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An Empirical Analysis of Digital Transformation Synchronicity and Transformational Leadership Style in Stimulating Employee Performance: A Study on the Regional State-Owned Capital Market Industry

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Abstract. *The accelerated technological disruption in the Industrial Revolution 4.0 era has forced the capital market industry to reorient its operational strategy through digitalization. This study aims to empirically analyze the effect of digital transformation and transformational leadership style on employee performance at PT Mandiri Sekuritas Medan Branch. Employing an explanatory quantitative approach, data were gathered using structured questionnaires from 87 employees selected via probability sampling from a total population of 111 staff. Multiple Linear Regression analyzed through SPSS 26 was utilized. Partial testing reveals that digital transformation significantly enhances employee performance ($t = 2.799$, $p < 0.05$). Similarly, transformational leadership style acts as a dominant catalyst, positively and significantly impacting individual performance ($t = 3.360$, $p < 0.05$). Simultaneously, both independent variables significantly predict employee execution ($F = 14.708$, $p < 0.000$) with a coefficient of determination (R2) of 25.9%. The remaining 74.1% variance is defined by external elements outside this model, such as work motivation, loyalty, and corporate culture. Strategic recommendations emphasize the critical convergence of high-tier digital infrastructure provision (advanced analytics) and visionary leadership development to mitigate employee technostress in regional financial markets.*

Keywords: *Digital Transformation; Employee Performance; Regional Finance; Securities Company; Transformational Leadership.*

1. INTRODUCTION

Within the modern financial services ecosystem, employee performance is a fundamental intangible asset that dictates the sustainability of corporate competitive advantage. Unlike the conventional manufacturing industry which relies on the mechanization of physical capital, the capital market sector heavily depends on human capabilities to construct macro market analyses, formulate precise investment recommendations, and execute client orders with low latency and high accuracy. Performance in this sector is multidimensional, encompassing transactional volume (quantity), portfolio analysis accuracy (quality), and real-time responsiveness to financial market volatility (timeliness). Failure to maintain these macro-performance indicators directly implies a degradation of investor trust, loss of retail and institutional clients, and the erosion of commission-based income (fee-based income) for securities firms (Muhammad & Hesty, 2025).

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Internet penetration in Indonesia, reaching 77% of the population in the Industrial Revolution 4.0 era, and the demographic shift of investors toward Millennials and Gen-Z have created massive disruption on securities trading platforms. Digital transformation has shifted from being a mere tactical choice to an existential urgency. The integration of digital architecture must include the optimization of back-office operational automation, Customer Relationship Management (CRM) database management, and the use of Artificial Intelligence (AI) for client investment management. PT Mandiri Sekuritas, as a subsidiary of PT Bank Mandiri (Persero) Tbk, bears the strategic responsibility of expanding national capital market inclusion and literacy. At the regional level, PT Mandiri Sekuritas Medan Branch faces a double challenge: asymmetric competition against private fintech investment applications offering zero commission fees, and internal demands to maintain a nationwide standard of financial service quality (Silvia, Achmad, & Wanuri, 2025).

However, empirical evidence in the field demonstrates that the adoption of new technological instruments does not automatically align linearly with improvements in work performance. Early pre-survey data (January 2024) conducted among 30 employees at PT Mandiri Sekuritas Medan Branch revealed critical anomalies: (1) 43% of employees experienced operational technical constraints in utilizing advanced analytics features on the internal trading system, leading to suboptimal investment recommendations for clients. (2) Only 57% of staff actively exploited the real-time data dashboard on a routine basis for securities portfolio management. (3) 37% of employees still performed manual double-entry data entry due to psychological anxiety regarding the stability of new system integration. These anomalies indicate a phenomenon of digital unreadiness that can diminish organizational effectiveness (Emilly & Agus, 2025).

This unreadiness stems from the absence of an adaptive driving role of leadership in guiding the operational transition. Conventional transactional leadership approaches that rely solely on reward-punishment controls are no longer adequate to navigate the volatility of the digital era. Organizations require leaders who adopt a Transformational Leadership Style. Through the pillars of Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration, a transformational leader acts as a bridge that transforms employee anxiety resulting from technology adoption into intrinsic motivation to innovate.

Research Gap & Novelty: Although previous literature such as Nadia & Nasution (2024) confirms the significance of digitalization in the financial industry, and Chaeruman et al. (2025) highlights the risk of technostress arising from technology, most studies focus on general commercial banking. A study by Hayati (2024) examined the convergence of both variables at PT Bank Capital Indonesia (a private, non-SOE sector). The novelty of this research lies in the empirical analysis that simultaneously integrates the dimensions of digital transformation and transformational leadership architecture within a specific capital market industry, namely an SOE-status securities firm operating under the socio-economic dynamics of the regional North Sumatra market (Ossi & Adelya, 2026).

2. THEORETICAL REVIEW

Employee Performance

Employee performance is defined as the tangible manifestation of the totality of employee competencies and capabilities quantified based on standards of quality and output targets within the boundaries of legitimate job responsibilities. Febriantina et al. (2025) emphasized that such performance manifestations must be achieved within the boundaries of law, professional ethics, and organizational work morality. Performance is a multidimensional variable influenced by internal personal factors (ability, intrinsic motivation, work ethic) and external organizational factors (leadership style, adequacy of technological infrastructure). According to Lase et al. (2025), key indicators for measuring performance in the financial services industry include: Quality of Work, Quantity of Work, Timeliness, Effectiveness of Resource Utilization, and Independent Initiative.

Digital Transformation

Digital transformation is not merely partial process automation, but rather a holistic integration of digital technology across all lines of an organization that triggers a fundamental re-engineering of how businesses operate and deliver value propositions to customers. In the context of human resource management, digital transformation includes the evolution of a data-driven HR culture. Based on the theory of Agill Mawar Wati et al. (2025), the success of digital transformation is measured through four crucial dimensions: Processes and Efficiency (reduction of manual bureaucracy through automation), Employee Experience (the comfort level and satisfaction of employees interacting with the new system), Data-Driven Decision Making (making investment decisions based on real-time data analytics), and Digital Learning (the availability of continuous self-paced digital upskilling platforms).

Transformational Leadership Style

Transformational leadership is defined as a leadership architecture where leaders encourage increased awareness, morality, and motivation among followers to transcend personal self-interest for the sake of achieving the organization's strategic vision. According to Alsafy et al. (2025), this model is highly effective in mitigating resistance to change. The operational dimensions of transformational leadership are based on Bass & Avolio's concept which includes: Idealized Influence (the leader positions themselves as a moral and professional role model), Inspirational Motivation (the ability to persuasively disseminate a clear and challenging vision of the future), Intellectual Stimulation (stimulating the creativity of subordinates to question old assumptions and innovate), and Individualized Consideration (providing personal attention, mentoring, and counseling based on the unique growth needs of employees).

3. RESEARCH METHOD

This research adopts an explanatory causal quantitative design to test the strength of association between the variables studied. The target population includes all 111 active employees of PT Mandiri Sekuritas Medan Branch, North Sumatra. The reference sample size was calculated using the Slovin formula with an error tolerance margin of 5%, yielding a sample size of 87 respondents. The sampling technique utilized is probability sampling, specifically simple random sampling. Primary data were gathered using structured questionnaire instruments measured on a 5-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree). The multiple linear regression econometric model tested is formulated as $Y = a + b1X1 + b2X2 + e$, where Y represents Employee Performance, X1 represents Digital Transformation, and X2 represents Transformational Leadership. Evaluation of the model met the prerequisites of Classical Assumption Tests prior to hypothesis testing (t-test and F-test).

4. RESULTS AND DISCUSSION

Evaluation of Instruments and Classical Assumptions

Before evaluating the structural model, validity testing was conducted using the Pearson Product Moment approach by comparing the r-calculated value against r-table (N=87, alpha=5%, r-table = 0.3610). All item statements were declared valid since r-calculated > 0.3610. Reliability testing results based on Cronbach's Alpha showed Alpha coefficients of X1 = 0.606, X2 = 0.774, and Y = 0.756, thus declared reliable (>0.60). The Kolmogorov-Smirnov normality test yielded an Asymp. Sig. (2-tailed) value of 0.113 (>0.05), indicating that the residuals are normally distributed. Multicollinearity testing showed VIF < 10 and Tolerance > 0.10, proving the model is free from multicollinearity. The heteroskedasticity test displayed a random scatter pattern of data points, validating homoskedasticity.

Multiple Linear Regression Analysis and Hypothesis Testing

Based on the computational output of SPSS 26, the estimated parameters for the multiple regression coefficients are obtained as follows:

Table 1. Hypothesis Testing

Model	Unstandardized Coefficient (B)	Std. Error	t-count	Sig.	Status
(Constant)	20.195	3.120	6.472	0.000	Significant
Digital Transformation (X1)	0.244	0.087	2.799	0.006	H1 Accepted
Transformational Leadership (X2)	0.366	0.109	3.360	0.001	H2 Accepted

Source: Processed Data (2026).

The mathematically constructed regression equation is: $Y = 20.195 + 0.244X1 + 0.366X2$. The t-test results reveal a t-count value for X1 of 2.799 (> t-table 1.9861; $p=0.006 < 0.05$), hence H1 is accepted. The t-count value for X2 is 3.360 (> t-table 1.9861; $p=0.001 < 0.05$), hence H2 is accepted. Both variables are empirically proven to have a positive and significant partial effect.

To evaluate the simultaneous convergence effect of the interaction, an analysis of variance (ANOVA) was performed:

Table 2. ANOVA

Model	Sum of Squares	df	Mean Square	F-count	Sig.	Status
Regression	428.112	2	214.056	14.708	0.000	Significant
Residual	1222.614	84	14.555			
Total	1650.726	86				

Source: Processed Data (2026)

The simultaneous test results (Table 2) demonstrate an F-count value of 14.708, far exceeding the F-table threshold of 2.48 at a significance level of p-value $0.000 < 0.05$. Consequently, H3 is accepted. The R-Square value obtained is 0.259, which represents that the combination of Digital Transformation and Transformational Leadership Style contributes 25.9% to the variance in employee performance (Gusti & al, 2025). The remaining 74.1% is explained by factors outside this model, such as motivation, compensation, corporate culture, and digital literacy.

Academic Discussion and Empirical Implications

Empirical findings prove that the digitalization of work-supporting infrastructure has a positive impact on accelerating administrative tasks and market analysis. However, the return on investment in information technology toward individual efficiency is only achieved if the system offers a high-quality employee experience. If radical technology adoption is forced without routine upskilling programs, organizations are prone to falling into productivity dysfunctions due to technostress, as predicted by Chaeruman et al. (2025). On the other hand, transformational leadership style acts as the most dominant predictor. Under the pressure of capital market fluctuations, the presence of branch leaders capable of injecting inspirational motivation and intellectual stimulation is proven to effectively enhance employee resilience and self-efficacy, confirming the conceptualization of Muliawan et al. (2025).

5. CONCLUSION AND RECOMMENDATIONS

Conclusion

Digital transformation exerts a positive and significant partial effect on the performance of employees at PT Mandiri Sekuritas Medan Branch. Increased system utility aligns linearly with report-processing efficiency. Transformational leadership style has a positive and significant partial effect on employee performance and acts as the most dominant driving variable in the field. Furthermore, digital transformation and transformational leadership style simultaneously exert a positive and significant effect on employee performance, contributing 25.9% to its variance.

Managerial Recommendations

Management is advised to organize structured Digital Learning programs to optimize contemporary technological architecture by training employee data literacy regularly, particularly in utilizing advanced analytics features. In addition, it is recommended to establish certified transformational leadership training programs for branch managers and division heads, focusing on personalized coaching and mentoring techniques. Given the determination value (R^2) of 25.9%, subsequent studies are encouraged to expand the structural model by exploring mediating or moderating variables such as digital corporate culture or job satisfaction using SEM-PLS.

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