Scholars Journal of Economics, Business and Management OPEN ACCESS
Abbreviated Key Title: Sch J Econ Bus Manag
ISSN 2348-8875 (Print) | ISSN 2348-5302 (Online)
Journal homepage: https://saspublishers.com

Effect of Collaboration Mechanisms on Organizational Performance of KTDA-Managed Tea Factories in Nyamira and Kisii Counties, Kenya

Joash Mokamba Keraita[1*], Dr Charles Momanyi[2], Dr Peter Kingoina[3]

[1]PhD candidate- School of Business and Economics, Kisii University, Kenya
[2]Senior Lecturer; School of Business and Economics, Kisii University, Kenya
[3]Lecturer; School of Business and Economics, Kisii University, Kenya

DOI: https://doi.org/10.36347/sjebm.2026.v13i05.001 | **Received:** 28.03.2026 | **Accepted:** 12.05.2026 | **Published:** 14.05.2026

***Corresponding author:** Joash Mokamba Keraita
PhD candidate- School of Business and Economics, Kisii University, Kenya

Abstract **Original Research Article**

This study examined the effect of collaboration mechanisms as a cognitive diversity management strategy on organizational performance of Kenya Tea Development Agency (KTDA)-managed tea factories in Nyamira and Kisii Counties, Kenya. The study was motivated by persistent performance variations among KTDA-managed factories despite the strategic importance of tea to Kenya's economy and rural livelihoods. Collaboration mechanisms were conceptualized as organizational platforms, practices, and technologies that facilitate knowledge sharing, interdepartmental coordination, problem-solving, and integration of diverse perspectives. The study was anchored on the Resource-Based View and Dynamic Capabilities Theory, which explain how collaboration systems function as strategic resources and adaptive capabilities that enhance organizational outcomes respectfully. A positivist philosophy and descriptive survey design were adopted. The target population comprised 858 permanent employees across 14 KTDA-managed factories, from which a sample of 390 respondents was selected using stratified random sampling. A total of 317 usable questionnaires were obtained, representing an effective response rate of 81.28%. Data were collected using structured questionnaires and analysed using descriptive statistics, Chi-square tests, Pearson correlation, and simple linear regression. Descriptive findings indicated strong adoption of collaboration mechanisms (mean = 4.07, SD = 0.87) and moderately strong organizational performance (mean = 3.93). Correlation analysis revealed a positive and statistically significant relationship between collaboration mechanisms and organizational performance ($r = 0.498$, $p < 0.001$). Regression results showed that collaboration mechanisms significantly explained 24.8% of the variation in organizational performance ($R^2 = 0.248$), with the model being statistically significant ($F(1,315) = 103.993$, $p < 0.001$). The findings further indicated that collaboration mechanisms had a positive and significant effect on performance of tea factories ($B = 0.492$, $\beta = 0.498$, $p < 0.001$). The study concluded that collaboration mechanisms are a critical driver of organizational performance and recommended strengthening of structured collaboration systems, digital platforms, and stakeholder integration practices.

Keywords: Collaboration mechanisms, cognitive diversity, organizational performance, KTDA, tea factories, Resource-Based View, Dynamic Capabilities Theory.

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

1.0 INTRODUCTION

1.1 Background of the Study

Organizational diversity is a multidimensional concept that includes demographic, functional, cultural, and cognitive differences among employees. While demographic diversity refers to visible attributes such as gender, age, ethnicity, and physical ability, cognitive diversity concerns deeper differences in perspectives, knowledge bases, thinking styles, and problem-solving approaches. The study was situated within the cognitive diversity perspective because tea factory performance increasingly depends on how employees, supervisors, and managers integrate different forms of knowledge to solve operational, quality, supply-chain, and market-related problems. Cognitive diversity has been associated with creativity, innovation, adaptability, and better decision-making when organizations provide mechanisms for integrating different perspectives [Narayan *et al*., 2020; Wiyono *et al*., 2025; Qu *et al*., 2024; Kadiri & Ighodaro, 2024]. However, cognitive diversity does not automatically produce performance benefits; it requires deliberate organizational systems

such as knowledge-sharing routines, inclusive discussions, psychological safety, and collaboration platforms [Korkmaz *et al*., 2022; Ikhide *et al*., 2024].

Collaboration mechanisms represent one of the most important pathways through which cognitive diversity is translated into organizational outcomes. In this study, collaboration mechanisms refer to the structures, platforms, technologies, forums, and practices that facilitate knowledge sharing, joint problem-solving, interdepartmental coordination, and integration of multiple viewpoints. In tea factories, collaboration is particularly important because factory performance depends on coordinated activities among green leaf collection teams, production teams, quality assurance staff, maintenance teams, managers, farmers, and marketing structures. Weak collaboration may result in delays, quality inconsistencies, operational errors, and poor responsiveness to farmer and market needs. Conversely, strong collaboration can enhance throughput, tea quality, farmer coordination, knowledge transfer, innovation, and overall performance.

Globally, the tea sector has shown resilience following COVID-19 disruptions, but recovery has been uneven across countries and firms. World tea output increased in 2022 compared to 2021, while global consumption recovered modestly, although production, pricing, and factory-level outcomes remained affected by climatic shocks, supply-chain disruption, and changing demand patterns [FAO, 2024; Tridge, 2024]. At the factory level, performance is influenced by processing technology, supply-chain quality, market strategy, and organizational capabilities such as leadership, coordination, and knowledge integration [IISD, 2024; Tea & Coffee Report, 2024]. These observations suggest that factory performance is not purely technical; it also depends on how organizations coordinate people, knowledge, systems, and decision-making processes.

In Kenya, tea remains one of the country's most important agricultural exports and a key source of rural livelihoods. National performance reports indicate recovery in production and export earnings after the pandemic period, with marketed export volumes rising from about 450 million kilograms in 2022 to about 523 million kilograms in 2023, generating approximately Kshs 180.6 billion in export earnings [Tea Board of Kenya, 2024a; Tea Board of Kenya, 2024b]; however, national recovery masks factory-level disparities. KTDA-managed factories in Nyamira and Kisii Counties have faced persistent performance concerns, including lower bonus payments, uneven throughput, quality inconsistencies, and lower auction price realization compared with some East-of-Rift factories [Parliament of Kenya, 2025; KIPPRA, 2025; Tea Board of Kenya, 2024b]. These challenges point to the need to examine internal organizational practices, including collaboration mechanisms, which may influence how factories convert human knowledge, farmer coordination, and operational systems into measurable performance outcomes.

1.2 Statement of the Problem

Ideally, KTDA-managed tea factories should use collaboration mechanisms to harness different employee perspectives, knowledge bases, and problem-solving approaches for improved organizational performance. Effective collaboration mechanisms should support cross-functional communication, joint decision-making, innovation forums, knowledge-sharing platforms, digital coordination, and farmer participation in planning. Through these mechanisms, factories would be expected to improve productivity, tea quality, throughput efficiency, market responsiveness, farmer retention, and compliance with quality standards.

However, the current situation shows persistent performance challenges in KTDA-managed factories. Smallholder tea productivity under KTDA management declined by 8.7% between 2018 and 2022, while factory throughput efficiency has been reported at approximately 65% against an industry benchmark of 80% of installed capacity [TBK, 2024b; Ministry of Agriculture, 2024]. KTDA reports further indicate that although more than 71 factories are managed under the agency, disparities in output, efficiency, quality, and profitability persist [KTDA, 2024]. In Nyamira and Kisii Counties, West-of-Rift factories such as Sanganyi, Nyankoba, Kebirigo, Tombe, Ogembo, and Gianchore have repeatedly been associated with comparatively lower bonus payments, lower price realization, quality challenges, and higher operating costs [Parliament of Kenya, 2025; Tea Board of Kenya, 2024b; KIPPRA, 2025; Mwangi, 2024; Mutiso, 2024]. These performance challenges suggest that existing internal systems may not be fully leveraging collaborative knowledge integration and coordinated problem-solving.

Previous studies have examined diversity, human resource practices, training, technology adoption, and organizational performance, but many have treated these factors as isolated variables rather than as cognitive diversity management strategies. Studies by [Alshammari, 2023; Liu & Fang, 2022; Wekesa & Namusonge, 2023], for example, focused on training, knowledge diversity, HR practices and, innovation outcomes, but did not isolate collaboration mechanisms as a cognitive diversity management strategy in the context of Kenyan tea factories. Other studies on collaboration mechanisms have been conducted in healthcare, ICT, automotive, and manufacturing contexts, but with limited focus on KTDA-managed factories in Nyamira and Kisii Counties. This creates an empirical, contextual, and conceptual gap. Therefore, this study examined the effect of collaboration mechanisms as a cognitive diversity management strategy on organizational performance of KTDA-managed tea factories in Nyamira and Kisii Counties, Kenya.

1.3 Objective of the Study

The objective of the study was to evaluate the effect of collaboration mechanisms on organizational performance of KTDA-managed tea factories in Nyamira and Kisii Counties, Kenya.

1.4 Research Hypothesis

H_0: Collaboration mechanisms do not have a statistically significant effect on organizational performance of KTDA-managed tea factories in Nyamira and Kisii Counties, Kenya.

1.5 Significance of the Study

This study is significant to theory, management practice, policy, KTDA factories, employees, farmers, and future researchers. Theoretically, the study extends cognitive diversity management literature by isolating collaboration mechanisms as a strategic pathway through which deep-level diversity is converted into organizational performance. It contributes to the Resource-Based View by demonstrating how collaboration mechanisms can function as intangible organizational resources that integrate diverse employee knowledge and perspectives. It also contributes to Dynamic Capabilities Theory by showing that collaboration supports organizational sensing, seizing, and reconfiguration processes necessary for improved factory performance.

For KTDA managers and supervisors, the study provides evidence-based insights into how collaboration platforms, interdepartmental coordination, problem-solving forums, technology-supported communication, and farmer engagement can be strengthened to improve production efficiency, tea quality, farmer satisfaction, and operational responsiveness. For employees, the study emphasizes the value of participation, teamwork, mutual trust, and inclusive communication in enhancing morale and performance. For policy makers and KTDA governance structures, the study provides a basis for designing formal collaboration policies, factory-level innovation forums, communication frameworks, and digital knowledge-sharing platforms. For farmers and local communities, improved factory performance can enhance green leaf payments, bonus outcomes, service delivery, and rural livelihoods. For researchers, the study provides empirical evidence from an agro-processing context where collaboration mechanisms and cognitive diversity remain underexplored.

1.6 Scope of the Study

The study was geographically limited to KTDA-managed tea factories in Nyamira and Kisii Counties. These counties were selected because they form part of Kenya's western tea-growing zone and contain factories that have faced performance challenges relating to throughput, bonus payments, quality, and market outcomes. Thematically, the study focused only on collaboration mechanisms as the independent variable and organizational performance as the dependent variable. Collaboration mechanisms included problem-solving platforms, innovation forums, consideration of different viewpoints, technology-supported communication, digital issue-resolution platforms, interdepartmental information sharing, coordination between management and farmers, farmer participation in planning, committee participation, and mutual trust. Organizational performance was measured using indicators such as processing throughput, production targets, green leaf volumes, registered farmers, processing efficiency, conversion ratio, market share, price per kilogram, timely farmer payments, regulatory compliance, sales volume, price awards, and farmer retention.

Methodologically, the study adopted a quantitative approach and descriptive survey design. Primary data were collected using structured questionnaires administered to managers, supervisors, and operational staff. Temporally, the study covered the period 2020–2026, a period marked by changing tea production, market, regulatory, and operational conditions.

1.7 Justification of the Study

The study was justified by the persistent performance challenges in KTDA-managed tea factories, particularly in Nyamira and Kisii Counties, despite Kenya's overall tea sector recovery. The factories operate in a complex environment characterized by market volatility, farmer expectations, quality pressures, climate variability, rising costs, and regulatory demands. These challenges require more than technical or financial interventions; they require strong collaboration systems that enable diverse employees and stakeholders to jointly solve problems, share information, coordinate decisions, and respond adaptively.

The study was further justified by the limited empirical attention given to collaboration mechanisms within cognitive diversity management literature, especially in African agro-processing contexts. Although prior studies have examined knowledge sharing, collaboration, or organizational performance, few have specifically examined collaboration mechanisms as a cognitive diversity management strategy in KTDA-managed tea factories. The study therefore provides both contextual relevance and theoretical contribution.

1.8 Limitations of the Study

The study was limited to KTDA-managed factories in Nyamira and Kisii Counties, which may limit direct generalization to non-KTDA factories or other agro-processing sectors. However, the similarity of KTDA governance and production systems allows analytical generalization to comparable settings. The study also relied on self-reported questionnaire data, which may be affected by social desirability or respondent subjectivity. This was minimized through anonymity, confidentiality, neutral questionnaire

wording, and pilot testing. The descriptive survey design also limited strict causal claims; nevertheless, correlation and regression analysis provided reliable evidence of association and predictive influence. Finally, external factors such as weather, auction prices, policy changes, and global market conditions may influence factory performance beyond the variables studied.

1.9 Assumptions of the Study

The study assumed that respondents had sufficient knowledge of collaboration mechanisms and performance practices within their factories. It also assumed that respondents provided honest and accurate answers. The study further assumed that the selected performance indicators were appropriate measures of organizational performance in KTDA-managed tea factories. It was also assumed that collaboration mechanisms varied across factories sufficiently to allow meaningful statistical analysis, and that no extreme external disruption occurred during the study period that would substantially distort the relationship between collaboration mechanisms and performance.

1.10 Operationalization of Terms

Collaboration mechanisms refer to organizational platforms, practices, technologies, and processes that enable employees, managers, departments, and farmers to share information, exchange ideas, coordinate tasks, resolve problems, and integrate diverse perspectives for improved factory performance.

Cognitive diversity management strategy refers to a deliberate organizational approach for managing differences in knowledge, thinking styles, experiences, and problem-solving approaches so that such differences contribute positively to innovation, adaptability, decision-making, and organizational outcomes.

Organizational performance refers to the extent to which a KTDA-managed tea factory effectively and efficiently achieves operational, quality, financial, market, compliance, and stakeholder outcomes, including throughput, production targets, green leaf volumes, conversion efficiency, tea quality, price performance, sales volume, farmer payments, farmer retention, and regulatory compliance.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Resource-Based View and Collaboration Mechanisms

The Resource-Based View explains organizational performance differences through the unique resources and capabilities controlled by firms. The theory, associated with Barney's resource-based logic, argues that internal resources can generate sustained competitive advantage when they are valuable, rare, difficult to imitate, and organized for effective use. Contemporary RBV literature emphasizes intangible resources such as knowledge, skills, routines, culture, and cognitive capabilities as critical sources of competitiveness [Krajcsak, 2022; Ahuja & Chan, 2023; Park & Kim, 2024; Barney *et al*., 2021; Wilden *et al*., 2022; Sirmon & Hitt, 2023].

In this study, collaboration mechanisms are interpreted as intangible organizational resources because they create channels through which knowledge, perspectives, and experience are shared and integrated. A factory may have employees with diverse knowledge, but such knowledge becomes valuable only when it is exchanged, coordinated, and applied through collaborative systems. Collaboration mechanisms therefore operationalize cognitive diversity by transforming individual knowledge into collective capability. In KTDA-managed factories, structured meetings, interdepartmental communication, problem-solving platforms, digital communication tools, farmer coordination systems, and innovation forums are resource-deployment mechanisms that can enhance performance.

RBV is relevant because it explains why factories with stronger collaboration systems may outperform others even within the same KTDA governance structure. However, RBV has been criticized for being relatively static and for not fully explaining how resources are renewed in dynamic environments [Teece, 2021; Helfat & Peteraf, 2023]. This limitation justifies complementing RBV with Dynamic Capabilities Theory.

2.1.2 Dynamic Capabilities Theory and Organizational Performance

Dynamic Capabilities Theory explains how organizations achieve performance by sensing environmental changes, seizing opportunities, and reconfiguring resources and processes to respond to dynamic conditions. Teece and colleagues argued that firms operating in turbulent environments require capabilities beyond ordinary operational routines. They must continually integrate, build, and reconfigure internal and external competencies [Zurina & Ismail, 2019; Samsudin & Ismail, 2019; Wetering *et al*., 2021].

In the context of KTDA-managed factories, organizational performance depends on the ability to respond to market changes, farmer supply fluctuations, quality expectations, technological shifts, weather variability, and regulatory requirements. Collaboration mechanisms support dynamic capabilities by enabling factories to sense operational problems through information sharing, seize improvement opportunities through joint decision-making, and reconfigure processes through coordinated problem-solving. Therefore, DCT explains how collaboration mechanisms contribute to performance outcomes such as throughput efficiency, quality improvement, farmer retention, timely payments, and compliance; DCT underpinned organizational performance in the study.

2.2 Conceptual Framework

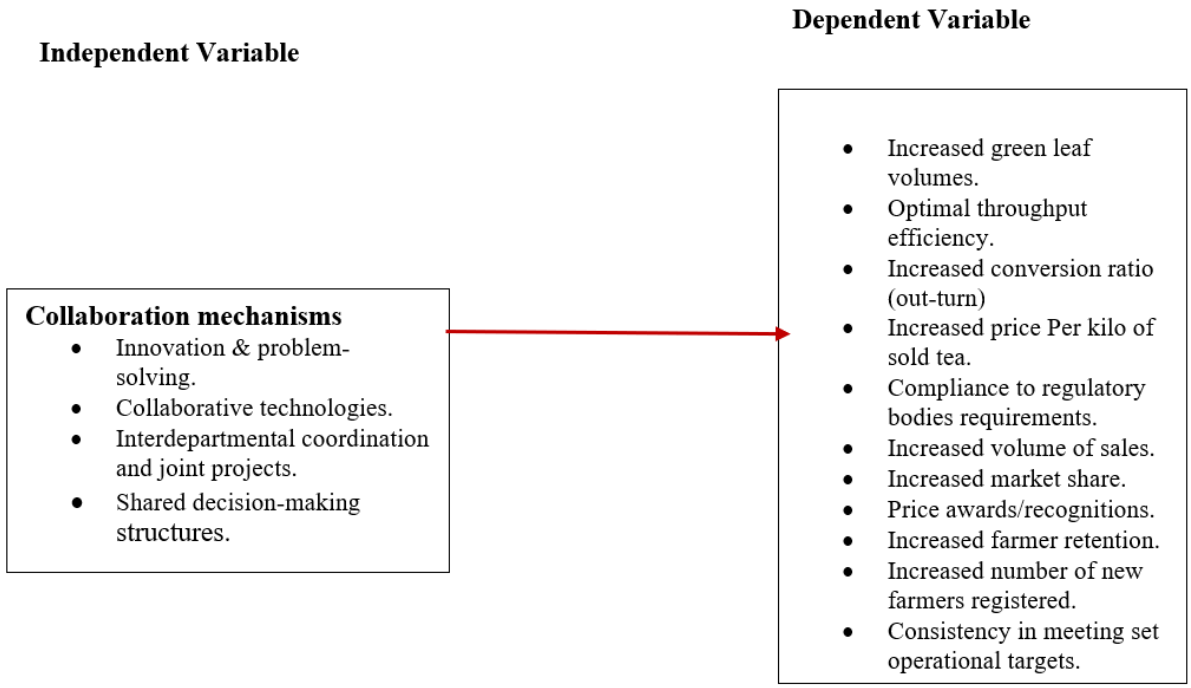

Figure 2.1 Conceptual framework showing effect of collaboration mechanisms on organizational performance of KTDA managed tea factories

The conceptual framework of this study presents collaboration mechanisms as the independent variable and organizational performance as the dependent variable. The framework assumes that stronger collaboration mechanisms improve organizational performance by enabling knowledge sharing, joint problem-solving, coordination, innovation, and stakeholder engagement.

The independent variable, collaboration mechanisms, is reflected in problem-solving platforms, innovation forums, consideration of different viewpoints, technology-supported communication, digital platforms for issue resolution, interdepartmental information sharing, coordination between management and farmers, farmer involvement in planning, participation in committees and meetings, and mutual trust. The dependent variable, organizational performance, is reflected in throughput levels, production targets, green leaf intake, farmer registration and retention, processing efficiency, conversion ratio, market share, price per kilogram, timely farmer payments, compliance, sales volume, and awards.

The framework relates to RBV because collaboration mechanisms are intangible resources that allow factories to mobilize and integrate employee knowledge. It relates to DCT because organizational performance is achieved when these collaboration resources are dynamically deployed to respond to operational and market changes. Conceptually, the study proposes that collaboration mechanisms are not merely administrative practices; they are strategic knowledge-integration systems that convert cognitive diversity into factory performance.

2.3 Literature Review on Collaboration Mechanisms and Organizational Performance

The literature on collaboration mechanisms and performance can be understood from global, regional, and local perspectives. Globally, [Blom *et al.,*2021] found that structured knowledge-sharing mechanisms and collaborative technologies improved inclusion, collaboration, and sustainable change in South African automotive firms. Although this study supported the role of collaboration in organizational change, its single-industry focus limited generalization to agro-processing. [Nowak, 2022] found that cognitive diversity enhanced performance in U.S. healthcare organizations when supported by interdepartmental coordination and collaborative systems. Similarly, [Li & Zhang, 2023] established that digital collaboration systems improved innovation and financial performance in Chinese digital enterprises, while [Hempel *et al.,*2023] found that structured coordination reduced operational errors in healthcare systems. [Lane, 2024] also found that digital collaboration tools improved communication and teamwork, although their effectiveness depended on leadership support.

Regionally, [Mensah & Frimpong, 2021] found that structured knowledge-sharing practices and shared decision-making enhanced productivity and adaptability in Ghanaian manufacturing firms. [Adewale & Bamidele

2022] established that cognitive diversity influenced innovation through formal knowledge-management and collaboration systems in Nigerian ICT firms. [Bekele & Tadesse, 2023] found that structured collaboration and innovation mechanisms enhanced resilience and adaptive capacity among Ethiopian agro-processing enterprises. These African studies show that collaboration mechanisms are important for productivity, innovation, and resilience, although many did not focus specifically on tea factories or operational performance indicators.

Locally, [Owuor & Chege, 2022] found that structured knowledge-sharing initiatives, team meetings, cross-departmental collaboration, and idea-exchange platforms positively influenced efficiency and tea quality in KTDA-managed factories. [Nyakundi & Bosire, 2021] reported that collaboration platforms enhanced productivity and adaptability in cooperative societies in Kisii County. [Mwangi, 2024] found that problem-solving workshops and cross-departmental meetings enhanced short-term collaboration in KTDA factories, but lacked continuity. [Mwangi & Cheruiyot, 2024] found that communication-driven collaboration enhanced efficiency and reduced operational conflict in KTDA factories, although collaboration remained informal and dependent on leadership style. [Wekesa & Namusonge, 2023] also reported that knowledge-sharing and collaboration improved innovation performance and customer responsiveness, although inconsistent leadership support weakened sustained collaboration.

The reviewed literature generally agrees that collaboration mechanisms improve performance, but several gaps remain. First, many studies were conducted in healthcare, ICT, automotive, pharmaceutical, or municipal settings, limiting applicability to tea factories. Second, some studies focused on innovation but did not include operational and market performance indicators. Third, local KTDA studies recognized collaboration but did not isolate it as a cognitive diversity management strategy. This study addresses these gaps by empirically testing the effect of collaboration mechanisms on organizational performance in KTDA-managed tea factories in Nyamira and Kisii Counties.

3.0 RESEARCH METHODOLOGY

3.1 Research Philosophy and Design

The study adopted a positivist research philosophy because it sought to measure objective relationships between collaboration mechanisms and organizational performance using quantifiable data. Positivism was appropriate because the study involved hypothesis testing, statistical analysis, and generalization of findings from a sample to the target population [Creswell & Creswell, 2018; Sekaran & Bougie, 2020]. The study adopted a descriptive survey design, which was suitable for describing respondent characteristics, assessing the status of collaboration mechanisms, and examining their relationship with organizational performance.

3.2 Study Area

The study was conducted in KTDA-managed tea factories in Nyamira and Kisii Counties. These counties were selected because they are part of Kenya's western tea-growing region and contain factories that have experienced fluctuating performance and comparatively lower bonus outcomes. The factories included Nyansiongo, Nyankoba, Tombe, Gianchore, Kebirigo, Matunwa, Sanganyi, and Sombogo in Nyamira County, and Nyamache, Itumbe, Ogembo, Eberege, Kiamokama, and Rianyamwamu in Kisii County. The study area was appropriate because the factories operate under similar KTDA governance and production systems but face varying performance outcomes.

3.3 Target Population

The target population comprised 858 permanent employees from 14 KTDA-managed factories, who comprised of 80 managers, 34 supervisors, and 744 operational staff.

Table 1: Target Population

Category	Number
Managers	80
Supervisors	34
Operational staff	744
Total	**858**

The target population was appropriate because it captured all relevant employee categories involved in strategic, supervisory, and operational activities. Managers provided insights into decision-making and coordination, supervisors provided insights into workflow implementation, and operational staff provided practical information on day-to-day collaboration and performance.

3.4 Sample Size and Sampling Procedure

The sample size was determined using Yamane's formula of 1967 at a 95% confidence level and 5% margin of error. A sample of 273 was obtained and adjusted upward by 30% to cater for non-response, resulting in a final sample size of 390. Stratified random sampling was used to ensure representation of managers, supervisors, and operational staff.

Table 2: Sample Size

Category	Sample
Managers	39
Supervisors	17
Operational staff	334
Total	**390**

The sample size was adequate because it reflected the organizational hierarchy of KTDA factories and allowed representation across all employee categories. Stratification improved representativeness and reduced sampling bias.

3.5 Data Collection Instrument

Primary data were collected using a structured questionnaire. The questionnaire had three sections: demographic characteristics, collaboration mechanisms, and organizational performance. Items on collaboration mechanisms and organizational performance were measured using a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

3.6 Validity and Reliability

Content validity was assessed using expert judgment and Content Validity Index. The collaboration mechanisms scale achieved a CVI of 0.95, while organizational performance achieved a CVI of 0.96, giving an average CVI of 0.96. Since the values exceeded the acceptable threshold of 0.80, the instrument was considered valid.

Table 3: Content Validity Results

Construct	CVI Score	Decision
Collaboration mechanisms	0.95	Valid
Organizational performance	0.96	Valid
Average	**0.96**	**Valid**

Construct validity was tested using factor analysis. The KMO value for collaboration mechanisms was 0.693, while organizational performance recorded 0.718. Both values exceeded the minimum acceptable threshold of 0.60, indicating that the data were suitable for factor analysis.

Table 4: Factor Analysis Results

Construct	Initial Items	Items Retained	KMO
Collaboration mechanisms	11	11	0.693
Organizational performance	14	13	0.718

Reliability was assessed using Cronbach's alpha. Collaboration mechanisms recorded $\alpha = 0.858$, while organizational performance recorded $\alpha = 0.706$. Both values were above the acceptable threshold of 0.70, confirming internal consistency.

Table 5: Reliability Results

Construct	Cronbach's Alpha	Number of Items
Collaboration mechanisms	0.858	11
Organizational performance	0.706	13
Overall mean	**0.782**	

The reliability results indicated that the questionnaire items consistently measured the intended constructs and were appropriate for inferential analysis.

3.7 Data Analysis Procedures

Data were analysed by help of SPSS. Frequencies and percentages were used to analyse demographic characteristics. Means and standard deviations were used to summarize collaboration mechanisms and organizational performance. Chi-square tests were used to examine associations between demographic variables and organizational performance. Pearson correlation was used to determine the strength and direction of the relationship between collaboration mechanisms and performance. Simple linear regression was used to test the effect of collaboration mechanisms on organizational performance using the model:

The regression equation was proposed in the form: $Y=\beta_0+\beta_1X_1+\varepsilon$

Where **Y** represented organizational performance, $\boldsymbol{\beta_0}$ was the constant term, $\boldsymbol{\beta_1}$ was the regression coefficient of collaboration mechanisms and, $\mathbf{X_1}$ represented collaboration mechanisms, whereas $\boldsymbol{\varepsilon}$ was the error term.

4.0 FINDINGS AND DISCUSSION

4.1 Response Rate

Table 6: Response Rate

Sample size	Number	Percent
Distributed questionnaires	390	100.0
Questionnaires filled and returned	360	92.31
Questionnaires not returned	30	7.69
Non-usable questionnaires	43	11.03
Usable questionnaires	317	81.28

The study distributed 390 questionnaires, of which 360 were returned, representing a gross response rate of 92.31%. However, 43 questionnaires were unusable due to incomplete responses or errors, leaving 317 usable questionnaires. The effective response rate was therefore 81.28%, which was adequate for social science research and supported the reliability of the findings. This response rate provided a strong empirical basis for descriptive, correlation, and regression analysis.

4.2 Demographic Characteristics

Table 7: Gender Distribution

Gender	Frequency	Percent
Male	210	66.2
Female	107	33.8
Total	**317**	**100.0**

The findings showed that 66.2% of respondents were male while 33.8% were female. This indicated that the workforce in KTDA-managed factories was predominantly male, which may reflect the labour-intensive and technical nature of tea processing. However, the Chi-square results showed that gender was not significantly associated with organizational performance, implying that performance outcomes were not determined by gender composition.

Table 8: Age Distribution

Age	Frequency	Percent
21–25	31	9.8
26–35	128	40.4
36–45	100	31.5
46–55	54	17.0
Above 55	4	1.3
Total	**317**	**100.0**

Most respondents were aged 26–35 years (40.4%) and 36–45 years (31.5%), meaning that 71.9% were within active and productive age categories. This suggested that KTDA factories had a relatively youthful and middle-aged workforce capable of supporting operational continuity, adaptability, and learning. However, Chi-square results showed that age was not significantly associated with performance.

Table 9: Education Level

Education Level	Frequency	Percent
Certificate	115	36.3
Diploma	110	34.7
Higher Diploma	16	5.0
Bachelor's	66	20.8
Master's	10	3.2
Total	**317**	**100.0**

The findings showed that most respondents had certificate and diploma qualifications, representing 71.0% of the sample. This reflected the technical and operational nature of tea factory work. The presence of degree and postgraduate holders also suggested that factories possessed some level of analytical, administrative, and managerial capability. Education was significantly associated with organizational performance, indicating that knowledge depth and technical competence may influence performance outcomes.

Table 10: Job Cadre

Job Cadre	Frequency	Percent
Management	31	9.8
Supervision	14	4.4
Operations	272	85.8
Total	**317**	**100.0**

The majority of respondents were operational staff (85.8%), while management and supervisory staff accounted for 9.8% and 4.4%, respectively. This reflected the labor-intensive nature of tea processing. The dominance of operational staff meant that the findings strongly capture ground-level realities of collaboration and performance. Job cadre was significantly associated with organizational performance, although interpretation required caution due to low expected cell counts in Chi-square analysis.

Table 11: Years of Experience

Years of Experience	Frequency	Percent
1–5 years	90	28.4
6–10 years	65	20.5
11–15 years	67	21.1
16–20 years	62	19.6
21–25 years	24	7.6
26–30 years	6	1.9
Over 30 years	3	0.9
Total	**317**	**100.0**

The findings indicated that the workforce included both relatively new and moderately experienced employees. Respondents with 1–20 years of experience accounted for nearly 90% of the sample. This mix supported cognitive diversity because employees bring different levels of institutional memory, technical knowledge, and problem-solving experience. Years of experience was significantly associated with organizational performance.

4.3 Chi-Square Results

Table 12: Chi-Square Results for Demographic Variables and Organizational Performance

Variable	Pearson Chi-square	df	p-value	Decision
Gender	2.994	4	0.559	Not significant
Age	19.944	16	0.223	Not significant
Education	31.161	12	0.002	Significant
Job cadre	21.811	12	0.040	Significant
Years of experience	43.071	18	0.001	Significant

The Chi-square results showed that gender was not significantly associated with organizational performance, $\chi^2(4) = 2.994$, $p = 0.559$. This meant that performance did not differ significantly between male and female respondents. Although the workforce was predominantly male, performance outcomes were not gender-dependent. The result had a minor assumption concern because 20.0% of cells had expected counts below 5, but the minimum expected count was above 1, making the result acceptable though with caution.

Age was also not significantly associated with organizational performance, $\chi^2(16) = 19.944$, $p = 0.223$. This indicated that performance outcomes did not differ significantly across age categories. Although a significant linear-by-linear association suggested a possible trend, the overall Pearson Chi-square was not significant. Since 48.0% of cells had expected counts below 5, this result should be interpreted cautiously.

Education level was significantly associated with organizational performance, $\chi^2(12) = 31.161$, $p = 0.002$. This suggested that performance perceptions varied across education levels, possibly because education enhances technical competence, analytical capability, and problem-solving ability. However, 45.0% of cells had expected counts below 5, so interpretation should be cautious.

Job cadre was significantly associated with organizational performance, $\chi^2(12) = 21.811$, $p = 0.040$. This implied that performance perceptions varied across management, supervisory, and operational roles. The result suggestd that responsibility, authority, access to information, and involvement in decision-making may influence performance perceptions. However, 60.0% of cells had expected counts below 5, weakening robustness.

Years of experience was significantly associated with organizational performance, $\chi^2(18) = 43.071$, $p = 0.001$. This suggested that experience contributed to performance variation, possibly because more experienced employees possessed deeper process knowledge and stronger problem-solving capacity. However, 50.0% of cells had expected counts below 5, and future analyses may collapse categories to strengthen robustness.

Taken together, the Chi-square findings showed that structural demographics such as gender and age were not significant, while capability-related characteristics such as education, job cadre, and experience were associated with performance. This supported the cognitive diversity argument that knowledge, role exposure, and experience matter more for performance than basic demographic attributes.

4.4 Descriptive Statistics on Collaboration Mechanisms

Table 13: Descriptive Statistics on Collaboration Mechanisms

Item	N	Mean	Std. Deviation
The factory has problem-solving platforms	317	4.16	0.880
There are innovation forums in the factory	317	3.82	0.868
Different viewpoints are considered during problem-solving sessions	317	4.04	0.841
Technology tools used in the factory have improved teamwork outcomes	317	4.15	0.848
The factory has digital platforms for resolving issues	317	3.59	1.107
The factory has technology-supported communication	317	4.20	0.799
Information is shared across departments	317	4.27	0.799
There is proper coordination between factory management and farmers	317	4.26	0.847
Farmers are involved in planning processes	317	3.97	0.929
There is team participation in committees and meetings	317	4.17	0.806
There is mutual trust between management and staff	317	4.10	0.882
Grand Mean		**4.07**	**0.87**

The descriptive findings indicated that collaboration mechanisms were strongly practiced in KTDA-managed tea factories, as shown by the grand mean of 4.07 and standard deviation of 0.87. The highest-rated item was information sharing across departments (M = 4.27, SD = 0.799), suggesting that interdepartmental communication was a strong feature of factory operations. This is important because tea processing requires coordination among leaf collection, production, quality, maintenance, and administration. The finding agrees with [Hempel *et al.,*2023], who found that structured interdepartmental coordination improves communication and reduces operational inefficiencies.

Coordination between factory management and farmers was also rated highly (M = 4.26, SD = 0.847). This finding is important because farmers supply the green leaf that determines factory throughput, quality, and production stability. Strong coordination with farmers supports timely delivery, quality awareness, and supply reliability. This finding agrees with local studies showing that farmer-factory coordination influences tea factory performance, [Owuor and Chege, 2022].

Technology-supported communication was highly rated (M = 4.20, SD = 0.799), indicating that tools such as WhatsApp, email, and other communication platforms were widely used. Technology tools were also perceived to improve teamwork outcomes (M = 4.15, SD = 0.848). These findings agree with [Lane, 2024], who found that digital collaboration tools enhance communication and teamwork. However, the lower mean for digital platforms specifically used for resolving issues (M = 3.59, SD = 1.107) suggested that KTDA factories use general communication technologies but may lack formal digital problem-resolution systems. This partly diverges from [Li & Zhang, 2023] who emphasized fully embedded digital innovation systems as drivers of performance.

Problem-solving platforms were also strongly rated (M = 4.16, SD = 0.880), and team participation in committees and meetings was high (M = 4.17, SD = 0.806). These findings indicate that KTDA factories provide forums for employees to participate in discussions and problem-solving. This agrees with [Blom *et al.,*2021], who found that structured knowledge-sharing mechanisms strengthen inclusion and collaboration, and with [Owuor & Chege, 2022], who found that team meetings and cross-departmental collaboration improve efficiency and tea quality in KTDA factories.

The item on consideration of different viewpoints during problem-solving sessions recorded a mean of 4.04, indicating that factories generally allow multiple perspectives to be considered. This supports the cognitive diversity argument because different viewpoints only become useful when they are incorporated into actual problem-solving. Mutual trust between management and staff also recorded a high mean of 4.10, suggesting that the relational climate supported collaboration. This aligns with [Bekele & Tadesse, 2023], who found that collaboration mechanisms enhance resilience and adaptive capacity in agro-processing firms.

However, innovation forums recorded a moderate mean of 3.82, while farmer involvement in planning recorded 3.97. This suggested that while general collaboration was strong, more structured innovation and farmer-inclusive planning processes were not fully institutionalized. This agrees with [Cheteni, 2025; Barboi *et al.,*2025; Mwangi, 2024; Mwangi & Cheruiyot, 2024], who emphasized that innovation forums and collaboration platforms improve problem-solving but require formalization and sustained leadership support.

Overall, the descriptive statistics showed that KTDA-managed factories had strong collaboration mechanisms in communication, interdepartmental information sharing, management-farmer coordination, teamwork, and trust. However, weaknesses remained in formal digital issue-resolution systems, innovation forums, and farmer involvement in planning. This meant that collaboration was present but not fully optimized.

4.5 Descriptive Statistics on Organizational Performance

Table 14: Descriptive Statistics on Organizational Performance

Item	N	Mean	Std. Deviation
The factory maintains consistently high processing throughput levels	317	4.12	0.754
Factory meets its set production targets	317	3.92	0.821
The factory receives increasing volumes of green leaf every year	317	3.59	1.036
The number of registered farmers supplying green leaf continues to grow	317	3.92	0.919
Processing flow from leaf reception to final tea output is efficient	317	3.96	0.807
Conversion ratio of green leaf to made tea has improved	317	3.91	0.932
There has been a steady increase in market share	317	3.82	0.913
Price per kilo of made tea sold has been improving	317	3.78	0.929
The factory pays farmers for green leaf delivered timely	317	4.26	0.700
The factory complies with regulatory requirements	317	4.52	0.629
Sales volume of made tea has been increasing	317	3.80	0.958
The factory has been receiving price awards	317	3.54	1.017
The factory has retained its farmers	317	4.01	0.903
Grand Mean		**3.93**	**0.87**

The descriptive findings showed that organizational performance was rated relatively high, with a grand mean of 3.93 and standard deviation of 0.87. The highest-rated item was compliance with regulatory requirements such as NEMA, ISO, Rainforest Alliance, and Fairtrade (M = 4.52, SD = 0.629). This suggested that KTDA-managed factories strongly comply with statutory and certification standards, which is important for quality assurance, environmental responsibility, and market access.

Timely payment to farmers was also strongly rated (M = 4.26, SD = 0.700). This finding indicated that factories maintain relatively reliable farmer payment systems, which can strengthen trust, loyalty, and continued green leaf supply. Processing throughput levels were also rated positively (M = 4.12, SD = 0.754), suggesting that factories maintained reasonable production capacity and operational flow.

Farmer retention recorded a mean of 4.01, indicating that factories had generally retained their supplier base. Processing flow efficiency recorded 3.96, while production target achievement and growth in registered farmers each recorded 3.92. These findings suggested that internal operational performance was relatively strong.

However, market-related indicators were weaker. Increasing green leaf volumes recorded 3.59, price awards recorded 3.54, price per kilogram recorded 3.78, sales volume recorded 3.80, and market share recorded 3.82. These moderate scores indicated that although factories were operationally functional, translating internal efficiency into market competitiveness remained a challenge. This supported the problem statement that KTDA factories, especially in Nyamira and Kisii, face performance pressures relating to price realization, market outcomes, and supply growth.

The organizational performance findings therefore indicated a dual pattern: internal compliance, throughput, payment, and farmer retention were relatively strong, while external market-based performance indicators were weaker. This suggested that collaboration mechanisms may be improving internal coordination but needed to be strengthened further to support innovation, market responsiveness, quality differentiation, and price competitiveness.

4.6 Correlation Analysis

Table 15: Correlation Between Collaboration Mechanisms and Organizational Performance

Variable	Pearson Correlation	Sig.

Collaboration mechanisms and organizational performance	0.498**	0.000

The correlation results showed a moderate positive and statistically significant relationship between collaboration mechanisms and organizational performance (r = 0.498, p = 0.000). This meant that factories with stronger collaboration mechanisms tended to report better organizational performance. The relationship was positive, meaning that improvements in collaboration were associated with improvements in performance. The finding agrees with [Mensah & Frimpong, 2021; Owuor & Chege, 2022; Nowak, 2022; Blom *et al.,*2021], who found that collaboration, knowledge sharing, and coordination enhance organizational outcomes.

However, correlation did not prove causation. Therefore, regression analysis was conducted to determine the predictive effect of collaboration mechanisms on organizational performance.

4.7 Simple Linear Regression Results

4.7.1 Model Summary

Table 16: Model Summary for Collaboration Mechanisms and Organizational Performance

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.498	0.248	0.246	0.50521

The model summary showed that collaboration mechanisms had a positive relationship with organizational performance (R = 0.498). The R Square value of 0.248 indicated that collaboration mechanisms explained 24.8% of the variation in organizational performance. This meant that collaboration mechanisms were a meaningful predictor of performance, although 75.2% of performance variation was explained by other factors not included in this simple model, such as technology, leadership, market conditions, supply chain effectiveness, factory location, farmer participation, and cost structures. The adjusted R Square of 0.246 confirmed that after adjusting for sample size and model complexity, collaboration mechanisms still explained 24.6% of variation in performance. The standard error of estimate of 0.50521 indicated the average prediction error of the model.

This result was important because it showed that collaboration mechanisms alone account for nearly one-quarter of performance variation, which is substantial in organizational research. It supported the argument that collaboration is not merely supportive but strategically important.

4.7.2 ANOVA Results

Table 17: ANOVA for Collaboration Mechanisms and Organizational Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	26.543	1	26.543	103.993	0.000
Residual	80.399	315	0.255		
Total	106.942	316			

The ANOVA results showed that the regression model was statistically significant, F(1,315) = 103.993, p = 0.000. Since the p-value was below 0.05, the model significantly predicted organizational performance. This meant that collaboration mechanisms provided a statistically meaningful explanation of variation in organizational performance. The F-value was high, indicating that the regression model explained more variation than would be expected by chance.

These findings are consistent with [Blom *et al.,*2021], who found that structured knowledge-sharing mechanisms improve collaboration and organizational change; [Mensah & Frimpong, 2021], who found that knowledge-sharing enhances productivity and adaptability; and [Owuor & Chege, 2022], who found that collaboration mechanisms improve efficiency and tea quality in KTDA factories. The current study extends this literature by providing evidence from Nyamira and Kisii factories and by framing collaboration mechanisms as a cognitive diversity management strategy.

4.7.3 Regression Coefficients

Table 18: Coefficients for Collaboration Mechanisms and Organizational Performance

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
Constant	1.933	0.198		9.739	0.000
Collaboration mechanisms	0.492	0.048	0.498	10.198	0.000

The coefficient results showed that collaboration mechanisms had a positive and statistically significant effect on organizational performance (B = 0.492, t = 10.198, p = 0.000). This meant that for every one-unit increase in collaboration mechanisms, organizational performance increased by 0.492 units, holding other factors constant within this simple regression model. The standardized beta coefficient of

0.498 indicated that collaboration mechanisms had a moderate effect size.

The regression equation was:

$$Y = 1.933 + 0.492X_1 + \varepsilon$$

Where Y is organizational performance and X_1 is collaboration mechanisms. The constant value of 1.933 meant that when collaboration mechanisms are held at zero, predicted organizational performance would be 1.933. Although a zero value may not be practically observed on a five-point Likert scale, the constant is necessary for estimating the regression line. The coefficient of 0.492 meant that improvements in collaboration mechanisms are associated with measurable improvement in organizational performance.

The null hypothesis that collaboration mechanisms did not significantly affect organizational performance was rejected because $p = 0.000 < 0.05$. Therefore, the study concluded that collaboration mechanisms had a positive and statistically significant effect on organizational performance of KTDA-managed tea factories in Nyamira and Kisii Counties.

This finding agrees with [Nowak, 2022; Lane, 2024; Mensah & Frimpong, 2021; Bekele & Tadesse, 2023; Owuor & Chege, 2022] who found that collaboration systems enhance communication, innovation, adaptability, productivity, and quality outcomes. However, this study adds new knowledge by demonstrating that collaboration mechanisms are not only relevant in healthcare, ICT, automotive, or general manufacturing sectors, but also significantly predict performance in KTDA-managed tea factories.

5.0 SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The study found that collaboration mechanisms were strongly practiced in KTDA-managed tea factories, with a grand mean of 4.07. The strongest areas were interdepartmental information sharing, coordination between management and farmers, technology-supported communication, team participation in committees and meetings, problem-solving platforms, and mutual trust. However, digital platforms for resolving issues, innovation forums, and farmer involvement in planning were moderately implemented, indicating room for improvement.

Organizational performance was relatively high, with a grand mean of 3.93. The strongest performance areas were regulatory compliance, timely farmer payment, throughput, and farmer retention. However, market-related indicators such as price awards, green leaf volume growth, price per kilogram, sales volume, and market share were weaker.

Chi-square analysis showed that gender and age were not significantly associated with organizational performance, while education, job cadre, and years of experience were significantly associated with performance. This suggested that capability-related demographic characteristics matter more than basic demographic characteristics.

Correlation analysis revealed a moderate positive and significant relationship between collaboration mechanisms and organizational performance. Regression analysis confirmed that collaboration mechanisms significantly predicted organizational performance, explaining 24.8% of its variation. The regression coefficient showed that a one-unit increase in collaboration mechanisms increased organizational performance by 0.492 units.

5.2 Conclusions

The study concluded that collaboration mechanisms are an important cognitive diversity management strategy in KTDA-managed tea factories. Strong collaboration mechanisms enable employees and managers to share information, participate in problem-solving, coordinate across departments, use technology-supported communication, and build trust. These practices enhance the ability of factories to convert diverse knowledge and perspectives into improved organizational outcomes.

The study further concluded that while KTDA factories have relatively strong collaboration systems, these systems are more developed in routine communication and coordination than in structured innovation and digital problem-solving. Therefore, collaboration currently supports internal operational efficiency more strongly than external market competitiveness. This explained why performance indicators such as compliance, farmer payments, and throughput were relatively strong, while price awards, market share, and price per kilogram remained weaker.

The study also concluded that collaboration mechanisms significantly influence organizational performance. Since collaboration explained 24.8% of performance variation, it is a strategic managerial lever for improving KTDA factory outcomes. However, because 75.2% of performance variation remained unexplained by collaboration alone, performance improvement requires complementary strategies such as technology adoption, market development, leadership improvement, cost control, quality enhancement, and farmer supply-chain strengthening.

5.3 Implications for Theory

The findings support the Resource-Based View by showing that collaboration mechanisms are valuable intangible resources that help factories utilize cognitive diversity. The study extends RBV by demonstrating that knowledge diversity becomes valuable only when

supported by collaboration systems. Therefore, the possession of diverse knowledge is insufficient; factories must develop mechanisms for sharing, coordinating, and applying that knowledge.

The findings also support Dynamic Capabilities Theory by showing that collaboration mechanisms enable factories to sense operational problems, seize improvement opportunities, and reconfigure processes through collective action. The study extends DCT by demonstrating that in agro-processing contexts, dynamic capabilities are enacted through everyday collaboration practices such as meetings, farmer coordination, technology-supported communication, and problem-solving platforms.

Theoretically, the study contributes to cognitive diversity literature by positioning collaboration mechanisms as a practical bridge between cognitive diversity and performance. It shows that cognitive diversity becomes a performance-enhancing asset when employees and managers are provided with platforms for exchanging ideas, resolving problems, and coordinating action.

5.4 Implications for Management Practice and Policy

For management practice, the findings imply that KTDA factory managers should treat collaboration mechanisms as strategic performance tools rather than routine administrative practices. Managers should strengthen cross-departmental information sharing, structured problem-solving forums, digital issue-resolution systems, and farmer participation in planning. Since collaboration mechanisms significantly affect performance, investments in collaboration systems are likely to improve operational efficiency, quality outcomes, farmer coordination, and responsiveness to market demands.

For policy, KTDA should consider developing a formal collaboration framework across its factories. Such a framework may include minimum standards for interdepartmental meetings, digital reporting platforms, structured innovation forums, farmer consultation processes, and knowledge-sharing systems. Policies should also support training managers and supervisors in collaborative leadership, conflict resolution, communication, and participatory decision-making. Since digital platforms for resolving issues were weak, KTDA should consider investing in factory-level digital collaboration systems that allow problems to be reported, tracked, assigned, resolved, and documented.

5.5 Recommendations

KTDA-managed factories should institutionalize structured problem-solving platforms and innovation forums to ensure that employee ideas are systematically captured and implemented. They should strengthen digital platforms for issue resolution because this was the weakest collaboration item. Factories should also increase farmer involvement in planning processes, since farmer participation is central to green leaf supply, quality, and factory performance. Management should strengthen interdepartmental knowledge-sharing routines by ensuring that production, quality, maintenance, finance, and field services teams regularly share information and jointly resolve operational bottlenecks.

KTDA should develop collaboration performance indicators that can be monitored across factories. Such indicators may include frequency of cross-departmental meetings, number of issues resolved through digital systems, level of farmer participation, number of innovations implemented, and response time to operational problems. Finally, collaboration mechanisms should be integrated into management appraisal systems so that managers are evaluated not only on production results but also on how effectively they coordinate teams, promote communication, and support joint problem-solving.

5.6 Recommendations for Future Studies

Future studies should examine collaboration mechanisms in other KTDA regions to determine whether the findings apply beyond Nyamira and Kisii Counties. A longitudinal study would help establish whether improvements in collaboration mechanisms lead to sustained performance improvement over time. Future studies should also incorporate qualitative methods such as interviews and focus groups to capture deeper explanations of how collaboration works in factory settings. In addition, future research should examine the moderating role of managerial attributes, technology adoption, organizational culture, and farmer engagement in the relationship between collaboration mechanisms and organizational performance. Further studies may also compare collaboration mechanisms across high-performing and low-performing factories to identify best practices.

REFERENCES

- Narayan, A., Mahadevan, J., & Thomas, R. (2020). Cognitive diversity in management teams: A pathway to innovation and resilience. International Journal of Human Resource Management, 31(20), 2543–2566. https://doi.org/10.1080/09585192.2018.1551616.
- Wiyono, B., Sutrisno, A., & Hidayat, R. (2025). Cognitive diversity management and organizational innovation: Evidence from emerging economies. International Journal of Innovation Management, 29(2), 2550012.
- Qu, Y., Zhang, L., & Chen, H. (2024). Cognitive diversity and firm performance: The mediating role of knowledge sharing. Management Decision, 62(3), 745–762. https://doi.org/10.1108/MD-08-2023-1021
- Kadiri, F., & Ighodaro, O. (2024). Deep-level diversity and strategic management: Exploring the

role of cognitive resources in dynamic environments. Strategic Management Review, 16(1), 59–76. https://doi.org/10.1108/SMR-03-2023-0042.

- Korkmaz, A. V., van Engen, M. L., & Paauwe, J. (2022). Diversity management and organizational outcomes: A multilevel perspective. Human Resource Management Review, 32(2), 100834. https://doi.org/10.1016/j.hrmr.2021.100834
- Ikhide, J. E., Adeola, O., & Fakunle, S. (2025). Cognitive diversity and team performance: The mediating role of knowledge sharing. Team Performance Management, 30(3/4), 167–185. https://doi.org/10.1108/TPM-08-2023-0067.
- Food and Agriculture Organization of the United Nations. (2024). Tea - markets and trade: Tea, a resilient sector (FAO commodity brief). http://www.fao.org/markets-and-trade/commodities-overview/beverages/tea/en.
- Tridge. (2024). Global tea production overview 2022–2032 (market analysis). https://www.tridge.com/stories/global-tea-production-overview-2022-2032.
- International Institute for Sustainable Development (IISD). (2024). Global market report: Tea - prices and sustainability (IISD Global Market Reports). https://www.iisd.org/system/files/2024-01/2024-global-market-report-tea.pdf.
- Tea & Coffee Report. (2024). The Global Tea Report 2024: Market tonnage and trade flows. Tea & Coffee Report. https://www.teaandcoffee.net/feature/34254/the-global-tea-report-2024/
- Tea Board of Kenya. (2024a). Kenya tea industry performance highlights - 2023. Tea Board of Kenya. https://www.teaboard.or.ke/images/downloads/performance-highlights/tea-industry-performance-report-2023.pdf.
- Tea Board of Kenya. (2024b). Kenya tea industry performance report - 2024. Tea Board of Kenya. https://teaboard.or.ke/resources/kenya-tea-industry-performance-reports/kenya-tea-industry-performance-report-2024.
- Parliament of Kenya. (2025). Report of the Departmental Committee on Agriculture and Livestock on bonus disparities in KTDA-managed factories. Nairobi: National Assembly.
- KIPPRA. (2025). Boosting employment in Kenya through the tea value chain. Kenya Institute for Public Policy Research and Analysis. https://kippra.or.ke/boosting-employment-in-kenya-through-tea-value-chain/
- Ministry of Agriculture [Kenya]. (2024).
- Kenya Tea Development Agency. (2024). KTDA annual report and financial statements 2023/2024. Nairobi: KTDA.
- Mwangi, D. (2024). Communication practices and cognitive diversity in KTDA-managed factories. African Journal of Management Research, 12(1), 44–59.
- Mutiso, E. (2024). Leadership constraints and governance challenges in smallholder tea factories in Kenya. Journal of Cooperative Management, 12(2), 33–49.
- Mutiso, K. (2024). Team composition and performance in Kenyan tea factories. East African Journal of Business and Economics, 3(1), 55–71.
- Mutiso, K. M. (2024). Governance and performance of KTDA-managed tea factories. Journal of African Public Policy, 8(2), 91–110.
- Alshammari, A. (2023). Cognitive diversity-oriented training and employee innovation in multinational firms. International Journal of Human Resource Studies, 13(2), 45–62. https://doi.org/10.5296/ijhrs.v13i2.20561.
- Alshammari, F. (2023). Cognitive diversity-oriented training and employee innovation in multinational firms. International Journal of Human Resource Management, 34(5), 789–812.
- Liu, Y., & Fang, H. (2022). Training, knowledge-sharing, and performance outcomes in Chinese high-tech enterprises. Asia Pacific Journal of Human Resources, 60(4), 621–640. https://doi.org/10.1111/1744-7941.12315.
- Wekesa, M., & Namusonge, G. (2023). Diversity-focused training and organizational performance of service firms in Nairobi City County, Kenya. East African Journal of Business and Economics, 6(1), 55–70. https://doi.org/10.37284/eajbe.6.1.1122.
- Krajcsak, Z. (2022). The role of cognitive diversity in enhancing organizational performance: A resource-based perspective. Journal of Organizational Effectiveness: People and Performance, 9(2), 157–175. https://doi.org/10.1108/JOEPP-03-2021-0065
- Ahuja, G., & Chan, C. M. (2023). Resource recombination and organizational advantage: Extending the resource-based view. Strategic Management Journal, 44(5), 1123–1145. https://doi.org/10.1002/smj.3456
- Park, S., & Kim, S. (2024). Strategic resources, innovation capability, and firm performance: Evidence from emerging markets. Journal of Business Research, 168, 113412. https://doi.org/10.1016/j.jbusres.2023.113412
- Barney, J. B., Ketchen, D. J., Jr., & Wright, M. (2021). Resource-based theory and the future of strategic management. Journal of Management, 47(7), 1717–1735. https://doi.org/10.1177/0149206321993326
- Wilden, R., Devinney, T. M., & Dowling, G. R. (2022). The architecture of dynamic capabilities: Identifying the building blocks of competitive advantage. Academy of Management Perspectives, 36(1), 27–47. https://doi.org/10.5465/amp.2019.0016

- Sirmon, D. G., & Hitt, M. A. (2023). Resource orchestration to create competitive advantage: Breadth, depth, and life cycle effects. Journal of Management, 49(3), 921–947. https://doi.org/10.1177/01492063211035523
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509–533.
- Helfat, C. E., & Peteraf, M. A. (2023). Dynamic capabilities and resource-based theory: Bridging the divide for strategic management. Strategic Management Journal, 44(6), 1303–1325. https://doi.org/10.1002/smj.3468
- Zurina, Z., & Ismail, A. (2019). Dynamic capabilities and firm performance: The mediating role of organizational agility. International Journal of Innovation, Creativity and Change, 9(3), 1–20.
- Samsudin, Z. b., & Ismail, M. D. (2019). The concept of dynamic capabilities in changing environment. International Journal of Academic Research in Business and Social Sciences, 9(6), 121–130. (Original work introducing the contrast between RBV and DCT).
- Wetering, R. v. D (2021). Dynamic enterprise architecture capabilities and organizational benefits: An empirical mediation study. (Shows dynamic capabilities contributing to organizational benefits via mediation).
- Blom, T., du Plessis, Y., & Kazeroony, H. (2021). Enabling sustainable organizational change: A case of cognitive diversity in the automotive industry. International Journal of Applied Management and Technology, 20(1), 143–166. https://doi.org/10.5590/IJAMT.2021.20.1.08.
- Nowak, M. A. (2022). Cognitive diversity and performance in healthcare teams: The role of collaboration systems. Health Care Management Review, 47(3), 201–212.
- Li, X., & Zhang, Y. (2023). Knowledge sharing, digital innovation systems, and firm performance in China. Journal of Business Research, 158, 113–128.
- Hempel, S., *et al.,*(2023). Care coordination across healthcare systems: Structures, processes and outcomes. BMC Health Services Research. https://doi.org/10.1186/s12913-023-09545-3.
- Lane, J. N. (2024). Teams in the digital workplace: Technology's role for communication and coordination. Journal of Organizational Behavior.
- Mensah, K., & Frimpong, D. (2021). Knowledge sharing, organizational learning, and performance in Ghanaian manufacturing firms. Journal of African Business, 22(4), 441–460. https://doi.org/10.1080/15228916.2020.1865340.
- Adewale, O., & Bamidele, T. (2022). Cognitive diversity, knowledge management systems, and innovation outcomes in Nigerian ICT firms. African Journal of Management, 18(3), 221–238. https://doi.org/10.1080/23322373.2022.1857623.
- Bekele, D., & Tadesse, G. (2023). Knowledge sharing, innovation systems, and organizational resilience in Ethiopian agro-processing firms. Journal of African Business, 24(2), 155–173. https://doi.org/10.1080/15228916.2022.2067312.
- Owuor, D. O., & Chege, P. N. (2022). Interdepartmental coordination and organizational efficiency in agro-processing firms. African Journal of Business Management, 16(4), 123–135.
- Nyakundi, J., & Bosire, E. (2021). Knowledge sharing platforms and cooperative societies performance in Kisii County. Journal of Cooperative Development, 10(2), 45–59.
- Mwangi, T., & Cheruiyot, K. (2024). Communication leadership and team coordination in KTDA factories. Journal of Organizational Effectiveness, 11(3), 213–231.
- Cheteni, P. (2025). Leveraging forums as a catalyst for innovation: Evidence from a South African municipal context. Journal of Local Government Studies.
- Barboi, M., Singh, T., & Alvarez, J. (2025). Agile nudge university innovation forum: Solving real-world problems. Innovation & Development, 15(1), 33–52.
- Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE.