

Effect of Ethical Practices on Performance of Agricultural Cooperative Societies in Kenya

Mercy Muthoni Njeru^{1*}, Joyce Amuhaya², Scolastica Ratanya³, Willy Muturi⁴

¹Department of Entrepreneurship, Technology, Leadership and Management, Jomo Kenyatta University of Agriculture and Technology, Kenya

²Department of Business Administration, Jomo Kenyatta University of Agriculture and Technology, Kenya

³Department of Business Administration, Technical University of Mombasa, Kenya

⁴Department of Economics, Accounting and Finance, Jomo Kenyatta University of Agriculture and Technology, Kenya

*Corresponding author email: mmnjeru@yahoo.co.uk

Accepted: 19 May 2026 || Published: 01 June 2026

Abstract

This study investigated the influence of ethical practices on the performance of agricultural cooperative societies in Kenya, with a particular emphasis on the strategic role of ethical leadership in enhancing governance, accountability, and operational effectiveness. This study was guided by ethical leadership theory. A mixed-methods approach was employed, integrating descriptive and explanatory designs. The target population comprised 1,206 agricultural cooperatives across five counties, with a sample of 301 respondents selected using Yamane's formula. Primary data were collected through structured questionnaires, while secondary data were sourced from the State Department of Cooperatives (2019–2023). Data analysis was conducted using the Statistical Package for Social Sciences (SPSS), incorporating regression analysis and moderation testing. Empirical findings reveal a statistically significant and positive correlation ($r = 0.798$) between ethical practices and organizational performance, with regression analysis indicating that ethical leadership accounts for 63.6% of the variance in performance outcomes. Descriptive statistics further underscore a high level of consensus among respondents regarding the salience of ethical codes, the clarity of leadership roles, and institutional accountability mechanisms. The study found that firm size moderates the relationship between ethical practices and performance of cooperatives in Kenya. The study concludes that ethical practices are not merely normative ideals but constitute strategic imperatives that underpin stakeholder trust, institutional legitimacy, and sustainable organizational growth. It recommends the institutionalization of ethics committees, integration of ethical standards into performance appraisal systems, and the embedding of ethical culture within governance frameworks.

Keywords: *Ethical practices, strategic leadership; organizational performance; accountability; cooperative societies*

How to Cite: Njeru, M. M., Amuhaya, J., Ratanya, S., & Muturi, W. (2026). Effect of Ethical Practices on Performance of Agricultural Cooperative Societies in Kenya. *Journal of Public Policy & Governance*, 6(1), 28-42.

1. Introduction

Nowadays, strategic leadership practice is increasingly recognized as a vital component for governing 21st-century organizations, particularly in the face of unpredictable environments (Kegeni, 2021). Effective strategic leadership not only fosters enhanced organizational performance but also reinforces governance frameworks that promote accountability and transparency. Alayoubi, Al Shobaki, and Abu-Naser (2020) define strategic leadership practice as the leader's capacity to anticipate future challenges, envision potential pathways, maintain organizational flexibility, think strategically, and collaborate with stakeholders to initiate transformative changes that secure a viable future for the organization. This alignment of strategic leadership with governance principles ensures that organizations are better equipped to navigate complexity and uncertainty.

Scholars argue that effective strategic leadership practices are necessary for addressing the performance challenges organizations face, particularly in relation to governance and accountability. A study conducted in Malaysia by Dahri, Amin, and Waseem (2019) revealed that local enterprises contend with significant competition from foreign firms, highlighting the necessity for strategic leadership to facilitate the implementation of sound governance policies. This enables organizations to achieve their objectives efficiently while adhering to governance standards. Furthermore, many firms in the study struggled to secure sufficient operational capital due to inadequate performance, underscoring the need for effective strategic leadership and governance practices to enhance organizational performance and positively impact various qualitative indicators.

In Nigeria, Nzewi et al. (2021) highlighted the critical importance of strategic leadership knowledge considering the increasing complexity and significance of leadership roles within business entities. Strategic leaders not only enhance firm performance but also embody the governance principles that ensure accountability and ethical decision-making. Consequently, it is essential for business owners to understand the profound impact of effective leadership on organizational outcomes. The development of strategic leadership is recognized as a pivotal driver for future business success, particularly given that the failure of numerous entities, especially start-ups, can be traced back to insufficient leadership and management skills in Nigeria. Implementing effective strategic leadership practices is vital to addressing the growing demands and complexities confronting business entities, as failure to do so may result in subpar organizational performance. Ratanya, Mukulu, and Sakwa (2019) similarly found that leadership competencies, especially those related to strategic planning and ethical governance, were key antecedents of performance in Kenyan parastatals, reinforcing the need for leadership development as a national priority.

In Kenya, Orito (2021) notes that an organization's capacity for continuous performance improvement has become essential for both short- and long-term sustainability. This situation necessitates adopting diverse strategies aligned with effective governance frameworks to achieve the desired objectives. For an organization to achieve its performance goals, it must conduct holistic evaluations of its activities, encompassing operational practices, financial oversight, and leadership effectiveness. The leadership's ability to make strategic decisions is paramount, as it directly influences the organization's performance. Moreover, integrating technical abilities and collaborative leadership within the top management team is critical to realizing organizational objectives. Thus, the convergence of strategic leadership and governance practices is essential for fostering an environment conducive to sustained organizational success.

Ethical leadership practices play a crucial role in strategic leadership, underscoring the importance of ethical conduct within organizations. Various scholars such as Taj, Zulfqar, and Nasir (2020); Adaileh and Adaileh (2021); Kiptum (2024); Kaguru, Namusonge, and Mugambi (2020); Arowo (2023); Lerai, Rintari, and Moguche (2023); Chikamai (2021); Koros (2021), and Mareiyo and Kwasira (2022) argue that ethical practices are a key aspect of strategic leadership practices and drive organizational performance across the sectors. Strategic leaders actively work to promote ethical behaviours among their team members (Mareiyo & Kwasira, 2022).

Ethical behaviour encompasses a framework of rules, principles, and values that guide both individual and group actions. Work ethics reflect a synthesis of core values that govern interactions between managers and employees, including honesty, trust, respect, and fairness, alongside administrative practices that facilitate ethical decision-making within the organization. Kiptum (2024) highlights that strategic leaders' capacity to demonstrate humility and respect for every individual is considered a key aspect of effective leadership practices in organizations.

1.1 Problem Statement

Agricultural cooperative societies are pivotal to Kenya's rural economy, serving as engines of food security, income generation, and inclusive development. They facilitate access to credit, farm inputs, markets, and collective bargaining, thereby empowering smallholder farmers to enhance productivity and resilience. In 2023, agriculture accounted for 21.2% of Kenya's GDP, underscoring its economic significance (KNBS, 2024). The sector also accounted for over 70% of rural employment, and 40% of total employment nationally, reflecting its centrality to livelihoods (Central Bank of Kenya, 2023). Despite this strategic importance, agricultural cooperatives continue to underperform due to persistent leadership and governance challenges that undermine their operational effectiveness and long-term sustainability.

Recent data reveal widespread governance deficits and weak financial accountability across cooperative societies. Out of 2,806 registered agricultural cooperatives, only 1,206 submitted audited financial statements in 2023, indicating a compliance rate of just 43% (SDC, 2023). Sectoral disparities are stark: coffee cooperatives reported 35% compliance, while fishing cooperatives lagged at 2%, and pyrethrum cooperatives submitted no financial reports at all (KNBS, 2024). These figures point to systemic leadership failures, including poor oversight, lack of transparency, and ineffective strategic planning. Such governance gaps compromise cooperative credibility, hinder access to funding, and erode member trust, core pillars of sustainable performance.

Financial instability compounds leadership shortcomings in agricultural cooperatives. In Kericho County, only 3.63% were financially sustainable in 2023, with most relying on external borrowing due to weak internal resource mobilization (Central Bank of Kenya, 2023). Nationally, the average debt-to-equity ratio rose to 1.8, while profit margins declined by 12.4% compared to 2022, signalling deterioration in financial health (KNBS, 2024). Over 60% of cooperatives reported cash flow constraints, limiting investment in growth and member obligations (CBK, 2023). These trends reflect leadership gaps in financial planning, risk management, and adaptive governance. Without visionary, accountable, and responsive leadership, cooperatives risk stagnation, member disengagement, and diminished relevance. This study addresses this gap by investigating the effect of ethical practices on cooperative performance in Kenya.

1.2 Objectives of the study

The objectives of this study were to

- i. To investigate the effect of ethical practices on the performance of agricultural cooperative societies in Kenya.
- ii. To establish the moderating effect of firm size on ethical practices and performance of agricultural cooperative societies in Kenya.

2. Literature Review

2.1 Theoretical Review

Ethical leadership theory, as advocated by Trevino in 2000, guided this study. This theory defines the rules and principles by which right and wrong may be determined; however, as stated above, ethical theory draws from multiple cultural and philosophical norms and beliefs. This results in a variety of normative ethical positions. Further development of the theory saw subsequent scholars describe ethical leadership constructs outlining five pivotal dimensions, collectively identified as the character dimension, the technical dimension, the empowerment behavior dimension, the moral dimension, and the psycho-emotive dimension (Gonzalez & Guillen, 2002).

The theory stated that the moral person had specific traits, behaviours, and decision-making criteria. The theory indicated that the moral manager promoted ethics and values, rewarded and disciplined employees, and was an observable role model. Ethical leadership theory focuses on the ethical concepts of right behaviour as a guide to managing subordinates (Wendt, 2019). Ethical leaders, therefore, influence others through ethics and right behavior.

Ethical leadership theory shows a relationship among employees' well-being, the wider community, and the entity's profitability. Leaders who adopt an ethical leadership theory seek to understand the organization's specific rules and customs and ensure they are strictly followed. Ethical leaders understand and consider the common rules and agreed-upon values when making certain decisions. Ethical leadership theory is a crucial factor in strategic leadership and organizational performance (Kalyar & Ahmad, 2018).

The ethical leadership theory describes the moral characteristics that are the embodiment of an ethical leader and the ethical behaviours that ought to be displayed by the ethical leader (Hawass, 2016). The theory proposes that employees and key external stakeholders perceive a leader as both a moral person and a moral manager, generating a reputation for him or her as an ethical leader, and that such perceptions are key to executive ethical leadership. This theory is useful in this study since it supports the objective of ethical practices, which the theory argues are important for organizational performance when leaders address ethical issues.

2.2 Empirical Review

Shafique et al. (2018) demonstrated that ethical leadership is a major factor that enhances organizational performance. According to the study, entities that adopt a task culture (Athena) motivate their employees. Employees in such organizations strive to perform at their best because they know their hard work will be rewarded. The employees' increased performance is then translated into the entity's increased performance. Additionally, entities that embraced Apollo culture were deemed effective if the employees were aware of their specific roles. However, the culture did not encourage creativity, as employees focused only on their assigned roles.

In Jordan, Kasasbeh, Harada, Abdullah, and Basman (2018) evaluated the impact of business ethics on the competitive advantage of cellular communication firms. A survey design was utilized. A simple random sample of 192 respondents was drawn across all management levels: upper, middle, and supervisor. Statistical software (SPSS) was employed for data analysis, and it was found that there was a significant relationship between business ethics (honesty, fairness, and transparency) and the competitive advantage of all cellular communication firms.

In Pakistan, Shukurat (2015) conducted an investigation into the effect of ethical leadership on the competitiveness of manufacturing firms. A descriptive survey was used to examine the relationship between ethical leadership and the firm's competitiveness. The population comprised 100 manufacturing firms, and a systematic sampling approach was used to select respondents. Primary data sources were collected using questionnaires, and the study found that unethical behaviours were rampant in corporate institutions. The lack of commitment by top management and the failure to act against unethical behavior led to the conclusion that ethical leadership contributed positively to organizational performance.

In Nigeria, Kehinde (2018) did a study on the effects of ethical behavior on organizational performance. The study uses a quantitative method and presents two hypotheses in null form. Results were analyzed using appropriate test statistics. Findings revealed that ethical behavior affects organizational performance and that good ethical behavior is positively correlated with it.

In Ghana, Zakari, Poku, and Owusu-Ansah (2021) examined the impact of ethical leadership on performance. The study used Denison's organizational model, which was considered appropriate given its emphasis on internal and external factors. The study tested the link between corporate culture and performance in Ghana. Variable items on corporate culture and performance were evaluated using a five-point Likert scale with Denison's corporate survey instruments. Data were obtained from nine banks in Ghana, which together accounted for 60% of the banking sector's market share and included diverse origins, such as multinational, public-domestic, and private-domestic banks. The analysis was based on 296 participants from different departments, each with varied opinions. The research found that although there were major differences among banks in their ethical practices, there were few key differences in their performance. No bank was more innovative than the others. Overall, a positive association was found between ethical practices and performance in Ghana's banking sector.

In Rwanda, Ndabahaliye (2018) assessed the impact of employees' ethical conduct on the organizational performance of public institutions. A survey design was implemented with a sample of 120 respondents. Data were collected using questionnaires and SurveyMonkey software. Semi-structured interviews were also employed, as was documentary analysis. Analysis was performed using SPSS; percentages, means, and standard deviations were used to interpret the data. The study depicted a significant link between employees' ethical conduct and organizational performance. The link was significant for unethical behaviors that resulted in poor organizational performance. The research disclosed that the performance of the service sector depended on the code of ethics [$X = 18.061 > t_{0.05} = 7.841$], and that the extent of compliance with the code of ethics for service firms was high [$X_2 = 13.751 > t_{0.05} = 7.841$]. The research suggested that it was important to have specific procedures for identifying and addressing issues of ethical misconduct.

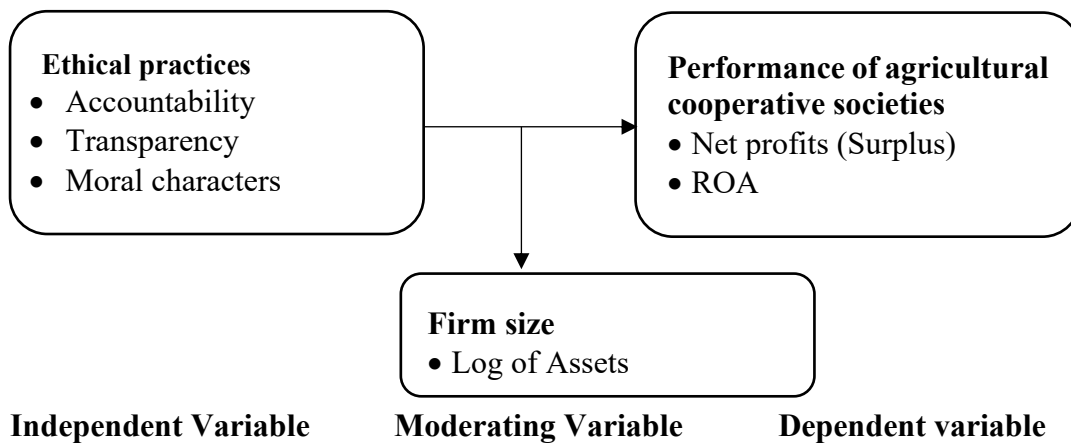
Toor et al. (2019) explored the effectiveness of ethical practices on competitiveness and found that firms that maintained ethical principles and standards were able to save substantial costs from fines and penalties, thereby contributing to improved performance. Gu et al. (2021) found

that firms that complied with ethical codes of conduct were able to allocate ample time and resources towards achieving their set goals and targets. Holloway (2021) observed that many employees who maintained integrity in their work were employed by firms that adhered to ethical principles. In his study, Boris (2018) sought to critically analyze the challenges confronting local government administration in the effective and efficient delivery of social services in Nigeria. Using secondary data, the study concluded that a lack of funds, corruption, and undue political interference, among other factors, were major constraints on local government service delivery.

In Kenya, Kitonga (2017) conducted a study on strategic leadership practices and organizational performance in not-for-profit organizations in Nairobi County. The study used a mixed-methods approach to examine strategic leadership and organizational performance in Nairobi non-profit organizations, incorporating ethical practices as a key variable. Targeting 1,475 organizations, the study sampled 305 strategic leaders using simple random sampling. Quantitative data were collected via survey questionnaires, while qualitative insights were gathered through face-to-face interviews. Research assistants employed a drop-and-pick strategy for data collection. Analysis was performed using SPSS v21 and Nvivo, aligned with specific objectives and hypotheses. Despite the methodological rigor, findings revealed that ethical practices had a limited influence on organizational performance within the sampled entities. This outcome suggests a contextual gap in the operational relevance of ethical leadership in Nairobi’s not-for-profit landscape.

2.3 Conceptual Framework

According to Mugenda and Mugenda (2009), a conceptual framework is a diagrammatic representation of the hypothesized relationship between independent and dependent variables in a study.



3. Methodology

The study employed a mixed-methods research design, anchored in a cross-sectional survey, to investigate the influence of strategic leadership practices on the performance of agricultural cooperative societies in Kenya. The target population of this study was 1206, from the five counties, namely, Meru, Nakuru, Nyandarua, Murang’a and Kiambu. Yamane's formula was used to determine a sample size of 301. A stratified sampling technique was adopted to ensure the distribution of the sample size across the agricultural sub-sectors among the targeted cooperatives in the selected counties. Data collection was conducted using structured questionnaires, which were pre-tested for validity and reliability. Secondary data was collected from the State Department of Cooperatives covering the period between 2019 and 2023. The

data covered financial performance with focus on total assets and turnover. For a period of five years from 2019 to 2023. Quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS Version 28.0), and descriptive statistics, including frequencies, means, and standard deviations, were computed to summarize respondent characteristics and variable distributions. Inferential statistics, including Pearson correlation and multiple linear regression analysis, were applied to test relationships between ethical practices, and cooperative performance. Additionally, the study tested the moderating effect of firm size on this relationship. Ethical considerations were observed throughout the research process, including informed consent and confidentiality.

4. Results and Discussion

4.1 Data analysis and findings

The study targeted 301 respondents from agricultural cooperative societies in Kenya, with 260 questionnaires completed and returned, yielding an 86% response rate. This response rate of 86% is considered satisfactory for the analysis and conclusion of the research, aligning with Kothari's (2004) perspective on response rates. Kothari (2004) suggests that a response rate of 50% is adequate for analysis and reporting, 60% is good, and 70% or higher is exceptional and ideal for the study. Therefore, the 86% response rate in this study indicates high participation, establishing a strong foundation for the research findings. This high response rate indicates that the collected data are likely representative of the population under study, enhancing the reliability and validity of the research outcomes.

4.2 Descriptive Statistics

The study variables were examined in this section using descriptive statistics, with a focus on the mean and standard deviation. The mean was obtained by adding the scores for each parameter (question) and then dividing by the number of respondents for that parameter. In this study, a Likert scale of 1–5 was adopted, where a mean of 1.00–1.80 was considered to imply that respondents strongly disagreed with the given construct, 1.81–2.60 was considered to mean that respondents disagreed with the given construct, 2.61–3.40 was considered moderate, 3.41–4.20 was considered to mean that respondents agreed with the given statement, and 4.21–5.00 was considered to imply that respondents strongly agreed with the given construct. Conversely, a standard deviation greater than 0.5 indicates heterogeneity, with diverse opinions among respondents. A standard deviation below 0.5 indicates homogeneity, suggesting that respondents had comparable comprehension of the subject and delivered similar responses. Therefore, in this study, the interpretation of descriptive statistics provides insight into how consistently respondents perceived ethical practices such as transparency, accountability, and integrity as drivers of cooperative performance.

4.2.1 Ethical Practices and Performance of Agricultural Cooperative Societies

The research aimed to explore the influence of ethical practices on the performance of agricultural cooperative societies. Most participants strongly agreed that recognizing achievements promotes a culture of accountability across all levels, as evidenced by a mean score of 4.26. Additionally, respondents acknowledged that open communication fosters trust and promotes collaborative decision-making within teams, and that regular updates on goals and performance keep stakeholders informed and engaged, as indicated by mean scores of 4.21. It was also noted that regular performance reviews reinforce accountability and drive continuous improvement, with a mean score of 4.19. Moreover, participants agreed that ethical leadership sets a standard that influences organizational culture and behaviour, with a mean

score of 4.15. Promoting integrity builds reputation and fosters employee loyalty, with an average score of 4.14. Participants stressed that transparency in policies enhances compliance and employee satisfaction, and that clear role definitions ensure individual responsibility within the organization, with mean scores of 4.13 and 4.05, respectively. These findings demonstrate that ethical practices are pivotal in shaping cooperative culture, consistent with Ethical Leadership Theory, which emphasizes leaders as moral persons and moral managers who model fairness, accountability, and integrity. By focusing on ethical adherence, clarifying standards, and prioritizing stakeholder satisfaction, agricultural cooperatives can strengthen governance, boost performance, and enhance efficiency. The existence of a clientele charter and the emphasis on resource management further underscore the significance of aligning leadership with ethical principles to drive sustainable success.

The mean score in the study was 4.17, with a standard deviation of 0.674, indicating strong consensus among respondents on the impact of ethical practices on organizational performance. The mean score ranged from 4.05 to 4.26, indicating a robust correlation among the variables examined and underscoring the substantial influence of ethical practices on the performance of agricultural cooperative societies. Additionally, the standard deviation values ranged from 0.635 to 0.710, with an average of 0.679, suggesting that the collected data are relatively consistent and reflect uniformity in participants' responses. These results indicate that the data collected for the study are homogeneous, implying a consistent pattern in participants' responses. This strong agreement validates Ethical Leadership Theory, which posits that leaders who embody transparency, fairness, and accountability foster legitimacy and trust, thereby improving organizational credibility and performance outcomes. The findings, therefore, highlight that ethical practices are not abstract ideals but strategic imperatives that directly enhance cooperative resilience, stakeholder confidence, and long-term sustainability.

Table 1: Ethical Practices and Performance of Agricultural Cooperative Societies

Statements	Mean	STDev
Clear definitions of roles ensure individual responsibility within the organization	4.05	0.708
Regular performance reviews reinforce accountability and drive continuous improvement.	4.19	0.635
Recognizing achievements promotes a culture of accountability across all levels.	4.26	0.698
Open communication fosters trust and promotes collaborative decision-making within teams.	4.21	0.678
Regular updates on goals and performance keep stakeholders informed and engaged.	4.21	0.672
Transparency in policies enhances compliance and employee satisfaction.	4.13	0.685
Ethical leadership sets a standard that influences organizational culture and behavior.	4.15	0.71
Promoting integrity builds reputation and fosters employee loyalty.	4.14	0.645
Aligning business practices with values enhances trust among stakeholders and partners.	4.16	0.635
Average	4.17	0.674

4.2.2 Firm size

The study further gathered secondary data on the size of agricultural cooperative societies. Table 4.17 shows the size of agricultural cooperatives in terms of total assets and the log of total assets from 2019 to 2023.

Table 2: Total Assets and Log. of Total Assets

Year	Total Assets	Log. of Total Assets
2019	4243243448	9.6277
2020	4699646432	9.6721
2021	4918784504	9.6919
2022	2687281100	9.7251
2023	6194988642	9.7920
Mean	4548788825	9.7018
SD	1267694526	0.0615
Min	2687281100	9.6277
Max	6194988642	9.7920

The total assets for 2019-2023 were converted to logarithms, which were used as a measure of firm size. The total assets also grew over the five years. According to Figure 2, the mean Log. of total assets was 9.6277 in 2019, 9.6721 in 2020, 9.6919 in 2021, 9.7251 in 2022, and 9.7920 in 2023. This was a gradual rise over the five years, indicating that the cooperatives' size grew steadily as they invested in assets.

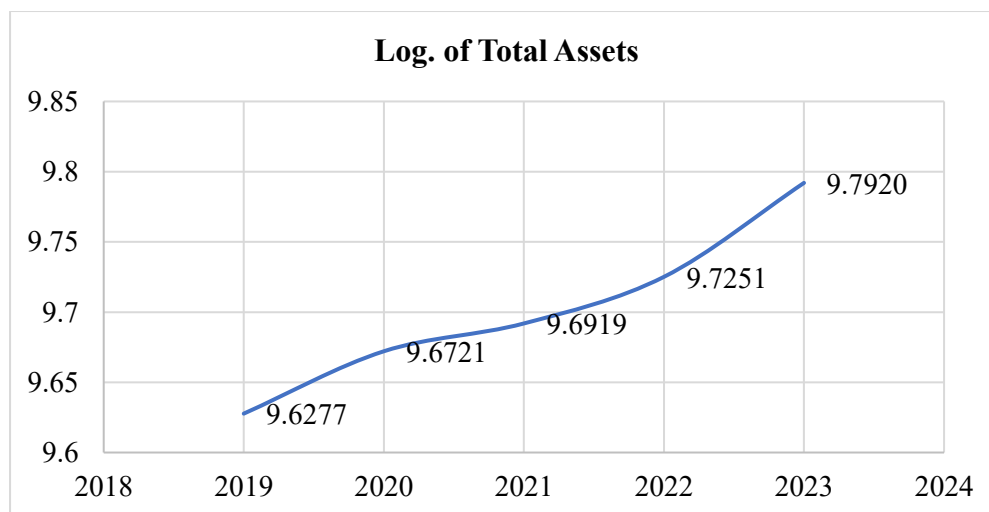


Figure 2: Total assets (log)

4.2.3 Performance of Agricultural Cooperative Societies

From 2019 to 2023, the performance of agricultural cooperatives demonstrated a consistent upward trend in both assets and turnover, reflecting sector growth and increased operational capacity. In 2019, 968 cooperatives filed audits, with total assets averaging KSh 4.24 billion and total turnover averaging KSh 6.25 billion. The sector was predominantly composed of coffee, dairy, and beekeeping cooperatives, with dairy reporting the highest turnover, indicating its significant contribution to the sector's revenue.

In 2020, the number of cooperatives increased to 1,061, and total assets grew slightly to KSh 42.3 billion, averaging KSh 4.7 billion. Turnover also rose to KSh 60.5 billion, averaging KSh 6.72 billion. Despite overall growth, some subsectors, such as legumes, tea, and cotton, showed minimal improvement, often remaining smaller due to limited innovation. This period emphasized strategies to expand the asset base and membership to enhance performance and reduce the risk of failure.

By 2021, the sector saw further growth with 1,081 cooperatives filing audits, total assets reaching approximately KSh 44.27 billion, and turnover remaining around KSh 60 billion. Although most subsectors continued to perform well, sectors like legumes, tea, and cotton underperformed, likely due to conservative growth strategies and a lack of innovation. In 2022, the number of cooperatives increased again to 1,103, with total assets rising to KSh 47.79 billion and turnover climbing to KSh 66.23 billion, driven mainly by dairy and coffee subsectors. The 2023 data showed continued expansion, with 1,206 cooperatives, total assets of KSh 55.75 billion, and turnover of KSh 88.49 billion, highlighting significant sector-wide improvement and resilience despite market differences.

4.3 Karl Pearson’s Coefficient of Correlation

The correlation analysis demonstrates that Ethical Practices (EP) have a very strong and statistically significant positive relationship with cooperative performance, with $r = 0.820$ ($p < 0.01$). Statistically, this means that ethical practices account for 82% of the association between governance behavior and performance outcomes. The significance level confirms that this relationship is highly reliable and not due to random chance. Substantively, this finding underscores that ethical practices, transparency, accountability, and moral character are not symbolic ideals but strategic leadership mechanisms that directly enhance cooperative legitimacy, member trust, and operational effectiveness. Cooperatives that embed ethical practices consistently outperform others, demonstrating that integrity and fairness are practical drivers of organizational resilience and competitiveness.

4.4 Regression Analysis

The regression model summary further validates the strength of ethical practices as a predictor of cooperative performance. The correlation coefficient ($R = 0.820$) indicates a very strong positive relationship between ethical practices and cooperative performance. The coefficient of determination ($R^2 = 0.672$) shows that 67.2% of the variance in cooperative performance is explained by ethical practices, representing high explanatory power. The Adjusted $R^2 = 0.670$ refines this explanatory power, confirming that the model is well-specified and not inflated by sampling characteristics.

Table 3: Model Summary for Ethical Practices

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	0.820	0.672	0.670	0.5424

ANOVA for Ethical Practices

The ANOVA results confirm the statistical significance of ethical practices as a predictor of cooperative performance. The regression sum of squares (158.161) represents the portion of variance explained by ethical practices, while the residual sum of squares (64.964) reflects the variance not accounted for by the model. The resulting F-statistic = 630.12, with $p < .001$, demonstrates that the regression model is highly significant. Statistically, this indicates that

ethical practices explain a substantial portion of the variance in performance, far beyond what would be expected by chance. Substantively, it highlights that integrity, transparency, and accountability are not peripheral values but central governance mechanisms that directly shape the effectiveness and sustainability of cooperation.

Table 4: ANOVA for Ethical Practices

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	158.161	1	158.161	630.12	.000
Residual	64.964	259	0.251		
Total	223.125	260			

Regression of Coefficients for Ethical Practices

The regression coefficients provide strong evidence that ethical practices exert a statistically significant influence on the performance of agricultural cooperatives in Kenya. The constant term, with an unstandardized coefficient of 0.819, represents the baseline level of cooperative performance when ethical practices are absent. This indicates that cooperatives maintain a modest level of performance even without deliberate ethical frameworks, likely due to other structural or contextual factors such as governance arrangements or market positioning. The unstandardized coefficient for ethical practices ($B = 0.798$) shows that for every one-unit increase in ethical practices, cooperative performance rises by approximately 0.798 units. This demonstrates that improvements in transparency, accountability, and fairness directly translate into measurable gains in cooperative outcomes. The standardized coefficient ($Beta = 0.798$) indicates that ethical practices have a very strong effect relative to other predictors, underscoring their importance in driving cooperative performance. The statistical reliability of these results is reinforced by the t-value of 23.022, which is far above the critical threshold, and the significance level ($p = .000$), which confirms that the relationship is not due to random variation. Taken together, these findings validate that ethical practices are not merely compliance mechanisms but strategic assets. By embedding transparency, accountability, and fairness into governance frameworks, cooperatives strengthen member trust, enhance legitimacy, and achieve long-term sustainability. Substantively, this elevates ethical practices from symbolic values to core leadership mechanisms that directly drive cooperative success and resilience in Kenya’s agricultural sector.

Table 5: Regression of coefficients for Ethical Practices

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t-value	Sig.
Constant	0.819	0.136	—	6.021	.000
Ethical Practices	0.798	0.034	0.798	23.022	.000

4.5 Moderating Effect of Firm Size on the Relationship between Ethical Practices and Performance of Agricultural Cooperative Societies in Kenya

The hierarchical regression analysis was conducted to examine whether firm size moderates the relationship between ethical practices and cooperative performance. In the baseline model (Model 1), ethical practices alone explain a substantial proportion of the variance in performance, with $R = 0.888$ and $R^2 = 0.789$, indicating that ethical practices account for 78.9% of the variability in cooperative performance. When firm size and its interaction terms are introduced (Model 2), the model's explanatory power increases significantly to $R = 0.918$ and $R^2 = 0.843$, representing an improvement of 5.4%. The adjusted R^2 also rises to 0.840, confirming that the moderated model is well specified and not inflated by sampling characteristics. The standard error of the estimate decreases from 0.501 to 0.452, demonstrating improved prediction accuracy.

These results confirm that firm size significantly moderates the relationship between ethical practices and performance. Larger cooperatives amplify the benefits of ethical practices, particularly transparency, accountability, and fairness, due to stronger governance structures and greater capacity for resource mobilization. Smaller cooperatives also benefit, but the moderating effect is less pronounced. The inclusion of the interaction term ($EP \times M$) shows that firm size strengthens the explanatory power of ethical practices, making them even more critical for cooperative success.

Table 6: Moderating effect of Firm size on the relationship between ethical practices and performance of Agricultural Cooperative Societies

Model	R	R ²	Adjusted R ²	Std. Error	R ² Change	F Change	df1	df2	Sig. F Change
1	0.888	0.789	0.788	0.501	0.789	697.6	4	255	.000
2	0.918	0.843	0.840	0.452	0.054	23.5	4	251	.000

ANOVA Results for Ethical Practices

The ANOVA results demonstrate that ethical practices significantly influence cooperative performance and that firm size strengthens this relationship. In the baseline model, ethical practices alone explain a substantial portion of the variance in performance, with the regression sum of squares (176.0) far exceeding the residual sum of squares (47.1). This produces a very high F statistic of 697.6, which is statistically significant at $p < .001$. This confirms that ethical practices are a powerful predictor of cooperative performance.

When firm size and its interaction terms are introduced into the model, the regression sum of squares increases to 188.2, while the residual sum of squares decreases to 34.9. The resulting F statistic of 461.2 ($p < .001$) confirms that the moderated model captures more variance in cooperative performance while leaving less unexplained error. This improvement indicates that firm size contributes additional explanatory power beyond ethical practices alone. Larger cooperatives appear better positioned to leverage ethical practices effectively, thereby amplifying their impact on performance, while smaller cooperatives benefit but to a lesser extent. The ANOVA results confirm that ethical practices are a strong predictor of cooperative performance, but their explanatory power is enhanced when firm size is taken into account. This demonstrates that larger cooperatives amplify the benefits of ethical governance, embedding transparency, accountability, and fairness more effectively into their structures.

Table 7: ANOVA for Ethical Practices and Firm Size

Model	Regression SS	Residual SS	Total SS	df (Reg)	df (Res)	Mean Square (Reg)	Mean Square (Res)	F	Sig.
1	176.0	47.1	223.1	4	255	44.0	0.185	697.6	.000
2	188.2	34.9	223.1	8	251	23.5	0.139	461.2	.000

5. Conclusion

The findings of this study confirm the significant role that ethical practices play in shaping the performance and sustainability of agricultural cooperative societies in Kenya. Respondents consistently emphasized that practices such as recognizing achievements, fostering open communication, ensuring transparency, and promoting ethical leadership cultivate a culture of trust, accountability, and collective responsibility. Descriptive statistics revealed strong consensus, with mean scores averaging 4.17, underscoring that ethical practices are widely perceived as critical drivers of cooperative success. Empirical evidence further demonstrated that ethical practices exert a very strong, statistically significant influence on performance outcomes, as indicated by the correlation coefficient ($r = 0.820$, $p < .001$) and regression analysis, in which ethical practices explained 67.2% of the variance in cooperative performance. The moderating effect of firm size was also evident, with hierarchical regression results showing that larger cooperatives amplify the benefits of ethical practices, raising explanatory power from 78.9% to 84.3%. This indicates that while ethical practices are vital across all cooperatives, their impact is magnified in larger organizations due to stronger governance structures and greater capacity for resource mobilization. The upward trend in cooperative assets and turnover between 2019 and 2023 further illustrates how ethical and strategic leadership contributes to sector growth, resilience, and financial sustainability.

The study concludes that embedding ethical principles into cooperative governance is not merely normative but a strategic imperative. Ethical practices enhance legitimacy, strengthen member trust, and improve organizational credibility, thereby ensuring long-term sustainability. Promoting transparency, accountability, and fairness emerges as a vital strategy for improving cooperative effectiveness and financial stability. Integrating ethical leadership into strategic decision-making enhances organizational reputation and contributes to sustainable development within Kenya's agricultural sector, supporting national economic goals and strengthening rural livelihoods.

6. Recommendations

To strengthen ethical practices, agricultural cooperative societies must embed them into both governance and operational frameworks to enhance performance, legitimacy, and sustainability. Leadership should design and enforce comprehensive codes of ethics that clearly articulate expected behaviours, decision-making standards, and accountability mechanisms. These codes must be communicated effectively to all members and staff, supported by regular training sessions to reinforce understanding and commitment. It is recommended that cooperatives establish ethics committees or appoint ethics officers to oversee compliance, investigate violations, and promote an ethical culture. Transparent reporting systems and whistleblower protections should be introduced to encourage ethical conduct and deter malpractice. Ethical principles must also be integrated into performance reviews, procurement processes, and financial management to ensure consistency, credibility, and fairness across operations. Given the strong positive relationship between ethics and performance, these

interventions are not merely moral imperatives but strategic necessities. Cooperatives should foster a culture of integrity by recognizing and rewarding ethical behaviour, promoting inclusive decision-making, and ensuring fairness in resource distribution. Leadership must model ethical conduct and create safe spaces for dialogue, reflection, and accountability. In contexts where trust and legitimacy are critical for member engagement and external partnerships, ethical practices serve as foundational pillars. By institutionalizing ethics, cooperatives will build internal cohesion, enhance stakeholder confidence, and drive sustainable performance across all dimensions of their operations.

6.1 Area for Further Research

Further studies should investigate the influence of member participation and community engagement on the sustainability of cooperatives. Understanding how active involvement, inclusivity, and collective decision-making contribute to resilience and long-term success can help cooperatives strengthen their social capital and legitimacy. Additionally, research should examine the effects of external factors, including market dynamics, policy frameworks, and environmental sustainability, on cooperative performance. By analyzing how fluctuating commodity prices, regulatory changes, and climate challenges shape cooperative outcomes, scholars can provide a more comprehensive understanding of the sector. Such studies would enrich the knowledge base and help cooperatives adapt to evolving economic and environmental contexts.

References

- Adaileh, A. M., & Adaileh, N. A. (2021). The Impact of Strategic Leadership Practices on Organizational Learning Capabilities in Public Universities in the Southern Region of Jordan. *Journal of Legal Ethical & Regulations*, 2(1):24.
- Alayoubi, M. M., Al Shobaki, M. J., & Abu-Naser, S. S. (2020). Strategic leadership practices and their relationship to improving the quality of educational service in Palestinian Universities. *International Journal of Business Marketing and Management (IJBMM)*, 5(3): 11-26.
- Arowo, M. A. (2023). Strategic leadership practices and organizational performance in telecommunication firms in Kenya: a case of Telkom Kenya (Doctoral dissertation). Central Bank of Kenya (2023). Agricultural Sector Survey
- Chikamai, M. M. (2021). Strategic Leadership Practices and Performance of Tea Companies in Nandi County, Kenya.
- Dahri, A. S., Amin, S., & Waseem, M. (2019). Effect of Strategic Leadership on organization Performance through Knowledge Management. *Journal of Managerial Sciences*, 13(2).
- Kaguru, J., Namusonge, G. S., & Mugambi, F. M. (2020). Strategic leadership practices and their influence on performance of government managed entities in Kenya. *American Journal of Humanities and Social Sciences Research (AJHSSR)*, 4(4): 105-111.
- Kegeni, G. M. (2021). Strategic Leadership Practices and Performance of Charitable Ambulance Service Organizations in Nairobi City County Kenya, Doctoral dissertation, Kenyatta University.
- Kehinde, O. J. (2018). Effects of ethical behaviour on organization performance: Evidence from three service organizations in Lagos, Nigeria. *Journal of research in National Development*, 8(1).

- Kenya National Bureau of Statistics. (2024). *National Agriculture Production Report – 2024*. Retrieved from <https://www.knbs.or.ke/reports/national-agriculture-production-report-2024>
- Kiptum, C. (2024). Strategic Leadership Practices and Performance of Kenya Tea Development Agency Factories. *Available at SSRN 4904189*.
- Koros, M. (2021). Strategic leadership practices and organizational performance of the Kenya national highways authority (Doctoral dissertation, Kenyatta University).
- Lerai, S. E., Rintari, N., & Moguche, A. (2023). Influence of strategic direction on organizational performance of commercial-based parastatals in Kenya. *Journal of strategic management*, 3(3): 1-7.
- Linda K. Treviño, L. K. (2000). Ethical decision making in organizations: A person-situation interactionist model. *Academy of Management Review*, 11(3), 601–617.
- Mareiyo, M. J., & Kwasira, J. (2022). Strategic Leadership Practices and Sustainable Performance of Private Primary Schools in Turbo Sub County, Uasin Gishu County, Kenya. *Journal of Business and Strategic Management*, 7(3): 49–75.
- Miguel Gonzalez, M., & Manuel Guillén, M. (2002). Leadership ethical dimension: A requirement in TQM implementation. *The TQM Magazine*, 14(3), 150–164.
- Mymoona, M. (2018). *Strategic Leadership and Sustainable Competitive Advantage of Aar Healthcare Kenya Limited* (Doctoral dissertation, University of Nairobi).
- Nzewi, H. N., Ibrahim, M. A., & Chiekezie, O. M. (2021). Strategic Leadership and Firm Performance in Nigeria. *International Journal of Business and Management Research*, 2(1): 110-126.
- Orito, M. O. (2021). Investigating Strategic Leadership and Performance of State Corporations and Departments in the Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works-Kenya, Doctoral dissertation, University of Nairobi.
- Ratanya, S. N. (2021). *Antecedents of Women Leadership Performance in Parastatals in Kenya* (Doctoral dissertation, JKUAT-COHRED).
- Ratanya, S. N., Mukulu, P., & Sakwa, P. (2019). Competency skills as an antecedent of women leadership performance in parastatals in Kenya. *International Academic Journal of Innovation, Leadership and Entrepreneurship*, 1(2), 10–24.
- Shafique, I., N Kalyar, M., & Ahmad, B. (2018). The nexus of ethical leadership, job performance, and turnover intention: The mediating role of job satisfaction. *Interdisciplinary Description of Complex Systems: INDECS*, 16(1), 71-87.
- State Department of Cooperatives (2023). Status of cooperatives report in Kenya.
- Taj, S., Zulfiqar, B., & Nasir, A. (2020). Evolution of strategic leadership practices and its impact on organizational performance in Pakistan’s SMEs. *Balochistan Review*, 45(1): 102-143.