



## CORPORATE GOVERNANCE PRACTICES AND FINANCIAL PERFORMANCE OF HOUSING COOPERATIVES IN KENYA

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### Abstract:

Housing cooperatives were introduced in Kenya in the early 1980s and currently there are 650 registered housing cooperatives which are affiliated to the National Cooperative Housing Union (NACHU). Official statistics obtained from the Ministry of Co-operative Development as at 2010 show 424 housing co-operatives as having been registered, 79 out of these being dormant, 16 having been liquidated and 329 active. This clearly indicates that some housing cooperatives have not achieved the objectives for which they were formed. This begs the question on Corporate Governance Practices have any effect on the financial performance of housing cooperatives in Kenya. A sample size of 59 housing cooperatives was used from a target population of 650 housing cooperatives. Random sampling technique was used to obtain the sample size and was derived using the Fischer formula:  $nf = n/(1 + n)/N$ . Pearson's Correlation Coefficient for accountability and financial performance was  $r = 0.366^{**}$ , with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.01$  level of significance showing a moderate effect of accountability on financial performance at the one percent level of significance. Adjusted R square value was 0.118 implying that financial performance is dependent on accountability by 11.8%. Pearson's Correlation Coefficient for auditing committees and financial performance was  $r = 0.351^{**}$ , with a probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.01$  level of significance showing a significant effect of auditing committees on financial performance at the one percent level of significance. Therefore, findings revealed that auditing committees significantly affects financial performance. Adjusted R square was 0.107 implying that auditing committees predicts financial performance by 10.7%. Pearson's Correlation Coefficient for separation of ownership and financial

performance was  $r = 0.289^*$ , with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.05$  level of significance showing a significant effect of separation of ownership on financial performance at the five percent level of significance. Therefore, it was found out that separation of ownership significantly affects financial performance. Adjusted R square value was 0.066. This implied that financial performance is dependent on separation of ownership. Separation of ownership predicts financial performance by 6.6%. Pearson's Correlation Coefficient for moderating variables and financial performance was  $r = 0.310^*$ , with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.05$  level of significance showing a significant effect between moderating variables and financial performance at the five percent level of significance. Therefore, it was found out that moderating variables significantly affects financial performance. Adjusted R square value was 0.079 implying that moderating variables predicts financial performance implying that financial performance is dependent on moderating variables by 7.9%.

**JEL:** G30, G38, H11, O18

**Keywords:** corporate governance, financial performance, housing cooperatives, Kenya

### List of Acronyms

ACT	Accountability
AMFIU	Association of Microfinance Institutions of Uganda
CAMEL	Capital Adequacy, Asset Quality, Management, Earnings and Liquidity
CEO	Chief Executive Officer
FP	Financial performance
ICA	International Cooperative Alliance
KNBS Kenya	National Bureau of Statistics
MV	Moderating variables
NACHU	National Union of Housing Co-Operatives
NGOS	Non-Governmental Organizations
NPCDAK	Nordic Project for Co-op Development assistance to Kenya
ROE	Return on Equity
ROA	Return on Assets
OECD	Organization for Economic Cooperation and Development
SPSS	Statistical Package for Social Scientists
UNHABITAT	United Nations Human Settlements Programme
WOCCU	World Organization of Cooperative Credit Union

## 1. Introduction

The constitution of Kenya (2010) under Article 43 (4) provides for the right to housing for all Kenyans. However, high variable interest rates coupled with difficulty in accessing formal banking services has ensured that home financing through formal institutions and thus home-ownership remains a pipedream to many Kenyans. The annual demand for housing in the country is 200,000 urban units and 300,000 rural units. By 2050, 50% of the Kenyan population will live in cities. The current annual production is 50,000 units (KNBS). There is need to come up with alternative housing financing models to supplement the existing formal institution in home-ownership development especially among the lower-income groups of the Kenyan population. Housing cooperatives have become an essential aspect in bridging the gap in home-financing especially for the financially disadvantaged members of the society.

The Kenyan cooperative movement has, since independence in 1963, played a major role in the country's economy. The number of registered cooperatives has grown from 996 in 1975 with a membership of 664,000 and a turnover of KSh 691 million to 5,129 co-operatives in 1995 with 2.7 million members. The movement, with its KSh 20 billion (US\$ 30 million) annual turnover, covers some 50% of Kenya's Gross National Product (Kenya Yearbook, 2013). Kenya has a long history of cooperatives development that has been characterized by strong growth, thus making significant contribution to the overall economy. Cooperatives are recognized by the government to be a major contributor to national development as cooperatives are found in almost all sectors of the economy. With the total population of Kenya at approximately 40 million (KNBS), it is estimated that 63% of Kenya's population participate directly or indirectly in cooperative based enterprises and therefore the importance of this sub-sector to the Kenyan economy cannot be over-emphasized (UN Habitat, 2010). The co-operative business model and structure, given its superior societal concept, offers opportunities to introduce desirable elements of consumer choice, economic democracy and distributive justice to small producers, workers and consumers to counter the distortion of markets and other inadequacies of multinationals (Cobia S.K, 2011).

Topical financial scandals at some big organizations like Enron, WorldCom, Adelphia, and Goodrich, Uchumi, among others, are associated to accounting and other frauds allegedly blamed to top organization managers have brought into public light the recurring question of whether organizations are managed on the best interests of shareholders and other stakeholders such as workers, creditors and the general community.

Co-operatives in Kenya, like other private sector enterprises, have not remained untouched by the recent corporate governance scandals, a good example being the Mboi-Kamiti Farmers' cooperative society financial scandals which have hit the headlines recently. In Kenya, some of the factors responsible for poor corporate performance especially in cooperatives include lack of transparency, accountability and poor ethical conduct especially at the management level (UN Habitat, 2010). Corporate governance in cooperatives is a fairly touchy and much more complex issue as cooperatives are based on the principle of democracy in regards to decision making with much more spread ownership than classical firms (WOCCU 2002). According to (AMFIU, 2008) governance challenges still existed particularly among cooperatives where risk was highest, given that they collected and intermediated members' savings. Yazza (2010) observes that cooperatives have a high exposure to credit risk (the risk that borrowers are unable to pay or risk of delayed payments), as well as operational risks (the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events).

According to the cooperative development policy in Kenya (2004), cooperatives play a major role in resources mobilization, processing and marketing of commodities. Lower down-payments, much lower closing costs, economies of scale and a longer mortgage term make housing cooperatives affordable than other home financing models. Housing cooperatives play imperative role in the Kenyan financial system as cooperation has been inherent in Kenyan cultural ethos to work as a socio-economic organization for the well-being of the people. The principles and practices of cooperative system have been guiding the people for community based management of means of production and economic resources.

Corporate Governance is basically concerned with ways in which all parties interested in the well-being of the firm (the stakeholders) attempt to ensure that managers and other insiders are always taking appropriate measures or adopt mechanisms that safeguard the interests of the stakeholders. Other issues in corporate governance include day-to-day work management, protection of the rights and interests of recognized stakeholders (shareholders and depositors), the cooperatives' commitment to sound and safe professional behaviors and practices which are in conformity with regulations and legislations (Linyiru, 2006).

Housing cooperatives are increasingly becoming relevant as alternative home financing institutions owing to the increasing unaffordability of formal mortgages and difficulty in accessing formal financial institutions. In Kenya, there were 650 registered housing co-operatives affiliated to National Co-operative Housing Union (NACHU) as

at the year 2014, with only 248 being active with 400 others being dormant (Co-operative Yearbook Kenya, 2013).

Housing co-operatives are formed with the main objective of bridging the financing gap in home construction thus minimizing the deficit between housing supply and demand. However, the financial position of some housing cooperatives cannot be claimed to be sound at the present and some housing cooperatives have failed to proceed any further after acquiring the land due to issues related to unsound management and bad governance. For instance, by 2010, only twenty-five housing cooperatives out of a total of 418 had successfully implemented the multiple mortgage housing type. A twenty sixth housing cooperative in Nairobi had made serious mistakes in both cost control process and affordability assessment (UN Habitat, 2010). Consequently, members could not afford the houses for which they had paid deposits and borrowed heavily. The houses were eventually sold in the open market to offset the Bank loans.

In addition, there have been challenges of managing liquidity especially external support from donors (Allen & Maghimbi, 2009) as well as low profitability resulting into some cooperatives failing to repay loans lent to them with recovery rate of loans advanced to them. This paper therefore seeks to examine the effect of Corporate Practices on the Financial Performance of housing cooperatives in Kenya under the following questions:

- a) What is the effect of Accountability by top management to shareholders on the financial performance of the housing cooperatives in Nairobi County?
- b) What is the effect of Auditing Committees on the Financial Performance of housing cooperatives in Nairobi County?
- c) What is the effect of Separation of Ownership on Financial Performance of housing cooperatives in Nairobi County? and;
- d) What is the effect of Moderating Variables on Corporate Governance practices namely accountability, auditing committees, Separation of Ownership and on the Financial Performance of housing cooperatives in Nairobi County?

Geographically, the study was conducted in Nairobi County which was grouped into five zones namely Nairobi Eastlands, Nairobi Westlands, Nairobi North, Nairobi South and Nairobi CBD. Nairobi is the capital City of Kenya. According to the 2009 Census, in the administrative area of Nairobi, 3,138,295 inhabitants lived within 696 km<sup>2</sup> (269 sq mi). The population of the study comprised the 650 Housing Cooperatives registered by the National Union of Housing Cooperatives (NACHU) as at the year 2014 most of which are based in Nairobi County.

## 2. Methodology

The study adopted a descriptive research design. Descriptive research design was chosen because the sampled elements and the variables that were studied were simply observed as they were without making any attempt to control or manipulate them. The target population was 650 registered housing cooperatives which are affiliated to NACHU. Due to the sensitivity of the financial information required from the housing cooperatives, the intended respondents of this study was one senior staff per the sampled housing cooperatives that was deemed to be knowledgeable and in possession of reliable information on housing cooperatives corporate governance practices.

The study used sample survey since the population involved was huge and only the sampled population was subjected to the data gathering exercise to provide the necessary information for the study. The sample size was determined scientifically using Andrew Fischer formula of (1994) was used to calculate the final sample estimate:

$$nf = n/((1+n)/N)$$

where:

**nf** is the sample size;

**n** is the desired sample size (approximately 10%);

**N** is the estimate of the population size.

$$nf = 0.1/ ((1+0.1)/650) = 59$$

**Table 2.1:** Target Sample and Respondents

Target population	Sample size	No. of respondents per sampled housing cooperative	Total no. of respondents
650	59	1	59

The study used questionnaires for primary data collection. Primary data was collected using semi-structured questionnaires served to respondents through drop and pick method. Secondary data involved the systematic identification, location and analysis of documents containing information related to the variables under study. The collected data was analyzed using both descriptive and inferential analysis tools. Descriptive analysis such as frequencies and percentages were used to present quantitative data in form of tables and graphs. Multivariate regression model based on the framework of Zeitun and Tian (2007) to examine the effect of Accountability, Auditing Committees

and Separation of Ownership on the Financial Performance of the housing cooperatives in Kenya were expressed as follows:

A. Without Moderating Variable:

$$(FP) y = \beta_0 + \beta_2 (ACT) x + \beta_1 (AU) x + \beta_3 (SO) x + \varepsilon$$

B. With Moderating Variable

$$(FP) y = \beta_0 + \beta_2 (ACT) x + \beta_1 (AU) x + \beta_3 (SO) x + \beta_4 MV + \varepsilon$$

Where:

**FP** was the Financial Performance measured by (ROA);

**$\beta_0$**  was the constant coefficient including cross sectional fixed effect;

**$\beta_1 - \beta_4$**  was the regression coefficients for measuring independent and moderating variables as the case may be;

**ACT** was Accountability and Transparency;

**AU** was Auditing Committees;

**SO** was Separation of Ownership;

**MV** was Moderating Variable;

**$\varepsilon$**  was error component showing unobserved factor.

Statistical significance of this regression model was analyzed by the correlation coefficient ( $r$ ), R-squared, the  $f$  test and standard error of the estimate. The R-squared or co-efficient of determination measures the explanatory or predictive power of a regression model. It is a goodness of fit measure, indicating how well the linear regression fits the data. The R-squared value indicates how much of the dependent variable can be explained by the independent variables. The R-squared also provides a measure of how well the observed outcomes are replicated in the model. The statistic ranges from 1.0, when all variation is accounted for to .00 when no variation is accounted for. The correlation coefficient, symbolized by  $r$ , is the square root of the R-squared and indicates the correlation of the ensemble of independent variables with the dependent variable. The correlation coefficient is often used as a measure of the strength of association between two variables. A value of  $r$  close to +1 or -1 indicates a strong linear association while a value close to 0 indicates a weak association. An  $F$  statistic is a value obtained from a regression analysis to find out if the means between two populations are significantly different and shows whether a group of variables is

jointly significant. The P value is determined by the F statistic and is the probability that the results of the research did not happen by chance. If the P value is less than the alpha level, 0.05, it means the results are significant or rather they did not happen by chance.

### 3. Findings

#### 3.1 Respondents by location

Respondents according to their location who participated in the study are summarized in Table 3.1 below

**Table 3.1:** Distribution of respondents according to their location

Location	Frequency	Percentage
Nairobi CBD	21	37.5
Nairobi Eastlands	9	16
Nairobi Westlands	8	14
Nairobi North	8	14
Nairobi Southlands	10	18.5
<b>Total</b>	<b>56</b>	<b>100</b>

**Source:** Field data (2017)

Research findings indicated that majority of the respondents (37.5%) were located in the Nairobi CBD. Findings revealed that those were located in Nairobi Eastlands were 16%, Nairobi Westlands 14%, Nairobi North 14% and Nairobi Southlands 18.5%. These results indicated that majority of the housing cooperatives were clustered around the CBD which was the most preferred location compared to others.

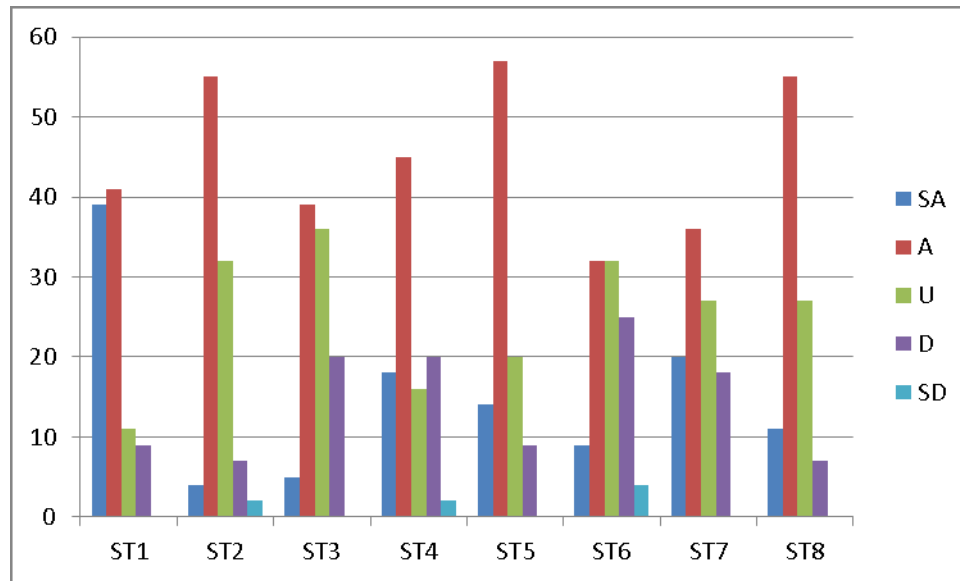
#### 3.2 Accountability and its Effect on Financial Performance of Housing Cooperatives

##### 3.2.1 Likert Scale Rating

This section gives a description of research question one which was assessed using a variety of statements under the question 'What is the effect of accountability by top management to shareholders on the financial performance of the housing cooperatives in Nairobi County?' This research question was conceptualized using eight statements which required each respondent to do self-rating on the effect of accountability on financial performance of housing cooperatives. Responses were based on Likert scale ranging from one which represented strongly agree to five which reflected strongly disagree, although these were thereafter categorized into agree and disagree sections. The resulting summary statistics are in Figure 3.1 below.



**Figure 3.1:** Percentage Distribution for Responses on the Effect of Accountability



Source: Field data (2017)

Legend for Statements:

- ST1 The shareholders are encouraged to attend and during AGM.
- ST2 Both financial and non-financial information that is disclosed is highly reliable, accurate and transmission is high.
- ST3 There is adequate opportunity for shareholders to receive and review the financial reports.
- ST4 There is adequate time given during the AGMs for shareholders to ask questions.
- ST5 Managers are held accountable for their actions.
- ST6 All facts in my organization are well documented.
- ST7 Employees in my organization strive to incorporate the highest values in their work.
- ST8 The AGM of shareholders appoints the BOD and external auditors.

The findings revealed that majority of the housing cooperatives are well-versed with corporate governance practices of accountability indicated in the likert scale as shown by the high percentage of the respondents who agreed with the statements. Based on the responses, findings further revealed that disclosure of financial information is important as it reveals the financial health of the housing cooperative. The role of AGMs and voting rights was also appreciated by majority of the respondents as shown in the table. However, the findings also revealed a declining trend of documentation of facts; 5% strongly agreed, 18 % agreed while 33% either disagreed or were undecided. 10% of respondents confirmed that their staff did not strive to incorporate the highest

values in their work while 15% were undecided. It is observed that these two trends have been instrumental in the declining corporate standards in most housing cooperatives and the apparent lack of prosecution of the culprits due to lack of documentation of facts. These findings are consistent with Allen (2009) who asserts that poor accountability may sometimes give rise to poor corporate governance.

### 3.2.2 Pearson's correlation Co-efficient

Correlation analysis was done to answer the first research question, whereby all responses for each variable; accountability and financial performance were aggregated into a single index respectively and then Pearson's correlation Co-efficient (r) technique was used to assess the nature and magnitude of the relationship.

Table 3.2 gives Pearson's correlation Coefficient for the two variables which include, accountability and financial performance.

**Table 3.2:** Pearson's Correlation Coefficient for Accountability and Financial Performance

		AC	FP
AC	Pearson Correlation	1	.366**
	Sig. (2-tailed)		.005
	N	56	56
FP	Pearson Correlation	.366**	1
	Sig. (2-tailed)	.005	
	N	56	56

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

Financial performance was  $r = 0.366^{**}$ , with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.01$  level of significance showing a moderate effect between accountability and financial performance at the one percent level of significance. Therefore, financial performance is significantly affected by accountability. These findings are consistent with Chiang (2005) whose results indicated that corporate transparency had a significant positive relationship with financial performance.

**Table 3.3:** Regression Analysis Showing the Effect of Accountability on  
Financial Performance - Model summary

R	R Square	Adjusted R square	Standard Error of estimate
.366 <sup>a</sup>	.134	.118	5061004.83181

a.: Predictors: (Constant), Accountability

From table 3.3, about 11.8% of the variation ( $\text{Adjusted } R^2=0.118$ ) indicates how much of the dependent variable, financial performance can be explained by the independent

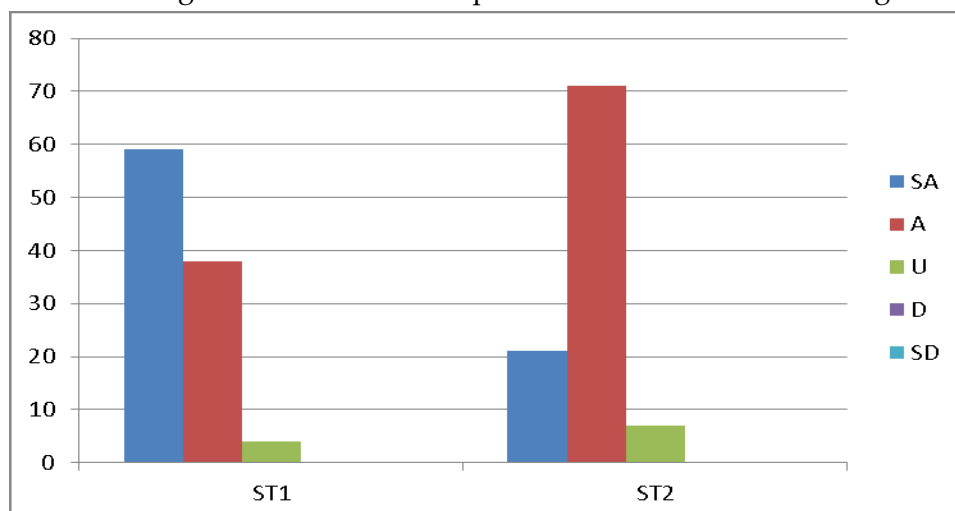
variable accountability. It implies that financial performance of housing cooperatives is dependent on accountability by 11.8%. This means other factors represented by 88.2% determine financial performance of housing cooperatives. Findings from interviews revealed that the most important when it comes to accountability is the question of transparency in the activities of the housing cooperative. This relates to full disclosure of reliable and timely financial and non-financial information to help the shareholders to make informed decisions about their housing cooperatives. These findings are consistent with the principal agent theory that asserts that an agent reports to the principal on the companies' events. The findings are also consistent with the findings of Cohen *et al* (2004) who conducted a study on the interrelationship between the quality of financial reporting and corporate governance.

### 3.3 Auditing Committees and their Effect on Financial Performance of Housing Cooperatives

#### 3.3.1 Likert Scale Rating

This section gives a description of research question two which was assessed using a variety of statements under the question 'What is the effect of Auditing Committees on the Financial Performance of housing cooperatives in Nairobi County?' This research question was conceptualized using two statements which required each respondent to do self-rating on the effect of auditing committees on financial performance of housing cooperatives. Responses were based on Likert scale ranging from one which represented strongly agree to five which reflected strongly disagree, although these were thereafter categorized into agree and disagree sections. The resulting summary statistics are in Figure 3.2 below.

**Figure 3.2:** Percentage Distribution for Responses on the Effect of Auditing Committees



Source: Field data (2017)

Legend for Statements:

ST1 There is an effective internal audit committee (supervisory committee) in my organization which ensures that the cooperative policies, procedures, and expenditure control are followed.

ST2 There is an effective external auditing mechanism in my organization.

The findings revealed that almost all the housing cooperatives were well-versed with corporate governance practices of auditing indicated in the Likert scale as shown by the high percentage of the respondents who agreed with both the statements. When the respondents were asked whether there is an effective internal audit committee (supervisory committee) in their organization which ensures that the cooperative policies and procedures and expenditure control are followed, the majority 59% strongly agreed, 38% agreed, 4% were undecided and none disagreed. When the respondents were asked whether there was an effective external auditing mechanism in their organization to cross-check financial information provided by the managers, 21% strongly agreed, 71% agreed, 7 % were undecided while none disagreed. It was noted during the interviews that the government provides technical support to the housing cooperatives on audit issues and this has impacted positively on their financial performance. This is contrary to the findings of Warner, Watts and Wruck (1988) who presented evidence of inefficient internal assessment mechanisms over top management. The housing cooperatives also have well-defined supervisory committees whose roles on internal audit are very clear. Findings from interviews carried out revealed that the housing cooperatives' failure to follow good practices in corporate governance and lack of effective governance are among the most important internal factors which may endanger their financial performance.

### **3.3.2 Pearson's correlation Co-efficient**

Correlation analysis was done to answer the second research question, where by all responses for each variable; auditing committees and financial performance were aggregated into a single index respectively and then Pearson's correlation Co-efficient (r) technique was used to assess the nature and magnitude of the relationship

Table 3.4 gives Pearson's correlation Coefficient for the two variables which include; auditing committees and financial performance

**Table 3.4:** Pearson’s Correlation Coefficient for Auditing Committees and Financial Performance

		AU	FP
AU	Pearson Correlation	1	.351**
	Sig. (2-tailed)		.008
	N	56	56
FP	Pearson Correlation	.351**	1
	Sig. (2-tailed)	.008	
	N	56	56

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

Financial performance was  $r = 0.351^{**}$ , with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.01$  level of significance showing a moderate effect between auditing committees and financial performance at the one percent level of significance. Therefore, financial performance is significantly affected by auditing committees.

**Table 3.5:** Regression Analysis Showing the Effect of the Auditing Committees on Financial Performance - Model summary

R	R Square	Adjusted R square	Standard Error of estimate
.351 <sup>a</sup>	.123	.107	5092939.69391

a. Predictors: (Constant), Auditing committees

From table 3.5, about 10.7% of the variation ( $\text{Adjusted } R^2 = 0.107$ ) indicates how much of the dependent variable, financial performance can be explained by the independent variable auditing committees. It implies that financial performance of housing cooperatives is dependent on auditing committees by 10.7%. This means other factors affect financial performance of housing cooperatives by 89.3%. The study also found out that most housing cooperatives are well-informed on the role of auditing committees. They have strong internal systems and supervisory committees comprising of between three to five independent directors. This is important in ensuring strong internal controls, effectiveness and efficiency in the operations of the cooperative. The government through the department responsible for housing cooperatives strictly monitors their operations and they provide external audits to these cooperatives. The findings are consistent with the agency theory, which observed that agent (manager) undertakes to perform certain duties for the principal (shareholder) and the principal undertakes to reward the agent (Jensen and Meckling, 1976). According to this theory, the role of the auditor is to supervise the relationship between the manager and the owners. These findings are also consistent with Allen (2009) who asserts that the

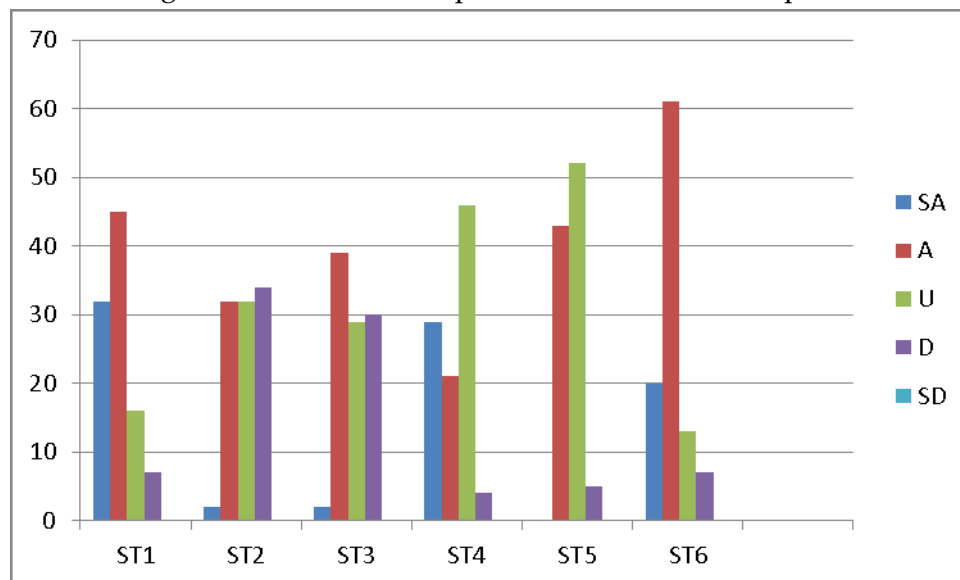
preparation and publication of the standard audit report provides greater confidence in the entity's financial statements and reports and it should be done regularly.

### 3.4 Separation of Ownership and its Effect on Financial Performance of Housing Cooperatives

#### 3.4.1 Likert Scale Rating

This section gives a description of research question three which was assessed using a variety of statements under the question ‘What is the effect of separation of ownership on the financial performance of the housing cooperatives in Nairobi County?’ This research question was conceptualized using six statements which required each respondent to do self-rating on the effect of accountability on financial performance of housing cooperatives. Responses were based on Likert scale ranging from one which represented strongly agree to five which reflected strongly disagree, although these were thereafter categorized into agree and disagree sections. The resulting summary statistics are in Figure 3.3 below.

**Figure 3.3:** Percentage Distribution for Responses on the Effect of Separation of Ownership



Source: Field data (2017)

#### Legend Statements:

ST1 The roles of the board of directors do not interfere with the roles of the shareholders.

ST2 There is strong pressure from the shareholders on the way the housing cooperative should be run.

ST3 Shareholders engage less in the management monitoring process and they prefer leaving the management control in the hands of the managers.

ST4 There are conflicts between the managers and the shareholders on who should be boss.

ST5 There are conflicts between the managers and the shareholders on who should be boss.

ST6 Shareholders elect the board to act on their behalf, and the board in turn monitors the top management and ratify major decisions

When asked whether Shareholders elect the board to act on their behalf, and the board in turn monitors the top management and ratify major decisions; 20% strongly agreed, 61% agreed 13% were undecided, 7 % disagreed while none strongly disagreed. This indicates majority were in agreement with the need for a clear separation of powers in the management of the housing cooperatives. Most housing cooperatives have elected board of directors whose membership ranges from five to nine based on the responses from the interviews which also revealed that some directors did not have background information on business management. This impacts negatively on the financial performance of housing cooperatives and this explains why some housing cooperatives perform poorly despite having central management committees (BODs).

### 3.4.2 Pearson's correlation Co-efficient

Correlation analysis was done to answer the third research question, where by all responses for each variable; separation of ownership and financial performance were aggregated into a single index respectively and then Pearson's correlation Co-efficient (r) technique was used to assess the nature and magnitude of the relationship

Table 3.5 gives Pearson's correlation Coefficient for the two variables which include; separation of ownership and financial performance.

**Table 3.6:** Pearson's Correlation Coefficient for Separation of Ownership and Financial Performance

		SO	FP
SO	Pearson Correlation	1	.289*
	Sig. (2-tailed)		.031
	N	56	56
FP	Pearson Correlation	.289*	1
	Sig. (2-tailed)	.031	
	N	56	56

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

Financial performance was  $r = 0.289^*$ , with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.05$  level of significance showing a moderate effect of separation of ownership and financial performance at the five percent level of significance. Therefore, financial performance is significantly influenced by separation of ownership. This is consistent with Fama and Jensen(1983) who stated that boards of Directors are widely recognized as an important mechanism for monitoring the performance of managers and protecting shareholders' interests and hence an important component of internal governance

**Table 3.7:** Regression Analysis Showing the Effect of Separation of Ownership on Financial Performance - Model summary

R	R Square	Adjusted R square	Standard Error of estimate
.289 <sup>a</sup>	.083	.066	5207658.96185

**a. Predictors:** Constant, Separation of Ownership

From table 3.7, about 6.6% of the variation (Adjusted  $R^2 = 0.066$ ) indicates how much of the dependent variable, financial performance can be explained by the independent variable separation of ownership. It implies that financial performance of housing cooperatives is dependent on accountability by 6.6%. This means other factors represented by 93.4% determine the financial performance of housing cooperatives.

### 3.5 Effect of moderating variable on the Effect of Corporate Governance Practices on Financial Performance of Housing Cooperatives

#### 3.5.1 Correlation of financial performance indicators and corporate governance Practices

This was achieved through constructing a correlation matrix for various possible combinations of dependent and independent variables. The outcome of this exercise was the correlation matrix as shown on Table 3.8 below.



**Table 3.8:** Correlation of financial performance and corporate governance practices

		AU	ACT	SO	MV	FP
AU	Pearson Correlation	1	.272*	-.045	.061	.351**
	Sig. (2-tailed)		.043	.742	.656	.008
	N	56	56	56	56	56
ACT	Pearson Correlation	.272*	1	.347**	.393**	.366**
	Sig. (2-tailed)	.043		.009	.003	.005
	N	56	56	56	56	56
SO	Pearson Correlation	-.045	.347**	1	.211	.289*
	Sig. (2-tailed)	.742	.009		.119	.031
	N	56	56	56	56	56
MV	Pearson Correlation	.061	.393**	.211	1	.310*
	Sig. (2-tailed)	.656	.003	.119		.020
	N	56	56	56	56	56
FP	Pearson Correlation	.351**	.366**	.289*	.310*	1
	Sig. (2-tailed)	.008	.005	.031	.020	
	N	56	56	56	56	56

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

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

**Source:** Field data (2017)

ACT=Accountability; AU=Auditing committees, SO=Separation of Ownership, MV=Moderating variable

The correlation matrix highlighted that there is significant correlation between independent variables and the dependent variable. ACT, AU, SO and MV showed strong and significant relationships with financial performance, (Pearson's  $r = 0.366$ , Sig. = 0.01), (Pearson's  $r = 0.351$ , Sig=0.01), (Pearson's  $r=0.289$ , Sig=0.05) and (Pearson's  $r=0.310$ , Sig=0.01) respectively.

### 3.5.2 Regression model

A multivariate regression model was used to determine the relative importance of each of the four variables with respect to financial performance. This led to the adoption of a set of indicators which are indicative of the housing cooperatives current status and the extent of its ability to achieve the desired objectives. The indicator ROA has been adopted.

The multiple regression model for the study was:

A. Without Moderating Variable

$$(FP) y = \beta_0 + \beta_2 (ACT) x + \beta_1 (AU) x + \beta_3 (SO) x + \epsilon$$

B. With Moderating Variable

$$(FP) y = \beta_0 + \beta_2 (ACT) x + \beta_1 (AU) x + \beta_3 (SO) x + \beta_4 MV + \epsilon$$

Table 3.9 shows R which is the correlation between the observed and predicted values of the dependent variable to be 0.509, while R square which is the proportion of variation in the dependent variable is 0.259. The adjusted R square is 0.201 showing a moderately strong effect between the observed and predicted values of the dependent variable. This indicates that ACT, AU, SO and MV accounts for 20.1% of the financial performance of housing cooperatives as indicated in table 3.9 below.

Table 3.10 the adjusted R square for the model without the moderating variables is 0.216. This indicates that ACT, AU and SO accounts for 21.6% of the financial performance of housing cooperatives. This implies that moderating variables effect financial performance of housing cooperatives by 1.6%. These findings are consistent with Rogers (2006) who conducted a study on corporate governance and financial performance of selected commercial bank in Uganda. The study explored the relationship between the 10 core principles of corporate governance and financial performance in commercial banks of Uganda. Findings indicated that corporate governance predicts 34.5 % of the variance in the general financial performance of commercial banks in Uganda.

**Table 3.9:** Regression analysis (Model summary with MV)

R	R Square	Adjusted R square	Standard Error of estimate
.509 <sup>a</sup>	.259	.201	4.80925

a. Predictors: (Constant), ACT, AU, SO, MV

**Table 3.10:** Regression analysis (Model summary without MV)

R	R Square	Adjusted R square	Standard Error of estimate
.506 <sup>a</sup>	.256	.216	4.93812

a. Predictors: (Constant), ACT, AU, SO

Source: Field data (2017)

### 3.5.3 Regression Coefficients

Interpreting the values of beta ( $\beta$ ) coefficients, it means that holding all other independent variables constant, every unit change on ACT shall increase performance by 1.562, change in AU will impact on performance by 5.589, and MV will change it by 0.260. However, change in SO shall affect financial performance negatively by -1.83.

Therefore, ACT, AU and MV variables were the positive predictors of housing cooperatives' financial performance. These findings are contrary to the findings of Dominic *et al* (2015) whose regression model indicated a positive effect of both Auditing committees and separation of ownership on the financial performance of public limited companies in Kenya.

**Table 3.11:** Regression analysis (Coefficients)

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.805	1.526		2.494	0.016
ACT	1.562	1.559	0.144	1.002	0.321
1 AU	5.589	1.648	0.430	3.391	0.001
SO	-1.83	1.437	-.166	-1.274	0.209
MV	0.260	1.527	0.022	0.170	0.865

a. Dependent Variable: ROA

#### 4. Conclusion

The relevance of corporate governance practices cannot be over-emphasized since it constitutes the framework for financial growth and organizational development. Corporate governance brings new outlook and enhances an organizations' corporate competitiveness. The study examined the effect of corporate governance practices on the financial performance of housing cooperatives in Nairobi County using ROA based performance measures. The results of the study may be taken as an indication that good governance practices are important in the housing cooperative sector which is still a new concept here in Kenya. The observations of the study are aimed at improving the corporate governance practices which impact on the financial performance of housing cooperatives thus ensuring sustainability of these important financial institutions.

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