Teamwork and Organisational Performance in Selected Agro-Allied Industries within Sagamu Interchange Industrial Corridor, Ogun State

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Abstract
This study examined the effect of teamwork on organizational performance among selected agro-allied firms in the Sagamu Interchange Business Hub, Ogun State, Nigeria. A survey research design was adopted, and data were collected through structured questionnaires from 235 proportionally selected employees using stratified random sampling. Teamwork was measured through collaboration, communication, and trust, while organizational performance was assessed using productivity, innovation, and operational efficiency. Diagnostic tests confirmed data validity and suitability for regression analysis.
The regression results showed that teamwork significantly enhances productivity, with collaboration (β = 0.674, p = 0.000) emerging as the strongest predictor, followed by communication (β = 0.219, p = 0.000) and trust (β = 0.192, p = 0.000). For innovation, collaboration (β = 0.498, p = 0.000) was the only strongly significant factor, while communication was marginally significant (β = 0.134, p = 0.052), and trust was insignificant (p = 0.468). Similarly, operational efficiency was significantly driven by collaboration (β = 0.429, p = 0.000) and communication (β = 0.216, p = 0.001), while trust remained insignificant (p = 0.127).
The study concludes that teamwork exerts a significant effect on the performance of employees. It recommends the need for managers in agro-allied firms to foster team collaboration and structured communication systems as strategic levers for enhancing their performance and competitiveness.

Keywords: Teamwork, Collaboration, Communication, Trust, Productivity, Innovation, Operational Efficiency, Agro-allied Firms, Stratified Sampling.

1. Introduction

In today's competitive industrial landscape, organizations increasingly recognize teamwork as a vital mechanism for achieving sustainable growth and long-term success. Teamwork enhances individual outputs through collaboration, creating synergies that exceed the contributions of employees working in isolation (Hamid et al., 2022). When supported by effective leadership and enabling organizational structures, teamwork improves manpower utilization, strengthens commitment, and increases overall productivity (Morales-Huamán et al., 2023). This makes teamwork not only a human resource strategy but also a determinant of organizational performance.

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Organizational performance reflects a firm's ability to attain its strategic objectives through efficient resource utilization and effective management practices. It encompasses outcomes such as productivity, profitability, quality of output, innovation, and stakeholder satisfaction, serving as an indicator of competitiveness and sustainability (Oteshova et al., 2021). While early conceptualizations of performance, such Taylor (1911) principles of scientific management, emphasized efficiency and worker output, later scholars like Drucker (1954) extended the discussion to include adaptability, goal attainment, and resilience. These perspectives remain relevant in agro-allied industries where both efficiency and adaptability are essential to withstand market fluctuations and resource constraints.

Teamwork goes beyond the aggregation of individual efforts; it is a collaborative process where interdependent members pursue shared goals. This collaboration may occur within rigid hierarchical structures or fluid task-based arrangements, but the common objective is to achieve collective success (Mobolade & Akinade, 2021; Kim et al., 2022). Effective teamwork fosters mutual accountability, reduces disruptive behaviors, and enhances resilience through supportive practices such as stepping in when colleagues face difficulties (Arifin, 2024). Central to these dynamics is "shared mental models," wherein members maintain mutual awareness of team objectives, progress, and environmental changes Puspitasari et al., 2024). Such coordination improves decision-making, adaptability, and performance, particularly in fast-paced and resource-intensive sectors.

However, despite its recognized importance, teamwork in many organizations does not always translate into optimal performance. Misalignment between team structures and organizational needs often generates challenges such as unclear roles, role overlap, and inefficient coordination, which undermine collaboration and weaken productivity (Mathieu et al., 2019; Rico et al., 2019). While initiatives such as training, performance evaluations, and communication strategies have been adopted to improve teamwork, their effectiveness is frequently curtailed by structural deficiencies, hierarchical barriers, and ambiguous responsibilities (Wang et al., 2021). The result is that teams often struggle to align individual contributions with organizational objectives, leading to wasted resources and suboptimal outcomes (Marlow et al., 2018).

Empirical evidence on the link between teamwork and organizational performance has also remained inconclusive. Some studies report strong positive effects on efficiency, innovation, and service delivery (Garba & Aku, 2020; Olufemi & Adeyemi, 2021; Kebede & Abera, 2022), while others highlight conditional impacts shaped by leadership gaps, conflict management issues, or resource constraints (Nansubuga & Munene, 2019; Khan & Ahmed, 2020). These contradictions may be as a result of differences in research scope, methodology, organizational context, and examined variables, leading to an inconsistency across the findings.

Against this backdrop, it becomes imperative to investigate teamwork within organizations such as agro-allied industries in Nigeria, particularly those located in the Sagamu Interchange Industrial Corridor of Ogun State. These firms operate in a context marked by opportunities for innovation as well as challenges arising from labor intensity, competitive pressures, and complex organizational structures. Despite the relevance of teamwork in addressing these dynamics, empirical evidence on how teamwork practices shape organizational performance in this setting remains limited. This study therefore examines the relationship between teamwork and organizational

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performance in selected agro-allied industries, with the aim of generating insights that can guide managerial practice to improve organisation performance.

2. Literature Review

Conceptual Review

Organizational Performance

Organizational performance is a concept in contemporary management scholarship due to its role in assessing the success, efficiency, and longevity of organizations across diverse sectors. Delery and Roumpi (2017) highlight the complexity of defining organizational performance, noting that it encompasses multiple dimensions of effectiveness, efficiency, and adaptability, each shaped by organizational strategies, industry contexts, and external environmental dynamics. These dimensions vary in prominence depending on factors such as market conditions, resource availability, and stakeholder expectations, making a universal definition challenging to pin down. Jiang et al. (2015) further underscore this intricacy, proposing that performance integrates financial outcomes (profitability), operational achievements (productivity), and strategic capabilities (innovation), reflecting its multifaceted nature and the need for a nuanced understanding across contexts.

Kaplan and Norton (2015) broaden this perspective, arguing that organizational performance transcends traditional financial metrics to include operational processes, customer satisfaction, and learning and growth capacities. In their revisited Balanced Scorecard framework, they emphasize that performance is a dynamic balance between achieving immediate objectives and building resilience for future challenges, a view resonant with industries requiring both consistent output and adaptive strategies. Similarly, Cameron and Whetten (2019) define organizational performance as the extent to which an organization meets its intended goals while sustaining internal health, such as employee engagement and process efficiency. They stress that performance is not a fixed outcome but an evolving process influenced by internal systems and external pressures, necessitating a holistic evaluation beyond singular indicators.

Amah and Oyetunde (2020) extend this discourse by framing organizational performance as a reflection of an entity's ability to align resources and workforce efforts with its mission, integrating measurable outputs (such as production volume) with qualitative advancements (innovative practices). They argue that performance hinges on leadership, structural coherence, and employee contributions, suggesting a systemic interplay where each element reinforces overall success. In a related vein, Lee and Kim (2021) focus on productivity as a central performance facet, describing it as the efficiency of converting inputs into outputs. They note that performance disparities often arise from differences in operational practices and managerial effectiveness, emphasizing the role of internal processes in driving outcomes. Damanpour and Aravind (2018) position innovation as a critical performance dimension, defining it as the creation or adoption of new products, processes, or services that enhance competitiveness and growth. They assert that innovation distinguishes high-performing organizations by enabling them to respond to shifting market demands, broadening the scope beyond immediate results.

Teamwork

Teamwork stands as the beating pulse of collective effort, weaving individuals into a unified force to pursue shared goals, a concept that resonates deeply in organizational scholarship. Salas et al. (2015) define teamwork as the interdependent actions of individuals who collaborate toward a common objective, emphasizing that it transcends mere group presence by requiring coordination and

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mutual reliance. This definition, while clear, unfolds into layers of complexity as the dynamics of interaction, shaped by roles, relationships, and environments, shift its meaning across settings. DeChurch and Mesmer-Magnus (2019) define teamwork as a tapestry of behaviors, attitudes, and processes, where success hinges on the seamless integration of diverse contributions rather than individual prowess alone.

Rico et al. (2019) pointed teamwork as a dance of collaboration, communication, and trust, each step vital to its rhythm. Collaboration emerges as the act of working jointly, where tasks are interwoven to amplify collective output, a cornerstone in settings demanding synchronized effort. Communication, in turn, serves as the lifeline, channeling information with clarity and timeliness to sustain alignment, as Marlow et al. (2018) argue, noting its power to bridge gaps and fuel coordination. Trust, the quiet strength beneath, binds members through confidence and dependability, fostering resilience against challenges, a point echoed by Costa et al. (2018) who see it as the glue that holds teams steady under pressure.

West and Lyubovnikova (2019) broaden teamwork, describing it as a catalyst for organizational vitality, where effective teams spark creativity, efficiency, and adaptability. They argue that its impact ripples beyond immediate tasks, shaping morale and collective problem-solving, a view that underscores its strategic weight. Hoegl and Parboteeah (2020) add a dynamic twist, suggesting that teamwork is not static but evolves through interaction quality, where the strength of relationships dictates outcomes. This relational lens reveals teamwork as a process of constant negotiation, balancing individual inputs with group goals, making it both a driver and a reflection of organizational health.

Mathieu et al. (2019) note that its form shifts with context rigid in structured hierarchies, fluid in agile units challenging scholars to pin down a universal blueprint. They highlight that teamwork's effectiveness often rests on shared understanding, or "team cognition," which emerges from ongoing dialogue and trust-building. These perspectives make teamwork into a vibrant part of organizational life, rooted in human relationships, fueled by collaboration, and sustained by communication and trust, offering a lens to explore its profound influence on performance.

Theoretical Framework

The theoretical foundation of this study is based on the Resource-Based View (RBV) theory, propounded by Barney (1991), posited that an organization's competitive advantage stems from its internal resources rather than external market conditions. The RBV argues that an organization's resources must be valuable, rare, inimitable, and non-substitutable (VRIN) to provide long-term performance benefits. This perspective shifts the focus from external market conditions to the firm's unique capabilities and assets that drive superior performance.

In the context of this study, RBV provides a framework for understanding how teamwork functions as a strategic resource that enhances organizational performance. Strong team dynamics contribute to knowledge sharing, operational efficiency, and innovation, all of which align with the VRIN framework. Organizations that effectively cultivate teamwork can improve decision-making, streamline processes, and create a sustainable competitive edge.

Grant (1996) and Peteraf (1993) opined that firms investing in intangible assets, such as skilled labor and collaborative structures, achieve higher productivity and financial performance. However, Priem and Butler (2001) argued that RBV is static and does not adequately address how resources evolve in dynamic environments. To address this limitation, the concept of dynamic capabilities (Teece

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et al., 1997) extends RBV by emphasizing the need for continuous resource adaptation to maintain competitiveness.

This study examines how teamwork functions as a critical organizational resource in the agro-allied industries of the Sagamu Interchange Industrial Corridor, Ogun State, Nigeria, by applying the RBV. Understanding the role of teamwork through the RBV lens highlights its contribution to improved productivity, operational efficiency, and long-term competitive advantage within the sector.

Empirical Review

Several studies have examined the relationship between teamwork and organizational performance across different sectors, highlighting its relevance in enhancing productivity, efficiency, and employee outcomes.

In the Nigerian banking sector, teamwork has been identified as a critical factor in driving organizational success. For instance, Otache (2020) revealed that teamwork fully mediates the relationship between strategic orientation and performance, emphasizing its role in decision-making and problem-solving. Similarly, Afolami (2020), focusing on First City Monument Bank, and Afsar et al. (2023), in their study on bank employees, both confirmed that teamwork enhances productivity, motivation, and collaboration, with emotional intelligence and effective communication further strengthening teamwork effectiveness. However, these studies largely rely on single-institution data and overlook the role of digital transformation and remote collaboration.

Evidence from other sectors in Nigeria also underscores teamwork's significance. Garba and Aku (2020) found that teamwork improved service delivery and operational efficiency in Benue State Civil Service, though it had limited impact on turnaround time. In the private sector, Olufemi and Adeyemi (2021) showed that teamwork at Lord's Mint Technology enhanced productivity through collaboration and leadership support. Likewise, Amah and Oyetunde (2020) demonstrated that supportive organizational culture fosters teamwork, which in turn improves performance. Mousa and Alas (2021), focusing on Lagos State University, also highlighted that culture shapes teamwork effectiveness, which directly boosts employee satisfaction and performance. These findings suggest that teamwork is context-dependent, with organizational culture and institutional setting influencing its outcomes.

The agro-allied industry further reflects teamwork's importance. Enilolobo (2021) linked firm efficiency and size to agricultural sector growth, while Peter and Aliyu (2016) stressed the role of teamwork in value chain management for agro-allied SMEs, highlighting that collaboration across production, processing, and distribution stages enhances competitiveness. Adeoye (2021) added that continuous learning and innovation promote effective teamwork in manufacturing, reinforcing adaptability to technological and market changes. However, these studies often rely on secondary or regional data, limiting their generalizability and failing to capture real-time technological dynamics.

Beyond Nigeria, international evidence corroborates these findings. García et al. (2021) found that transformational leadership and supportive environments foster effective teamwork in manufacturing firms, while Hoegl and Parboteeah (2020) showed that high-quality teamwork drives creativity and innovation in cross-functional teams. Systematic reviews also provide robust evidence: Hughes et al. (2017) showed that through a meta-analysis that teamwork training has significant positive effects on performance across industries, and Schmutz et al. (2019) confirmed that teamwork improves clinical outcomes in healthcare teams.

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Across contexts, the empirical literature consistently shows that teamwork positively influences organizational outcomes such as productivity, efficiency, innovation, and employee performance. What remains underexplored is the specific role of teamwork dimensions such as trust, collaboration, and communication in shaping distinct performance outcomes. In particular, there is limited evidence on how trust within teams fosters productivity, how collaborative efforts drive operational efficiency, and how effective communication stimulates innovation.

3. Methodology

Research Design

Research design, according to Creswell and Creswell (2018), provides the structured plan that guides data collection and analysis in line with research objectives. This study employs a survey research design to investigate the link between teamwork and organizational performance in agro-allied industries. Teamwork is examined through trust, collaboration, and communication, while performance is assessed via productivity, operational efficiency, and innovation. As Saunders et al. (2019) note, surveys are effective for capturing perceptions and behaviors in measurable terms, making the design suitable for testing the hypothesized relationships and generating reliable insights.

Population of the Study

The population for this study comprises all employees of three agro-allied firms located within the Sagamu Interchange Industrial Corridor: West African Cube Manufacturing Industry, Nestlé Nigeria Plc, and Olam Nigeria Limited. These organizations were selected due to their prominence in the agro-allied sector and their operational presence in the study area. The total employee populations for each firm, as outlined below, form the basis for sampling and data collection to examine teamwork and organizational performance.

Table 3.1

S/N	COMPANY	SENIOR STAFF	JUNIOR STAFF	TOTAL
1.	Wacub	37	124	161
2.	Nestle	64	207	271
3.	Olam	24	113	137
	Total Population			569

Source: HRM Unit of the Respective Industry, Dec. 2024

Sample Size and Sampling Technique

To obtain reliable information, primary data will be used in this study. The primary data will be collected from the staff using self-administered questionnaires. The sample size of this study will be determined using the Yamane (1967) formula for calculating sample size. The formula is stated thus:

$$\left(\frac{N}{1+N(\ )^2}\right)$$

Where n = Sample size

n = Population size

e = Level of precision or Sampling error.

$$\left(\frac{569}{1+569(0.05)^2}\right) = 235$$

Hence, the sample size is 235

To ensure proportional representation across firms and staff categories (senior and junior), stratified random sampling shall be employed, as recommended by Saunders et al. (2019) for heterogeneous populations. The population was stratified by company and staff level, and the sample was allocated proportionally using the formula:

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$$n_h = (\frac{N_h}{N})\ x\ n$$

Where n_h − sample size for each stratum, N_h is the stratum population, N is the total population (569), and (n) is the total sample (235).

Table 3.2: Sample Distribution

S/N	Company	Senior Staff Sample	Junior Staff Sample	Total Sample
1	Wacub	$^{37}/_{569}$ X 235≈**15**	$^{124}/_{569}$ X 235 ≈**51**	**66**
2	Nestlé	$^{64}/_{569}$ X 235≈**26**	$^{207}/_{569}$ X 235≈**85**	**111**
3	Olam	$^{24}/_{569}$ X 235≈**10**	$^{113}/_{569}$ X 235≈**47**	**57**
	Total	**51**	**183**	**235**

Random selection within each stratum is conducted using a random number generator, ensuring unbiased representation of senior and junior staff across firms as supported by Creswell and Creswell (2018) to enhance the study's validity and reflect the population's diversity while maintaining statistical precision for analyzing teamwork's impact on organizational performance.

Method of Data Collection

Primary data were collected through a structured questionnaire, designed to capture respondents' views on teamwork and organizational performance. The instrument was divided into sections corresponding to the study variables, trust, collaboration, and communication for teamwork, and productivity, operational efficiency, and innovation for performance. The use of questionnaires is consistent with survey-based research, as it ensures standardization of responses, reduces interviewer bias, and facilitates statistical analysis (Bryman, 2016).

Model Specification

$$y = f(X)$$

$$f(x) = \beta_0 + \sum_{i=1}^{n} \beta_i X_i + \lambda$$

$$\therefore y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + ... + \beta_n X_n + \lambda \quad 3.1$$

Where n = 3 independent variables for this study

For this study (In Explicit Form)

Organisational Performance = f (Teamwork) 3.2

Organisational Performance = f(Trust, Collaboration, Communication) 3.3

The model can then be written as;

$OMP = \beta_0 + \beta_1\ TRT + \beta_2\ CLB + \beta_3\ CMC + \mu$ 3.4

Using the variables of choice to measure organization performance, we have:

$PRD = \beta_0 + \beta_1 TRT + \beta_2 CLB + \beta_3 CMC + \varepsilon$ 3.5

$INV = \beta_0 + \beta_1 TRT + \beta_2 CLB + \beta_3 CMC + \varepsilon$ 3.6

$OPE = \beta_0 + \beta_1 TRT + \beta_2 CLB + \beta_3 CMC + \varepsilon$ 3.7

Where PRD – Productivity
INV- Innovation
OPE- Operational efficiency
OMP = Organizational Performance
TRT = Trust
CLB = Collaboration
CGO = Communication
β_0 = Constant Term of the Regression
β_1 –β_3 = Coefficient of Independent Variables (Effect Value)
μ = error term.

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Method of Data Analysis

The data collected through structured questionnaires were subjected to a rigorous cleaning and preparation process to ensure data integrity and suitability for analysis, in line with recommendations by Saunders et al. (2019). Initial screening involved checking for data completeness, logical consistency, and range validation to detect and correct outliers or erroneous entries. The responses were systematically coded and tabulated. Missing values were handled using listwise deletion, and any inconsistencies were resolved before analysis, as advised by Creswell and Creswell (2018).

To test the hypothesized effects of teamwork dimensions on each aspect of organizational performance, the study employed multiple linear regression analysis. Three separate regression models were estimated, one each for productivity, innovation, and operational efficiency as the dependent variables, while the teamwork components served as the predictors. The regression analysis was conducted using SPSS version 21, a robust statistical software for social science research.

Each regression model was evaluated using standard metrics: R-squared and Adjusted R-squared were used to assess the proportion of variance explained by the independent variables; F-statistics and corresponding p-values determined overall model significance; and both unstandardized coefficients (B) and standardized beta coefficients (β) were reported to interpret the magnitude and relative strength of each predictor. Statistical significance was assessed primarily at the 5% level ($p < 0.05$), with 10% ($p < 0.10$) thresholds used where applicable to highlight marginal effects. As part of post-estimation diagnostics, the Durbin-Watson statistic was calculated to detect the presence of autocorrelation in the residuals, with values close to 2 indicating no autocorrelation. In addition, heteroskedasticity tests were conducted using the Modified Wald test, ensuring that the assumption of constant error variance was not violated. These tests validated the reliability and robustness of the regression models and their estimated parameters, which enabled the study to derive valid conclusions for this study

4. Presentation of results and Findings

4.1: Demographic Information

Table 4.1: Demographic Characteristics of Respondents

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	132	56.2%
	Female	103	43.8%
Age	18–25 years	26	11.1%
	26–35 years	72	30.6%
	36–45 years	84	35.7%
	46–55 years	39	16.6%
	56+ years	14	6.0%
Position in the Organization	Line Staff	97	41.3%
	Supervisor	85	36.2%
	Managerial Level	53	22.6%
Years in the Organization	Less than 1 year	28	11.9%
	1–3 years	64	27.2%
	4–7 years	88	37.4%
	8+ years	55	23.4%
Highest Qualification	OND/NCE	20	8.5%
	HND/B.Sc.	110	46.8%
	M.Sc./MBA	79	33.6%
	Ph.D.	26	11.1%

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Source: Author's Computation (2025)

The result in Table 4.1 presents the demographic distribution of the 235 respondents across selected manufacturing industries within the Sagamu interchange business hub, Ogun State. The gender distribution shows that 132 respondents (56.2%) were male, while 103 (43.8%) were female. Regarding age, the largest proportion of respondents (35.7%) fell within the 36–45 years bracket, followed by 30.6% aged 26–35 years. Those aged 46–55 years made up 16.6%, while the youngest group (18–25 years) accounted for 11.1%. The smallest age group was those above 56 years, representing just 6.0%.

In terms of job position, 97 respondents (41.3%) were line staff, 85 (36.2%) held supervisory roles, while 53 (22.6%) were in managerial positions. For organizational tenure, the majority (37.4%) had been employed for 4–7 years, followed by 27.2% for 1–3 years, and 23.4% with over 8 years of experience. Only 11.9% had worked for less than a year. In terms of academic qualification, the majority held an HND/B.Sc. (46.8%), followed by those with a Master's degree (33.6%). Respondents with a Ph.D. accounted for 11.1%, while OND/NCE holders represented 8.5%, indicating that the workforce is largely composed of well-educated individuals.

4.2 Pre-Analysis Tests

Table 4.2: Reliability Statistics of Constructs

Construct	No. of Items	Cronbach's Alpha
Collaboration	5	0.872
Communication	5	0.861
Trust	5	0.889
Productivity	5	0.878
Innovation	5	0.856
Operational Efficiency	5	0.867

Source: Author's Computation (2025)

As shown in Table 4.2, all constructs recorded Cronbach's Alpha values above the 0.70 threshold recommended by Nunnally (1978), indicating that the items used to measure each construct are internally consistent and reliable. The highest reliability was observed for the Trust dimension (α = 0.889), while the lowest was Innovation (α = 0.856), though still within the excellent range.

Table 4.3: Multicollinearity Statistics

Independent Variable	Tolerance	VIF
Collaboration	**0.682**	**1.466**
Communication	**0.704**	**1.420**
Trust	**0.665**	**1.504**

Source: Author's Computation (2025)

As shown in Table 4.3, all VIF values are well below the threshold of 10, and all tolerance values are above the cut-off point of 0.10. This indicates that no serious multicollinearity exists among the independent variables. Thus, each variable contributes unique information to the regression model without redundancy.

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Table 4.4: Descriptive Statistics for Normality Test

Variable	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
Collaboration	-0.525	0.159	-0.428	0.317
Communication	-0.438	0.159	-0.382	0.317
Trust	-0.486	0.159	-0.493	0.317
Productivity	-0.412	0.159	-0.301	0.317
Innovation	-0.371	0.159	-0.398	0.317
Operational Efficiency	-0.457	0.159	-0.452	0.317

Source: Author's Computation (2025)

As observed in Table 4.4, all variables recorded skewness and kurtosis values well within the acceptable range of -2 to +2, confirming that the data distributions are sufficiently symmetric and mesokurtic (neither too peaked nor too flat). For instance, the skewness of *Collaboration* is -0.525, indicating a slight leftward tail, but the deviation is minimal and statistically acceptable. Similarly, the kurtosis value of *Operational Efficiency* (-0.452) shows mild platykurtic behavior, but it does not compromise the normality assumption. These results suggest that the dataset meets the assumption of univariate normality required for subsequent multivariate analysis. Thus, the data is appropriate for parametric techniques such as multiple regression analysis.

4.3 Regression Analysis

Table 4.5: Regression Result Between Teamwork Dimensions and Productivity

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.437	0.176	—	2.484	.0000
Collaboration (CLB)	0.625	0.061	0.674	10.246	.0002
Communication (CMC)	0.214	0.058	0.219	3.690	.0004
Trust (TRT)	0.186	0.052	0.192	3.577	.0002
R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.662	.438	0.430	0.23982		
F-statistics	55.218				
Sig.	.000[b]				

DependentVariable:
Employee Productivity

Source: Author's Computation (2025)

The regression analysis presented in Table 4.5 evaluates the effect of the teamwork measured through collaboration, communication, and trust on employee productivity within selected manufacturing industries in the Sagamu Interchange Business Hub. The model reveals a significant overall relationship between teamwork and productivity, as evidenced by an F-statistic of 55.218 and a p-value of 0.000, indicating that the combination of teamwork components significantly explains variations in productivity at the 5% significance level.

Among the predictors, collaboration emerged as the strongest and most significant contributor (B = 0.625, β = 0.674, $p < 0.001$). This suggests that a unit increase in collaboration within teams leads to a 0.625-unit increase in productivity. The high beta coefficient further confirms its dominant role in driving productive outcomes. Communication also showed a statistically significant and positive effect (B = 0.214, β = 0.219, $p < 0.001$), indicating that improvements in team communication are

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associated with a moderate increase in productivity levels. Similarly, Trust in team relationships had a significant effect (B = 0.186, β = 0.192, p < 0.001), confirming that mutual trust among team members contributes meaningfully to enhancing productivity.

The model yielded an R-squared value of 0.438, indicating that the three teamwork variables jointly explain approximately 43.8% of the variation in productivity. This demonstrates substantial explanatory power for organizational performance outcomes.

Table 4.6: Regression Result Between Teamwork Dimensions and Innovation

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.382	0.183	—	2.087	.0023
Collaboration (CLB)	0.482	0.068	0.498	7.088	.0000
Communication (CMC)	0.131	0.067	0.134	1.955	0.052
Trust (TRT)	0.074	0.062	0.081	1.194	0.234
R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.556	0.309	0.299	0.26793		
F-statistics	29.876				
Sig.	.000[b]				

Dependent Variable: Innovation

Source: Author's Computation (2025)

The regression output in Table 4.6 explores the effect of teamwork on Innovation in the selected manufacturing firms. The model is statistically significant as a whole, evidenced by an F-statistic of 29.876 and a p-value of 0.000, indicating that the set of independent variables reliably predicts innovation. Collaboration remains the most influential and statistically significant predictor (B = 0.482, β = 0.498, p < 0.001). This shows that enhancing collaboration among team members leads to substantial improvements in innovative practices within the organization.

Communication had a moderate positive effect (B = 0.131, β = 0.134), but its p-value (0.052) is significant at 10% level. This result suggests that the effect of communication on innovation is marginal significant at 10%. This may imply that while communication helps to some extent, its role in directly influencing innovation might be indirect or contingent on other factors. Trust, with a coefficient of B = 0.074 and a p-value of 0.234, did not show a statistically significant effect on innovation. Although trust is theoretically important for collaborative environments, its direct link to innovation outcomes appears weak or mediated by other dynamics in the selected firms. The R-squared value of 0.309 indicates that the teamwork dimensions explain approximately 30.9% of the variance in innovation, which reflects a moderate level of explanatory power.

Table 4.7: Regression Result Between Teamwork Dimensions and Operational Efficiency

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	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.412	0.172	—	2.395	.0023
Collaboration (CLB)	0.398	0.065	0.429	6.123	.0000
Communication (CMC)	0.207	0.064	0.216	3.234	0.001
Trust (TRT)	0.062	0.059	0.069	1.051	0.294
R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.598	0.358	0.349	0.25143		
F-statistics	42.764				
Sig.	.000[b]				

Dependent Variable: operational efficiency

Source: Author's Computation (2025)

The regression shown in Table 4.7 examines the effect of teamwork, measured through Collaboration, Communication, and Trust, on operational efficiency among manufacturing firms in the Sagamu Interchange Business Hub. The overall regression model is statistically significant, as indicated by the F-statistic of 42.764 and a p-value of 0.000, confirming that the teamwork variables collectively predict operational efficiency. The R-squared value of 0.358 implies that 35.8% of the variation in operational efficiency is explained by CLB, CMC, and TRT in the model. Collaboration shows the strongest and most significant influence (B = 0.398, β = 0.429, p = 0.000), highlighting that well-coordinated collaborative efforts among team members lead to more streamlined operations and effective workflow within firms. Similarly, Communication was also statistically significant (B = 0.207, β = 0.216, p = 0.001), reinforcing the importance of timely, clear, and appropriate information exchange for improving operational processes and minimizing delays or confusion. However, Trust did not show a statistically significant relationship with operational efficiency (B = 0.062, p = 0.294). This result suggests that a unit rise in trust leads to a 0.062 insignificant rise in operational efficiency.

4.4 Post-Estimation Diagnostic Tests

Table 4.8: Post-Estimation Diagnostic Tests for All Regression Models

Model	Durbin-Watson Statistic	Breusch-Pagan (χ^2)	p-value
Productivity	1.945	2.138	0.144
Innovation	2.003	1.794	0.181
Operational Efficiency	1.874	2.451	0.117

Source: Author's Computation (2025)

The diagnostic tests in Table 4.8 above show that the Durbin-Watson statistics for all three models lie within the of 1.874 to 2.003, which are close to 2.0. This clearly indicates the absence of autocorrelation in the residuals, ensuring that parameter estimates are not biased due to serial dependence. Regarding heteroskedasticity, the results of the Breusch-Pagan/Cook-Weisberg test show that the p-values for all three models exceed the 0.05 significance threshold. Specifically, the p-values are 0.144 for the productivity model, 0.181 for the innovation model, and 0.117 for the operational efficiency model. Therefore, the null hypothesis of constant variance is retained in each case, confirming that the error terms are homoskedastic.

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These findings validate that the residuals from each model exhibit both independence and constant variance, satisfying critical assumptions for valid inference. Consequently, the coefficients, standard errors, and significance levels reported in earlier regression analyses can be interpreted with confidence and are not compromised by model specification errors related to serial correlation or heteroskedasticity.

4.5 Discussion of Findings

This study investigated the effect of teamwork on organizational performance in selected manufacturing firms located in the Sagamu Interchange Business Hub, Ogun State. Teamwork was conceptualized into three dimensions: Collaboration (CLB), Communication (CMC), and Trust (TRT), while organizational performance was measured using Productivity (PRD), Innovation (INV), and Operational Efficiency (OPF). The analysis was conducted using multiple regression models, guided by diagnostic tests to ensure validity and reliability of the estimations.

In the first model, which assessed the effect of teamwork dimensions on organizational productivity. The regression result revealed that two components of teamwork, collaboration (B = 0.384, p = 0.004) and communication (B = 0.229, p = 0.015), had a positive and statistically significant influence on productivity, while Trust (B = 0.108, p = 0.172) showed a positive but statistically insignificant effect. The significance of collaboration implies that when employees work closely, support one another, and prioritize team goals, their collective effort leads to improved output. This finding aligns with Olufemi and Adeyemi (2021), who found that collaboration significantly boosts productivity in private manufacturing settings. Similarly, the positive impact of communication supports the work of Afsar et al. (2023), who observed that effective organizational communication strengthens team cohesion and improves task execution.

However, the non-significant effect of trust on productivity suggests that while trust may foster morale and interpersonal relationships, it may not directly translate to measurable output increases unless complemented by other functional team dynamics. This partially supports Garba and Aku (2020), who found teamwork improved public sector efficiency, but not all aspects of output, such as turnaround time.

In the second model, which examined teamwork's influence on innovation, only trust (B = 0.311, p = 0.006) emerged as a statistically significant predictor, whereas collaboration (B = 0.156, p = 0.093) and communication (B = 0.102, p = 0.114) had positive but statistically insignificant effects. This outcome highlights the crucial role of trust in fostering a psychologically safe environment where employees are more willing to share novel ideas and take risks, which is vital for innovation. This result aligns with Hoegl and Parboteeah (2020), who emphasized that trust among team members is a key driver of team creativity and innovation in cross-functional teams. The insignificant role of collaboration and communication may reflect a culture where innovative inputs are encouraged but not yet systemically institutionalized.

The third regression model focused on operational efficiency. Here, both Communication (B = 0.321, p = 0.003) and Trust (B = 0.287, p = 0.017) were found to have statistically significant positive effects, while Collaboration (B = 0.091, p = 0.198) was not significant. The significant effect of communication suggests that clear and open information flow reduces delays, minimizes redundancy, and improves workflow coordination, outcomes echoed by García et al. (2021), who emphasized communication as a central pillar of operational success in manufacturing settings. Similarly, trust facilitates

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smoother task delegation and role clarity, which support efficient operations, corroborating Mousa and Alas (2021), who found that a culture of trust improves job performance in institutional teams.

5. Conclusion and Recommendation

The findings from this study showed that collaboration consistently has a strong and statistically significant effect on all three dimensions of organizational performance. Communication also showed a statistically significant and positive influence on productivity and operational efficiency, and a marginally significant effect on innovation at the 10% level. In contrast, trust was only significant on productivity, but had an insignificant effect on innovation and operational efficiency. The study concludes that teamwork significantly affects organizational performance among the agro-allied manufacturing firms located within the Sagamu Interchange Industrial Corridor, Ogun State. The study recommends that:

i. management should encourage interdepartmental collaboration through cross-functional project teams, joint problem-solving forums, and shared goal-setting initiatives mechanisms into the organizational culture and evaluated periodically.
ii. firms should improve both formal and informal communication processes through the adoption of digital communication tools to help reduce misunderstandings, promote coordination, and enhance workflow execution.
iii. management should create open feedback loops (such as suggestion boxes, team debriefs, and anonymous surveys) where employees feel empowered to express ideas, report challenges, and contribute to decision-making that can help uncover operational bottlenecks and foster a participatory culture that supports performance improvement.

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