

The Role of Employee Engagement in Mediating the Effects of Digital Leadership on Employee Performance

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Abstract

This study aims to analyze the role of employee engagement in mediating the effect of digital leadership on employee performance at the Human Resources Bureau of the North Sumatra Regional Police. This study employs a quantitative approach with a population of 115 employees. The sampling technique used was saturation sampling, meaning the entire population was included as the study sample. The research data consists of primary data collected through the distribution of questionnaires using a Likert scale. Data analysis was conducted using the *Partial Least Squares–Structural Equation Modeling* (PLS-SEM) method with the assistance of the SmartPLS 3.0 software. The results indicate that digital leadership has a positive and significant effect on employee performance, with a path coefficient of 0.182, a t-statistic of 3.064, and a *p-value* of 0.002. Digital leadership also has a positive and significant effect on employee engagement, with a coefficient of 0.410, a t-statistic of 8.050, and a *p-value* of 0.000. Furthermore, employee engagement has a positive and significant effect on employee performance, with a coefficient of 0.563, a t-statistic of 10.287, and a *p-value* of 0.000. The results of the indirect effect test indicate that employee engagement positively and significantly mediates the effect of digital leadership on employee performance, with a coefficient of 0.231, a t-statistic of 6.462, and a *p-value* of 0.000. The R-squared value indicates that digital leadership explains 16.8% of employee engagement, while digital leadership and employee engagement together explain 43.5% of employee performance. Thus, enhancing digital leadership to foster employee engagement can drive improved employee performance at the Human Resources Bureau of the North Sumatra Regional Police.

Keywords: Digital Leadership, Employee Engagement, Employee Performance

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3rd International Conference Epicentrum of Economic Global Framework (ICEEGLOF)

Theme: Cross-Sector and Cross-Disciplinary Strategies for Achieving the SDGS

<https://proceeding.pancabudi.ac.id/index.php/ICEEGLOF>

Introduction

The rapid development of information technology has brought about major changes in how organizations conduct their operations, provide services, manage human resources, and make decisions. Digital transformation is occurring not only in business organizations but also in government agencies and law enforcement institutions. Organizations are required to leverage digital technology to make their operations more effective, efficient, transparent, and responsive to changes in the environment. These conditions make the presence of leaders capable of steering the digital transformation process increasingly important.

Digital leadership is a leader's ability to guide an organization in adapting to technological change through the use of digital technology, data-driven decision-making, fostering innovation, and cultivating an adaptive work culture. Digital leaders are not only expected to master technology but must also be able to establish a digital vision, promote collaboration, accelerate decision-making processes, and help employees adapt to changes in work systems. In public organizations, digital leadership plays a crucial role in ensuring that technology is truly used to improve the quality of the organization's work and services.

The implementation of digital leadership is essential within the Human Resources Bureau of the North Sumatra Regional Police. As the unit responsible for human resources management, the North Sumatra Regional Police HR Bureau faces demands related to managing personnel data, planning staffing needs, developing competencies, fostering career growth, and providing fast and accurate administrative services. These various tasks require the support of digital technology and leadership capable of integrating technology with the organization's work processes. Without effective digital leadership, the use of technology risks becoming merely an administrative activity and failing to make an optimal contribution to improving employee performance.

Employee performance is one of the key factors determining an organization's success in achieving its goals. Employee performance can be assessed based on the quality and quantity of work, timeliness, the effective use of resources, and autonomy in carrying out tasks. Within the North Sumatra Regional Police's Human Resources Bureau, employee performance relates to the ability to complete personnel administration services appropriately, quickly, accurately, and in accordance with applicable regulations. Therefore, improving employee performance is essential to ensure that human resource management within the North Sumatra Regional Police operates optimally.

Digital leadership is expected to improve employee performance because leaders who can leverage technology can accelerate communication, facilitate coordination, improve the accuracy of information, and help employees complete their work more effectively. Data-driven decision-making can also provide employees with more precise work guidance. Additionally, the use of digital platforms can accelerate the dissemination of information and minimize errors in administrative processes. Thus, the better digital leadership is implemented, the greater the likelihood of improved employee performance.

However, the impact of digital leadership on employee performance is not always immediate. The use of technology and digital guidance from leaders does not necessarily automatically improve work outcomes if employees lack engagement, enthusiasm, and commitment to their work. Employees may be able to use technology, but they may not be willing to give their best effort if they do not feel valued, involved, and supported by the organization. Therefore, employee engagement is a key factor in explaining how digital leadership influences employee performance.

Employee engagement reflects the level of emotional, cognitive, and behavioral commitment employees have toward their work and the organization. Highly engaged employees demonstrate a strong work ethic, commitment, a sense of ownership, and a willingness to contribute beyond what is required. Employee engagement is also reflected in enthusiasm for completing tasks, a willingness to collaborate, readiness to embrace change, and a desire to remain part of the organization. Conversely, low engagement can lead to employees

lacking initiative, being unresponsive to change, and performing their duties only to fulfill formal obligations.

Digital leadership that is communicative, inclusive, and participatory can boost employee engagement. Leaders who give employees the opportunity to share ideas, involve them in the digital transformation process, and provide support in using technology will make employees feel more valued and needed. Open digital communication can also strengthen the relationship between leadership and employees. When employees understand the goals of digital transformation and recognize its benefits for their work, they will be more willing to actively participate in carrying out the organization's tasks.

Employee engagement, in turn, can drive improved performance. Engaged employees tend to have higher motivation, are more focused on achieving targets, and take greater responsibility for the quality of their work. Engagement also encourages employees to make optimal use of digital tools, develop their competencies, and adapt to new work systems. Thus, digital leadership can enhance employee engagement, which ultimately drives improved employee performance.

The role of employee engagement as a mediating variable is important to study because it can provide a more comprehensive understanding of the relationship between digital leadership and employee performance. If digital leadership influences performance through employee engagement, it is not enough for organizations to simply provide technology and enhance leaders' digital competencies. Organizations must also ensure that the digital transformation process fosters employees' trust, participation, comfort, and commitment. In other words, the success of digital leadership is not only measured by the extent to which technology is used but also by its ability to motivate and engage employees.

A number of previous studies have examined the relationship between digital leadership and employee performance, as well as the relationship between employee engagement and performance. However, research that specifically tests employee engagement as a mediating variable in the influence of digital leadership on employee performance still needs to be developed, particularly in the context of police agencies. Police agencies have organizational characteristics that differ from those of business organizations, including a strong hierarchical structure, strict work rules, a command-and-control culture, and high service and operational demands. These distinct characteristics may lead to different outcomes regarding the implementation of digital leadership and employee engagement.

Based on this discussion, there is a need to determine whether digital leadership can directly improve employee performance and whether employee engagement serves as a mediating factor in this relationship. This study is expected to provide empirical evidence regarding the importance of digital leadership that is not only technology-oriented but also capable of fostering employee engagement. The research findings are also expected to serve as a basis for the North Sumatra Regional Police Human Resources Bureau in formulating digital-based leadership and human resource management strategies.

Thus, this study was conducted under the title "The Role of Employee Engagement in Mediating the Influence of Digital Leadership on Employee Performance at the Human Resources Bureau of the North Sumatra Regional Police."

Literature Review

1. Employee Performance

a) Definition of Employee Performance

According to Armstrong (2021), performance is the result of the interaction between an individual's abilities, motivation, and work opportunities in achieving organizational goals. Thus, performance is not only related to the final outcome of the work but also encompasses the work processes employees undertake to achieve predetermined targets. Consequently, employee performance within public organizations such as the North Sumatra Regional Police also reflects the level of success in carrying out service duties,

enforcing the law, and maintaining public safety and order in accordance with applicable professional standards.

b) Employee Performance Indicators

Employee performance indicators (Armstrong, 2021):

1) Work Quality

Work quality describes the level of accuracy, neatness, and conformity of an employee's work results to the standards established by the organization. The higher the quality of work produced, the greater the employee's contribution to achieving the organization's goals.

2) Quantity of Work

Work quantity refers to the amount of work an employee is able to complete within a specific time period in accordance with the targets set by the organization.

3) Timeliness

Timeliness describes an employee's ability to complete work by the deadlines set by the organization.

4) Effectiveness

Effectiveness describes an employee's ability to optimally utilize available resources to achieve the results expected by the organization.

5) Independence

Independence indicates an employee's ability to carry out their duties and responsibilities without relying heavily on instructions or assistance from others.

2. Employee Engagement

a) Definition of Employee Engagement

According to Qualtrics (2024), employee engagement is the level of commitment employees have to helping the organization achieve its goals, as reflected in how they think, feel, and act, as well as in their emotional connection to their work, team, and organization.

b) Indicators of Employee Engagement

According to Qualtrics (2024), employee engagement is typically measured using the following indicators:

1) Engagement, which is the level of enthusiasm, commitment, and emotional attachment employees have toward their work and the organization, as reflected in their willingness to contribute more.

2) Inclusion, which refers to the extent to which employees feel valued, accepted, and treated fairly in a work environment free from discrimination.

3) Well-being, which refers to employees' physical, mental, and emotional condition that affects their comfort and ability to perform optimally.

4) Intent to Stay: an employee's desire to remain with the organization for a certain period of time as a sign of loyalty.

5) Experience vs. Expectations: the extent to which employees' work experiences meet or exceed their expectations of the organization.

3. Digital Leadership

a) Definition of Digital Leadership

According to Gartner (2023), digital leadership is a leader's ability to guide an organization through digital transformation by focusing on agility, innovation, and the use of technology to create business value.

b) Indicators of Digital Leadership

Gartner (2023) defines digital leadership as a leader's ability not only to manage technology but also to share responsibility with other business units in designing and executing digital transformation.

- 1) Co-ownership leadership, which is a leader's ability not only to manage technology but also to share responsibility with other business units in designing and executing digital transformation.
- 2) Data-driven decision making, which is the use of data, analytics, and digital insights to support the organization's strategic decisions more quickly and accurately.
- 3) Technology enablement, which is the ability of leaders to guide the use of technologies such as AI, the cloud, and digital platforms to improve organizational performance and innovation.
- 4) Organizational agility, which refers to a leader's ability to ensure the organization can adapt quickly to technological changes and market needs.
- 5) Focus on digital business outcomes, which refers to leadership's focus on achieving tangible results from digital transformation, such as improved efficiency, innovation, customer experience, and business value.

Conceptual Framework

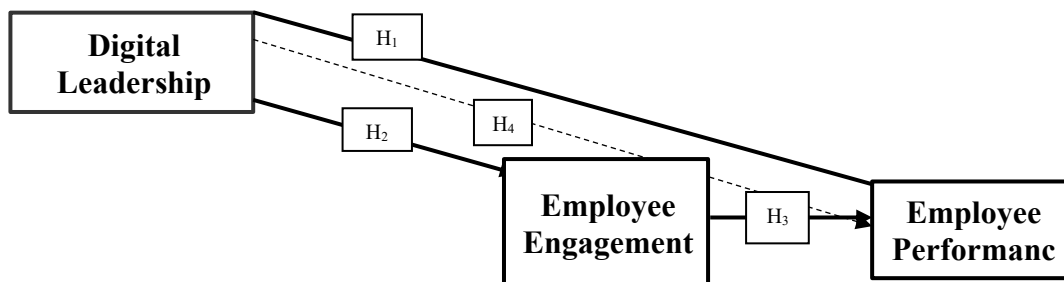


Figure 1. Conceptual Framework

Research Hypotheses

- H₁: Digital leadership has a positive and significant effect on the performance of employees at the North Sumatra Regional Police Human Resources Bureau.
- H₂: Digital leadership has a positive and significant effect on employee engagement at the Human Resources Bureau of the North Sumatra Regional Police.
- H₃: Employee engagement has a positive and significant effect on the performance of staff at the North Sumatra Regional Police Human Resources Bureau.
- H₄: Employee engagement positively and significantly mediates the effect of digital leadership on employee performance.

Research Methodology

Type of Research

The type of research used is quantitative research. According to Sugiyono (2022), quantitative research is defined as a method based on the philosophy of positivism, used to study a specific population or sample; sampling techniques are generally conducted randomly; data collection uses research instruments; and data analysis is quantitative/statistical in nature, with the aim of testing predetermined hypotheses. This quantitative research was conducted to examine the relationship between ethical leadership and organizational culture and employee performance, with organizational commitment serving as an intervening variable, at the Human Resources Bureau of the North Sumatra Regional Police.

Research Location and Timeframe

The research was conducted at the North Sumatra Regional Police, located at Jalan Sisingamangaraja Km. 10.5 No. 60, Timbang Deli, Medan Amplas District, Medan City. The research was conducted over a period of 3 months, from May to August 2026.

Population and Sample

According to Sugiyono (2025), the population consists of all objects or subjects possessing specific characteristics defined by the researcher for study, from which conclusions are subsequently drawn. Based on this definition, the population in this study comprises all

employees of the Human Resources Bureau of the North Sumatra Regional Police, totaling 115 individuals.

The sample in this study consists of all employees at the Human Resources Bureau of the North Sumatra Regional Police, totaling 115 people. The sampling technique used is saturation sampling, which involves selecting the entire population as the research sample.

Research Data Sources

The data source used in this study is primary data.

Results

Outer Model Analysis

The *Outer Model* analysis, using the *PLS algorithm*, yielded the following results:

Validity Test

Table 1. Outer Loadings Values

	Digital Leadership	Employee Engagement	Employee Performance
X1.1	0.788		
X1.2	0.714		
X1.3	0.857		
X1.4	0.769		
X1.5	0.791		
Y.1			0.739
Y.2			0.862
Y.3			0.799
Y.4			0.834
Y.5			0.828
Z.1		0.819	
Z.2		0.803	
Z.3		0.872	
Z.4		0.860	
Z.5		0.883	

Source: Smart PLS Output, 2025

Based on the values in Table 1 above, the results of the outer model test using factor loadings/outer loadings show that all indicators for each variable have loadings ≥ 0.70 . This indicates that each indicator is measured validly. Therefore, it can be concluded that all items in the questionnaire meet the validity criteria, as shown in the following figure.

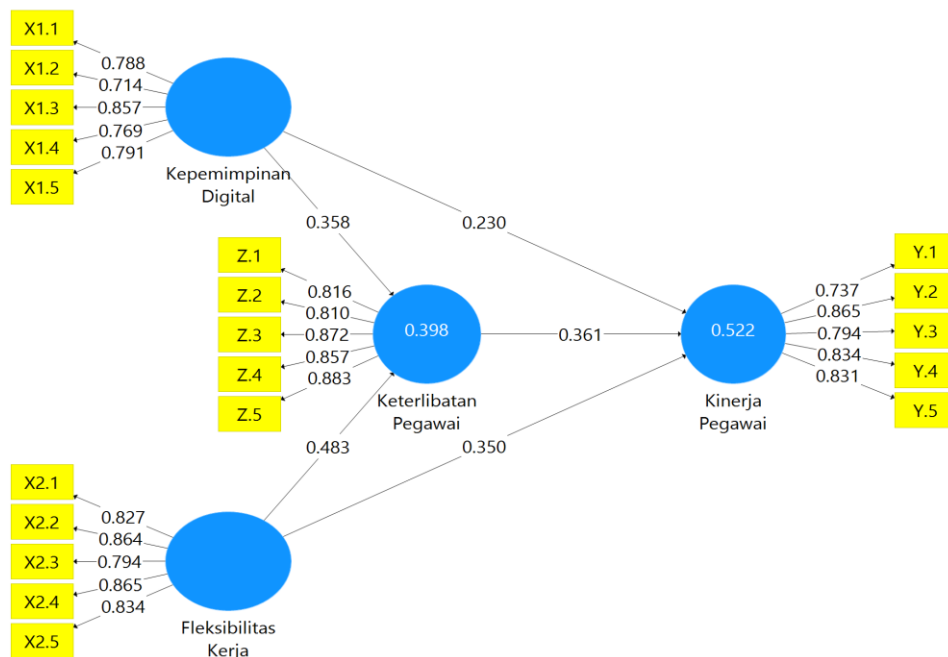


Figure 2. Outer Loadings

Reliability Test

Table 2. Construct Reliability and Validity Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Digital Leadership	0.845	0.855	0.889	0.617
Employee Engagement	0.902	0.910	0.927	0.719
Employee Performance	0.872	0.878	0.907	0.662

Source: Smart PLS Output, 2025

From Table 2 above, the reliability test results show that the Cronbach's Alpha and Composite Reliability values for all constructs are above 0.70, and the AVE values are above 0.05. This indicates that all indicators have high internal consistency and are reliable for measuring their respective constructs. Therefore, the research instrument is deemed reliable and suitable for use in structural equation modeling.

Coefficient of Determination (R^2)

When evaluating a model using PLS, the analysis begins by examining the R-squared value for each latent dependent variable. The table below presents the estimated R-squared values obtained using SmartPLS.

Table 3. R-Square Results

	R-Square	Adjusted R-Square
Employee Engagement	0.168	0.164
Employee Performance	0.435	0.430

Source: Smart PLS, 2025

Table 3 shows the R-squared values for both dependent variables. For the employee engagement variable, the R-squared value is 0.168; this means that digital leadership contributes 0.168, or 16.8%. The remainder is attributed to other variables outside the model. The R-squared value for employee performance is 0.435, meaning that digital leadership and employee engagement account for 0.435 or 43.5%; the remainder is attributed to other variables outside the model.

Structural Model Testing (Inner Model)

Hypothesis Testing

Direct Effects Between Variables

Direct effects between variables can be seen in the *path coefficient* values. The data analysis results show that the direct effect values are presented in the following table.

Table 4. *Path Coefficients* (Direct Effects)

	Original Sample	T Statistics	P-Values	Conclusion
Digital Leadership -> Employee Performance	0.182	3.064	0.002	Accepted
Digital Leadership -> Employee Engagement	0.410	8.050	0.000	Accepted
Employee Engagement -> Employee Performance	0.563	10,287	0,000	Accepted

Source: Smart PLS Output, 2025

Table 4 shows the following direct effect values:

1. Digital leadership has a positive and significant effect on employee performance, with a t-statistic of 3.064 (above 1.96) and a p-value of 0.000 (below 0.05). This means that digital leadership has a significant effect on employee performance because the significance level is below 0.05. These findings are consistent with previous research, which indicates that digital leadership has a positive and significant effect on employee performance (Lubis et al., 2025; Boangmanalu et al., 2025; Kholik, 2024).
2. Digital leadership has a positive and significant effect on employee engagement, with a t-statistic of 8.050 (above 1.96) and a p-value of 0.000 (below 0.05). This means that digital leadership has a significant effect on employee engagement because the p-value is below 0.05. These findings are consistent with previous research, which also found that digital leadership has a positive and significant effect on employee engagement (Li et al., 2024).
3. Employee engagement has a positive and significant effect on employee performance, with a t-statistic of 10.287 (above 1.96) and a p-value of 0.000 (below 0.05). This means that employee engagement has a significant effect on employee performance because the p-value is below 0.05. These findings are consistent with previous research, which also found that employee engagement has a positive and significant effect on employee performance (Ningrum et al., 2025).

Indirect Effects Between Variables

The indirect effects between variables can be seen in the *specific indirect effects* values. The data analysis results show that the indirect effect values are presented in Table 5 below.

Table 5. *Specific Indirect Effects*

	Original Sample	T Statistics	P Values	Conclusion
Digital Leadership -> Employee Engagement -> Employee Performance	0.231	6.462	0.000	Accepted

Source: Smart PLS, 2025

Table 5 shows the indirect effects between variables, namely: digital leadership has a positive and significant effect on employee performance through employee engagement, with a t-statistic value of 6.462 (above 1.96) and a significance level of 0.000 (below 0.05). This means that employee engagement acts as an intervening variable between digital leadership and employee performance.

Conclusion

1. Digital leadership has a positive and significant effect on the performance of employees at the North Sumatra Regional Police Human Resources Bureau.
2. Digital leadership has a positive and significant effect on employee engagement at the Human Resources Bureau of the North Sumatra Regional Police.

3. Employee engagement has a positive and significant effect on the performance of employees at the North Sumatra Regional Police Human Resources Bureau.
4. Employee engagement positively and significantly mediates the effect of digital leadership on employee performance.

Recommendations

Based on the research findings and conclusions reached, the following recommendations can be made.

1. **Digital Leadership**

The North Sumatra Regional Police Human Resources Bureau is advised to enhance the implementation of digital leadership by strengthening leaders' abilities to use technology, manage change, and make data-driven decisions. Leaders need to make optimal use of digital information systems in the processes of planning, monitoring, evaluating, and managing employees.

Leaders also need to foster digital collaboration across departments and provide employees with opportunities to share ideas and innovations. Digital leadership training should be conducted regularly so that leaders can keep pace with technological advancements, streamline work processes, improve the quality of communication, and foster an organizational culture that is adaptable to digital transformation.

2. **Employee Engagement**

The Human Resources Bureau of the North Sumatra Regional Police needs to increase employee engagement, as this variable has been shown to influence employee performance and to mediate the effects of digital leadership and work flexibility on performance. Employee engagement can be increased by giving employees the opportunity to participate in decision-making related to their work.

Organizations also need to create an inclusive work environment, recognize employee achievements, prioritize physical and psychological well-being, and provide opportunities for competency and career development. Leaders need to foster two-way communication, provide regular feedback, and show concern for employees' needs so that they feel valued, accepted, and emotionally connected to the organization.

3. **Employee Performance**

Efforts to improve employee performance should take into account the quality of work, the quantity of work, timeliness, effectiveness, and employee autonomy. The Human Resources Bureau of the North Sumatra Regional Police is advised to set performance targets that are clear, measurable, and aligned with each employee's duties. Performance evaluations should also be conducted objectively, transparently, and based on work outcomes.

Organizations need to provide training, mentoring, and technological resources to support the completion of work. Employees who demonstrate good performance should be rewarded, while those who have not met their targets should receive guidance and skills development. Periodic performance evaluations are also necessary to identify work-related obstacles and determine appropriate corrective actions.

4. **For Future Researchers**

Future researchers are encouraged to expand on this study by incorporating additional variables that may influence employee engagement and performance, such as digital competence, work motivation, organizational culture, job satisfaction, organizational commitment, workload, and organizational support.

Future research could also expand the scope of study to include other police units or different government agencies so that the findings can be compared and have a broader level of generalizability. In addition to using a quantitative approach, future researchers could employ a mixed-methods approach—combining interviews and observation—to

gain a deeper understanding of the implementation of digital leadership, work flexibility, employee engagement, and employee performance.

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