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The Influence of Digital Competence and System Ease of Use on Employee Performance in Utilizing the MySIMKARI Application at the North Sumatra High Prosecutor's

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A B S T R A C T

This study aims to analyze the influence of digital competence and ease of use of the system on employee performance in utilizing the MySIMKARI application at the North Sumatra High Prosecutor's Office, both partially and simultaneously. This study uses a quantitative approach with a causal associative research nature. The study population is all employees of the North Sumatra High Prosecutor's Office who use the MySIMKARI application in carrying out their daily tasks, with a sample of 86 respondents determined using the Slovin formula. Data were collected through a Likert-scale questionnaire and analyzed using multiple linear regression techniques with the help of SPSS software version 26. The results of the study indicate that digital competence has a positive and significant effect on employee performance, ease of use of the system has a positive and significant effect on employee performance, and both variables simultaneously have a positive and significant effect on employee performance with a contribution of 48.0 percent, while the rest is influenced by other factors outside this research model. These findings indicate that improving employee digital competence and simplifying the display and procedures for using the MySIMKARI application need to be a primary concern for the leadership of the North Sumatra High Prosecutor's Office in order to encourage the optimization of employee performance in supporting digital-based bureaucratic reform.

INTRODUCTION

Digital transformation has become a key agenda for bureaucratic reform within the Indonesian government, including law enforcement institutions such as the Attorney General's Office. To achieve effective, efficient, transparent, and accountable governance, the Attorney General's Office has developed various digital-based information systems, one of which is the MySIMKARI (Indonesian Attorney General's Office Management Information System) application. This application is designed to support administrative processes, case data management, performance reporting, and coordination between work units in an integrated, real-time manner.

The success of an information system implementation is not only determined by the sophistication of the technology used, but also greatly influenced by the readiness of human resources to operate the system. Employee digital competence is one of the determining factors in the successful use of information technology in the workplace. Digital competence encompasses employee knowledge, skills, and attitudes in using information and communication technology devices to complete work tasks effectively and efficiently. Employees with adequate digital competence will adapt more easily to changes in technology-based work systems than those still accustomed to conventional work methods. In addition to digital competence, perceived ease of use is also a crucial factor influencing the level of acceptance and utilization of an information system by users. According to Davis's Technology Acceptance

Model (TAM), perceived ease of use influences users' attitudes toward accepting and utilizing a technology. The easier a system is to use, the greater the employee's interest in optimally utilizing it to support their daily tasks.

The phenomenon occurring within the North Sumatra High Prosecutor's Office indicates that the implementation of the MySIMKARI application has not been fully optimized. Based on initial observations, some employees are still experiencing difficulties operating the application, particularly those with longer tenure and less familiarity with digital technology. Furthermore, some employees complained about the system's interface, which they considered less intuitive and the data input procedures quite complicated, resulting in longer work completion times and a decline in overall employee performance effectiveness.

Employee performance is the quality and quantity of work achieved by an employee in carrying out their duties in accordance with their assigned responsibilities. In the context of government organizations, optimal employee performance is essential to support the achievement of the institution's vision and mission, including fast, accurate, and accountable law enforcement. Therefore, it is important to determine the extent to which digital competence and ease of use of the MySIMKARI system contribute to employee performance at the North Sumatra High Prosecutor's Office. Although prior research confirms that digital competence and technology-acceptance factors are positively associated with employee performance in public-sector settings—including recent evidence from Indonesian local-government agencies (Ingsih et al., 2024) and public institutions abroad (de Carvalho et al., 2023; Nguyen & Süß, 2023)—this body of work has largely examined general administrative or educational agencies. Empirical evidence on how digital competence and system usability jointly shape employee performance within a law-enforcement institution, where digitalization must accommodate strict case-handling procedures and legal accountability, remains limited. This study addresses that gap by examining the combined influence of digital competence and perceived ease of use of the MySIMKARI application on employee performance at the North Sumatra High Prosecutor's Office, extending the application of the Technology Acceptance Model to the specific institutional context of Indonesian prosecutorial bureaucracy.

Beyond its contribution to human resource management literature, this study is also relevant to the broader discussion of the digital economy and digital ecosystem: the reliability of internal government information systems such as MySIMKARI forms part of the digital infrastructure that underpins transparent, accountable, and citizen-oriented public services. Strengthening employee digital competence and system usability in law-enforcement institutions is therefore not only an internal bureaucratic concern but also a contributing factor to the wider digital-transformation ecosystem in Indonesia. Based on the description, this study aims to analyze the influence of digital competence and ease of use of the system on employee performance in utilizing the MySIMKARI application at the North Sumatra High Prosecutor's Office, both partially and simultaneously.

Formulation of the problem

Based on the background above, the problem formulation in this research is as follows:

1. Does digital competence influence employee performance in utilizing the MySIMKARI application at the North Sumatra High Prosecutor's Office?
2. Does the ease of use of the system affect employee performance in utilizing the MySIMKARI application at the North Sumatra High Prosecutor's Office?
3. Do digital competence and ease of use of the system simultaneously influence employee performance in utilizing the MySIMKARI application at the North Sumatra High Prosecutor's Office?

Research purposes

This study aims to analyze the influence of digital competence on employee performance, analyze the influence of ease of use of the system on employee performance, and analyze the influence of digital competence and ease of use of the system simultaneously on employee performance in utilizing the MySIMKARI application at the North Sumatra High Prosecutor's Office.

Benefits of research

Theoretically, this research is expected to enrich the study of human resource management, particularly regarding digital competence, the Technology Acceptance Model, and employee performance in the public sector. Practically, the results are expected to provide input and evaluation for the leadership of the North Sumatra High Prosecutor's Office in formulating policies to improve employee digital competence and refine the MySIMKARI application system.

METHODS

This study uses a quantitative approach with a causal associative approach, aiming to determine the causal relationship between independent and dependent variables. The study was conducted at the North Sumatra High Prosecutor's Office in Medan City, with employees using the MySIMKARI application in their daily tasks. The population in this study was all 110 employees of the North Sumatra High Prosecutor's Office who use the MySIMKARI application. The sample size was determined using the Slovin formula with a 5 percent error rate, resulting in a total of 86 respondents. The sampling technique used was proportionate stratified random sampling based on each employee's work unit. Data was collected through the distribution of closed questionnaires with a five-point Likert scale, ranging from strongly disagree to strongly agree, which was supported by documentation techniques and limited interviews with several employees and related structural officials to strengthen the quantitative data obtained.

Table 1. Operational Definition of Variables

Variable	Definition	Indicator	Scale
Digital Competence (X1)	Employee knowledge, skills and attitudes in utilizing ICT to support work	Digital literacy; Digital communication; Digital security; Digital problem solving	Likert
Ease of System Use (X2)	The level of employee confidence that using the MySIMKARI application does not require much effort	Easy to learn; Easy to operate; Clear display; Flexible	Likert
Employee Performance (Y)	The results of employee work in terms of quality and quantity according to the responsibilities given	Quality of work; Quantity of work; Punctuality; Effectiveness; Independence	Likert

The measurement items for each variable were theoretically grounded in established frameworks. The digital competence items were developed based on the four dimensions of the DigComp framework, namely digital literacy, digital communication, digital security, and digital problem solving (Ferrari, 2013). The perceived ease-of-use items were adapted from the Technology Acceptance Model and its subsequent development, covering ease of learning, ease of operation, display clarity, and flexibility (Davis, 1989; Venkatesh & Davis, 2000). Meanwhile, the employee performance items were based on established performance measurement dimensions, including quality, quantity, timeliness, effectiveness, and independence (Wibowo, 2019; Mangkunegara, 2017).

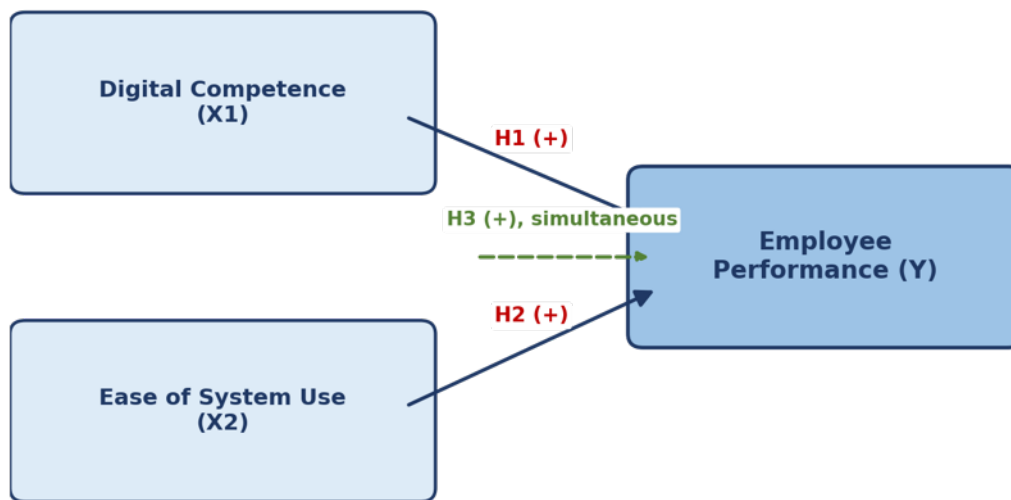


Figure 1. Research Conceptual Framework

Data Analysis Techniques

Before further analysis, the research instrument was first tested for validity using the Product Moment correlation technique and tested for reliability using the Cronbach's Alpha coefficient. Next, classical assumption tests were conducted, including normality tests, multicollinearity tests, and heteroscedasticity tests to ensure the regression model met the Best Linear Unbiased Estimator (BLUE) requirements. Data analysis was carried out using multiple linear regression techniques, followed by partial (t-test) and simultaneous (F-test) hypothesis testing, and calculation of the coefficient of determination (R^2) to determine the contribution of the independent variables to the dependent variable. All data processing was carried out using SPSS version 26 software. Validity testing was conducted at the level of each indicator item rather than only at the variable level: the corrected item-total (Product Moment) correlation coefficient for every statement item was compared against the r -table value of 0.213 ($df = n-2$, $\alpha = 0.05$), and items found below this threshold would have been revised or dropped prior to the main data collection. Reliability was then assessed using Cronbach's Alpha, with a coefficient of 0.60 or higher taken as the minimum threshold for internal consistency. This two-step procedure was intended to ensure that only psychometrically sound items were retained for hypothesis testing.

RESULTS AND DISCUSSION

Respondent Characteristics

The respondents in this study were 86 employees of the North Sumatra High Prosecutor's Office who use the MySIMKARI application, with the following characteristics:

Table 2. Respondent Characteristics

Variable	Speed (rpm)	Power (kW)	Power (kW)
Gender	Man	49	57.0 %
	Woman	37	43.0 %
Age	< 30 years	14	16.3 %

	30 - 40 years	31	36.0 %
	41 - 50 years old	27	31.4 %
	> 50 years	14	16.3 %
Last education	D3/equivalent high school	9	10.5 %
	S1	52	60.5 %
	S2	25	29.0 %
Years of service	< 5 years	18	20.9 %
	5 - 15 years	40	46.5 %
	> 15 years	28	32.6 %

Validity and Reliability Test

The validity test results show that all statement items in the variables of digital competence, ease of use of the system, and employee performance have a calculated r-value greater than the r-table (0.213) so that all items are declared valid. [The item-level r-count values across the three variables \[Author to insert: the minimum and maximum item r-count values obtained\] all exceeded the r-table threshold of 0.213, confirming that every indicator met the minimum validity requirement before proceeding to the reliability test.](#) The results of the reliability test are shown in the following table.

Table 3. Validity and Reliability Test

Variable	Number of Items	Cronbach's Alpha	Information
Digital Competence (X1)	6	0.812	Reliable
Ease of System Use (X2)	5	0.789	Reliable
Employee Performance (Y)	6	0.845	Reliable

Classical Assumption Test

The normality test with Kolmogorov-Smirnov produces an Asymp. Sig. (2-tailed) value of 0.200, greater than 0.05, so that the residual data is normally distributed. The multicollinearity test shows a tolerance value of 0.803 and a Variance Inflation Factor (VIF) value of 1.245 for both independent variables, which means there are no symptoms of multicollinearity because the tolerance value is greater than 0.10 and the VIF is less than 10. The heteroscedasticity test with the Glejser method shows a significance value of 0.512 for the digital competence variable and 0.634 for the ease of use of the system variable, both of which are greater than 0.05, so the regression model does not contain symptoms of heteroscedasticity.

Multiple Linear Regression Analysis

Table 4. Multiple Linear Regression

Variable	Coefficient (B)	Std. Error	t count	Sig.
Constant	5,812	1,674	3,472	0.001
Digital Competence (X1)	0.412	0.098	4,215	0.000
Ease of System Use (X2)	0.356	0.097	3,687	0.000

Based on the table above, the multiple linear regression equation is obtained as follows: $Y = 5.812 + 0.412X_1 + 0.356X_2 + e$. The constant value of 5.812 indicates that if digital competence and ease of use of the system are zero, then employee performance is at a value of 5.812. The regression coefficient X1 of 0.412 indicates that every one unit increase in digital competence will increase employee performance by 0.412 units assuming other variables remain constant. The regression coefficient X2 of 0.356 indicates that every one unit increase in ease of use of the system will increase employee performance by 0.356 units assuming other variables remain constant.

Partial Hypothesis Test (t-Test)

The t-table value in this study with degrees of freedom (df) = 83 and a significance level of 5 percent is 1.988. Based on table 4.4, the digital competence variable has a t-count value of 4.215 with a significance of 0.000, while the system ease of use variable has a t-count value of 3.687 with a significance of 0.000. Because the t-count value of both variables is greater than the t-table and the

significance value is less than 0.05, then H1 and H2 are declared accepted, which means that digital competence and ease of use of the system each have a positive and significant effect on employee performance.

Simultaneous Hypothesis Test (F Test)

Table 5. Partial Hypothesis Test (t-Test)

Model	F count	F table	Sig.
Regression	38,926	3.11	0,000

The calculated F-value of 38.926 is greater than the F-table of 3.11 with a significance level of 0.000 which is smaller than 0.05. Thus, H3 is declared accepted, which means that digital competence and ease of use of the system simultaneously have a positive and significant effect on employee performance in utilizing the MySIMKARI application at the North Sumatra High Prosecutor's Office.

Coefficient of Determination (R2)

Table 6. Coefficient of Determination (R2)

R	R Square	Adjusted R Square	Standard Error of the Estimate
0.693	0.480	0.467	1,842

The R Square value of 0.480 indicates that digital competence and ease of use of the system together are able to explain 48.0 percent of the variation in employee performance, while the remaining 52.0 percent is explained by other variables outside this research model, such as work motivation, organizational culture, leadership, and compensation.

Discussion

The results of the study indicate that digital competence has a positive and significant impact on employee performance in utilizing the MySIMKARI application. This finding aligns with the concept that employees with strong digital literacy, digital communication skills, data security awareness, and technical problem-solving skills are better able to optimize the use of information systems to complete work quickly and accurately. Employees with low digital competence tend to take longer to operate the application, thus reducing overall work effectiveness. System ease of use has also been shown to have a positive and significant impact on employee performance. This aligns with the Technology Acceptance Model, which states that perceived ease of use of a system will foster positive user attitudes toward the technology, ultimately increasing the intensity and quality of its use in the workplace. In the context of the North Sumatra High Prosecutor's Office, the MySIMKARI application, which is easy to learn and operate, and has a clear interface, will encourage employees to be more active and efficient in completing case administration tasks and reporting performance.

Simultaneously, digital competence and ease of use of the system were shown to have a significant influence on employee performance, contributing 48.0 percent. This indicates that these two variables are important, though not the only, factors influencing employee performance in utilizing digital systems within the North Sumatra High Prosecutor's Office. Other factors such as work motivation, leadership support, organizational culture, and the availability of technological infrastructure are also suspected to contribute to the remaining variation in employee performance that has not been explained in this research model. Theoretically, these findings reinforce and extend the Technology Acceptance Model by demonstrating that perceived ease of use retains significant explanatory power for employee performance even within a highly regulated, non-commercial institutional setting such as a public prosecutor's office. This finding complements recent evidence from other public-sector contexts, which has similarly highlighted the importance of technology acceptance in supporting organizational performance (Ingsih et al., 2024; Nguyen & Süß, 2023). Furthermore, the findings indicate that digital competence functions alongside system usability rather than merely serving as a prerequisite for effective technology adoption. This result is consistent with recent research emphasizing the complementary roles of individual digital capabilities and system characteristics in influencing outcomes in digitally mediated work environments (de Carvalho et al., 2023).

From a practical perspective, the findings suggest that the North Sumatra High Prosecutor's Office should adopt an integrated approach to digital transformation by simultaneously strengthening employees' digital competence and improving the usability of the MySIMKARI application. Relying exclusively on competency development or interface simplification may not be sufficient to optimize employee performance. Since both digital competence and perceived ease of use demonstrated independent and significant contributions to employee performance, organizational policies should address these two dimensions concurrently through continuous digital-skills development, user-oriented system improvements, technical support, and periodic evaluation of employees' experiences in using MySIMKARI.

These findings imply that efforts to improve employee performance through the use of the MySIMKARI application need to be accompanied by ongoing digital competency development programs, such as technical training, technical guidance, and mentoring for employees less familiar with technology. Furthermore, system developers also need to continuously evaluate and simplify the application interface to make it easier for all employees to understand and operate, including those with longer tenure.

CONCLUSIONS

1. Digital competence has a positive and significant impact on employee performance in utilizing the MySIMKARI application at the North Sumatra High Prosecutor's Office.
2. Ease of use of the system has a positive and significant impact on employee performance in utilizing the MySIMKARI application at the North Sumatra High Prosecutor's Office.
3. Digital competence and ease of use of the system simultaneously have a positive and significant effect on employee performance, with a contribution of 48.0 percent, while the remainder is influenced by other factors outside this research model.

This study has limitations, including the sample coverage which is only limited to one agency, namely the North Sumatra High Prosecutor's Office, and the use of a cross-sectional research design which only describes conditions at a certain point in time, so that the results of this study need to be interpreted carefully if they are to be generalized to the context of other agencies. In addition, the cross-sectional design of this study limits the interpretation of the regression results to statistical associations rather than definitive causal relationships. Although the findings indicate significant relationships among the variables examined, they do not establish temporal precedence or confirm that changes in one variable directly cause changes in another. Future research should therefore employ longitudinal or experimental research designs to examine the temporal dynamics and causal effects of digital competence and perceived ease of use on employee performance.

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