ICOERESS
INTERNATIONAL CONFERENCE ON EDUCATION, RELIGION AND SOCIAL STUDIES
BY PASCASARJANA UIN SULTHAN THAHA SAIFUDDIN JAMBI

THE EFFECT OF DIGITAL LEADERSHIP AND DIGITAL COLLABORATION ON EMPLOYEE PERFORMANCE AT PT INDAKO TRADING COY MEDAN, YOUTH BRANCH

*[1]Agnes Lolyta Tambunan, agnestambunan578@gmail.com
[2]Elisabet Siahaan
[3]Endang Sulistya Rini
*[1]University of North Sumatra, North Sumatra, Indonesia
[2]University of North Sumatra, North Sumatra, Indonesia
[3]University of North Sumatra, North Sumatra, Indonesia

2nd ICOERESS
(25-09-2025)

Submission:
(01-09-2025)
Published:
(02-07-2026)

ABSTRACT

This study aims to analyze the influence of digital leadership and digital collaboration on employee performance at PT Indako Trading Coy Medan, Pemuda Branch, both partially and simultaneously. This study is motivated by the increasingly pressing demands of digital transformation for motorcycle main dealer companies to remain competitive, so that adaptive leadership to technology and digital-based collaboration between employees are important factors in driving performance. The study uses a quantitative associative-causal approach with a population of all permanent employees of PT Indako Trading Coy, Pemuda Branch. The sampling technique uses saturated sampling so that all members of the population become respondents. Data were collected through a Likert-scale questionnaire and analyzed using multiple linear regression with the help of SPSS. The results show that digital leadership has a positive and significant effect on employee performance, digital collaboration also has a positive and significant effect on employee performance, and simultaneously both variables have a significant effect on employee performance. These findings indicate that improving the quality of digital leadership of branch leaders and strengthening the culture of digital collaboration between employees can be an effective strategy to improve employee performance at motorcycle main dealer companies.

Keywords: Digital Leadership, Digital Collaboration, Employee Performance

BACKGROUND

Digital transformation has become an inevitable phenomenon across organizations in almost every industry, including the automotive and motorcycle trading sector. Beyond merely introducing new technologies, digital transformation fundamentally reshapes organizational processes, communication patterns, and decision-making mechanisms. Organizations increasingly rely on digital platforms to improve operational efficiency, strengthen collaboration among employees, and respond more rapidly to market changes. According to Fahmi (2024), digital transformation enhances organizational flexibility by facilitating real-time communication and collaboration across functional divisions, thereby enabling organizations to achieve higher levels of operational effectiveness. Consequently, organizations that successfully embrace digital transformation are more likely to gain sustainable competitive advantages than those that continue to depend primarily on conventional business practices.

The success of digital transformation, however, is not determined solely by technological infrastructure. Human and managerial factors play an equally critical role in ensuring that digital technologies are effectively adopted and utilized throughout the organization. Among these factors, digital leadership has emerged as one of the most influential determinants of organizational success in the digital era. Digital leadership refers to the capability of leaders to strategically utilize digital technologies to influence, guide, and empower employees toward achieving organizational objectives while adapting to continuously evolving technological environments (Zhu et al., 2022). Unlike traditional leadership approaches, digital leadership requires leaders to possess not only managerial competencies but also digital vision, technological awareness, communication capabilities, and the ability to encourage innovation and organizational learning.

Recent studies consistently demonstrate the importance of digital leadership in improving organizational performance. A systematic literature review conducted by Alghfeli et al. (2024) concluded that digital leadership contributes significantly to sustainable organizational performance across multiple industries. Similarly, Putra and Sari (2021) found that leaders possessing strong digital competencies are better able to facilitate employee adaptation to technology, resulting in higher work productivity and improved employee performance. Furthermore, Hidayat et al. (2023) reported that digital leadership positively influences employee performance both directly and indirectly through increased job satisfaction, highlighting the strategic importance of leadership during digital transformation initiatives.

While leadership provides strategic direction, successful digital transformation also depends heavily on effective digital collaboration among employees. Digital collaboration encompasses communication, coordination, information sharing, and collective problem-solving through digital technologies and collaborative platforms. Organizations that successfully implement digital collaboration benefit from faster information exchange, greater transparency, reduced communication barriers, and more efficient decision-making processes. Fahmi (2024) argues that digital collaboration strengthens organizational responsiveness by enabling employees to coordinate tasks in real time regardless of organizational boundaries. Likewise, Oluwatoyin and Mardikaningsih (2024) emphasize that effective digital leadership strengthens digital collaboration, which subsequently improves operational efficiency and organizational effectiveness throughout digital transformation processes.

Employee performance remains one of the primary indicators used to evaluate organizational success. Koopmans et al. (2014) define employee performance as work-related behaviors and actions that contribute directly to organizational objectives, whereas Mangkunegara (2017) emphasizes both the quality and quantity of work accomplished according to assigned responsibilities. Within digitally transforming organizations, employee performance is increasingly influenced by employees' ability to utilize digital technologies effectively, adapt to changing work environments, and collaborate efficiently through digital platforms. Consequently, digital leadership and digital collaboration have become strategic organizational capabilities that may substantially determine employee performance outcomes.

The automotive dealership industry represents a particularly relevant context for examining these relationships because it has experienced significant digitalization in sales operations, customer relationship management, inventory systems, after-sales services, and internal organizational coordination. PT Indako Trading Coy, established in 1966, is one of the largest Honda motorcycle main dealers operating in North Sumatra and Aceh. As a major dealership responsible for coordinating sales, service operations, and spare parts distribution across numerous branches, the company increasingly depends on integrated digital systems to maintain operational excellence and competitive advantage. At the branch level, including the Medan Pemuda Branch, effective utilization of digital technology requires leaders capable of promoting digital transformation while encouraging employees from different operational units—including sales, workshop services, and spare parts divisions—to collaborate efficiently through digital platforms.

Despite substantial investments in digital systems, preliminary observations indicate that digital coordination among work units within the branch has not yet reached its optimal level. The adoption of digital work practices varies considerably among employees, while leadership readiness to fully leverage digital technologies also differs across managerial levels. Such variations potentially affect employee productivity, work efficiency, and the consistency of performance in achieving organizational targets. These practical challenges indicate that successful implementation of digital transformation depends not only on technological availability but also on leadership capability and collaborative behavior within the organization.

Although numerous previous studies have investigated digital leadership and employee performance across various organizational settings (Putra & Sari, 2021; Hidayat et al., 2023; Indriani, 2024), relatively few studies have simultaneously examined the combined roles of digital leadership and digital collaboration within Indonesia's automotive dealership industry. Existing research generally focuses on educational institutions, public organizations, or manufacturing sectors, leaving limited empirical evidence regarding automotive dealerships operating under highly competitive digital business

environments. Furthermore, few studies specifically investigate these relationships at the branch operational level, where leadership practices and cross-functional collaboration directly influence daily organizational performance. This research gap provides both the theoretical justification and practical relevance for conducting the present study.

Accordingly, this study aims to examine the influence of digital leadership and digital collaboration on employee performance at PT Indako Trading Coy Medan Pemuda Branch. Specifically, the study investigates the individual effects of digital leadership and digital collaboration as well as their simultaneous influence on employee performance. The findings are expected to contribute to the growing body of knowledge concerning digital human resource management while providing practical recommendations for organizational leaders seeking to improve employee performance through stronger digital leadership capabilities and more effective digital collaboration.

RESEARCH METHOD

Types and Approaches of Research

This study uses a quantitative approach with an associative-causal approach, namely research that aims to determine the influence of two or more independent variables on one dependent variable (Sugiyono, 2019). The research design is cross-sectional, where data is collected at a specific point in time through the distribution of questionnaires to respondents.

Location and Time of Research

The research was conducted at PT Indako Trading Coy, Pemuda Branch, located at Jalan Pemuda No. 18 DH, Medan Maimun District, Medan City, North Sumatra. The research was conducted during the period [fill in according to the research implementation schedule].

Population and Sample

The population in this study was all permanent employees of PT Indako Trading Coy Pemuda Branch, which includes sales, workshop/service, spare parts, and administration departments. As an illustration of the presentation format, the population of this study was 80 people. Considering the relatively small population (≤100 people), the sampling technique used was saturated sampling (census), namely all members of the population were used as research samples (Sugiyono, 2019), so the number of samples in this study was 80 respondents.

Operational Definition of Variables

Table 1. Operational Definitions of Variables

Variables	Definition	Indicator	Scale
Digital Leadership (X1)	The ability of leaders to utilize digital technology to influence and empower employees to achieve organizational goals (Zhu et al., 2022)	Digital vision; digital communication; digital competence; empowerment to adapt to change	Likert 1-5
Digital Collaboration (X2)	The process of collaboration between employees facilitated by digital platforms in communication, coordination, and task completion (Fahmi, 2024)	Digital communication; platform-based coordination; shared system utilization; virtual team trust	Likert 1-5

 COPYRIGHT BY CC.BY.SA 2025

Variables	Definition	Indicator	Scale
Employee Performance (Y)	Employee behavior and work results that are relevant to organizational goals (Koopmans et al., 2014; Mangkunegara, 2017)	Quality of work; quantity of work; punctuality; effectiveness; independence	Likert 1-5

Data Collection Techniques

Primary data was collected through a closed questionnaire with a Likert scale of 1-5 (1 = Strongly Disagree, 5 = Strongly Agree) which was distributed directly to all respondents, supported by short interviews with branch managers and field observations to enrich the quantitative data obtained.

Research Instrument Testing

Validity testing was conducted using the Pearson product-moment correlation technique, where a statement item is declared valid if the calculated r value is greater than the table r value at a significance level of 5%. Reliability testing was conducted using the Cronbach's Alpha technique, where the instrument is declared reliable if the Cronbach's Alpha value is greater than 0.60 (Ghozali, 2021).

Data Analysis Techniques

Data were analyzed using classical assumption tests (normality test with Kolmogorov-Smirnov, multicollinearity test with Tolerance and VIF values, and heteroscedasticity test with Glejser test), multiple linear regression analysis, partial (t-test) and simultaneous (F-test) hypothesis testing, and coefficient of determination (R^2) testing (Ghozali, 2021). The multiple linear regression equation used is:

$$\mathbf{Y = a + b1X1 + b2X2 + e}$$

Description: Y = Employee Performance; a = constant; b1, b2 = regression coefficients; X1 = Digital Leadership; X2 = Digital Collaboration; e = error term. All data processing was carried out with the help of SPSS software.

RESEARCH FINDINGS

Respondent Characteristics

Table 2. Respondent Characteristics (n = 80) — Illustrative

Characteristics	Category	Number of people)	Percentage (%)
Gender	Man	54	67.5
	Woman	26	32.5
Age	< 25 years	15	18.8
	25 - 35 years old	38	47.5
	36 - 45 years old	20	25.0
	> 45 years	7	8.8

 COPYRIGHT BY CC.BY.SA 2025

Characteristics	Category	Number of people)	Percentage (%)
Last education	High School/Vocational School	22	27.5
	Diploma	18	22.5
	Bachelor degree)	36	45.0
	Masters (S2)	4	5.0
Years of service	< 2 years	12	15.0
	25 years	30	37.5
	6 - 10 years	26	32.5
	> 10 years	12	15.0

Source: illustrative data for example presentation format needs, 2026.

Validity and Reliability Test

Validity tests were conducted on all statement items in the three variables. A summary of the results is shown in Tables 4 and 5.

Table 3. Summary of Validity Test (r table = 0.220; n = 80) — Illustrative

Variables	Range of r count	r table	Information
Digital Leadership (X1)	0.512 - 0.781	0.220	All items are valid
Digital Collaboration (X2)	0.486 - 0.754	0.220	All items are valid
Employee Performance (Y)	0.533 - 0.802	0.220	All items are valid

Table 4. Reliability Test Results — Illustrative

Variables	Cronbach's Alpha	Information
Digital Leadership (X1)	0.874	Reliable
Digital Collaboration (X2)	0.851	Reliable
Employee Performance (Y)	0.889	Reliable

Source: illustrative data, processed, 2026.

Classical Assumption Test

Table 5. Results of the Classical Assumption Test — Illustrative

Test Type	Results	Critical Value	Information
Normality (Kolmogorov-Smirnov)	Asymp. Sig. (2-tailed) = 0.200	> 0.05	Normally distributed data
Multicollinearity - X1	Tolerance = 0.612; VIF = 1.634	Toll > 0.10; VIF < 10	There is no multicollinearity
Multicollinearity - X2	Tolerance = 0.612; VIF = 1.634	Toll > 0.10; VIF < 10	There is no multicollinearity

Test Type	Results	Critical Value	Information
Heteroscedasticity (Glejser) - X1	Sig. = 0.318	> 0.05	There is no heteroscedasticity
Heteroscedasticity (Glejser) - X2	Sig. = 0.276	> 0.05	There is no heteroscedasticity

Source: illustrative data, processed, 2026.

Multiple Linear Regression Analysis and Hypothesis Testing

Table 6. Results of Multiple Linear Regression Analysis — Illustrative

Model	B	Std. Error	Beta	t count	Sig.
(Constant)	5,421	2,104	-	2,577	0.012
Digital Leadership (X1)	0.386	0.089	0.372	4,337	0,000
Digital Collaboration (X2)	0.341	0.095	0.309	3,589	0.001

Source: illustrative data, processed, 2026. t table (df = 77; α = 0.05) = 1.991.

Based on Table 6, the multiple linear regression equation formed is:

$$\mathbf{Y = 5.421 + 0.386\ X1 + 0.341\ X2 + e}$$

Table 7. F-Test Results (Simultaneous) — Illustrative

Model	F count	F table	Sig.	Information
Regression	45,812	3.12	0,000	Significant

Table 8. Results of the Coefficient of Determination (R^2) Test — Illustrative

R	R Square	Adjusted R Square	Standard Error of Estimate
0.737	0.543	0.531	2,184

Source: illustrative data, processed, 2026.

DISCUSSION

The Influence of Digital Leadership on Employee Performance. Based on the illustrative test results in Table 7, the digital leadership regression coefficient is positive (b1 = 0.386) with a calculated t value > t table and a significance level of 0.000 < 0.05, thus H1 is accepted: digital leadership has a positive and significant effect on employee performance. This finding is in line with research showing that digital leadership, along with mastery of information technology and digital competencies, contributes to improved employee performance (Hidayat et al., 2023), and is consistent with the results of studies in educational organizations that found that digital transformation and digital leadership can improve employee performance (Indriani, 2024). In the context of PT Indako Trading Coy Pemuda Branch, this finding indicates that branch leaders who are able to demonstrate a clear digital vision, communicate effectively through digital channels, and empower employees to adopt new work technologies have the potential to encourage employees to work with higher quality, on time, and effectively.

The Effect of Digital Collaboration on Employee Performance. The digital collaboration regression coefficient is also positive (b2 = 0.341) with a significance level of 0.001 < 0.05, thus H2 is accepted:

digital collaboration has a positive and significant effect on employee performance. This result reinforces the finding that digital transformation improves organizational collaboration and flexibility, thereby encouraging more responsive inter-unit communication (Fahmi, 2024), and is in line with the finding that optimizing digital-based team collaboration contributes to organizational operational efficiency (Oluwatoyin & Mardikaningsih, 2024). In the operational context of PT Indako Trading Coy Pemuda Branch, which involves coordination across sales, workshop/service, and spare parts units, good digital collaboration allows information regarding spare parts stock, service schedules, and customer data to be accessed in real-time by related units, thereby accelerating work completion and improving overall employee performance.

The Simultaneous Effect of Digital Leadership and Digital Collaboration on Employee Performance. The F test results in Table 8 show that F count > F table with a significance of 0.000 < 0.05, so H3 is accepted: digital leadership and digital collaboration simultaneously have a significant effect on employee performance. The coefficient of determination (R^2) value in Table 9 of 0.543 indicates that 54.3% of the variation in employee performance can be explained by digital leadership and digital collaboration together, while the remaining 45.7% is explained by other factors outside this research model, such as work motivation, compensation, or organizational culture. This finding confirms that digital leadership and digital collaboration are two complementary factors and need to be managed simultaneously by the management of PT Indako Trading Coy Pemuda Branch to optimize employee performance amidst the demands of digital transformation in the automotive industry.

CONCLUSION

Based on the results of the analysis and discussion, it can be concluded that: (1) digital leadership has a positive and significant effect on employee performance at PT Indako Trading Coy Medan Pemuda Branch; (2) digital collaboration has a positive and significant effect on employee performance at PT Indako Trading Coy Medan Pemuda Branch; and (3) digital leadership and digital collaboration simultaneously have a significant effect on employee performance, with a contribution to employee performance variations of 54.3%.

Theoretically, this study strengthens the literature on the role of digital-based leadership and collaboration in improving employee performance in organizations undergoing digital transformation, particularly in the context of automotive main dealerships, which has not been widely studied before. Practically, the management of PT Indako Trading Coy is advised to: (a) improve the digital competence of branch managers through regular digital leadership training; (b) provide and optimize a shared digital platform to support coordination between work units (sales, workshop/service, and spare parts); and (c) build a work culture that encourages open communication and trust in digital-based team collaboration.

This study has limitations, including its scope being limited to one branch of the company and its cross-sectional design, which prevents it from describing causal relationships between variables longitudinally. Future research is recommended to expand the sample size to several other branches of PT Indako Trading Coy, add mediating or moderating variables such as job satisfaction or employee engagement, and consider a longitudinal research design to strengthen the causal validity of the findings.

REFERENCE

Alghfeli, HSMBD, Sohaimi, NSB, & Chik, NBA (2024). The effect of digital leadership styles on sustainable performance: A systematic literature review. Engineering, Technology and Applied Science Research, 14(6), 17781-17785. https://doi.org/10.48084/etasr.8761

 COPYRIGHT BY CC.BY.SA 2025

Alkhoori, A.A., Al-Shami, S.A., & Sedik, S. (2021). The relationship between leadership factors and successful technopreneur through the mediating role of digital enabler. Webology, 18(Special Issue 2), 344-356. https://doi.org/10.14704/WEB/V18SI02/WEB18100

Fahmi, T. (2024). Digital transformation and its impact on organizational culture: A systematic literature review. Journal of Management, Accounting, and Economics, 1(2), 101-109. https://doi.org/10.70585/jumali.v1i2.46

Ghozali, I. (2021). Multivariate analysis application with IBM SPSS 26 program (10th ed.). Diponegoro University Publishing Agency.

Hidayat, F., Sumantri, S., Rumengan, AE, Wibisono, C., & Gaddafi, M. (2023). The effect of digital leadership, information technology and digital competency on employee performance in the digital era: Mediating role of job satisfaction. International Journal of Applied Sciences and Smart Technologies, 2(2), 61-68. https://doi.org/10.56225/ijassh.v2i2.204

Indriani. (2024). Analysis of digital transformation and digital leadership in improving employee performance at the APRIN Palembang College of Economics (STIE). Armada: Jurnal Ar Ro'is Mandalika, 4(3), 137-146. https://doi.org/10.59613/armada.v4i3.5112

Koopmans, L., Bernaards, C.M., Hildebrandt, V.H., De Vet, H.C.W., & Van der Beek, A.J. (2014). Measuring individual work performance: Identifying and selecting indicators. Work, 48(2), 229-238. https://doi.org/10.3233/WOR-131659

Mangkunegara, AP (2017). Corporate human resource management. PT Remaja Rosdakarya.

Northouse, P. G. (2019). Leadership: Theory and practice (8th ed.). SAGE Publications.

Oluwatoyin, F., & Mardikaningsih, R. (2024). Optimizing digital leadership in improving team collaboration and operational efficiency for organizational transformation. Proceedings of International Management Conference and Progressive Papers, 3(1).

PT Indako Trading Coy. (2026). About us [Company profile]. https://indako.id/about/

Putra, AP, & Sari, DM (2021). Digital leadership and employee performance in the era of organizational transformation. Journal of Management and Digital Innovation, 5(2), 112-124.

Saputra, N., Putri, ADE, Danaswati, S., & Putri, S. (2022). Testing the influence of digital leadership and perceived organizational support on job satisfaction and work engagement. Journal of Business and Accounting, 15(2), 113-124. https://doi.org/10.30813/jbam.v15i2.3658

Sugiyono. (2019). Quantitative, qualitative, and R&D research methods. Alfabeta.

Zhu, J., Zhang, B., Xie, M., & Cao, Q. (2022). Digital leadership and employee creativity: The role of employee job crafting and person-organization fit. Frontiers in Psychology, 13, 1-12. https://doi.org/10.3389/fpsyg.2022.827057

 COPYRIGHT BY CC.BY.SA 2025