

# Analysis of Transformational Leadership, Competence, and Digital Transformation on Employee Performance with Work Motivation as a Mediating Variable

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**Abstract:** This study aims to analyze the influence of transformational leadership, competence, and digital transformation on employee performance, with work motivation serving as a mediating variable. The study was conducted at the Directorate General of Marine and Fishery Resources Surveillance. A quantitative approach was employed, utilizing surveys for data collection. The sample consisted of 309 randomly selected employees. Data were analyzed using regression analysis to examine the relationships between the variables under study. The results indicate that transformational leadership has a positive, albeit very small, effect on performance. Competence has a positive and significant effect on performance. Digital transformation has a positive and significant effect on performance. Transformational leadership, competence, and digital transformation each have a positive and significant effect on work motivation. Work motivation has a positive and significant effect on performance. Transformational leadership and competence positively and significantly influence performance through work motivation; the influence of digital transformation on performance through work motivation is also positive. These findings highlight the importance of transformational leadership, competence, and digital transformation in enhancing employee performance and demonstrate that work motivation can amplify the effectiveness of these variables. This study is expected to serve as a reference for policymakers in formulating human resource development strategies within the marine and fisheries sector.

**Keywords:** Transformational leadership, competence, digital transformation, employee performance, work motivation.

## 1. Introduction

Employee performance is a fundamental determinant of organizational effectiveness, particularly in public-sector institutions whose responsibilities are directly associated with the implementation of government policies, public services, and the achievement of national development objectives. High employee performance enables public organizations to translate institutional strategies into measurable outcomes, while inadequate performance may reduce organizational efficiency, service quality, and the achievement of institutional targets. In an increasingly dynamic administrative environment, employee performance can no longer be viewed solely as the result of individual effort but must be understood as an outcome of leadership, employee competence, technological adaptation, and work motivation. Recent studies have consistently demonstrated that competence and motivation are important determinants of employee performance, although the magnitude and significance of these relationships may vary across organizational contexts.

One of the organizational factors that has received substantial attention in human resource management research is transformational leadership. Transformational leaders encourage employees to move beyond routine task completion by communicating a compelling organizational vision, providing intellectual stimulation, demonstrating individualized consideration, and motivating employees to achieve higher levels of performance. In public organizations, transformational leadership is particularly relevant because employees frequently operate within complex bureaucratic structures that require adaptation, innovation, accountability, and responsiveness to changing stakeholder expectations. Empirical evidence indicates that transformational leadership can positively influence employee performance and work motivation. For example, previous research in Indonesia found that transformational leadership significantly influenced both employee performance and work motivation, while work motivation also contributed positively to employee performance. Nevertheless, other research has reported that transformational leadership does not always have a direct effect on

performance and may operate through behavioral or psychological mechanisms such as organizational citizenship behavior. These contrasting findings suggest that the relationship between transformational leadership and employee performance requires further investigation, particularly by considering work motivation as an explanatory mechanism.

In parallel with leadership dynamics, employee competence represents another critical determinant of organizational performance. Competence encompasses the knowledge, skills, abilities, experience, and behavioral attributes required for employees to perform their responsibilities effectively. Employees possessing appropriate competencies are generally better equipped to solve problems, adapt to organizational changes, use organizational resources efficiently, and achieve performance targets. Empirical research in Indonesia has shown that employee competence is positively associated with performance. Studies involving public institutions and private organizations have reported that competency contributes significantly to employee performance, although its effects can differ depending on organizational conditions and other intervening variables. Research involving public-sector employees has also demonstrated that competence and work motivation can jointly contribute to performance, highlighting the importance of developing both employees' capabilities and psychological willingness to perform.

The increasing adoption of digital technologies has further transformed the nature of employee competence and organizational performance. Digital transformation is no longer limited to the implementation of information technology but involves fundamental changes in organizational processes, work systems, communication patterns, decision-making, and employee capabilities. Public institutions are increasingly expected to integrate digital technologies into administrative processes, monitoring activities, information management, and service delivery. Consequently, employees must possess sufficient digital capabilities to operate within increasingly technology-driven work environments. Digital transformation may improve organizational efficiency and facilitate access to information, but it can also create new demands on employees, particularly when technological changes occur faster than employees' ability to adapt. Recent studies emphasize that digital transformation has become closely associated with employee performance and human resource management, while transformational leadership can play an important role in facilitating employee adaptation to digital change.

The interaction between transformational leadership and digital transformation is particularly important because technological transformation does not automatically produce better employee performance. Organizational leaders must create an environment in which employees understand the purpose of digital change, develop the confidence to use new technologies, and remain motivated throughout the transformation process. Recent evidence from Indonesian organizations suggests that transformational leadership and digital transformation are increasingly examined together as determinants of employee performance. This indicates that technological transformation should be considered not merely as an organizational infrastructure issue but also as a human resource management issue. Employees' responses to digital transformation may depend on leadership support, competency, and motivation.

Work motivation provides an important psychological mechanism linking organizational conditions to employee performance. Motivation reflects the internal and external forces that encourage employees to initiate, direct, and sustain work-related behavior. Employees with stronger motivation are more likely to demonstrate persistence, commitment, initiative, and willingness to achieve organizational objectives. Existing empirical studies consistently identify work motivation as an important factor associated with employee performance. For instance, research conducted among public-sector employees in Indonesia found that work motivation had a positive and significant relationship with employee performance. Similarly, studies conducted in organizational settings have

demonstrated that competence and motivation significantly contribute to performance, suggesting that employee capability alone may not be sufficient when employees lack the motivation to utilize their capabilities effectively.

The role of motivation becomes even more relevant when organizations undergo leadership and technological changes simultaneously. Transformational leaders can increase employees' motivation by articulating meaningful goals, recognizing employee contributions, encouraging innovation, and providing psychological support. At the same time, employees with appropriate competencies may perceive digital transformation as an opportunity for professional development rather than merely an additional organizational demand. Thus, transformational leadership, competence, and digital transformation may influence employee performance not only directly but also through employees' motivation. Previous studies have provided evidence that work motivation can mediate relationships between leadership, competence, and employee performance. However, much of the existing literature has examined these relationships separately or has focused on private-sector organizations, financial institutions, manufacturing firms, or local government offices. There remains a need to examine the integrated relationship among transformational leadership, competence, digital transformation, work motivation, and employee performance within a specific public-sector institutional context.

This research addresses that gap by examining employees at the Directorate General of Marine and Fisheries Resources Surveillance, an institution that operates within a strategic public-sector environment characterized by regulatory responsibilities, surveillance activities, technological requirements, and demands for effective institutional performance. The nature of its organizational responsibilities requires employees to possess not only technical and administrative competencies but also the motivation and adaptability necessary to respond to changes in technology and organizational policies. In such an environment, transformational leadership may be particularly important in encouraging employees to embrace organizational change, while competence determines their capacity to execute responsibilities effectively. Digital transformation, meanwhile, provides both opportunities and challenges for improving work processes and employee productivity.

Although previous studies have established relationships between transformational leadership, competence, digital transformation, motivation, and employee performance, the simultaneous integration of these variables remains relatively limited, especially in public institutions responsible for marine and fisheries resource surveillance. Moreover, previous findings are not entirely consistent. Some studies demonstrate direct and significant relationships between transformational leadership and employee performance, whereas others suggest that the effect may depend on mediating mechanisms. Similarly, evidence regarding competence and performance indicates that contextual factors can influence the strength and significance of the relationship. These inconsistencies provide a meaningful research opportunity to develop a more integrated understanding of employee performance in a public-sector organization undergoing digital transformation.

Accordingly, this study aims to analyze the influence of transformational leadership, competence, and digital transformation on employee performance, with work motivation serving as a mediating variable. Specifically, the study examines whether transformational leadership, competence, and digital transformation contribute to employee performance; whether these factors influence work motivation; whether work motivation contributes to employee performance; and whether work motivation mediates the relationships between the three explanatory variables and employee performance. By integrating leadership, human capital, technological transformation, and motivational perspectives within a single analytical framework, this research seeks to contribute to the development of a more comprehensive model of employee performance in the public sector.

Theoretically, this study contributes to the human resource management literature by integrating organizational leadership, employee competence, digital transformation, and motivational perspectives

into a unified framework. Practically, the findings are expected to provide evidence for managers and policymakers in designing human resource strategies that strengthen leadership effectiveness, employee competencies, digital adaptability, and motivation. Such strategies are particularly important for public institutions seeking to improve organizational performance amid rapid technological and institutional change. Ultimately, strengthening these interconnected dimensions may enable public-sector organizations to develop a more adaptive, competent, and motivated workforce capable of achieving sustainable improvements in employee and organizational performance.

## 2. Research Methodology

### 2.1 Research Design

This study employed a quantitative research approach using a cross-sectional survey design to examine the relationships among transformational leadership, employee competence, digital transformation, work motivation, and employee performance. The research was conducted at the Directorate General of Marine and Fishery Resources Surveillance (Direktorat Jenderal Pengawasan Sumber Daya Kelautan dan Perikanan—Ditjen PSDKP). The research model was designed to examine both the direct effects of transformational leadership, competence, and digital transformation on employee performance and their indirect effects through work motivation as a mediating variable. The quantitative design was selected because the study seeks to empirically test theoretically derived relationships among latent constructs using numerical data obtained from respondents. The analytical framework consists of three exogenous constructs—transformational leadership (X1), employee competence (X2), and digital transformation (X3)—one mediating construct, work motivation (Y), and one endogenous construct, employee performance (Z). The proposed relationships were evaluated through a structural model that simultaneously estimates direct and indirect effects.

### 2.2 Population and Sampling

The population comprised employees of the Directorate General of Marine and Fishery Resources Surveillance. A total of 309 employees participated in the study. Because the study involved the entire accessible population that met the research criteria, a saturated sampling (census) technique was employed. Thus, all 309 eligible employees were included as research respondents. The use of saturated sampling was considered appropriate because the research sought to obtain comprehensive empirical evidence from the identified organizational population rather than estimate parameters from a smaller probabilistic sample. Accordingly, the sample size consisted of 309 respondents, representing the employees included within the scope of the study. The original manuscript reports the respondents' demographic characteristics in terms of age, gender, educational attainment, tenure, and job category.

### 2.3 Data Collection Procedure

Primary data were collected using a structured, closed-ended questionnaire distributed online through Google Forms. The questionnaire was developed based on the conceptual dimensions and indicators of the five constructs examined in the study: transformational leadership, employee competence, digital transformation, work motivation, and employee performance. The questionnaire items were adapted from the theoretical and empirical literature identified in the research framework. All constructs were measured using a 10-point agreement scale, ranging from 1 = strongly disagree to 10 = strongly agree. The use of a 10-point scale enabled respondents to express more differentiated perceptions regarding the conditions of leadership, competence, digital transformation, motivation, and performance within the organization. The questionnaire was designed to ensure consistency in measurement across all constructs. Respondents were asked to assess each statement according to their perceptions and experiences within the organization. The resulting data were subsequently coded and

prepared for statistical analysis using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach.

## 2.4 Measurement of Variables

The study consisted of five latent variables. The operationalization of the constructs was based on the dimensions and indicators presented in the original research instrument. Transformational leadership (X1) was measured through four dimensions: idealized influence, intellectual stimulation, individual consideration, and inspirational motivation. These dimensions represent the extent to which leaders act as role models, stimulate employees to think creatively, provide individualized attention, and communicate an inspiring organizational vision. Employee competence (X2) was measured using four dimensions: knowledge, understanding, skill, and value. These dimensions capture employees' cognitive and technical capabilities as well as the behavioral values required to perform their responsibilities effectively.

Digital transformation (X3) was operationalized through four dimensions: customer experience, operational efficiency, business model, and organizational culture. In the context of this public-sector study, these dimensions capture the extent to which digital technologies improve interaction and value creation, internal processes, data integration, organizational practices, innovation, collaboration, and technological adaptation. Work motivation (Y) was measured using dimensions associated with autonomy, competence, and relatedness. These dimensions reflect employees' perceived independence in performing their work, opportunities to develop their capabilities, relationships with colleagues and supervisors, and teamwork.

Employee performance (Z) was measured through work quality, work quantity, timeliness, effectiveness, and independence. These dimensions represent employees' ability to complete tasks according to established standards, accomplish an appropriate volume of work, meet deadlines, work effectively, and perform responsibilities independently.

The measurement indicators and their respective constructs are summarized in Table 1.

**Table 1. Operationalization of Research Variables**

| Construct                        | Dimensions               | Measurement Indicators                                                | Scale |
|----------------------------------|--------------------------|-----------------------------------------------------------------------|-------|
| Transformational Leadership (X1) | Idealized Influence      | Leader acts as a role model and is trustworthy                        | 1-10  |
|                                  | Intellectual Stimulation | Leader encourages creativity and new ways of thinking                 | 1-10  |
|                                  | Individual Consideration | Leader treats employees as individuals and considers their needs      | 1-10  |
|                                  | Inspirational Motivation | Leader provides an inspiring vision and direction                     | 1-10  |
| Employee Competence (X2)         | Knowledge                | Knowledge and information supporting job responsibilities             | 1-10  |
|                                  | Understanding            | Ability to comprehensively understand tasks                           | 1-10  |
|                                  | Skill                    | Technical ability to perform assigned tasks                           | 1-10  |
|                                  | Value                    | Behavioral standards and values integrated into work behavior         | 1-10  |
| Digital Transformation (X3)      | Customer Experience      | Digital interaction that creates additional value and personalization | 1-10  |

|                          |                        |                                                                            |      |
|--------------------------|------------------------|----------------------------------------------------------------------------|------|
|                          | Operational Efficiency | Automation and integrated data management to improve internal processes    | 1–10 |
|                          | Business Model         | Changes in how organizational value is created and delivered               | 1–10 |
|                          | Organizational Culture | Culture supporting innovation, collaboration, and technological adaptation | 1–10 |
| Work Motivation (Y)      | Autonomy               | Independence and trust in performing work                                  | 1–10 |
|                          | Competence             | Ability to complete tasks and opportunities for self-development           | 1–10 |
|                          | Relatedness            | Relationships with colleagues and supervisors and teamwork                 | 1–10 |
| Employee Performance (Z) | Work Quality           | Work results meet established standards                                    | 1–10 |
|                          | Work Quantity          | Amount of work completed                                                   | 1–10 |
|                          | Timeliness             | Ability to complete work on time                                           | 1–10 |
|                          | Effectiveness          | Ability to work effectively                                                | 1–10 |
|                          | Independence           | Ability to complete work without assistance                                | 1–10 |

Source: Adapted from the measurement framework reported in the study; data processed by the authors (2026).

## 2.5 Data Analysis

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0. PLS-SEM was selected because the research model incorporates several latent constructs and examines both direct and mediated relationships within a single structural framework. The analysis consisted of two principal stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model).

### 2.5.1 Measurement Model Evaluation

The measurement model was evaluated to establish the reliability and validity of the constructs before testing the structural relationships. Convergent validity was assessed through indicator loadings. In accordance with the criteria applied in the original study, indicators with loading values above 0.70 were considered to demonstrate satisfactory convergent validity. Discriminant validity was assessed by examining the extent to which each construct was empirically distinct from the other constructs in the model. The original analysis employed cross-loading values, with an indicator expected to load more strongly on its associated construct than on the other constructs. In addition, construct reliability should be assessed using Cronbach's alpha and composite reliability, while convergent validity can be further supported by the Average Variance Extracted (AVE). For a Scopus-oriented presentation, the recommended reporting criteria are Cronbach's alpha and composite reliability  $\geq 0.70$  and AVE  $\geq 0.50$ . These statistics provide additional evidence that the indicators consistently measure their respective latent constructs.

### 2.5.2 Structural Model Evaluation

After the measurement model was established, the structural model was evaluated to examine the explanatory and predictive relationships among the constructs. The assessment included coefficient of determination ( $R^2$ ), effect size ( $f^2$ ), path coefficients, and hypothesis testing. The  $R^2$  value was used to determine the proportion of variance in the endogenous constructs explained by their predictor

variables. In the present model,  $R^2$  was evaluated for both work motivation and employee performance. The original results indicate that the adjusted  $R^2$  for work motivation was 0.701, whereas the adjusted  $R^2$  for employee performance was 0.773, indicating substantial explanatory capability of the structural model. The effect size ( $f^2$ ) was examined to assess the contribution of individual exogenous constructs to the endogenous constructs. The study reported  $f^2$  values for the relationships involving transformational leadership, competence, digital transformation, work motivation, and employee performance.

## 2.6 Hypothesis Testing

Hypotheses were tested using the bootstrapping procedure available in SmartPLS 4.0. Bootstrapping generates standard errors and empirical sampling distributions that allow the significance of the estimated path coefficients to be evaluated. The original study used the criterion of  $t$ -statistic  $> 1.96$  at the 5% significance level for determining statistical significance.

The direct effects tested in the structural model were:

- Transformational leadership  $\rightarrow$  employee performance;
- Employee competence  $\rightarrow$  employee performance;
- Digital transformation  $\rightarrow$  employee performance;
- Transformational leadership  $\rightarrow$  work motivation;
- Employee competence  $\rightarrow$  work motivation;
- Digital transformation  $\rightarrow$  work motivation; and
- Work motivation  $\rightarrow$  employee performance.

The mediation hypotheses examined whether work motivation transmitted the effects of transformational leadership, competence, and digital transformation to employee performance. Accordingly, the indirect effects were assessed through the following paths:

Transformational Leadership  $\rightarrow$  Work Motivation  $\rightarrow$  Employee Performance

Employee Competence  $\rightarrow$  Work Motivation  $\rightarrow$  Employee Performance

Digital Transformation  $\rightarrow$  Work Motivation  $\rightarrow$  Employee Performance

The significance of the indirect effects was evaluated using the bootstrapping results. This procedure allows the study to determine whether work motivation functions as a statistically significant mechanism through which the three antecedent variables contribute to employee performance.

## 3. Results and Discussion

### 3.1 Results

#### 3.1 Respondent Characteristics

The study involved 309 employees of the Directorate General of Marine and Fishery Resources Surveillance (Ditjen PSDKP). The respondents were characterized based on age, gender, educational attainment, length of service, and job category. These characteristics provide an overview of the composition of the respondents and the organizational context in which the research variables were assessed. In terms of age, 25 respondents (8%) were between 20 and 30 years old, 123 respondents (40%) were between 31 and 40 years old, 136 respondents (44%) were between 41 and 50 years old, and 25 respondents (8%) were between 50 and 60 years old. Thus, respondents aged 41–50 years constituted the largest age group. Regarding gender, 235 respondents (76%) were male and 74 respondents (24%) were female. In terms of educational attainment, 69 respondents (22%) had completed senior high school or equivalent, 37 respondents (12%) held a diploma-level qualification, 166 respondents (54%) held a bachelor's degree or equivalent, and 37 respondents (12%) held a master's degree.

With respect to tenure, 137 respondents (43%) had worked for 0–10 years, 133 respondents (42%) had worked for 11–20 years, 41 respondents (13%) had worked for 21–30 years, and 6 respondents (2%) had worked for 31–40 years. Based on job category, 170 respondents (55%) were functional officials, 13 (4%) were structural officials, 85 (28%) were implementing employees, and 41 (13%) were Government Employees with Work Agreements (PPPK).

Table 2. Respondent Characteristics

| Characteristic | Category                      | n   | %  |
|----------------|-------------------------------|-----|----|
| Age            | 20–30 years                   | 25  | 8  |
|                | 31–40 years                   | 123 | 40 |
|                | 41–50 years                   | 136 | 44 |
|                | 50–60 years                   | 25  | 8  |
| Gender         | Male                          | 235 | 76 |
|                | Female                        | 74  | 24 |
| Education      | Senior High School/Equivalent | 69  | 22 |
|                | Diploma                       | 37  | 12 |
|                | Bachelor/Diploma IV           | 166 | 54 |
|                | Master's Degree               | 37  | 12 |
| Tenure         | 0–10 years                    | 137 | 43 |
|                | 11–20 years                   | 133 | 42 |
|                | 21–30 years                   | 41  | 13 |
|                | 31–40 years                   | 6   | 2  |
| Job Category   | Functional Official           | 170 | 55 |
|                | Structural Official           | 13  | 4  |
|                | Implementing Employee         | 85  | 28 |
|                | PPPK                          | 41  | 13 |

Source: Authors' data analysis (2026).

### 3.2 Measurement Model Assessment

The measurement model was evaluated using PLS-SEM to establish the validity and reliability of the research constructs before assessing the structural relationships. The assessment focused on indicator loadings and discriminant validity. The original analysis used a loading factor threshold of 0.70 to assess convergent validity. The indicator loading results demonstrate that most indicators exceeded the recommended threshold of 0.70. The transformational leadership indicators showed particularly strong loadings, ranging from 0.897 to 0.943. The competence indicators ranged from 0.711 to 0.889, while digital transformation indicators ranged from 0.806 to 0.922. Work motivation indicators ranged from 0.679 to 0.898, and employee performance indicators ranged from 0.744 to 0.900, with one indicator showing a loading of 0.722. The loading results generally indicate that the indicators adequately represent their respective latent constructs. However, the work motivation indicator Y1 has a loading of 0.679, which is slightly below the conventional 0.70 threshold. Because this value remains close to 0.70, its retention should ideally be supported by composite reliability, AVE, and theoretical justification. This issue should be explicitly addressed in the final manuscript rather than simply labeling the indicator as valid.

Table 3. Indicator Loading Results

| Construct                   | Loading Range | General Assessment                                     |
|-----------------------------|---------------|--------------------------------------------------------|
| Transformational Leadership | 0.897–0.943   | Strong                                                 |
| Employee Competence         | 0.711–0.889   | Acceptable–Strong                                      |
| Digital Transformation      | 0.806–0.922   | Strong                                                 |
| Work Motivation             | 0.679–0.898   | Generally acceptable; one indicator requires attention |
| Employee Performance        | 0.722–0.900   | Acceptable–Strong                                      |

Source: PLS-SEM analysis, authors' data (2026).

[Figure 1. Measurement Model / Outer Model]

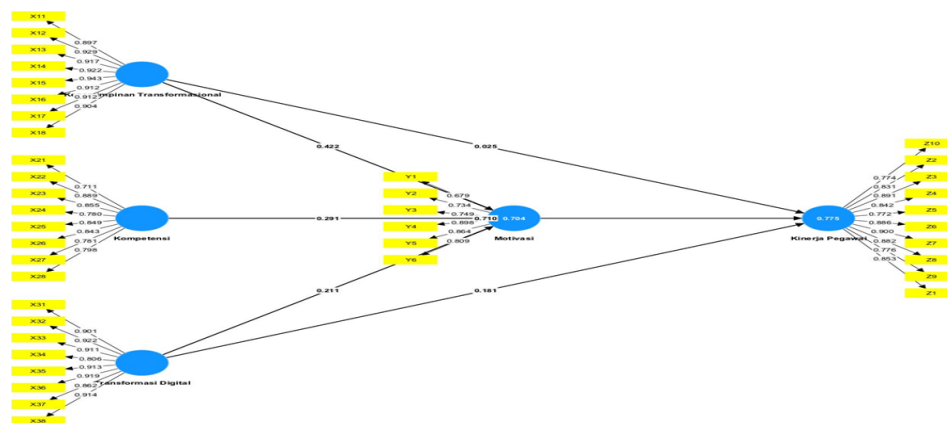


Figure 1. PLS-SEM Measurement Model Showing Constructs, Indicators, and Outer Loadings

Source: Authors' analysis using SmartPLS 4.0 (2026).

### 3.3 Discriminant Validity

Discriminant validity was examined through cross-loading analysis. The results indicate that the indicators generally loaded more strongly on their associated constructs than on the alternative constructs. For example, the transformational leadership indicators demonstrated their highest loading on transformational leadership, while the competence and digital transformation indicators also exhibited their highest loading on their respective constructs. These findings provide initial evidence that the constructs represent conceptually distinct dimensions within the research model. Nevertheless, for a stronger international-journal presentation, discriminant validity should preferably be complemented with HTMT (Heterotrait–Monotrait ratio) values in addition to cross-loadings. Reporting HTMT would provide more robust evidence that transformational leadership, competence, digital transformation, work motivation, and employee performance are empirically distinguishable constructs.

### 3.4 Structural Model Assessment

After the measurement model was assessed, the structural model was evaluated by examining the coefficient of determination ( $R^2$ ), effect size ( $f^2$ ), path coefficients, and bootstrapping results.

#### 3.4.1 Coefficient of Determination

The structural model demonstrates substantial explanatory power for both endogenous constructs. The adjusted  $R^2$  value for work motivation is 0.701, indicating that transformational leadership, employee competence, and digital transformation collectively explain approximately 70.1% of the variance in work motivation. Meanwhile, the adjusted  $R^2$  value for employee performance is

0.773, indicating that transformational leadership, employee competence, digital transformation, and work motivation collectively explain approximately 77.3% of the variance in employee performance. The remaining variance is attributable to other factors not incorporated into the present model.

Table 4. Coefficient of Determination

| Endogenous Construct | R <sup>2</sup> | Adjusted R <sup>2</sup> |
|----------------------|----------------|-------------------------|
| Work Motivation      | 0.704          | 0.701                   |
| Employee Performance | 0.775          | 0.773                   |

Source: Authors' data analysis (2026).

The relatively high explanatory power suggests that the combination of leadership, competence, digital transformation, and motivation provides a meaningful framework for understanding employee performance in the studied public-sector organization.

### 3.4.2 Effect Size

The  $f^2$  results indicate different levels of contribution among the predictors. Transformational leadership demonstrates an  $f^2$  value of 0.274 for work motivation, indicating a medium effect. Competence has an  $f^2$  value of 0.659 for employee performance, indicating a large effect. The effect of digital transformation on work motivation is 0.049, while its effect on employee performance is 0.047, both representing small effects. These findings indicate that although several relationships are statistically significant, their substantive contribution is not necessarily equivalent. In particular, employee competence appears to have the strongest practical contribution to employee performance within the structural model.

Table 5. Effect Size ( $f^2$ )

| Relationship                                       | $f^2$ | Interpretation |
|----------------------------------------------------|-------|----------------|
| Transformational Leadership → Work Motivation      | 0.274 | Medium         |
| Competence → Employee Performance                  | 0.659 | Large          |
| Digital Transformation → Work Motivation           | 0.049 | Small          |
| Digital Transformation → Employee Performance      | 0.047 | Small          |
| Transformational Leadership → Employee Performance | 0.001 | Negligible     |

Source: Authors' data analysis (2026).

### 3.5 Hypothesis Testing

Hypotheses were evaluated using the bootstrapping procedure in SmartPLS 4.0. The original analysis used a 5% significance level, with a t-statistic greater than 1.96 indicating statistical significance.

Table 6. Direct and Indirect Effects

| Hypothesis | Relationship                                       | $\beta$ | t-value | p-value | Decision      |
|------------|----------------------------------------------------|---------|---------|---------|---------------|
| H1         | Transformational Leadership → Employee Performance | 0.030   | 0.426   | 0.670   | Not Supported |
| H2         | Competence → Employee Performance                  | 0.134   | 2.778   | 0.025   | Supported     |
| H3         | Digital Transformation → Employee Performance      | 0.437   | 7.524   | <0.001  | Supported     |
| H4         | Work Motivation → Employee Performance             | 0.430   | 6.616   | <0.001  | Supported     |

|     |                                                                      |       |       |        |           |
|-----|----------------------------------------------------------------------|-------|-------|--------|-----------|
| H5  | Transformational Leadership → Work Motivation                        | 0.407 | 4.234 | <0.001 | Supported |
| H6  | Competence → Work Motivation                                         | 0.311 | 2.150 | 0.032  | Supported |
| H7  | Digital Transformation → Work Motivation                             | 0.203 | 2.803 | 0.005  | Supported |
| H8  | Transformational Leadership → Work Motivation → Employee Performance | 0.175 | 3.819 | <0.001 | Supported |
| H9  | Competence → Work Motivation → Employee Performance                  | 0.134 | 2.150 | 0.032  | Supported |
| H10 | Digital Transformation → Work Motivation → Employee Performance      | 0.087 | 2.810 | 0.005  | Supported |

Source: Authors' analysis using SmartPLS 4.0 (2026).

[Figure 3. Structural Model and Path Coefficients]

Insert Figure 3 here

Figure 3. Structural Model Showing Path Coefficients and Significance Levels

Source: Authors' analysis using SmartPLS 4.0 (2026).

### 3.6 Discussion

#### 3.6.1 Transformational Leadership and Employee Performance

The results indicate that transformational leadership has a positive but statistically insignificant effect on employee performance ( $\beta = 0.030$ ;  $t = 0.426$ ;  $p = 0.670$ ). Therefore, H1 is not supported. Although the direction of the coefficient is positive, the magnitude is extremely small and the relationship does not meet the statistical significance criterion. This finding suggests that transformational leadership alone may not be sufficient to directly improve employee performance in the Ditjen PSDKP context. The organizational performance system may provide an alternative explanation. As reported in the study, employee performance is already managed through performance planning, performance dialogue, performance targets, performance contracts, periodic monitoring, and performance evaluation. Individual and organizational performance are also incorporated into the performance allowance system. Consequently, leadership may exert its influence through employees' psychological processes rather than through an immediate direct effect on performance. This interpretation becomes particularly relevant because transformational leadership demonstrates a significant relationship with work motivation. Thus, the absence of a significant direct relationship should not be interpreted as evidence that transformational leadership is irrelevant. Rather, its influence appears to operate primarily through motivational mechanisms.

#### 3.6.2 Competence and Employee Performance

Employee competence has a positive and significant effect on employee performance ( $\beta = 0.134$ ;  $t = 2.778$ ;  $p = 0.025$ ). Therefore, H2 is supported. This result indicates that employees with stronger knowledge, understanding, skills, and values are more capable of translating their capabilities into effective job performance. The finding is particularly important in a public institution with technically complex responsibilities. Competent employees are more likely to understand procedures, respond to operational challenges, utilize organizational resources effectively, and complete assigned responsibilities according to expected standards. Interestingly, competence also produces the largest  $f^2$  value reported for employee performance (0.659), suggesting a substantial substantive contribution. This finding emphasizes that human capital remains a central determinant of public-sector performance despite increasing technological adoption.

#### 4.6.3 Digital Transformation and Employee Performance

Digital transformation demonstrates a positive and highly significant effect on employee performance ( $\beta = 0.437$ ;  $t = 7.524$ ;  $p < 0.001$ ). H3 is therefore supported. Among the direct predictors of employee performance, digital transformation demonstrates a relatively strong path coefficient and the highest t-statistic. This suggests that digital technologies, integrated information systems, process automation, and technology-enabled work practices may facilitate employees' ability to perform their responsibilities more efficiently. The finding reinforces the argument that digital transformation should not be understood merely as technological investment. Rather, it represents an organizational transformation that changes how employees access information, coordinate activities, process data, and execute tasks. In a surveillance-oriented public institution, digital capabilities may be particularly valuable because effective decision-making depends on the availability, speed, and accuracy of information.

#### 3.6.4 Transformational Leadership and Work Motivation

Transformational leadership has a positive and significant effect on work motivation ( $\beta = 0.407$ ;  $t = 4.234$ ;  $p < 0.001$ ). Therefore, H5 is supported. The result indicates that leaders who provide vision, intellectual stimulation, individualized consideration, and inspirational motivation can strengthen employees' willingness to invest effort in their work. Rather than directly determining performance, transformational leadership appears to activate employees' motivational resources. This result is theoretically meaningful because leadership can influence how employees interpret their work and organizational objectives. When employees perceive that leaders provide direction, support development, and encourage participation, they may experience stronger psychological engagement with their responsibilities. The finding also provides the foundation for understanding the significant mediating effect of work motivation in the relationship between transformational leadership and employee performance.

#### 3.6.5 Competence and Work Motivation

Competence also has a positive and significant effect on work motivation ( $\beta = 0.311$ ;  $t = 2.150$ ;  $p = 0.032$ ), supporting H6. Employees who possess adequate knowledge and skills may feel more capable of handling their responsibilities. A stronger sense of capability can increase confidence and willingness to engage with demanding tasks. In contrast, inadequate competence may generate uncertainty and reduce employees' willingness to take initiative. This finding suggests that competency development should not be viewed exclusively as a strategy for improving technical performance. Training, professional development, and opportunities to acquire new skills can simultaneously contribute to employees' psychological motivation. Therefore, competency-development programs may generate both capability-based and motivational benefits.

#### 3.6.6 Digital Transformation and Work Motivation

Digital transformation has a positive and significant effect on work motivation ( $\beta = 0.203$ ;  $t = 2.803$ ;  $p = 0.005$ ), supporting H7. This finding suggests that employees may become more motivated when digital technologies make work processes more accessible, efficient, integrated, and responsive. Technology can reduce repetitive administrative tasks, improve access to information, and facilitate communication and coordination. However, digital transformation should not be assumed to automatically generate motivation. Its positive effect is likely dependent on employees' ability to understand and utilize the technologies introduced by the organization. Consequently, digital transformation should be accompanied by training, organizational support, and communication to

ensure that employees perceive technological change as an enabling mechanism rather than an additional burden.

### 3.6.7 Work Motivation and Employee Performance

Work motivation has a positive and significant effect on employee performance ( $\beta = 0.430$ ;  $t = 6.616$ ;  $p < 0.001$ ), supporting H4. This is one of the strongest relationships in the model. The finding demonstrates that employees who possess stronger work motivation tend to demonstrate better performance. Motivation provides the psychological energy necessary for employees to direct and sustain their efforts toward organizational objectives. The finding also helps explain why transformational leadership does not have a significant direct effect on performance. Leadership may influence performance indirectly by first strengthening employees' motivation. Thus, the organizational mechanism appears to be more accurately characterized as:

Transformational Leadership → Work Motivation → Employee Performance.

## 3.7 Mediation Analysis

### 3.7.1 Transformational Leadership → Work Motivation → Employee Performance

The indirect effect of transformational leadership on employee performance through work motivation is positive and significant ( $\beta = 0.175$ ;  $t = 3.819$ ;  $p < 0.001$ ). H8 is therefore supported. The finding is particularly important because the direct effect of transformational leadership on employee performance is insignificant, whereas its indirect effect through work motivation is significant. This pattern indicates that work motivation plays a key mediating role in translating transformational leadership into employee performance. In practical terms, leaders may not improve performance merely by demonstrating transformational characteristics. Their effectiveness becomes more consequential when those leadership behaviors increase employees' motivation to perform. The result therefore shifts the interpretation from a simple leadership-performance relationship toward a leadership-motivation-performance mechanism.

### 3.7.2 Competence → Work Motivation → Employee Performance

The indirect effect of competence on employee performance through work motivation is positive and significant ( $\beta = 0.134$ ;  $t = 2.150$ ;  $p = 0.032$ ). H9 is supported. This finding indicates that employee competence contributes to performance through two related mechanisms: employees' capability to perform their responsibilities and the motivation generated by possessing or developing that capability. Thus, competency-development programs should be designed not only around technical skills but also around employees' opportunities to experience mastery, professional growth, and meaningful contribution. Such an approach can strengthen both competence and motivation simultaneously.

### 3.7.3 Digital Transformation → Work Motivation → Employee Performance

The indirect effect of digital transformation on employee performance through work motivation is positive and significant ( $\beta = 0.087$ ;  $t = 2.810$ ;  $p = 0.005$ ). H10 is therefore supported. The result indicates that digital transformation improves employee performance partly by increasing employees' motivation. Digital technologies may improve the work environment by reducing inefficiencies, facilitating information access, supporting collaboration, and enabling employees to complete tasks more effectively. This finding demonstrates that the human dimension of digital transformation is critical. Technology alone does not create performance improvement; employees must be willing and motivated to utilize the technologies provided by the organization.

### 3.8 Overall Interpretation of the Structural Model

Taken together, the findings reveal three important patterns. First, competence and digital transformation directly contribute to employee performance, whereas transformational leadership does not demonstrate a significant direct effect. Second, all three antecedent variables—transformational leadership, competence, and digital transformation—significantly influence work motivation. Third, work motivation significantly influences employee performance and mediates all three indirect relationships. The model therefore suggests that work motivation represents a central mechanism linking organizational resources and employee performance.

## 4. Conclusions

### 4.1 Conclusion

This study examined the effects of transformational leadership, employee competence, and digital transformation on employee performance, with work motivation serving as a mediating variable in the Directorate General of Marine and Fishery Resources Surveillance. The findings demonstrate that employee performance is influenced by a combination of human, managerial, technological, and motivational factors. The results show that transformational leadership has a positive but statistically insignificant direct effect on employee performance. In contrast, employee competence and digital transformation have positive and significant direct effects on employee performance. Transformational leadership, employee competence, and digital transformation also have positive and significant effects on work motivation, while work motivation significantly enhances employee performance.

The mediation analysis further demonstrates that work motivation significantly mediates the relationships between transformational leadership and employee performance, employee competence and employee performance, and digital transformation and employee performance. These findings indicate that employee performance is not solely determined by organizational resources or managerial practices but also by the extent to which these factors stimulate employees' motivation to perform. Overall, the findings highlight that work motivation represents a central mechanism through which leadership, competence, and digital transformation are translated into employee performance. The relatively high explanatory capability of the model, with adjusted  $R^2$  values of 0.701 for work motivation and 0.773 for employee performance, further demonstrates the relevance of the proposed framework in explaining employee performance within the research setting.

### 4.2 Theoretical Implications

This study provides several theoretical implications for the literature on human resource management and organizational behavior. First, the insignificant direct relationship between transformational leadership and employee performance suggests that leadership effectiveness should not always be conceptualized as a direct pathway to performance. Instead, the findings indicate that the influence of transformational leadership can operate through employees' psychological and motivational processes. Second, the significant mediation effect of work motivation provides empirical support for incorporating motivational mechanisms into models examining the relationship between leadership and employee performance. Transformational leadership appears to strengthen employees' motivation, which subsequently contributes to improved performance. This finding provides a more nuanced explanation of how leadership behaviors are translated into employee outcomes. Third, the findings expand the discussion of digital transformation by demonstrating that digital transformation has both direct and motivational implications for employee performance. Digital transformation is therefore not merely a technological phenomenon but also an organizational and human-resource phenomenon. The effectiveness of digital transformation depends partly on employees' ability and willingness to engage with technological changes. Finally, the findings reinforce the importance of

employee competence as a fundamental component of performance. Competence contributes directly to performance while also strengthening work motivation. Thus, future theoretical models of employee performance should consider the simultaneous roles of capability, technology, leadership, and motivation rather than examining these factors independently.

#### 4.3 Managerial Implications

The findings provide important implications for managers and policymakers within the Directorate General of Marine and Fishery Resources Surveillance. First, organizations should strengthen employee competency development through continuous training, technical development, professional education, knowledge sharing, and opportunities to apply newly acquired competencies in actual work situations. This recommendation is supported by the significant relationship between competence and employee performance. Second, digital transformation should be implemented together with a people-centered change-management strategy. Investment in digital infrastructure should be accompanied by digital training, technical assistance, user support, and opportunities for employees to participate in the transformation process. Such an approach can ensure that digital technologies improve not only operational efficiency but also employees' motivation to perform. Third, leadership development programs should emphasize the ability of leaders to inspire, communicate organizational objectives, provide individualized support, and stimulate employee development. Since transformational leadership does not have a significant direct effect on performance but has a significant effect on work motivation, managers should focus on leadership practices that strengthen employees' intrinsic willingness to contribute. Fourth, organizations should develop policies that strengthen work motivation through recognition, opportunities for professional development, supportive supervision, meaningful work objectives, employee participation, and appropriate autonomy. Because work motivation significantly affects employee performance, strengthening motivation can become an important strategic pathway for improving organizational outcomes.

#### 4.4 Limitations and Directions for Future Research

Several limitations should be considered when interpreting the findings. First, the study was conducted within a specific public-sector institutional context, namely the Directorate General of Marine and Fishery Resources Surveillance. Therefore, the findings may not be directly generalizable to other government institutions, private-sector organizations, or different institutional environments. Second, the study employed a cross-sectional survey design. Consequently, the findings primarily describe relationships among the variables at a particular point in time and do not fully capture how transformational leadership, competence, digital transformation, motivation, and performance may evolve over time. Third, the study relied on self-reported questionnaire responses. Although this approach is appropriate for measuring perceptions of latent constructs, responses may potentially be influenced by individual perceptions and social desirability. Future studies could combine survey data with objective performance indicators, supervisor assessments, administrative records, or longitudinal observations. Fourth, although the model demonstrates substantial explanatory power, other factors may contribute to employee performance. Future research could incorporate variables such as organizational support, organizational culture, employee engagement, job satisfaction, psychological empowerment, digital literacy, adaptive performance, or organizational commitment. Future researchers are also encouraged to conduct comparative studies across different government institutions or regions and to employ longitudinal designs to examine whether the relationships identified in this study remain stable over time.

#### 4.5 Final Statement and Contribution

This study demonstrates that improving employee performance in the public sector requires an integrated approach that combines effective leadership, employee competence, digital transformation, and work motivation. The findings particularly emphasize that transformational leadership does not necessarily translate directly into higher employee performance. Instead, its effectiveness becomes more evident when leadership practices successfully stimulate employees' motivation. The study consequently proposes that organizations should move beyond a conventional view of performance improvement based solely on managerial control and technological investment. Sustainable performance improvement requires the simultaneous development of human capability, technological capability, leadership capability, and motivational capability. The significant mediating role of work motivation constitutes an important contribution of the study. It demonstrates that motivation serves as a connecting mechanism through which transformational leadership, employee competence, and digital transformation contribute to employee performance. The model's explanatory capacity—70.1% of work motivation and 77.3% of employee performance based on adjusted  $R^2$ —further supports the relevance of this integrated framework in the studied organizational context. Ultimately, the findings provide both theoretical and practical evidence that technology and leadership generate greater organizational value when supported by competent and motivated employees. For public-sector institutions facing increasing demands for digitalization, organizational efficiency, and accountability, integrating leadership development, competency management, digital transformation, and employee motivation represents a strategic pathway toward stronger and more sustainable employee performance.

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