires helped the respondents to fill them in a structured manner by giving them enough time to express their opinions effectively without bias. Furthermore, questionnaires are very convenient data collection tools since respondents read the questions and answer them to best of their understanding. They were administered on a 5-point scale whereby each point indicated the level of agreement or disagreement with the statements. Drop and pick method was used.

### Pilot Study:

A preliminary study before the main study is important for a research. Therefore, a pilot study was conducted for the current study. The researcher engaged 5 accountants and 5 managers of 5 agricultural cooperative societies from Nakuru County who were not part of the respondents. This was done in order to determine whether the questionnaires needed any adjustments to fit the requirements of the study. As a result, reliability and validity of the data collection instrument was achieved.

### Reliability of Research Instrument:

Kothari (2008) described the reliability as the consistency of the data collection instrument considering the results it gives out after different tests. Chronbach alpha coefficient is the most recommended method to test reliability of the data collection instrument (Kimberlain & Winterstein, 2008). Therefore, this study used Chronbach alpha ( $\alpha$ ) with coefficients ranging from 0.00 to 1.00 to indicate the reliability of the questionnaire concerning all variables. All variables reached a threshold of 0.7 and above as shown in Table 3.1.

Table 3.1: Reliability test results

Variables	Items tested	Chronbach alpha value
i. Cost of Finance	7	.717
ii. Internal Control	5	.704
iii. Risk Management	6	.762
iv. Social Capital	5	.710
v. Financial Performance	5	.728

### Validity of the Research Instrument:

According to Mugenda & Mugenda, (2009), validity of data collection instrument means that it actually measures what is intended to measure. The researcher sought expert opinion from the university supervisor for appropriate guidance on statements concerning study variables while using content validity.

### Data Processing and Analysis:

Data analysis refers to the process of breaking complex information into smaller elements that can be easily clarified and understood (Kothari, 2008). Therefore, data collected from the sampled accountants and managers was sorted, edited,

coded and analyzed by descriptive and inferential statistics. Descriptive analysis tools included the means, standard deviations and variance. The study furthermore used inferential analysis applying Pearson moment correlation and regression analysis. Regression analysis was used to establish the relationship between each independent variable and the dependent variable. Analysis was executed with an aid of Statistical packages for social sciences (SPSS) version 23. The findings from the research were presented by statistical tables.

The following regression model was applied in the analysis;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Whereby;

Y	represents	Performance
$\beta_0$	represents	Constant
$\beta_1, \beta_2, \beta_3, \beta_4$	represents	Regression coefficients of independent variables.
$X_1$	represents	Cost of Finance
$X_2$	represents	Internal Control Practices
$X_3$	represents	Risk Management
$X_4$	represents	Social Capital
$\epsilon$	represents	Error Term

#### 4. FINDINGS AND DISCUSSIONS

This chapter outlines the response rate, background of the respondents, descriptive and inferential analysis of the data obtained from the accountants and managers of Agricultural Cooperative societies in Baringo County, Kenya.

##### Response Rate:

The researcher achieved response rate of 84% that was sufficient for the study. The target population was 19 accountants and 19 managers of agricultural cooperative societies in Baringo County. 15 (79%) and 17 (89%) questionnaires were filled and returned from managers and accountants respectively. Therefore, 32 out of 38 respondents led to 84% response rate which was adequate for the study. Table 4.1 illustrates the results.

Table 4.1 Response Rate

Respondents	Number of issued questionnaires	Number of filled and returned questionnaires	Response Rate (%)
Managers	19	15	79
Accountants	19	17	89
<b>Total</b>	<b>38</b>	<b>32</b>	<b>84</b>

##### Descriptive Analysis:

The researcher described the views of respondents concerning effects of costs of finance, internal control practices, risk management and social capital. The findings are discussed on those who: **SA: Strongly Agree, A: Agree, N: Neutral, D: Disagree and SD: Strongly Disagree** with the statements on aforementioned variables.

##### Effects of Cost of Finance on Financial Performance:

The study sought to establish the effects of cost of finance on financial performance of agricultural cooperative societies in Baringo County. The findings of the study are shown in Table 4.2



**Table 4.2: Effects of Cost of Finance on Financial Performance**

	Statements	N	SA	A	N	D	SD	Mean	Std. Dev
i	Level of interest rates influence costs of finance thus affects performance of cooperative societies.	32	18 (56.3%)	10 (31.3%)	3 (9.3%)	1 (3.1%)	-	4.41	.798
ii	Performance of cooperative societies is influenced by inflation rates.	32	7 (21.9%)	14 (43.8%)	6 (18.7%)	4 (12.5%)	1 (3.1%)	3.69	1.061
ii	Tax rates increases financing costs thus determining trends in the performance from one time to another.	32	14 (43.8%)	13 (40.6%)	4 (12.5%)	1 (3.1%)	-	4.25	.803
i	Transaction costs incurred by cooperatives affect their performance.	32	11 (34.3%)	17 (53.1%)	4 (12.5%)	-	-	4.22	.659
v	Large cooperative societies have economies of scales and advantage in regard to costs of obtaining funds.	32	13 (40.6%)	13 (40.6%)	6 (18.8%)	-	-	4.22	.751
v	Appropriate financial management enhances control of cost of capital in an organization.	32	15 (46.8%)	12 (37.5%)	3 (9.4%)	2 (6.3%)	-	4.25	.880
v	Costs of finance are determined by competition in financial institutions and this affects performance of cooperative societies.	32	12 (37.5%)	15 (46.9%)	4 (12.5%)	1 (3.1%)	-	4.19	.780

It was found that respondents strongly agreed (mean =4.41; std dev=0.798) that the level of interest rates influence costs of finance thus affects performance of cooperative societies and (mean=4.25; std dev=0.803) that tax rates increased financing costs thus determining trends in the performance from one time to another. However, there were differing opinions (mean=3.69; std dev=1.061) on whether inflation rates had a considerable influence performance of cooperative societies. Moreover, most accountants and managers agreed (mean =4.22; std dev=0.751) that large cooperative societies with economies of scales have an advantage in regard to costs of obtaining funds. The respondents also concurred (mean=4.25; std dev=0.880) that appropriate financial management enhanced control of cost of finance while agreeing (mean=4.19; std dev=0.780) competition in financial institutions also influenced the same matter. It is also evident that they admitted (mean=4.22; std dev=0.751) that transaction costs had an effect on the cost of finance hence overall performance. This implies that cost of finance influence financial performance of cooperative societies.

**Influence of Internal Control Practices on Financial Performance:**

The study further assessed the influence of internal control practices on financial performance of cooperative societies and the results are outlined in Table 4.3.

**Table 4.3: Implications of Internal Control Practices on Financial Performance**

	Statements	N	SA	A	N	D	SD	Mean	Std. Dev
i	Agricultural inputs costs incurred by the cooperative affects its performance.	32	12 (37.5%)	10 (31.3%)	9 (28.1%)	1 (3.1%)	-	4.03	.897
ii	Amount of debts accrued by the cooperative society influences its performance.	32	10 (31.3%)	13 (40.6%)	9 (28.1%)	-	-	4.03	.782
iii	Performance is determined by the level of expenditures.	32	10 (31.3%)	12 (37.5%)	7 (21.9%)	1 (3.1%)	2 (6.2%)	3.84	1.110
iv	Compliance levels links to the performance.	32	6 (18.8%)	21 (65.6%)	4 (12.5%)	1 (3.1%)	-	4.00	.672
v	Internal control leads to accountability among cooperative managers.	32	4 (12.5%)	17 (53.1%)	10 (31.3%)	1 (3.1%)	-	3.75	.718

The respondents concurred (mean=4.03; std dev=0.897) that agricultural inputs costs which are supposed to be under proper control incurred by the cooperative affected their performance. It was also admitted (mean=4.03; std dev=0.782) that the debts accrued and (mean=3.84; std dev=1.110) level of expenditures influenced the level of outputs. The respondents furthermore agreed (mean =4.00; std dev=0.672) on the link between compliance levels and financial performance. However, there were differing views (mean=3.75; std dev=0.718) on contribution of internal controls to accountability among cooperative managers. The above findings showed that at least the accountants and managers agreed with the statements relating to internal control practices thus confirming its influence on the financial performance.

**Effects of risk management on financial performance**

The study analyzed the respondents’ views regarding the influence of risk management in cooperative societies on their financial performance. The results of the analysis are illustrated in Table 4.4.

**Table 4.4: Effects of risk management on financial performance**

	Statements	N	SA	A	N	D	SD	Mean	Std. Dev
i	Self-retention costs influence organizational performance.	32	12 (37.5%)	14 (43.7%)	3 (9.4%)	3 (9.4%)	-	4.09	.928
ii	Effectiveness of risk control measures affects performance.	32	10 (31.3%)	17 (53.1%)	3 (9.4%)	1 (3.1%)	1 (3.1%)	4.06	.914
iii	Risks avoidance strategy has a direct link to performance.	32	6 (18.8%)	17 (53.1%)	21 (21.9%)	1 (3.1%)	1 (3.1%)	3.81	.896
iv	Segregation of risks enhances performance.	32	14 (43.7%)	10 (31.3%)	6 (18.8%)	1 (3.1%)	1 (3.1%)	4.09	1.027
v	Proper risk management ensures security of cooperative data used to make decisions.	32	9 (28.1%)	16 (50%)	7 (21.9%)	-	-	4.06	.716
vi	Assets in portfolio reduce risks and contributes to good performance.	32	5 (15.6%)	19 (59.3%)	6 (18.8%)	2 (6.3%)	-	3.84	.767

The study findings indicates that respondents agreed (mean=4.09; std dev=0.928) that Self-retention costs incurred by cooperative societies influence affect their performance. It was also admitted (mean=4.09; std dev=1.027) that risks segregation and avoidance strategies (mean=3.81; std dev=0.896) lead to good performance. The respondents moreover concurred (mean=4.06; std dev=0.716) that proper risk management ensured security of cooperative data used to make decisions. They also at least agreed (mean=3.84; std dev=0.767) that putting assets in portfolios helps to reduce risks and improves the levels of output. The agreement with the above prepositions in relation to risk management indicates that it indeed affects the financial performance of cooperative societies.

**Effects of Social Capital on Financial Performance:**

The study sought to determine the influence of social capital on financial performance of cooperative societies in Baringo County. Table 4.5 indicates the results.

**Table 4.5: Effects of Social Capital on Financial Performance**

	Statements	N	SA	A	N	D	SD	Mean	Std. Dev
i	The volume of capital gained as a result of good working relationship among managers and members contributes to better performance.	32	7 (21.9%)	14 (43.7%)	11 (34.4%)	-	-	3.88	.751
ii	The size of networks among members influences growth and performance.	32	11 (34.4%)	18 (56.2%)	3 (9.4%)	-	-	4.25	.622
iii	Reliable financial reports from the cooperative society are influenced by Trust among the managers and members.	32	11 (34.4%)	14 (43.8%)	5 (15.6%)	1 (3.1%)	1 (3.1%)	4.03	.967
iv	Consistency in performance comes as a result of reciprocity.	32	12 (37.5%)	14(43.8%)	6 (18.7%)	-	-	4.19	.738
v	Social capital provides a platform for association between cooperative societies and financial institutions.	32	6 (18.8%)	17 (53.1%)	9 (28.1%)	-	-	3.91	.689

The respondents at least concurred (mean=3.88; std dev=0.751) that the social capital is gained as a result of good working relationship among managers and members and (mean=4.25; std dev=0.622) that the size of network influences financial performance. Cooperative societies’ accountants and managers also agreed (mean=4.03; std dev=0.967) that reliable financial reports from the cooperative society are influenced by trust among the stakeholders. Moreover, they agreed (mean=4.19; std dev=0.738) that consistency in financial performance comes as a result of reciprocity. The respondents also admitted (mean=3.91; std dev=0.689) that social capital provides a platform for association between cooperative societies and financial institutions. All prepositions shows respondents admission on the effects of social capital. As such, the nature and volume of social capital in agricultural cooperative societies determines their financial performance.

**Financial Performance:**

The study sought to establish the respondent’s views in regard to financial performance putting into account the elements of cost of finance, internal control practices, risk management and social capital. Findings are illustrated in Table 4.6.

**Table 4.6: Descriptive Statistics on Financial Performance**

	Statements	N	SA	A	N	D	SD	Mean	Std. Dev
i	Trends in sales growth of cooperative society states its performance.	32	27 (84.4%)	4 (12.5%)	1 (3.1%)	-	-	4.81	.471
ii	Returns on investments determine influences financial growth.	32	16 (50%)	12 (37.5%)	3 (9.4%)	1 (3.1%)	-	4.34	.787
iii	The value of a cooperative society is affected by the return on assets.	32	8 (25%)	14 (43.7%)	8 (25%)	2 (6.3%)	-	3.87	.871
iv	Operating efficiency reduces costs of equity and debt thus enhancing organizational performance.	32	20 (62.5%)	11 (34.4%)	1 (3.1%)	-	-	4.19	.738
v	Appropriate risk management strategies leads to better performance.	32	19 (59.4%)	9 (28.1%)	4 (12.5%)	-	-	4.47	.718

The findings shows that most cooperative managers and accountants strongly agreed (mean=4.81; std. Dev=0.471) that financial performance is indicated by the trends in sales growth of cooperative society. Respondents also concurred (mean=4.34; std dev=0.787) it is determined by returns on investments and assets. They furthermore admitted (mean=4.19; std. Dev=0.738) that consistency in performance comes as a result of reciprocity which is an element of social capital. Accountants and managers strongly agreed (mean=4.47; std=0.718) that appropriate risk management strategies leads to better performance. The strong agreement with the above statements implied that there were huge concerns with financial performance of cooperative societies in Baringo County. It also shows that cost of finance, internal control practices, risk management and social capital influenced it.

**Inferential Analysis:**

The study adopted inferential analysis to determine the relationship or association between independent variables and dependent variable. Pearson correlation coefficient was used to determine the strength and direction of the relationship. On the other hand, regression model was utilized to establish the association by predicting the variation of the dependent variable from independent variables.

**Correlation Analysis:**

**Correlation Analysis for Cost of Finance:**

The study aimed at determining the effects of cost of finance on financial performance of agricultural cooperative societies. After correlation analysis, findings are illustrated in Table 4.7

Table 4.7: Correlation Analysis for Cost of Finance			
			Performance
Cost of finance	Pearson Correlation		.879**
	Sig. (2-tailed)		.000
	N		32
**. Correlation is significant at the 0.01 level (2-tailed).			

The study findings shows that the relationship between cost of finance and financial performance is strong, positive and statistically significant ( $r = 0.879$ ;  $p < 0.01$ ). This implied that insufficient financial performance experienced in agricultural cooperative societies in Baringo County is likely to be influenced by inappropriate management of costs that are incurred in acquisition of funds. Therefore, there is a possibility of lack of effective analysis and proper decisions upon costs of either equity or debt finances in cooperative societies.

#### Correlation Analysis for Internal Control Practices:

The study assessed the effects of internal control practices on financial performance of agricultural cooperative societies in Baringo County and the results of the assessment are as outlined in Table 4.8.

Table 4.8: Correlation Analysis for Internal Control Practices			
			Performance
Internal control practices	Pearson Correlation		.699**
	Sig. (2-tailed)		.000
	N		32
**. Correlation is significant at the 0.01 level (2-tailed).			

The findings indicated that the relationship between internal control practices and financial performance was strong, positive and statistically significant ( $r=0.699$ ;  $p<0.01$ ). The findings led to rejection of the second null hypothesis ( $H_{02}$ ). Financial performance is enhanced by high emphasis on internal control practices. In case of cooperative societies in Baringo County, there is unlikelihood of having or adherence to organizational general internal control mechanisms. This means that inadequate financial performance was influenced by lack of compliance and control over things such as acquisition and utilization of debts as well as organizational expenditures.

#### Correlation Analysis for Risk Management:

The researcher wanted to establish how risk management influenced financial performance of agricultural cooperative societies in Baringo County. The findings are illustrated in Table 4.9.

Table 4.9: Correlation Analysis for Risk Management		
		Performance
Risk management	Pearson Correlation	.621**
	Sig. (2-tailed)	.000
	N	32
**. Correlation is significant at the 0.01 level (2-tailed).		

The findings from correlation analysis indicates that there is strong and positive relationship between risk management and financial management which is statistically significant ( $r=0.621$ ;  $p<0.01$ ). This means that third null hypothesis ( $H_{03}$ ) was rejected. Therefore, proper risk management practices enable the cooperatives to reduce chances of losses thus improving returns from their operations. It is difficult to avoid risks and losses without effective risk manage and this contributes to low financial resources. Cooperative societies receive low volumes of produce due to weak financial muscle that can be associated with risks management.

**Correlation Analysis for Social capital:**

The researcher sought to establish the relationship between social capital and financial performance of agricultural cooperative societies in Baringo County. The findings are illustrated in Table 4.10.

Table 4.10: Correlation Analysis for Social Capital		
		Performance
Social capital	Pearson Correlation	.733**
	Sig. (2-tailed)	.000
	N	32
**. Correlation is significant at the 0.01 level (2-tailed).		

The study findings indicates that the relationship between social capital and financial performance is strong, positive and statistically significant ( $r = 0.733$ ;  $p < 0.01$ ). Fourth null hypothesis ( $H_{04}$ ) was rejected. This is because social capital influences financial performance of agricultural cooperative societies. Trust and reciprocity are important in forming a good working relationship between managers and members. It therefore implies that managers of cooperative societies in Baringo County did not sufficiently prioritize the interests of the members as anchored in the financial performance.

**Regression Analysis:**

Regression model was applied to determine the combined effect of cost of finance, internal control practices, risk management and social capital on financial performance. The results are shown on Table 4.11.

Table 4.11: Regression Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.927 <sup>a</sup>	.859	.838	.15904
a. Predictors: (Constant), cost of finance, internal control, risk management, social capital				

According to the study findings, the correlation coefficient ( $R=0.927$ ). This indicates that the independent variables are very strong good predictors of the dependent variable. Coefficient of determination ( $R^2=0.859$ ) is the proportion of variance in the dependent variable that can be explained by the independent variables; the proportion of variation accounted for by the regression model. In this case, 85.9% variability of the dependent factor is explained by independent factors. As such, strong degree of association has been illustrated between cost of finance, internal control practices, risk management and social capital and financial performance.

**Table 4.12: Analysis of Variance (ANOVA)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.146	4	1.036	40.974	.000 <sup>a</sup>
	Residual	.683	27	.025		
	Total	4.829	31			

a. Predictors: (Constant), cost of finance, internal control, risk management, social capital

b. Dependent Variable: performance

The researcher was determined to test whether the overall regression model was a good fit for the data. Therefore, Analysis of Variance (ANOVA) was undertaken. The study findings indicates (Table 4.13) that the independent variables statistically significantly predict the dependent variable,  $F(4, 27) = 40.974$ ,  $p < 0.01$  confirming that the regression model was a good fit of the data. Moreover, ANOVA results shows that cost of finance, internal control practices, risk management and social capital put together had influence on financial performance of agricultural cooperative societies in Baringo County. This calls for major emphasis on the above factors by managers and other stakeholders in order to improve cooperative performances.

Table 4.13 Results from Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.870	.419		4.463	.000
	Cost of finance	.736	.073	.879	10.079	.000
	Internal control Practices	.671	.125	.699	5.360	.000
	Risk management	.435	.100	.621	4.334	.000
	Social capital	.680	.115	.733	5.897	.000
a. Dependent Variable: performance						

The results from the regression analysis shows that indeed financial performance can be predicted from cost of finance, internal control practices, risk management and social capital. The coefficients from Table 4.16 indicate that the independent constructs contributes significantly to the model at 0.01 level of significance. The regression function;  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$ . was applied to further explain the regression analysis results whereby;

- Y represents Financial Performance
- $\beta_0$  represents Constant
- $\beta_1, \beta_2, \beta_3, \beta_4$  represents Regression coefficients of independent variables.
- $X_1$  represents Cost of finance
- $X_2$  represents Internal Control Practices
- $X_3$  represents Risk Management
- $X_4$  represents Social Capital
- $\epsilon$  represents Error of Margin

The regression findings were explained and interpreted as;  $Y = 1.870 + 0.736X_1 + 0.671X_2 + 0.435X_3 + 0.680X_4$ . The first null hypothesis ( $H_{01}$ ) was rejected since the relationship between cost of finance and financial performance was statistically significant at 0.01 level of significance. The findings moreover indicated that financial performance was affected by internal control practices thus leading to rejection of second null hypothesis ( $H_{02}$ ). The third ( $H_{03}$ ) and fourth ( $H_{04}$ ) null hypotheses were also rejected due to the influence of risk management and social capital on the dependent variable. When all independent variables were taken together ( $t=4.463$ ;  $p<0.01$ ), they constituted a strong and significant relationship with the dependent variable hence showing that they affected financial performance of agricultural cooperative societies in Baringo County, Kenya.

## 5. SUMMARY

The study findings showed that cost of finance, internal control practices, risk management and social capital influenced financial performance of agricultural cooperative societies. Managers and accountants of cooperative societies admitted that elements of costs of finance such as interest rates and transaction charges contributed to the level of performance thus need for appropriate costs management. General internal control mechanisms on inputs costs by the cooperatives influenced their financial performance. The control over debts accrued and level of expenditures also affected performance. The respondents furthermore reiterated the significance of internal controls in regard to compliance and accountability among cooperative managers. Risk management strongly affected the performance of cooperative societies. Self-retention costs incurred by cooperative societies influenced their returns on assets and investments. It was further admitted that assets in portfolios, risks segregation and avoidance strategies could increase operational efficiency and lead to good performance.

Size of networks among the managers and cooperative members led to good working relationship. These contributed to social capital that influenced their performance. It was also agreed that reliable financial reports from the cooperative society are influenced by trust and consistency in performance comes as a result of reciprocity. Moreover, the findings indicated that cost of finance, internal control practices, risk management and social capital whether taken individually or collectively influenced financial performance of cooperative societies. Multiple correlation coefficient ( $R= 0.927$ ) was very strong for good level prediction of the financial performance. All independent variables taken together ( $t=4.463$ ;  $p<0.01$ ), affected the dependent variable. As such, strong degree of association was portrayed between cost of finance, internal control practices, risk management and social capital and financial performance.

## 6. CONCLUSION

The study concluded that the inappropriate management of financing costs is detrimental to effective financial performance in agricultural cooperative societies. This means that the insufficient volumes of produce handled by these organizations were influenced by inadequate capital due to problems associated with costs of finance. Transaction costs and tax rates contribute to decrease in the net returns by the cooperative societies thus remaining with little to cater for charges associated with the funds obtained from financial institutions and investment purposes. It was inferred that agricultural cooperative societies' financial performance was affected by their internal control practices. Therefore, they ought to keenly formulate and implement general control mechanisms in regard to acquisition of debts and institutional expenditures. This is because the financial difficulties that hindered the progress of cooperative societies were found to come partly from misuse of available funds without strict adherence to existing levels of compliance. It was evident from the study that risk management affected financial performance of agricultural cooperative societies. Lack of proper segregation and avoidance of risks meant ineffective risk management leading to big losses hence poor performance from cooperatives. The study acknowledged that the volume of capital is gained as a result of good working relationship among managers and members were important for good performance.. Trust and reciprocity are important in that managers can put interests of the members thus working hard to improve financial performance.

## 7. RECOMMENDATIONS

After the study findings, the researcher recommended that Cooperative societies should establish and implement financial policies to enable them to manage the costs of finance effectively. They should also establish internal control systems that will make control of various actions such as administrative expenditures much easier. It is furthermore recommended that cooperative societies should fully engage all the members in the affairs of the organization. This means that nothing should be done without notifying and inviting them for critical discussions. This will increase the social capital thus good working relationship. Cooperative societies should moreover, formulate and implement appropriate risk management strategies to enable them manage risks, minimize losses and improve performance.

## 8. SUGGESTIONS FOR FURTHER STUDIES

The researcher suggests that further studies should be carried out on role of capital structure on performance of agricultural cooperative societies and determinants of financial sustainability of agricultural cooperative societies.

## 9. LIMITATIONS

The researcher experienced difficulties while undertaking the research. There were minor limitations which included accessibility problems to agricultural cooperative societies in Baringo County. Moreover, the researcher struggled trying to convince the respondents to provide information that was meant for academic purpose and their confidentiality would be kept. Some respondents further cited lack of time thus took long to fill the questionnaires which sometimes leading to inconveniences.

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