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The Influence of Digital Transformation and Digital Leadership on HR Performance

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Abstract.*This study aims to analyze the influence of Digital Leadership on Human Resource Performance (HR Performance) with Digital Transformation as an intervening variable at the Regional Office of the Directorate General of Customs and Excise of Central Java and the Special Region of Yogyakarta. This research employs an explanatory design using a quantitative approach. The study population consisted of 203 personnel, and based on the Slovin formula, a total of 156 respondents were selected as samples. The sampling technique used is non-probability sampling with the convenience sampling method (Hair, 2021), chosen for its efficiency in terms of time and accessibility to respondents. The data consists of primary data obtained through questionnaires distributed to respondents, and secondary data sourced from the Regional Office of the Directorate General of Customs and Excise of Central Java and Yogyakarta. Questionnaires were distributed online using Google Forms to reach respondents across different work units, with follow-up communication conducted to ensure an adequate response rate. Data were measured using a five-point Likert scale ranging from "strongly disagree" to "strongly agree." The data analysis employed Structural Equation Modeling (SEM) with the Partial Least Square (PLS) approach. The results show that: (1) Digital Leadership has a positive and significant effect on HR Performance; (2) Digital Leadership also has a positive and significant effect on Digital Transformation; and (3) Digital Transformation has a positive and significant effect on HR Performance. These findings indicate that improving HR performance can be achieved through the implementation of effective and adaptive digital leadership, which fosters the successful implementation of digital transformation within the governmental organizational environment.*

Keywords: *Digital; Leadership; Performance; Transformation.*

1. Introduction

Customs and Excise has a crucial primary role in overseeing the flow of goods into and out of a country. Their primary function includes inspecting and monitoring goods entering and leaving air, sea, and land ports to ensure compliance with customs, tax, and international

trade regulations. Furthermore, Customs and Excise is responsible for collecting state revenue from import duties, excise, and excise taxes to support national economic development. They play a crucial role in protecting national security by preventing illegal trade and the smuggling of weapons, drugs, and other hazardous materials. Thus, Customs and Excise plays a vital role not only in regulating the flow of international goods but also in supporting a country's economic stability and national security.

The implementation of customs and excise services is highly dependent on regulations governing import, export, and customs procedures, which must be adhered to by all parties involved in international trade. These regulations include provisions regarding import duties, excise duties, and other technical and administrative requirements that must be adhered to to ensure that goods entering or leaving a country comply with the law. The success of customs and excise services in facilitating international trade and meeting state revenue goals is largely determined by the clarity, consistency, and compliance with existing regulations.

Digital technology has become a crucial element enabling large-scale, albeit uneven, economic change. These changes can be incremental or disruptive, requiring industries to adapt quickly and revolutionize business processes to respond in real time.(Souto, 2015)Digitalization and automation have touched every aspect of business, from planning to marketing policies and after-sales service. On the other hand, industrialization must not overlook the impact of technology utilization on business productivity.(Sheng & Chien, 2016)The use of robotic technology and artificial intelligence in the production process can provide benefits such as savings in costs, time, and energy, but it can also have negative impacts such as replacing human labor in labor-intensive industries.(Gu et al., 2014).

The current period is known as the "digital era," and digital transformation has become a global consensus among companies. Technologies such as 5G, cloud computing, big data, artificial intelligence, IoT, blockchain, and others have become driving forces and enablers of work.(Alaskar et al., 2021). Companies need to transform their business models to take advantage of the exponential changes brought about by the digital era, so they can act faster and adapt more quickly to the ever-changing environment.(Sore et al., 2022).

The resource-based approach of the firm (RBV) is an influential theoretical framework in understanding how competitive advantage in firms is achieved and how that advantage can be sustained over time.(Barney, 1991; ET Penrose, 1959; Wernerfelt, 2014)RBV assumes that firms can be conceptualized as bundles of resources, that these resources are heterogeneously distributed across firms, and that differences in these resources persist over time. Based on these assumptions, researchers theorize that when firms possess resources that are valuable, rare, inimitable, and nonsubstitutable (referred to as VRIN attributes), they can achieve a sustained competitive advantage by implementing novel value-creating strategies that cannot be easily imitated by rival firms.(Sharon A Alvarez & Jay B Barney, 2017). Finally, when these resources and their associated activity systems

have complementarities, their potential to create sustainable competitive advantage increases.(Barney, 2001).

Therefore, a well-thought-out strategy and support from all parties are needed to ensure that digital technology adoption runs smoothly and provides maximum benefits. One key element in successful digital technology adoption is leadership that supports digitalization, known as digital leadership.

*Digital leadership*refers to a leader's ability to guide an organization through digital transformation. Leaders with a strong digital vision can help organizations identify new technology opportunities, address challenges, and ensure that all team members are ready to adapt to change.(Eryeşil, 2021). Leaders who support digitalization encourage innovation and creativity within the organization by creating an environment that allows employees to experiment with new technologies.(Sağbaş and Alp Erdoğan, 2022). They can also overcome obstacles and resistance from employees who are used to conventional ways of working by providing the necessary training and support. (Henselle, 2022a). Data-driven decision making is another very important aspect of digital leadership.(Stana et al., 2018) By using data analytics, leaders can make more informed and strategic decisions, increase efficiency, and monitor project progress in real time. (Oberer & Erkollar, 2018).

Research on the role of digital leadership in human resource performance also leaves gaps. Analysis shows that the relationship between digital leadership and learning organizations has a significant impact on individual performance.(Puliwarna et al., 2023)However, digital leadership and systemic improvement do not have a significant positive relationship with performance.(Hong Lim & Ping Teoh, 2013)This process can help organizations address new challenges.(Carlos Freitas Junior et al., 2020a)Empirically, the research results show that digital leadership does not directly affect employee performance.(Muniroh et al., 2022).

Therefore, in this study, digital transformation is proposed as a mediating variable. Digital transformation has forced us to change the way organizations operate, becoming a fundamental part of corporate strategy.(Chen & Tian, 2022)The impact of digital transformation can be seen in changes in consumer behavior, evaluation of services and products, and their expectations.(Bondarouk et al., 2020). Digital technology plays a crucial role in the upcoming 4th industrial revolution through three main ways: increased internet usage, the spread of automated learning, and the adoption of artificial intelligence.(Teng et al., 2022).

This revolutionary technological change is transforming the world of work, and thus a key challenge facing companies is how to leverage digital transformation to improve performance. Previous studies have shown that digital transformation does not always improve performance and can even lead to economic losses and technological failures.(Besson & Rowe, 2012)This shows that the key to effective digital transformation is the ability to understand the use of technical applications.(Wu et al., 2023)). Study(Wu et al., 2023)also argue that companies need digital transformation to improve their

performance, as well as the ability to adopt new technologies during the digital transformation process. By coordinating new knowledge and resources, digital transformation can be better integrated into a company's operations, routine activities, and core tasks.

2. Research Methods

In conducting this research study, the type of research used is explanatory research. According to Widodo (2010), explanatory research is research that is explanatory in nature, meaning this research emphasizes the relationship between variables by testing hypotheses. The description contains descriptions but the focus lies on the relationship between variables, namely HR performance, Digital Leadership, and Digital Transformation. The researcher chose this method so that the results of this study can be directly applied to the organization where the researcher works.

3. Results and Discussion

3.1. Respondent Description

Descriptive analysis of respondent characteristics is the initial stage in research data processing, aiming to provide a systematic summary of the demographic characteristics and other attributes associated with the participants. This step serves to provide a comprehensive understanding of the respondent profile, thereby strengthening the context and supporting the interpretation of the research results. In this study, respondent data was obtained through the distribution of a questionnaire designed based on indicators for each research variable.

This research was conducted by distributing questionnaires to all employees at the Regional Office of the Directorate General of Customs and Excise of Central Java and the Special Region of Yogyakarta from September 15 to 23, 2025. Of all the distributed questionnaires, several were collected in complete condition and suitable for further processing. The results of the descriptive analysis of the respondents will be presented based on the predetermined characteristics as follows.

1) Gender

The characteristics of the employees who were respondents in this study can be explained based on gender factors as follows.

Respondent Characteristics Data Table by Gender

Gender	Frequency	Percentage
Man	115	73.7
Woman	41	26.3
Total	156	100.0

Source: Data processing results, 2025.

The table shows that in terms of gender, the majority of respondents were male (73.7%), while women were 26.3%. This composition indicates that work in the Customs and Excise environment is still dominated by male employees, which can be attributed to the characteristics of the job that requires high mobility, discipline, and assertiveness in carrying out supervisory and service functions. However, the proportion of women, which reached a quarter of the total respondents, reflects the active involvement of women in the public bureaucracy, which has the potential to strengthen service quality through a more communicative and collaborative work approach.

2) Age

The characteristics of the employees who were respondents in this study can be explained based on age factors as follows.

Respondent Characteristics Data Table by Age

Age	Frequency	Percentage
21 - 30 years old	57	36.5
31 - 40 years old	65	41.7
41 - 50 years old	22	14.1
51 - 60 years	12	7.7
Total	156	100.0

Source: Data processing results, 2025.

According to the data in the table, the largest age group is in the 31–40 year range (41.7%), followed by the 21–30 year age group (36.5%), while the 41–50 year and 51–60 year age groups account for 14.1% and 7.7%, respectively. This pattern indicates that the majority of employees are in a productive and adaptive phase to change, including the implementation of digital work systems. This dominance of young to middle-aged employees indicates a high potential for accepting innovation and improving digital competency, which in turn has positive implications for performance efficiency and the institution's ability to face the demands of modernizing public services.

3) Last education

The characteristics of the employees who were respondents in this study can be explained based on the last educational factor as follows.

Data Table of Respondent Characteristics According to Last Education

Education	Frequency	Percentage
High School/Vocational School	3	1.9
Diploma	58	37.2
S1	74	47.4
S2	21	13.5
Total	156	100.0

Source: Data processing results, 2025.

Based on their highest level of education, the majority of respondents had a bachelor's degree (47.4%), followed by a diploma (37.2%), a master's degree (13.5%), and a high school/vocational school (1.9%). The high proportion of employees with higher education demonstrates sufficient intellectual capacity to support analytical, innovative, and more rational decision-making. Furthermore, the presence of employees with master's degrees indicates efforts to develop professional competency among civil servants, which directly contributes to improving the quality of policies and organizational performance.

4) Years of service

The characteristics of the employees who were respondents in this study can be explained based on the length of service factor as follows.

Respondent Characteristics Data Table According to Length of Service

Years of service	Frequency	Percentage
0 - 10 years	77	49.4
11 - 20 years	53	34.0
21 - 30 years old	19	12.2
> 30 years	7	4.5
Total	156	100.0

Source: Primary Data Processing Results, 2025.

Based on the length of service factor, the data in the table shows that the majority of employees have worked between 0–10 years (49.4%), followed by 11–20 years (34%), while the group with a service period of 21–30 years (12.2%) and more than 30 years (4.5%) are smaller. This distribution indicates that the work environment is dominated by employees with medium to low work experience, reflecting a fairly good regeneration of human resources. Employees with a service period of less than 10 years tend to have high enthusiasm and motivation to adapt to technology-based work systems and procedural updates, so they can be the main drivers of digital transformation and improved institutional performance.

Descriptive data analysis, in this case, aims to obtain an overview of respondents' assessments of the variables studied. Descriptive analysis provides information about respondents' tendencies in responding to the indicators used to measure the research variables. Data explanation is achieved by assigning weights to each statement in the questionnaire.

The respondent response criteria follow the following assessment scale: Strongly Agree (SS) with a score of 5, Agree (S) with a score of 4, Quite Agree (CS) with a score of 3, Disagree (TS) with a score of 2, and Strongly Disagree (STS) with a score of 1. Furthermore, from this scale, the data will be grouped into three categories.To determine the scoring criteria for each group, it can be calculated as follows:(Sugiyono, 2017):

Highest score = 5

Lowest score = 1

Range = Highest score – lowest score = 5 - 1 = 4

Class interval = Range / number of categories = 4/3 = 1.33

Based on the size of the class interval, the criteria for the three categories are: low category, score = 1.00 – 2.33, medium category, score = 2.34 – 3.66 and high/good category, with a score of 3.67 – 5.00. The complete calculation results for each indicator are presented below:

Research Variable Description bell

No	Variables and indicators	Mean	Standard Deviation
1	***Digital Leadership***	**4.21**	
	a. Inspiring others,	4.27	0.85
	b. Connected and engaged,	4.19	0.90
	c. Leverage Technology.	4.16	0.92
	d. Encourages collaboration.	4.15	0.93
	e. Drives innovation.	4.26	0.91
2	**Digital transformation**	**4.31**	
	a. Technology adoption rate	4.30	0.79
	b. User experience	4.30	0.75
	c. Process efficiency	4.33	0.74
	d. Data analysis	4.31	0.79
	e. Collaboration and communication	4.31	0.79
	f. Digital readiness	4.28	0.78
3	**HR Performance**	**4.29**	
	a. Speed of completion of customs and excise processes;	4.35	0.73
	b. Achievement of customs and excise revenue;	4.27	0.73
	c. Level of compliance of service users;	4.23	0.79
	d. Quality of budget implementation	4.33	0.75

The data presented in the table above shows that the Digital Leadership variable has an overall mean value of 4.21, which is in the high category (3.67–5.00). This indicates that digital leadership within the Regional Office of the Directorate General of Customs and Excise for Central Java and the Special Region of Yogyakarta is well underway. Among the indicators measured, “Inspiring others” obtained the highest mean value of 4.27, indicating that leaders are able to inspire and motivate subordinates to adapt and innovate in the digital era. Conversely, the indicator with the lowest mean value is “Encourages collaboration” with a score of 4.15, which, although considered high, indicates that there is still a need for improvement in encouraging cross-divisional collaboration for more optimal digitalization synergy. These findings indicate that leadership within the Customs and Excise environment has demonstrated visionary and adaptive capabilities to technological change,

although there is still a need to strengthen aspects of teamwork and digital communication for more effective organizational transformation.

The Digital Transformation variable has an overall mean score of 4.31, which is in the high category. This indicates that the digital transformation process has been running optimally across various technological and operational aspects. The indicator with the highest score is Process Efficiency with a score of 4.33, indicating that the implemented digital system has been able to increase the speed and effectiveness of work processes. Meanwhile, the indicator with the lowest mean score is Digital Readiness with a score of 4.28, but remains in the high category. This indicates that although employee and organizational digital readiness are good, this aspect still lags slightly behind process efficiency and the quality of the user experience. Overall, high scores on all indicators indicate that the organization is in a mature phase of digital transformation.

The HR Performance variable has an overall mean value of 4.29, which is in the high category, so it can be concluded that employee performance is generally very good. The indicator with the highest score is the Speed of Customs and Excise Process Completion with a value of 4.35, reflecting high work efficiency in the service sector. The lowest indicator is the Level of Service User Compliance with a value of 4.23. Although the value is slightly lower than the other indicators, it remains in the high category, so it does not indicate any significant problems. The Budget Execution Quality Indicator also shows very good performance with a value of 4.33, while Customs and Excise Revenue Achievement obtained a value of 4.27, reflecting the contribution of employee performance to state revenue targets. Overall, the high scores for all indicators indicate that employees have demonstrated consistent, professional performance, and in accordance with organizational performance standards.

Reliability tests are conducted to prove accuracy, consistency and precision. instruments in measuring constructs. Reliability indicates that the research indicators used are in accordance with the actual conditions of the research object. Measuring the reliability test of a construct with reflective indicators can be done using three methods, namely:

a. *Composite Reliability*. The indicators of a construct provide good results if they are able to provide a composite reliability value of more than 0.70.

b. *Average Variance Extracted*(AVE). An AVE criterion above 0.5 indicates that the indicators that form the research variables are said to be reliable, so they can be used in further analysis in the research.

c. *Cronbach alpha.* The Cronbach alpha score criteria of more than 0.70 means that the reliability of the construct being studied is classified as good.(Ghozali, 2014).

The composite reliability, Cronbach's alpha, and AVE values for each construct of this study are presented in full in the table below:

Reliability Test Results Table

	Cronbach's alpha	***Composite reliability***	***Average variance extracted (AVE)***
Digital Leadership	0.956	0.966	0.851
HR Performance	0.900	0.930	0.769
Digital transformation	0.955	0.964	0.817

Source: Smart PLS 4.1.0 data processing (2025)

The results of the reliability test for each structure are shown in the table above. The findings indicate that the Cronbach alpha value for each construct is more than 0.7, and the composite reliability value (*Composite reliability*) each construct is more than 0.7, and the AVE value of each construct is more than 0.5. Based on the results of the reliability test, it can be concluded that the research instrument has high reliability.

Based on the results of the convergent validity, discriminant validity, and reliability tests of the research variables, the conclusion that can be drawn is that the indicators used in measuring the latent variables can all be stated as valid and reliable measurement indicators.

Testingmulticollinearity needs to be done before hypothesis testing. Multicollinearity isa condition in which there is a high or perfect correlation between the independent variables in a regression model. Multicollinearity can cause inaccurate parameter estimates regarding the influence of each variable on the outcome variable.Multicollinearity testing can be performed by looking at the Collinearity Statistics (VIF) values on the inner VIF values. If the inner VIF is <5, it indicates no multicollinearity.

Multicollinearity Test Results Table

	VIF
Digital Leadership**-> HR Performance**	2,022
Digital Leadership**-> Digital transformation**	1,000
Digital transformation -> HR performance	2,022

Source: Smart PLS 4.1.0 data processing (2025)

Based on the results above, it can be seen that the VIF values for all variables are below 5. This means that there are no multicollinearity issues in the resulting model. Therefore, the analysis can proceed with hypothesis testing.

The Goodness of Fit (GoF) Criteria test is used to evaluate the structural model and measurement model. The GoF test is conducted to test the goodness of fit of the structural model or inner model. Assessment of the inner model means evaluating the relationship between latent constructs by observing the estimated results of the path parameter coefficients and their significance levels (Ghozali, 2011). In this study, the goodness of fit test of the structural model is evaluated by considering R-square (R2) and Q2 (predictive relevance model). Q2 determines how well the model produces the observed values. The

coefficient of determination (R2) of all endogenous variables determines Q2. The magnitude of Q2 has a value in the range of 0 to 1 and indicates that the closer it is to 1, the better the model formed.

The table below shows the results of calculating the coefficient of determination (R2) for both endogenous variables.

Table of Determination Coefficient Values (R-Square)

	R-square
HR Performance	0.749
Digital transformation	0.505

Source: Smart PLS 4.1.0 data processing (2025)

The table above shows the coefficient of determination (R-square) obtained in the HR Performance variable model, which is 0.749. This value means that the HR Performance variable can be explained by the Digital Leadership and Digital Transformation variables by 74.9%, while the remaining 25.1% is obtained from the influence of other variables not included in this research model.

The coefficient of determination (R-square) in the digital transformation variable model is 0.505. This means that digital transformation can be influenced by digital leadership by 50.5%, and the remaining 49.5% is obtained by the influence of other variables not included in this research model.

5) Q-Square (Q2)

The Q-Square (Q2) value is one test for assessing the goodness of fit of a structural model, indicating how well the observed values generated by the model and its parameter estimates align. A Q2 value > 0 indicates the model has predictive relevance, while a Q2 value < 0 indicates the model lacks predictive relevance. Q2 values of 0.02, 0.15, and 0.35 indicate weak, moderate, and strong fit, respectively.(Ghozali & Latan, 2015). The Q-Square value for the structural model of this study can be obtained from the results of the PLS blindfolding calculation as follows:

Q-Square Value Table

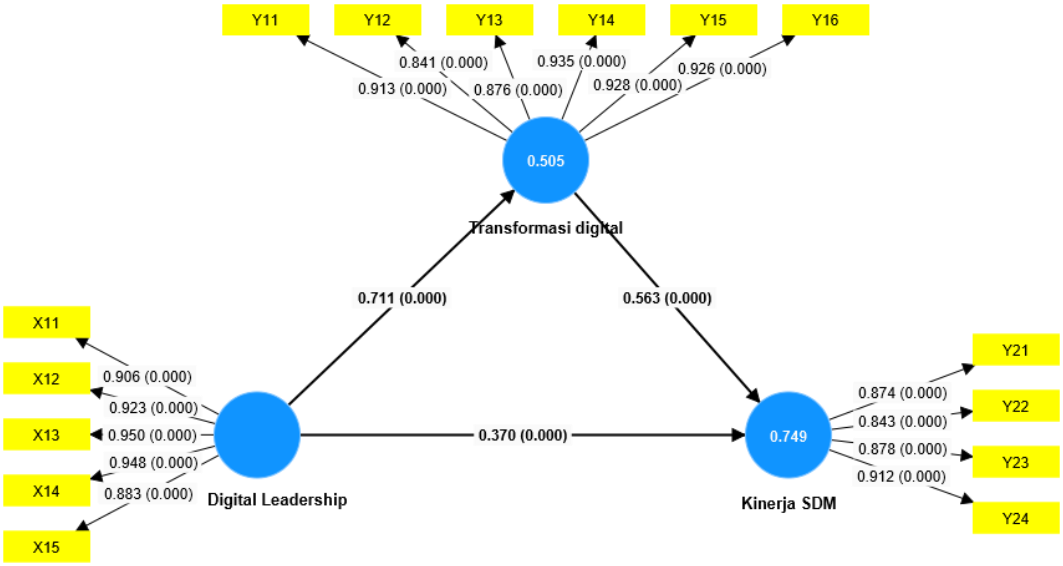
	SSO	**SSE**	**Q^2 (=1-SSE/SSO)**
HR Performance	624,000	268,555	0.570
Digital transformation	936,000	559,441	0.402

The Q-square (Q2) calculation produces a value Q square of 0.570 for the variable HR performance and the digital transformation variable obtained a Q square value of 0.402. This value is greater than 0.15, indicating that the model has moderate predictive relevance. All Q2 values are above 0, indicating that the structural model has a good fit to the data. This means that the model's parameter estimates align with the observed values.

3.2. Structural Model Evaluation (Inner Model)

In structural model analysis, or inner model analysis, hypotheses can be tested using t-statistics. The test results can be seen from the structural model output in terms of the significance of the loading factors that explain the influence of the Digital Leadership construct on HR Performance through the mediation of Digital Transformation as an intervening variable.

In this case, data processing was performed using SmartPLS v4.1.0 software. The results of this data processing are shown in the following image:



SEM-PLS Inner Model Image
Source: Results of data processing with Smart PLS 4.0 (2025)

1) Direct Influence Analysis

Research hypothesis testing was conducted to determine whether the hypothesis was accepted or not. The testing procedure was carried out by comparing the calculated t-test with the t-table, assuming that the calculated t-test is greater than the t-table. The t-table value for a 5% significance level is 1.96. The following table shows the results of the test of influence between variables using Partial Least Squares analysis.

Table of Path Coefficients of Direct Influence

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
***Digital Leadership*-> HR Performance**	0.370	0.374	0.077	4,826	0.000
***Digital Leadership*-> Digital transformation**	0.711	0.712	0.049	14,654	0.000
Digital transformation -> HR	0.563	0.559	0.081	6,934	0.000

performance

Source: Results of data processing with Smart PLS 4.1.0 (2025)

Based on the results of the data processing presented above, the testing for each research hypothesis can be explained further, namely:

a. Hypothesis Testing 1:

H1: Digital Leadership has an influence in driving HR performance.

In testing hypothesis 1, the original sample estimate value was obtained at 0.370. This value indicates that Digital Leadership has a positive effect on HR Performance. This result is also supported by the t-test value obtained at 4.826 > t table 1.96 and the significance value p (0.000) < 0.05, so it can be said that there is a positive and significant influence of Digital Leadership on HR Performance. Thus, the first hypothesis stating that 'Digital Leadership has an influence in driving HR performance' can be accepted.

b. Hypothesis Testing 2

H2: Digital Leadership has an influence in driving digital transformation.

Based on the test results, the original sample estimate value was obtained at 0.711. This value indicates that Digital Leadership has a positive influence on Digital Transformation. The t-test value of 16.645> t table 1.96 and the significance value of p (0.000) <0.05, thus proving that there is a positive and significant influence of Digital Leadership on Digital Transformation. Thus, the second hypothesis stating that 'Digital Leadership has a significant positive influence on Digital Transformation' can be accepted.

c. Hypothesis Testing 3

H3: Digital transformation has an influence on improving HR performance.

The results of the hypothesis testing show the original sample estimate value of 0.563, which means that digital transformation has a positive effect on HR performance. These results are supported by the t-test value of 6.934> t table 1.96 and the significance value of p (0.000) <0.05, so it can be said that digital transformation has a positive and significant effect on HR performance. Thus, the third hypothesis which states that "Digital transformation has an influence in improving HR performance" can be accepted.

A summary of the results of the hypothesis testing in this study is presented in full in the table.

Summary Table of Hypothesis Test Results

	Hypothesis	**t value**	**p-value**	**Conclusion**
H1	*Digital Leadership has a significant positive influence on HR performance*	4,826	0.000	Accepted
H2	*Digital Leadership has a significant*	14,654	0.000	Accepted

	positive influence on digital transformation.			
H3	*Digital transformation has a significant positive impact on HR performance*	6,934	0.000	Accepted

Note: The hypothesis is accepted if t>1.96 and p value <0.05
Source: Results of data processing with Smart PLS 4.1.0 (2025)

2) Analysis of the Indirect Influence of Digital Leadership on HR Performance through the Mediation of Digital Transformation

In this case, the indirect effect test was conducted to determine the influence of the Digital Leadership variable on HR Performance indirectly through the intervening variable, namely Digital Transformation. This influence is depicted in the following path diagram:

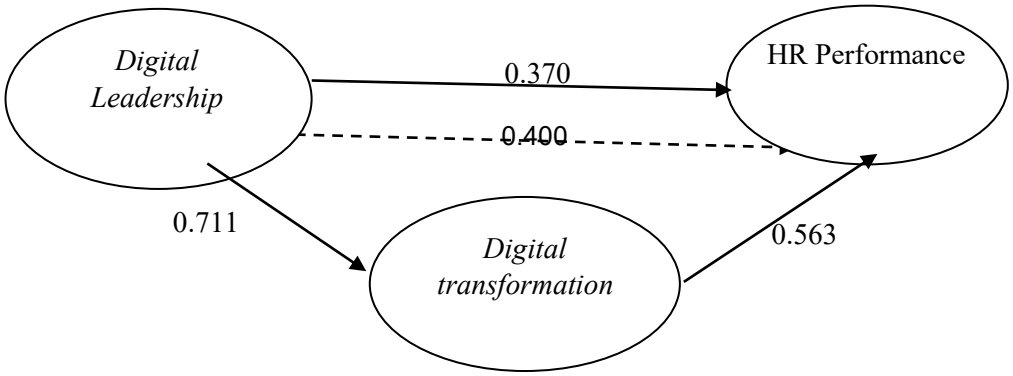


Figure of the Path Coefficient of the Influence of Digital Leadership on HR Performance through Digital Transformation

Information :

——————— : Direct influence

– – – – – – – – – – : Indirect influence

The results of the indirect influence test from the calculation results with smart PLS can be presented in the following table.

Indirect Effect Test Results Table

	Original sample	**T statistics**	**P values**	**Information**
***Digital Leadership*-> Digital transformation -> HR performance**	0.400	7,091	0.000	Significant

Source: Results of data processing with Smart PLS 4.1.0 (2025)

The test results show that the coefficient value of the mediation path of Digital Leadership on HR Performance through Digital Transformation is 0.400. This value indicates a positive influence of Digital Leadership on HR Performance through increasing employee digital transformation. This influence is strengthened by the t-test value of 7.091> t table 1.96 and the significance value of p (0.000) <0.05, so it can be concluded that the mediation effect is significant. This means that Digital Leadership has a significant positive influence on HR Performance through Digital Transformation.

The test results show that the coefficient value of the mediation path of Digital Leadership on HR Performance through Digital Transformation is 0.400. This value indicates a positive influence of Digital Leadership on HR Performance through increasing employee digital transformation. This influence is strengthened by the t-test value of 7.091> t table 1.96 and the significance value of p (0.000) <0.05, so it can be concluded that the mediation effect is significant. This means that Digital Leadership has a significant positive influence on HR Performance through Digital Transformation.

3.3. Discussion:

1) Influence*Digital Leadership*on HR performance.

Digital Leadership It has been proven to have a positive and significant impact on HR performance. These results are also supported by research findings showing that digital leadership has a positive impact on organizational performance.(Husban et al., 2025).

Digital Leadership in this study it was measured from the reflection of five indicators namely indicators Inspiring others, connected and engaged, leveraging technology, encouraging collaboration, and driving innovation. These five aspects have been proven to improve HR performance, which in this study was measured by reflecting on four indicators. namely indicators Speed of completion of customs and excise processes; Achievement of customs and excise revenue; Level of compliance from service users; and Quality of budget implementation.

The Digital Leadership variable has the lowest outer loading value for the Drives Innovation indicator, while for the Human Resources Performance variable, the indicator with the lowest outer loading value is the Achievement of Customs and Excise Revenue. This relationship indicates that improving leaders' ability to encourage innovation contributes to increased Customs and Excise Revenue achievement. In other words, the stronger the leader's role in creating an innovative work environment, open to change, and oriented towards updating systems and work processes, the more optimal employee performance will be in achieving organizational targets, particularly in terms of state revenue. This demonstrates that innovative leadership is a crucial factor in mobilizing human resource potential to effectively face challenges and exploit opportunities in the digital era.

2) Influence*Digital Leadership*towards digital transformation.

*Digital Leadership*It has been proven to have a positive and significant impact on digital transformation. This result is also supported by research findings showing that digital leadership has an influence in driving digital transformation in organizations.(Alawiah & Tukiran, 2024).

Digital Leadership in this study it was measured from the reflection of five indicators namely indicators Inspiring others, connected and engaged, leveraging technology, encouraging collaboration, and driving innovation. These five aspects have been proven to increase digital transformation in this study, measured by five indicators. namely the indicators of Technology adoption level; User experience; Process efficiency; Data analysis; and Collaboration and communication.

The Digital Leadership variable shows that the indicator with the highest outer loading value is the ability to leverage technology, while the Digital Transformation variable has the highest indicator is data analysis. This relationship demonstrates that competent leadership in adopting and optimizing technology encourages organizations to be more oriented towards managing and utilizing data as a basis for decision-making. This means that the greater a leader's capability in integrating technology into work processes, the stronger the data-driven work culture that is formed, resulting in a more responsive, accurate, and strategic organization in formulating policies and work programs.

Conversely, the indicator with the lowest outer loading value in the Digital Leadership variable is the ability to drive innovation, while in the Digital Transformation variable, the lowest indicator is user experience. This relationship indicates that the role of leaders in fostering innovation is directly related to the quality of user interaction with the organization's digital systems. This means that, although its influence is relatively smaller compared to other indicators, leadership that is able to stimulate creativity, experimentation with new ideas, and continuous improvement still contributes to increasing the comfort and effectiveness of using digital systems, so that the user experience can be gradually improved through a conducive innovation climate.

3) Influence*Digital transformation*on HR performance.

Digital transformation has a positive and significant impact on HR performance. These findings are supported by research showing that platform digitalization capabilities can enhance innovation performance by enabling improvements to existing products, services, and applications.(Benitez et al., 2022).

Digital transformation in this study is measured by five indicatorsnamely the indicators of Technology adoption level; User experience; Process efficiency; Data analysis; and Collaboration and communicationwhich in this study is measured from the reflection of four indicatorsnamely indicatorsSpeed of completion of customs and excise processes; Achievement of customs and excise revenue; Level of compliance from service users; and Quality of budget implementation.

The digital transformation variable shows that the indicator with the highest outer loading value is data analysis, while the highest indicator in the HR performance variable is budget execution quality. This relationship confirms that an organization's ability to systematically manage and analyze data significantly contributes to improving the quality of budget management. This means that the more optimal the use of data analysis in decision-making, planning, and program evaluation, the more effective expenditure planning, budget control, and transparency of financial implementation will be, thereby sustainably improving the quality of budget execution.

4) The Influence of Digital Leadership on HR Performance through Digital Transformation

Digital Leadership has a significant positive influence on HR performance through digital transformation. These findings indicate that leaders with a digital vision are able to create an innovative work environment, open to change, and encourage technology-based collaboration. This condition allows the digital transformation process to run more quickly and effectively, which ultimately contributes to increased efficiency, accuracy, and employee productivity. The greater the leader's ability to apply the principles of digital leadership, the more optimal the process will be.

Digital transformation is taking place within the organization. A successful transformation process will create a more efficient, transparent, and collaborative work environment, ultimately leading to improved HR performance. This significant mediating relationship confirms that digital transformation is not merely the result of technology policy, but also a reflection of visionary leadership capable of fostering an innovative and adaptive culture in a modern bureaucratic environment.

4.Conclusion

Digital leadership has been shown to have a positive and significant impact on human resource performance. The results of this study indicate that the aspects of Inspiring others, Connected and engaged, Leverages technology, Encourages collaboration, and Drives innovation are able to encourage increased HR performance. Digital leadership has also been shown to have a positive and significant impact on digital transformation. The five dimensions of digital leadership contribute to accelerating the organizational transformation process, reflected in an increased drive for achievement, the ability to face challenges, responsibility for actions, openness to feedback, and the courage to take measured risks. Digital transformation has a positive and significant impact on human resource performance. The effective implementation of digital transformation has been shown to increase the speed of customs and excise process completion, improve state revenue achievement, increase the level of service user compliance, and strengthen the quality of budget implementation through efficiency and accuracy in resource management.

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