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# Advancing Employee Performance through Digital Leadership: The Mediating Roles of Employee Engagement and Job Satisfaction

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ABSTRACT
Digital transformation requires organizations to adopt technology while developing leadership capabilities that support employees in maintaining performance amid continuous change. This study investigates the relationships between Digital Leadership and Employee Performance, with Employee Engagement and Job Satisfaction examined as mediating variables. A quantitative survey was conducted involving 348 respondents, and the data were analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) with SmartPLS 4. The findings indicate that Digital Leadership is positively and significantly associated with Employee Engagement, Job Satisfaction, and Employee Performance. Employee Engagement and Job Satisfaction are also positively associated with Employee Performance. Furthermore, the indirect effects indicate that Digital Leadership is related to Employee Performance through Employee Engagement ($\beta = 0.186$; $p < 0.001$) and Job Satisfaction ($\beta = 0.258$; $p < 0.001$). The findings suggest that Employee Engagement and Job Satisfaction represent important pathways linking Digital Leadership with Employee Performance, with Job Satisfaction showing a relatively larger indirect effect. Overall, the results highlight the role of digital leadership in supporting employee performance through both direct and employee-related pathways.

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## 1. Introduction

Digital transformation has reshaped organizational processes, structures, and the capabilities required to achieve performance outcomes (Verhoef et al., 2021). The rapid pace of technological development requires organizations to adopt new technologies while developing leaders who can guide employees through change and respond to their concerns during transformation (Weber et al., 2022). Under these circumstances, successful digital transformation depends on technological readiness alongside employee adaptability, team collaboration, leadership, and a supportive organizational culture (Trenerry et al., 2021). Recent empirical evidence also indicates that digital leadership can strengthen employee work engagement through empowerment and affective commitment (Li et al., 2024). Therefore, understanding how digital leadership relates to employee

performance, including the potential mediating roles of employee engagement and job satisfaction, remains an important research priority.

Within this context, digital leadership has emerged as a form of leadership that responds to the demands of organizations in the digital era (Tigre et al., 2023). Sağbaş and Erdoğan (2022) explain that digital leadership is oriented toward implementing digital transformation by creating an organizational environment and culture that support change. This perspective indicates that digital leadership extends beyond the ability to use or understand technology; it also involves aligning organizational strategies with digital transformation (Türk, 2023). Digital leaders develop a clear digital vision, encourage creativity and innovation, and facilitate collaboration to help employees respond to changing work demands (Zhu et al., 2022). They also support employees through empowerment and stronger affective commitment, which can enhance work engagement (Li et al., 2024). Accordingly, digital leadership can be understood in terms of its capacity to combine technological direction with organizational and interpersonal support, creating conditions that enable employees to contribute to organizational goals.

Employee engagement represents one important mechanism through which leadership can influence employee behavior. (Robbins, S. P., & Judge, 2018) describe employee engagement as a state in which employees demonstrate involvement, satisfaction, and enthusiasm toward their work. Employees with high levels of engagement tend to display greater energy, dedication, and involvement in performing their responsibilities. Leadership experiences can also shape job satisfaction, defined as a positive emotional state resulting from an individual's evaluation of their work and work experiences. These two constructs are important because effective leadership not only directs employees toward achieving organizational targets but also shapes psychological conditions that encourage involvement and positive evaluations of the work environment.

Employee engagement and job satisfaction have important implications for employee performance. Meta-analytic evidence indicates that work engagement is positively associated with performance (Neuber et al., 2022), while job satisfaction also demonstrates a positive relationship with job performance (Katebi et al., 2022). Employee performance reflects individuals' work outcomes, including the quality and quantity of their contributions. However, performance is not determined solely by technical capabilities; leadership practices and employees' psychological experiences also deserve attention. In the context of digital transformation, leaders need to provide technological direction while remaining responsive to employees' concerns and reactions to organizational change (Weber et al., 2022). Digital leadership can also strengthen work engagement by enhancing employees' perceptions of empowerment and affective commitment (Li et al., 2024). Furthermore, research indicates that digital leadership is positively associated with job satisfaction and job performance, with employees' work investment providing an additional mechanism linking leadership to these outcomes (Turan-Torun et al., 2025). Taken together, these findings provide a basis for examining employee engagement and job satisfaction as potential mediating pathways between digital leadership and employee performance. Leaders who provide support, clear communication, and opportunities for adaptation may create conditions that encourage employees' involvement, positive attitudes, and sustained effort. Accordingly, the relationships among digital leadership, employee engagement, job satisfaction, and employee performance should be examined through both direct associations and the psychological mechanisms that may connect leadership with performance.

Although these relationships have a strong theoretical basis, existing empirical evidence has not produced fully consistent conclusions. Digital leadership has a positive and significant effect on employee performance, reported an insignificant effect. Similar inconsistencies appear in the relationship between employee engagement and employee performance. found a significant effect, reported that employee engagement had no significant effect on performance. Divergent findings also emerge regarding job satisfaction and employee performance. identified a positive and significant effect, whereas found no significant relationship. These conflicting findings suggest that the relationship between leadership and performance requires a more comprehensive explanation.

This relationship can be explained through Social Exchange Theory, which posits that supportive interactions between leaders and employees can generate reciprocal attitudes and

behaviors. In this context, Digital Leadership may first shape employees' psychological conditions, particularly their engagement with work and satisfaction with their work experiences, through supportive communication, direction, and opportunities to adapt to digital changes. These positive psychological responses may subsequently encourage greater involvement, commitment, and effort, contributing to Employee Performance. Thus, the effect of Digital Leadership on Employee Performance may not occur solely through a direct pathway but also through Employee Engagement and Job Satisfaction as mediating mechanisms. However, further research is needed to examine employee engagement and job satisfaction simultaneously as mediating mechanisms linking digital leadership to employee performance. This study addresses that gap by integrating these four constructs into a single model to provide a more comprehensive explanation of how digital leadership influences employee performance. This approach may clarify why digital leadership produces different performance outcomes depending on employees' levels of engagement and job satisfaction.

Based on this empirical gap, this study aims to examine the effect of digital leadership on employee performance, as well as its effects on employee engagement and job satisfaction, the effects of these two variables on employee performance, and their mediating roles in the relationship between digital leadership and employee performance. The study adopts a quantitative survey approach and examines the relationships among the variables using Structural Equation Modeling-Partial Least Squares (SEM-PLS). Academically, this study is expected to contribute to a broader understanding of the psychological mechanisms linking digital leadership to employee performance. Practically, the findings are expected to provide a basis for organizations to develop digital leadership practices that extend beyond technology adoption by strengthening employee engagement and job satisfaction as strategic pathways for achieving sustainable performance.

## 2. Methods

This study employed a quantitative approach with an explanatory survey design to examine the relationships among Digital Leadership, Employee Engagement, Job Satisfaction, and Employee Performance. This approach was adopted to empirically test the proposed hypotheses and explain the relationships among the constructs based on numerical data derived from employees' perceptions. The unit of analysis was individual employees working within the organizational context of the study. The study population consisted of 640 employees. Based on the Isaac and Michael approach, the minimum required sample size was 240 respondents. Sampling was conducted using proportional random sampling, taking into account the proportion of employees within each group or unit. In practice, 348 complete and valid questionnaires were obtained, and all were included in the analysis. The actual number of respondents therefore exceeded the minimum sample requirement.

Primary data were collected through a structured questionnaire developed by adapting indicators from previous *studies* and tailoring them to the research context. All constructs were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The instrument was evaluated beforehand to ensure the clarity and appropriateness of the items before the main data collection was conducted.

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.1.1.8. The analysis involved evaluating the measurement model (outer model) through reliability and validity assessments and evaluating the structural model (inner model) using $R^2$, path coefficients, and significance testing through bootstrapping. The bootstrapping procedure was performed using 5,000 bootstrap subsamples to assess the significance of the direct and indirect effects. The indirect effects were evaluated based on the bootstrap results, particularly the path coefficient, t-statistic, and p-value. Mediation was assessed by examining the significance of both the indirect effect and the corresponding direct effect to determine whether Employee Engagement and Job Satisfaction mediated the relationship between Digital Leadership and Employee Performance.

## 3. Results

### Measurement Model (Outer Model)

Validity refers to the extent to which an instrument accurately measures the constructs under investigation (Ghozali, 2021). A valid instrument produces accurate data that appropriately represent the actual conditions and is therefore suitable for use in the study. This study first assessed *convergent validity* to ensure that each indicator adequately represents the latent construct being measured. According to (Hair, Hult, et al., 2017), reflective indicators are considered valid when their *outer loading* or *factor loading* is ≥ 0.70. Indicators with values below 0.70 should be evaluated and may be removed if necessary to meet the validity criteria. The results of the *convergent validity* assessment are presented in the following table.

**Table 1.** Convergent Validity: Outer Loadings

| Variable | Indicator | Outer Loading | Status |
|---|---|---|---|
| *Digital Leadership (X1)* | DL1 | 0.810 | Valid |
| | DL2 | 0.807 | Valid |
| | DL3 | 0.796 | Valid |
| | DL4 | 0.796 | Valid |
| | DL5 | 0.809 | Valid |
| | DL6 | 0.821 | Valid |
| | DL7 | 0.852 | Valid |
| | DL8 | 0.860 | Valid |
| | DL9 | 0.829 | Valid |
| | DL10 | 0.831 | Valid |
| | DL11 | 0.836 | Valid |
| | DL12 | 0.800 | Valid |
| | DL13 | 0.803 | Valid |
| | DL14 | 0.806 | Valid |
| | DL15 | 0.819 | Valid |
| *Employee Engagement (X2)* | EE1 | 0.886 | Valid |
| | EE2 | 0.876 | Valid |
| | EE3 | 0.896 | Valid |
| | EE4 | 0.906 | Valid |
| | EE5 | 0.893 | Valid |
| *Job Satisfaction (X3)* | JS1 | 0.855 | Valid |
| | JS2 | 0.864 | Valid |
| | JS3 | 0.864 | Valid |
| | JS4 | 0.872 | Valid |
| | JS5 | 0.856 | Valid |
| | JS6 | 0.860 | Valid |
| | JS7 | 0.855 | Valid |
| | JS8 | 0.832 | Valid |
| | JS9 | 0.853 | Valid |
| | JS10 | 0.846 | Valid |
| | JS11 | 0.832 | Valid |
| | JS12 | 0.850 | Valid |
| | JS13 | 0.869 | Valid |
| | JS14 | 0.853 | Valid |
| | JS15 | 0.875 | Valid |
| | JS16 | 0.842 | Valid |
| | JS17 | 0.864 | Valid |
| *Employee Performance (Y)* | EP1 | 0.834 | Valid |
| | EP2 | 0.838 | Valid |
| | EP3 | 0.848 | Valid |
| | EP4 | 0.848 | Valid |
| | EP5 | 0.842 | Valid |
| | EP6 | 0.862 | Valid |
| | EP7 | 0.856 | Valid |
| | EP8 | 0.858 | Valid |
| | EP9 | 0.853 | Valid |
| | EP10 | 0.848 | Valid |
| | EP11 | 0.821 | Valid |
| | EP12 | 0.821 | Valid |
| | EP13 | 0.839 | Valid |

Based on the convergent validity test results, all indicators of Digital Leadership, Learning Agility, Employee Engagement, Job Satisfaction, and Employee Performance have factor loading values above 0.70. Therefore, all indicators are declared valid and capable of representing their respective constructs. Consequently, no indicators need to be eliminated. An overview of the factor loading results in the research model is presented in Figure 1.

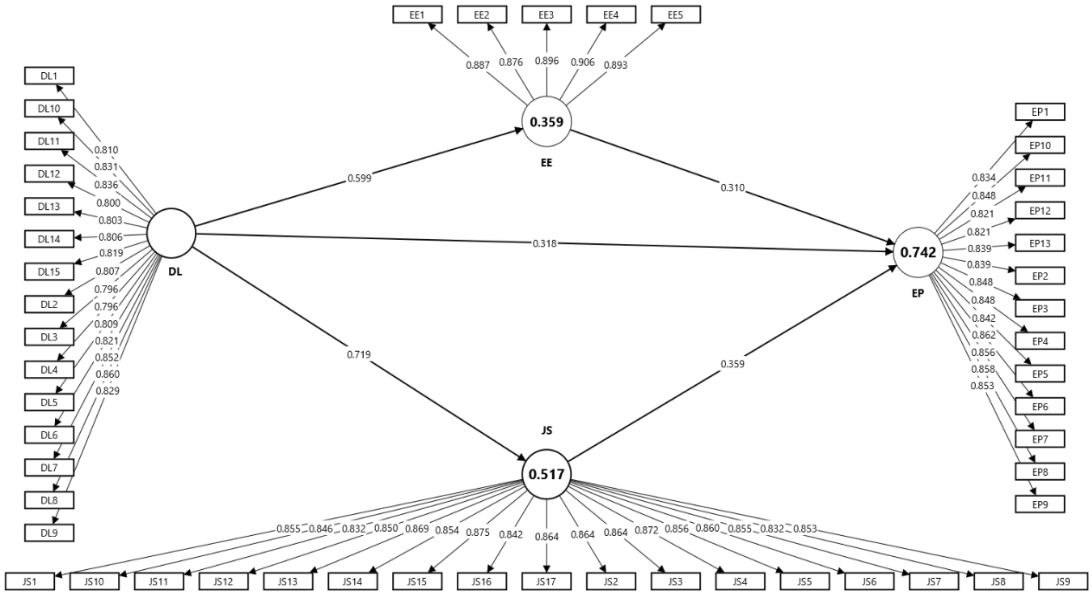


**Figure 1**. Research Structural Model Path Diagram

Discriminant validity was assessed to ensure that each concept of the latent variables is distinct from the others. Discriminant validity can be evaluated using the Fornell–Larcker criterion, where a model is considered to have good discriminant validity if the square root of the AVE for each exogenous construct (shown on the diagonal) is greater than the correlations between that construct and the other constructs (shown below the diagonal), (Henseler et al., 2015). The results of the Fornell–Larcker criterion test are presented as follows:

**Table 2.** Discriminant Validity: Fornell–Larcker Criterion

| Variable | DL | EE | EP | JS |
|---|---|---|---|---|
| Digital Leadership | 0.819 | | | |
| Employee Engagement | 0.599 | 0.892 | | |
| Employee Performance | 0.762 | 0.717 | 0.844 | |
| Job Satisfaction | 0.719 | 0.603 | 0.775 | 0.856 |

The assessment of discriminant validity was initially conducted using the Fornell–Larcker criterion. The results indicate that the square root of the Average Variance Extracted (√AVE) for each construct is greater than the inter-construct correlation values. Specifically, Digital Leadership yielded a √AVE of 0.819, which exceeds its correlations with Employee Engagement (0.599), Employee Performance (0.762), and Job Satisfaction (0.719). Likewise, the √AVE values for Employee Engagement, Employee Performance, and Job Satisfaction were 0.892, 0.844, and 0.856, respectively—all of which are also higher than their corresponding correlations with other constructs. These findings suggest that all variables have satisfactorily met the discriminant validity requirements based on the Fornell–Larcker criterion.

As a further step, discriminant validity was also examined using the Heterotrait-Monotrait Ratio (HTMT). This test was performed to ensure that each construct in the research model is conceptually distinct, allowing each latent variable to capture a unique dimension without overlapping with other constructs. Referring to the benchmark proposed by (Hair, Hult, et al., 2017),

a construct is considered to have adequate discriminant validity when the HTMT value is below 0.90. The HTMT test results for this study are presented in Table 3 below.

**Table 3.** Discriminant Validity: Heterotrait-Monotrait Ratio (HTMT)

| Variable | DL | EE | EP | JS |
|---|---|---|---|---|
| Digital Leadership | | | | |
| Employee Engagement | 0.629 | | | |
| Employee Performance | 0.787 | 0.753 | | |
| Job Satisfaction | 0.739 | 0.631 | 0.797 | |

The assessment of discriminant validity was further confirmed using the Heterotrait-Monotrait Ratio (HTMT). As presented in Table 3, all HTMT values between constructs fall below the recommended threshold of 0.90. Specifically, the HTMT value between Digital Leadership and Employee Engagement is 0.629; between Digital Leadership and Employee Performance is 0.787; between Digital Leadership and Job Satisfaction is 0.739; between Employee Engagement and Employee Performance is 0.753; between Employee Engagement and Job Satisfaction is 0.631; and between Employee Performance and Job Satisfaction is 0.797. These results provide strong evidence that all constructs in the research model are empirically distinct from one another, thereby confirming that the measurement instrument demonstrates good discriminant validity. As such, the measurement model is considered adequate to proceed with the structural model analysis.

Having established the validity of the constructs, the next step was to examine their reliability. In this regard, the questionnaire items were evaluated based on their internal consistency. Following the guidelines proposed by (Hair, Sarstedt, M.Ringle, et al., 2017), reliability was assessed using Cronbach's Alpha and Composite Reliability, with a recommended threshold of ≥ 0.7 for both measures. The reliability test results for each construct are summarized in Table 4 below.

**Table 4.** Reliability Testing

| Variable | Cronbach's Alpha | Critical Value | Composite Reliability | Critical Value | Conclusion |
|---|---|---|---|---|---|
| Digital Leadership (X1) | 0.965 | ≥0.7 | 0.968 | ≥0.7 | Reliable |
| Employee Engagement X2) | 0.966 | ≥0.7 | 0.970 | ≥0.7 | Reliable |
| Job Satisfaction (X3) | 0.977 | ≥0.7 | 0.979 | ≥0.7 | Reliable |
| Employee Performance (Y) | 0.979 | ≥0.7 | 0.980 | ≥0.7 | Reliable |

Based on the results presented in Table 4, it can be observed that the Composite Reliability values for all latent variables exceed the threshold of 0.7. Likewise, the Cronbach's Alpha values for each construct are also above 0.7. These findings lead to the conclusion that the questionnaire items have met the reliability criteria. This indicates that all indicators demonstrate adequate internal consistency in measuring their respective constructs.

**Structural Model (Inner Model)**

The evaluation of the structural model in PLS-SEM was conducted to ensure the model's fit and robustness through the examination of several key metrics, including SRMR, VIF, R-Square ($R^2$), and the significance of path coefficients. These assessments were employed to evaluate the overall quality of the model as well as the relationships among latent variables in the context of hypothesis testing. After confirming that the measurement model met all required criteria, the next step was to assess the overall model fit using the Standardized Root Mean Square Residual (SRMR). A model is considered to have good fit when the SRMR value is below 0.10 (Karin et al., 2003). The SRMR results obtained from the PLS model in this study are presented in Table 5 below.

**Table 5**. Standardized Root Mean Square Residual (SRMR) Values

| Fit Index | Saturated Model | Estimated Model |
|---|---|---|
| SRMR | 0,031 | 0,049 |

As shown in Table 5, the goodness-of-fit test results indicate that the SRMR value for the saturated model is 0.031 (< 0.10), while the SRMR value for the estimated model is 0.049 (< 0.10). These results indicate that the proposed research model has an adequate level of fit and is therefore suitable for further analysis and hypothesis testing. After assessing the goodness of fit, a multicollinearity test was performed to determine whether the predictor variables in the research model have excessively high correlations. A well-constructed model should be free from high correlations among the independent variables, as excessive correlation may indicate multicollinearity (Hair, Hult, et al., 2017). The decision criterion is based on the Variance Inflation Factor (VIF), where a VIF value below 5 indicates that multicollinearity is not present, while a VIF value above 5 indicates the presence of multicollinearity (Hair et al., 2012). The results of the multicollinearity test in this study are presented as follows:

**Table 6.** Multicollinearity Test Results

| Variable | Highest VIF | Description |
|---|---|---|
| DL -> EE | 1.000 | No indication of multicollinearity |
| DL -> EP | 2.274 | No indication of multicollinearity |
| DL -> JS | 1.000 | No indication of multicollinearity |
| EE -> EP | 1.726 | No indication of multicollinearity |
| JS -> EP | 2.292 | No indication of multicollinearity |

Based on Table 6, the highest VIF value is 2.274, which is still well below the threshold of 5. This indicates that the predictor variables in the research model do not exhibit problematic multicollinearity. Therefore, the model satisfies the required criteria for the absence of multicollinearity. Following the multicollinearity assessment, the coefficient of determination ($R^2$) was evaluated to determine the extent to which the exogenous variables explain the variation in the endogenous variables. The $R^2$ value ranges from 0 to 1, with values closer to 1 indicating stronger explanatory power. According to Garson (2016), $R^2$ values greater than 0.67 are considered strong, values ranging from 0.33 to 0.67 are considered moderate, and values between 0.19 and 0.33 are considered weak. The results of the $R^2$ assessment in this study are presented in the following table.

**Table 7.** Coefficient of Determination R-Square ($R^2$)

| Variable | R-Square ($R^2$) | Description |
|---|---|---|
| Employee Engagement | 0,359 | Moderate |
| Job Satisfaction | 0,517 | Moderate |
| Employee Performance | 0,742 | Strong |

Based on the model estimation results, *Employee Engagement* obtained an $R^2$ value of 0.359, which falls within the moderate category. This value indicates that the exogenous variables in the model are able to explain 35.9% of the variation in *Employee Engagement*. Meanwhile, *Job Satisfaction* obtained an $R^2$ value of 0.517, which is also categorized as moderate, indicating that 51.7% of its variation can be explained by the variables included in the model. In contrast, *Employee Performance* obtained an $R^2$ value of 0.742, which falls into the strong category, meaning that 74.2% of its variation can be explained by the exogenous variables included in the research model. These results indicate that the structural model has relatively good explanatory power, particularly in explaining the variation in *Employee Performance*.

The subsequent hypothesis testing was conducted to identify the significance and direction of the relationships among the variables in the structural model. In the PLS-SEM approach, hypothesis testing was performed using the *bootstrapping* procedure with a 95% confidence level ($\alpha = 0.05$). Decisions regarding the hypotheses were based on the *t-statistic* and *p-value*. A hypothesis is accepted when the *t-statistic* is greater than 1.96 or the *p-value* is less than 0.05 (Hair, Hult, et al., 2017). The results of the hypothesis testing in this study are presented in Table 8.

Table 8 presents the hypothesis testing results indicate that all relationships in the proposed research model have positive and statistically significant effects. All proposed hypotheses are

therefore accepted, as each relationship has a *t-statistic* value greater than 1.96 and a *p-value* below 0.05. These findings demonstrate that Digital Leadership (DL) plays an important role in enhancing Employee Engagement (EE), Employee Performance (EP), and Job Satisfaction (JS), both directly and through mediating mechanisms.

**Table 8.** Path Coefficient Significance (Hypothesis Testing)

| No | Hypothesis | Causality | Original Sample (O) | t-statistic | p-values | Decision |
|---|---|---|---|---|---|---|
| 1 | H1 | Digital Leadership -> Employee Engagement | 0.599 | 9.118 | 0.000 | Accepted |
| 2 | H2 | Digital Leadership -> Employee Performance | 0.318 | 3.549 | 0.000 | Accepted |
| 3 | H3 | Digital Leadership -> Job Satisfaction | 0.719 | 12.165 | 0.000 | Accepted |
| 4 | H4 | Employee Engagement -> Employee Performance | 0.310 | 5.598 | 0.000 | Accepted |
| 5 | H5 | Job Satisfaction -> Employee Performance | 0.359 | 4.356 | 0.000 | Accepted |
| 6 | H6 | Digital Leadership -> Employee Engagement -> Employee Performance | 0.186 | 4.569 | 0.001 | Accepted |
| 7 | H7 | Digital Leadership -> Job Satisfaction -> Employee Performance | 0.258 | 4.215 | 0.001 | Accepted |

Hypothesis 1 indicates that Digital Leadership has a positive effect on Employee Engagement, with a path coefficient of 0.599, a *t-statistic* of 9.118, and a *p-value* of 0.000. This result indicates that stronger implementation of digital leadership within an organization is associated with higher levels of employee engagement. The relatively high path coefficient suggests that Digital Leadership has a substantial influence on fostering Employee Engagement.

Hypothesis 2 demonstrates that Digital Leadership has a positive effect on Employee Performance, with a path coefficient of 0.318, a *t-statistic* of 3.549, and a *p-value* of 0.000. This finding indicates that the implementation of digital leadership can directly contribute to improved employee performance. Leaders who are capable of providing effective direction, leveraging digital technologies, and encouraging employees to adapt to digital transformation can support employees in achieving better performance.

Furthermore, Hypothesis 3 shows that Digital Leadership has a positive effect on Job Satisfaction, with a path coefficient of 0.719, a *t-statistic* of 12.165, and a *p-value* of 0.000. This relationship represents the strongest direct effect in the model, indicating that Digital Leadership plays a highly important role in enhancing employees' job satisfaction. Leadership that provides clear direction, supports the effective use of technology, and fosters an adaptive work environment can enhance employees' positive perceptions of their work.

Hypothesis 4 indicates that Employee Engagement has a positive effect on Employee Performance, with a path coefficient of 0.310, a *t-statistic* of 5.598, and a *p-value* of 0.000. This result suggests that employees who demonstrate higher levels of engagement with their work and organization tend to exhibit better performance. Employee Engagement is therefore an important factor contributing to increased productivity and the achievement of employees' work-related outcomes.

Hypothesis 5 demonstrates that Job Satisfaction has a positive effect on Employee Performance, with a path coefficient of 0.359, a *t-statistic* of 4.356, and a *p-value* of 0.000. This finding indicates that higher levels of employee job satisfaction are associated with better performance. Employees who are satisfied with their work, work environment, and other aspects of their employment tend to demonstrate greater contributions and achieve more optimal work outcomes.

In addition to the direct effects, this study also examined indirect effects through the proposed mediating variables. Hypothesis 6 indicates that Digital Leadership has a positive indirect effect on Employee Performance through Employee Engagement, with an indirect effect coefficient of 0.186,

a *t-statistic* of 4.569, and a *p-value* of 0.001. This result indicates that Employee Engagement serves as a mediating mechanism linking Digital Leadership to Employee Performance. Thus, digital leadership not only improves employee performance directly but also enhances performance by strengthening employees' engagement with their work and organization.

Furthermore, Hypothesis 7 demonstrates that Digital Leadership has a positive indirect effect on Employee Performance through Job Satisfaction, with an indirect effect coefficient of 0.258, a *t-statistic* of 4.215, and a *p-value* of 0.001. This finding indicates that Job Satisfaction also serves as a mediating mechanism in the relationship between Digital Leadership and Employee Performance. In other words, effective Digital Leadership can enhance employees' job satisfaction, which subsequently contributes to improved employee performance.

The hypothesis testing results demonstrate that Digital Leadership is an important determinant of Employee Performance, both through its direct effect and through Employee Engagement and Job Satisfaction as mediating variables. Notably, the direct effect of Digital Leadership on Job Satisfaction represents the strongest relationship in the model (β = 0.719), while the indirect effect through Job Satisfaction (β = 0.258) is greater than the indirect effect through Employee Engagement (β = 0.186). This finding suggests that Job Satisfaction plays a relatively stronger mediating role in explaining how Digital Leadership contributes to improved Employee Performance.

## 4. Discussion

The findings of this study indicate that Digital Leadership is positively associated with Employee Engagement, Job Satisfaction, and Employee Performance. Among the direct relationships examined, the association between Digital Leadership and Job Satisfaction is the strongest, with a path coefficient of 0.719. This suggests that employees who perceive stronger digital leadership also report greater job satisfaction. A possible explanation is that effective digital leaders combine technological direction with interpersonal capabilities, helping employees navigate changing organizational demands. This interpretation draws on Tigre et al. (2025), who conceptualize digital leadership through both business-related and interpersonal dimensions. Although this study does not directly establish the mechanisms underlying job satisfaction, it suggests that the human dimension of digital leadership deserves attention when interpreting employees' work experiences.

Digital Leadership also has a positive association with Employee Engagement, with a path coefficient of 0.599. This finding is consistent with the mechanism identified by Khan et al. (2025), who found that digital leadership enhances employee empowerment, which subsequently supports techno-work engagement. Effective digital leadership may therefore encourage engagement by enabling employees to participate more confidently in technology-supported work. Complementing this explanation, Panda et al. (2022) demonstrated that employee engagement mediates the relationship between job meaningfulness and job performance, highlighting the importance of employees' psychological involvement in their work.

Employee Engagement and Job Satisfaction are also positively associated with Employee Performance, with coefficients of 0.310 and 0.359, respectively. The engagement finding should nevertheless be interpreted in light of evidence that this relationship varies across settings. Nguyen and Nguyen (2023) found no statistically significant relationship between employee engagement and performance, while Yao et al. (2022) identified an inverted U-shaped relationship moderated by psychological capital. Regarding job satisfaction, the present findings align with Susanto et al. (2022), who identified its mediating role between work-life balance and performance. Wang et al. (2022) also reported direct and indirect relationships between satisfaction and performance through organizational commitment and burnout. Furthermore, Bangun et al. (2021) found that happiness partially mediates the satisfaction–performance relationship. Together, these studies suggest that engagement and satisfaction are relevant to performance, while their contributions depend on the psychological and organizational conditions surrounding employees' work.

Consistent with these findings, Digital Leadership also has a direct positive effect on Employee Performance, with a path coefficient of 0.318. This result supports the findings of Zhu et al. (2022) and Yolanda and Yulianti (2024), who demonstrated that digital leadership can improve employees' capabilities, effectiveness, and productivity through appropriate direction and support in

responding to technological developments. Therefore, the effect of Digital Leadership on performance occurs not only directly but also through employees' psychological conditions and positive attitudes toward their work.

This finding is further supported by the results of the indirect effect analysis, which demonstrates that Employee Engagement and Job Satisfaction mediate the relationship between Digital Leadership and Employee Performance. The indirect effect through Employee Engagement is 0.186, whereas the indirect effect through Job Satisfaction is 0.258. These results indicate that Job Satisfaction has a relatively stronger mediating role than Employee Engagement. This finding is consistent with Mollah et al., (2024) and Dio et al., (2026) who found that digital leadership can improve employee performance by enhancing employee engagement and job satisfaction.

The findings demonstrate that Digital Leadership is a strategic factor in improving Employee Performance, both directly and through Employee Engagement and Job Satisfaction. The strongest relationship is observed between Digital Leadership and Job Satisfaction, indicating that leaders' ability to manage change and effectively leverage technology can create a more positive work experience. This condition subsequently strengthens employee engagement and job satisfaction, which ultimately contributes to improved Employee Performance.

## 5. Conclusion

This study examines the effect of Digital Leadership on Employee Engagement, Employee Performance, and Job Satisfaction, as well as the mediating roles of Employee Engagement and Job Satisfaction in the relationship between Digital Leadership and Employee Performance. The findings demonstrate that Digital Leadership has positive and significant effects on Employee Engagement, Employee Performance, and Job Satisfaction. Among the direct relationships examined, the effect of Digital Leadership on Job Satisfaction is the strongest. The findings indicate that effective Digital Leadership can create an adaptive and supportive work environment, while Employee Engagement and Job Satisfaction are positively and significantly associated with Employee Performance. These findings have practical implications for organizations and leaders, suggesting that Digital Leadership should not only focus on facilitating technology adoption but also on strengthening employee engagement and satisfaction. Leaders can enhance Employee Engagement by involving employees in digital initiatives, encouraging two-way communication, providing opportunities to share ideas, and recognizing employee contributions, while Job Satisfaction can be supported through assistance during technological changes, clear communication, opportunities for skill development, and recognition of employee achievements. By integrating technology-oriented leadership with a people-oriented approach, organizations can create a work environment that supports Employee Engagement and Job Satisfaction as relevant pathways associated with Employee Performance.

The findings further demonstrate that Employee Engagement and Job Satisfaction mediate the relationship between Digital Leadership and Employee Performance. The indirect effect through Job Satisfaction is stronger than the indirect effect through Employee Engagement, indicating that Job Satisfaction represents a relatively more prominent mechanism through which Digital Leadership contributes to improved Employee Performance. Overall, The findings indicate that Digital Leadership is positively associated with Employee Performance, with Employee Engagement and Job Satisfaction representing significant indirect pathways in this relationship. These findings emphasize that digital leadership is not merely associated with the ability to utilize technology but also with leaders' ability to create working conditions that enhance employee engagement and job satisfaction, ultimately contributing to improved performance.

This study has several limitations that should be acknowledged. First, the use of a cross-sectional research design limits the ability of the study to provide a more comprehensive explanation of causal relationships among the variables over time. Second, the study was conducted within a specific organizational context, which means that the generalizability of the findings to other organizations, industrial sectors, or employee groups should be considered with caution. Third, the use of self-reported questionnaire data may potentially introduce response bias. Therefore, future studies are encouraged to employ longitudinal research designs, involve multiple organizations or industrial sectors, and incorporate more objective measures of employee performance. Future

research may also consider additional mediating or moderating variables, such as Digital Competency, Organizational Culture, Psychological Empowerment, or Organizational Support, to obtain a more comprehensive understanding of the mechanisms through which Digital Leadership influences employee outcomes.

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