

The Influence of Knowledge Management and Digital Competence on Employee Performance: Mediating Role of Innovative Behavior

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ABSTRACT

Rapid technological changes in the era of Industry 4.0 and 5.0 have made digital knowledge and skills more important in improving the way employees perform their tasks. Earlier research has given mixed results. This shows there is still a lot to learn. Based on the KBV (Knowledge Based-View) theory, this study looks at how knowledge management and digital competence directly and indirectly affect employee performance through innovative work behavior. Data were obtained using a questionnaire that had been compiled and analyzed with Partial Least Squares-Structural Equation Modeling (PLS-SEM) method with SmartPLS 4.1.1.4. The research sample included all employees in the case study (N = 56), with census sampling method. The study found that KM had a significant impact on IWB ($p < 0,05$), but did not have a significant direct impact on EP ($p > 0,05$). DC had a significant impact on EP ($p < 0,05$), but did not have a significant impact on IWB ($p > 0,05$). IWB played an important role in improving EP and also mediated the relationship between KM and EP. Theoretically, this study adds value to both the KBV theory by explaining how KM boosts performance through indirect ways, and by showing that digital capital plays a limited role in improving performance. Practically, the findings offer actionable implications for HR practitioners in designing performance systems that reward innovative behaviour, thereby motivating employees to utilize knowledge and digital tools more creatively to enhance productivity and service quality in medium enterprises.



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I. INTRODUCTION

In an ever-changing digital era and increasingly dynamic business competition, organizations are required to be alert in managing human resources strategically in order to maintain sustainability and create sustainable competitive advantage [1]. In line with this, there is a new paradigm, namely the knowledge-based view (KBV). The knowledge-based view (KBV) is an approach that explains that organizations are systems that focus on the creation, management, and application of knowledge as a core resource in improving performance and innovation. In addition, digital competence becomes a supporting capability in effectively integrating knowledge. Through this paradigm, knowledge is positioned as a strategic asset that needs to be managed properly to support the resource management process. Knowledge

management is a series of systematic procedures that aims to build, enhance, share, and apply knowledge to be used in decision-making and improve work quality [2]. In this situation, knowledge management is seen as a key way to boost employee skills and how well the organization performs. However, empirical findings regarding the relationship between knowledge management and performance remain inconsistent. Koivisto & Taipalus found that knowledge management significantly helps improve work performance [3]. Isdiani and Tania also found that knowledge management directly influences innovative behavior and employee performance [4]. Additionally, Ramaditya et al. found that knowledge management and innovative work behavior positively influence organizational performance [5]. However, other research reports non-

significant relationships, which suggests that just having knowledge might not directly improve performance unless there are other factors, such as innovative behavior [6]. This inconsistency highlights the need to re-examine the pathways through which knowledge management influences performance.

At the same time, the development from industry 4.0 to industry 5.0 era has made the ability of individuals to use digital technology as a basic and fundamental competency. Digital competence is an individual's capability to utilize information and communication technology impactively and responsibly and to adapt to digital platforms [7]. Within an organization, digital competence can contribute significantly to work performance and help organizations achieve innovation capabilities, as confirmed by several previous studies [8]. Through previous research, Dewi et al. indicated that digital competence has a direct and indirect impact on performance through self-confidence [9]. Research by Liu et al. also shows positive and significant results regarding the influence of digital competence on innovative work behavior [10]. However, other studies report that digital competence does not significantly or has a weak incentive to encourage innovative work behavior [11]. This indicates a potential gap in how digital skills translate into innovation and driven performance outcomes.

In this context, innovative behavior reflects how an employee applies their knowledge and competence to generate new ideas, take initiative, and implement solutions. Based on previous research, it was found that innovative work behavior significantly can help employees perform better [12]. Innovation has also been proven to mediate between knowledge management and employee performance [13]. This finding shows that innovative behavior can also have the potential to bridge the relationship between knowledge management and digital competence in relation to employee performance. In addition to the empirical gap, there is also a contextual gap. Most previous studies have been conducted on large organizations, the public sector, or educational institutions that have relatively stable structures and management systems, while studies on medium-sized companies are still limited.

Based on these research gaps, this study aims to address these gaps by analyzing and understanding the direct and indirect impacts of knowledge management (KM) and digital competence (DC) on employee performance (EP) through innovative work behavior (IWB). Grounded in KBV (Knowledge-Based View) theory, this study aims to strengthen the theoretical understanding of how knowledge resources and digital capabilities influence employee outcomes by positioning knowledge as a strategic organizational asset that drives innovation and performance. The findings are expected to provide valuable insights for organizations seeking to design knowledge-based, innovation and digitally oriented human resource strategies in the digital era.

II. METHODS

Quantitative methods were used in this study, where data is gathered using questionnaires. This method was chosen because it helps researchers figure out the causal relationships between variables, test hypotheses, and generalize to the population being studied [14]. This study uses measurements through validated questionnaire instruments. This study has several stages as shown in the figure below:

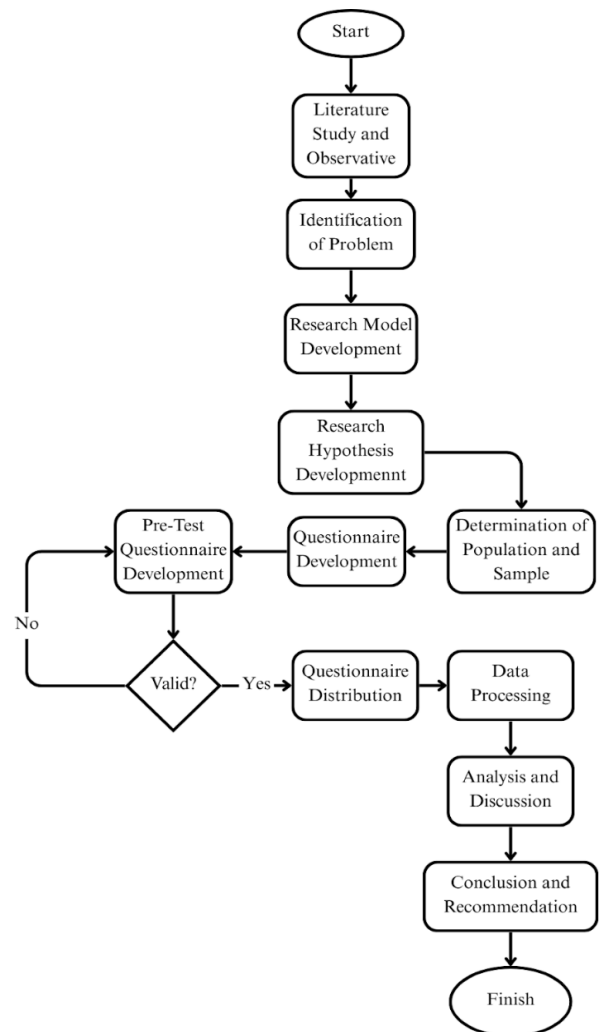


Figure 1. Research Process

Figure 1 illustrates the research flow, which begins with a literature study and observation through various scientific journals, articles, and relevant books, as well as interviews with research subjects. Through a literature review, the research problem was formulated, and a conceptual model based on the Knowledge-Based View (KBV) was developed, followed by the development of a research model and hypothesis, which shows a preliminary assumption about the relationship between the variables being studied. Next, the population and sample of research respondents were determined. Then, the questionnaire was designed in

accordance with relevant indicators from previous literature and based on theoretical constructs, and its validity was tested through expert judgment. After that, the questionnaire was administered to the respondents. The gathered data was then processed and analyzed using the Partial Least Square (PLS) and based Structural Equation Modelling (SEM) method. Furthermore, the analysis findings were used to formulate conclusions and suggestions related to the research objectives and findings.

A. Research Models and Hypotheses

This study uses the research model shown in the following figure:

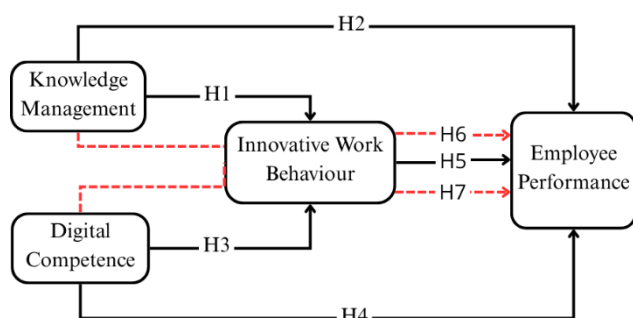


Figure 2. Research Model

Figure 2 shows the research model designed to examine and analyze the relationship between the variables studied, namely Knowledge Management, Digital Competence, Innovative Work Behavior, and Employee Performance. Although a number of previous studies have discussed these four variables, there are still limited studies that comprehensively examine the simultaneous relationship between these variables in an integrated model, such as the study by Sagbas et al. who conducted research related to digital leadership with innovative behavior as a mediator of performance. Therefore, this study was conducted by adding knowledge management as an independent variable by applying KBV theory as an approach to expand the literature [15]. Based on the research model, several hypotheses are formulated in Table I below.

TABLE I
RESEARCH HYPOTHESIS

Hypothesis	Reference
H1: Knowledge management has a significant impact on innovative work behavior.	[16], [17]
H2: Knowledge management has a significant impact on employee performance.	[18]
H3: Digital competence has a significant impact on innovative work behavior.	[8], [11]

H4: Digital competence has a significant impact on employee performance	[19], [20], [21]
H5: Innovative work behavior has a significant impact on employee performance.	[12], [22], [23], [24]
H6: Knowledge management indirectly impacts employee performance with innovative work behavior as a mediation variable.	[13]
H7: Digital Competence indirectly impacts employee performance with innovative work behavior as a mediation variable.	[10]

B. Measurement Instrument

The measurement instruments in this study were designed to measure each variable systematically. Each variable was broken down into indicators, which were then translated into items in the questionnaire. The instruments were designed to ensure that each item clearly, concisely, and relevantly reflected the aspect being measured. The instruments are shown in Table II below.

TABLE II
MEASUREMENT INSTRUMENTS

Instrument	Code	Reference
Knowledge Management		
My company motivates me to innovate in generating new knowledge.	KM1	[25]
My company provides mechanisms and tools that give me the opportunity to acquire existing knowledge.	KM2	
My company ensures supervision in the knowledge creation process.	KM3	
My company has flexible mechanisms and tools for managing available knowledge.	KM4	
My company protects physical records and documents (hard copies) for data storage.	KM5	
My company provides advanced technology facilities and modern information systems to manage and store knowledge	KM6	
My company provides modern technology tools to transmit knowledge to fellow employees	KM7	

My company provides publications and documents to routinely disseminate knowledge to employees	KM8	
My company strives to instill a culture of knowledge sharing among its employees	KM9	
Relevant knowledge is always available to employees when needed at any given time	KM10	
My company provides the facilities and tools necessary to apply existing knowledge.	KM11	
My company creates an environment that encourages employees to share knowledge with each other.	KM12	
Digital Competence		
My company's digital infrastructure can meet the business needs of the company.	DC1	[7]
My company's digital infrastructure can respond quickly to business process requests.	DC2	
My company's digital staff have adequate knowledge and skills regarding digital services.	DC3	
My company integrates all data and software across departments using database platforms and information systems	DC4	
I can access data from all departments at any time	DC5	
I can freely share and utilize data from other departments, including from partners and customers	DC6	
My company's digital staff quickly learn and apply new digital technologies	DC7	
My company's digital staff can apply digital system skills and knowledge	DC8	
The digital staff at my company quickly resolve issues related to digitization.	DC9	
Innovative Work Behavior		
I am able to explain my ideas systematically to my superiors and colleagues.	IWB1	[26]
I process new information or ideas that I obtain to support the success of the organization.	IWB2	

I understand the challenges faced by the company.	IWB3	
I am interested in new information or ideas needed to find solutions.	IWB4	
I encourage my colleagues to try out the ideas I propose.	IWB5	
I have applied new ideas that I have obtained from others in my daily work	IWB6	
I have applied new ideas that I have obtained in my daily routine	IWB7	
Employee Performance		
I always work in accordance with SOPs	EP1	[1]
I can complete tasks thoroughly	EP2	
The work I complete is in accordance with the job description provided	EP3	
I always complete all work on time	EP4	
I can complete additional tasks assigned by my supervisor on time without disrupting my routine tasks	EP5	
I try not to delay work assigned by my superiors.	EP6	
I always complete my work on time.	EP7	
I always work with an optimistic attitude.	EP8	
I have a good work ethic when collaborating with colleagues.	EP9	
I always follow instructions before working on tasks/assignments.	EP10	
I take the initiative to help colleagues complete their work when needed.	EP11	
I am always careful when completing my work.	EP12	

C. Research Object

This research was conducted at CV. Multikarya Impessa. This company is the subject of research, classified as a medium enterprises with 56 employees, operating in two strategic areas, namely human resource development (Impessa Experience) and digital product development (Impessa Technology). This company was chosen as the object of research because this company is at an important crossroads between digital transformation and knowledge-based human resource management. This company has the characteristics of a highly dynamic, competitive creative industry that makes the information and utilization of its resources.

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The combination of service-based and technology-based businesses makes the need for effective knowledge management practices and strategies and digital competencies increasingly important to maintain productivity, prevent knowledge loss due to employee turnover, maintain competitiveness, and ensure adaptation to rapidly changing digital market demands. This is in line with Romero and Mammadov, who emphasize that digital innovation in medium-sized companies is highly dependent on internal skills and access to external sources of knowledge about information and communication technology (ICT). They also highlight the importance of having a clear digital transformation strategy and sharing responsibility for digitization, rather than relying solely on owners or managers [27].

Therefore, CV. Multikarya Impessa is the appropriate context to examine the relationship between Knowledge Management, Digital Competence, Innovative Work Behavior, and Employee Performance, especially in medium-sized companies that do not have formal structures as strong as large companies. This study expands the literature, which was previously dominated by the public sector and large companies, by adding findings from medium-sized technology and service-based companies.

D. Population and Sample

The population in this research consisted of all permanent and temporary employees at CV. Multikarya Impessa, totaling 56 people. Since the population was small, under 100, the researchers used a non-probability sampling technique called saturated sampling, also known as a census. This means every person in the population was included as part of the study, following the proper methodological guidelines [14]. This technique was chosen because it gives every member of the population an equal chance of being included in the sample, so that the research results are expected to reflect the overall condition of the organization. By determining a sample that covers the entire population, the data collected is expected to represent the views and perspectives of all members, which ultimately increases the accuracy and relevance of the research findings. So, the sample of this research is 56 respondents ($N = 56$). This is also supported by previous research, which found that a population of less than 100 was sufficient to conduct explanatory research using census sampling techniques [28].

Demographic information collected included gender, age, and the highest level of education. The explanation can be seen in Table III:

TABLE III
DEMOGRAPHIC INFORMATION

Category	Item	Total	Percentage
Gender	Male	33	58,9%
	Female	23	41,1%
Education Level	S1	35	62,5%
	D3	5	8,9%
	SMA/Sederajat	16	28,6%
Employee Role	Facilitator	24	42,9%
	Staff	32	57,1%
Tenure	< 3 Month	3	5,4%
	3-6 Month	12	21,4%
	7-12 Month	20	35,7%
	> 1 Year	21	37,5%
Project/Event Participation Frequency in the Last Year			
1-3 times		15	26,8%
4-6 times		19	33,9%
7-9 times		8	14,3%
> 9 times		14	25%

E. Data Collection Methods

This research uses the main data and supporting data. The main data was collected directly from the respondents according to the sample determined using an online questionnaire method in the form of Google Forms. This method was chosen because of its efficiency in reaching respondents comprehensively and allowing for more systematic and structured analysis [14]. The questionnaire was designed in a closed format using a 1 to 5 Likert scale to measure various responses from respondents to the variables under study. Scale 1 was for "Strongly Agree" and 5 was for "Strongly Disagree". Before being distributed, the questionnaire instrument underwent a validity test using the validity expert judgment technique by one company director and two expert lecturers, and an outer model measurement was conducted. Meanwhile, the secondary data sources for this study were obtained from literature studies related to the research conducted, such as reference books, journals, and articles.

F. Distribution of Pre-Test Questionnaire

A pre-test questionnaire was administered to employees of CV. Multikarya Impessa with a sample of 30 respondents from a total population of 56 employees. This is in accordance with the research conducted by Bujang et al., which found that 30 respondents were sufficient to assess the reliability of the questionnaire [29].

G. Data Processing Methods

This study uses the Partial Least Square (PLS) of the Structural Equation Modelling (SEM) approach to process and analyze data, and the analysis is conducted using SmartPLS 4.1.1.4 software. The PLS-SEM method was chosen for this research because this research is classified as explanatory research, which is a type of research that aims to explain the relationship between variables. In addition, PLS-SEM has the ability to analyze complex interrelationships between latent variables, including multiple constructs and mediation. This study also has a relatively small sample size, which is $N = 56$, making the use of the PLS-SEM method an appropriate choice. In line with the book written by Hair et al., PLS-SEM is a multivariate analysis method that combines Structural Equation Modelling (SEM) and Partial Least Squares (PLS) to model complex relationships between variables, especially when data is not normally distributed or sample sizes are small [30]. PLS employs two methods to assess the measurement model during data analysis and processing evaluations. One is the Outer Model, which checks if the data is valid and reliable (discriminant validity, convergent validity, and reliability). The other is the Inner Model, which is used to test hypotheses and check how well prediction models work (path coefficient, F^2 , R^2 , and Q^2).

III. RESULTS AND DISCUSSION

Analysis of the measurement model (outer model) and structural model (inner model) is used for data processing and analysis. This can be seen as follows.

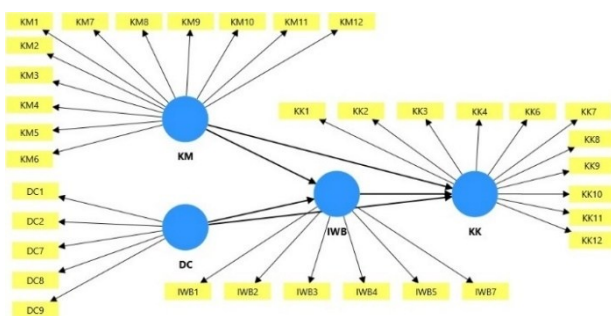


Figure 3. Latent Variable Model

A. Measurement Model Analysis (Outer Model)

1) Convergent Validity

Based on previous research, convergent validity is measured and evaluated through two criteria that all constructs must meet, that is the load factor value and the Average Extracted Variance (AVE) [24]. The loading factor for each construct must have a minimum value of 0.7 to be considered valid. Each construct's loading factor must be at least 0.7 to be considered valid. Also, the AVE for each construct should be at least 0.5 to be considered valid [31]. The findings from checking convergent validity are shown in the Table IV below:

TABLE IV
LOADING FACTOR

Construct	Indicator	Loading Factor	AVE
KM	KM1	0.807	0.666
	KM2	0.736	
	KM3	0.797	
	KM4	0.704	
	KM5	0.801	
	KM6	0.919	
	KM7	0.731	
	KM8	0.888	
	KM9	0.752	
	KM10	0.930	
	KM11	0.851	
	KM12	0.837	
DC	DC1	0.828	0.628
	DC2	0.742	
	DC7	0.765	
	DC8	0.843	
	DC9	0.780	
EP	EP1	0.705	0.629
	EP2	0.893	
	EP3	0.795	
	EP4	0.811	
	EP6	0.732	
	EP7	0.799	
	EP8	0.806	
	EP9	0.712	
	EP10	0.701	
	EP11	0.880	
	EP12	0.858	
IWB	IWB1	0.858	0.689
	IWB2	0.962	
	IWB3	0.737	
	IWB4	0.872	
	IWB5	0.778	
	IWB7	0.750	

Based on Table IV, all outer loadings on each indicator have met the requirement of more than 0.7 after removing and eliminating several invalid indicators. Also, the AVE of all the latent variables is more than 0.5, which means we can say the latent variables have good convergent validity. Therefore, they can be used for more analysis to show that each indicator and construct has strong validity.

2) Discriminant Validity

In this study, discriminant validity was measured using cross loadings to determine whether all constructs had good discriminant validity or not [32]. All constructs have good discriminant validity if the outer loadings on their own constructs are all higher than all their cross loadings with other construct. Discriminant validity means the different ideas in the research model are clearly separate from each other. Cross loadings are sufficient to assess discriminant validity [33]. Research by Dewi et al. also tested discriminant validity in their study using cross loadings [9]. The outcomes of cross loadings in the discriminant validity measurement are as follows.

TABLE V
CROSS LOADINGS

Indicator	KM	DC	EP	IWB
KM1	0.807	0.732	0.683	0.562
KM2	0.736	0.620	0.648	0.659
KM3	0.797	0.752	0.558	0.590
KM4	0.704	0.588	0.701	0.579
KM5	0.801	0.811	0.568	0.697
KM6	0.919	0.758	0.655	0.477
KM7	0.731	0.532	0.431	0.243
KM8	0.888	0.749	0.711	0.642
KM9	0.752	0.530	0.383	0.189
KM10	0.930	0.817	0.623	0.590
KM11	0.851	0.653	0.577	0.348
KM12	0.837	0.614	0.485	0.269
DC1	0.632	0.660	0.828	0.659
DC2	0.659	0.663	0.742	0.683
DC7	0.623	0.744	0.765	0.580
DC8	0.409	0.596	0.843	0.589
DC9	0.556	0.624	0.780	0.701
EP1	0.623	0.705	0.583	0.624
EP2	0.847	0.893	0.816	0.793
EP3	0.507	0.795	0.692	0.700
EP4	0.869	0.811	0.556	0.556
EP6	0.559	0.732	0.594	0.609
EP7	0.636	0.799	0.716	0.706
EP8	0.683	0.806	0.750	0.808

EP9	0.732	0.712	0.589	0.389
EP10	0.568	0.701	0.631	0.588
EP11	0.719	0.880	0.634	0.622
EP12	0.610	0.858	0.668	0.639
IWB1	0.538	0.667	0.626	0.858
IWB2	0.624	0.780	0.773	0.962
IWB3	0.383	0.408	0.613	0.737
IWB4	0.388	0.618	0.673	0.872
IWB5	0.465	0.656	0.625	0.778
IWB7	0.682	0.822	0.712	0.750

Based on Table V, it's clear that each indicator's cross loadings are higher when paired with their own variable than with other variables. Therefore, it can be concluded that these indicators have met the discriminant validity test criteria, so it can be said that the results are proven valid.

3) Reliability

In reliability evaluation, the two main measures used are Cronbach's Alpha (CA) and Composite Reliability (CR). CA measures the lowest reliability value (lower limit). Data is considered good if it has a CA and CR value of 0.7 or above, which indicates that the research instrument has a good level of reliability for use in research. Also, the AVE for each construct should be at least 0.5 to be considered valid [31].

TABLE VI
CONSTRUCT RELIABILITY AND VALIDITY

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	AVE
KM	0.954	0.962	0.960	0.666
DC	0.851	0.851	0.894	0.628
EP	0.940	0.945	0.949	0.629
IWB	0.908	0.918	0.929	0.689

According to Table VI, it can be seen that CA and CR for all constructs have met the requirements, which is 0.7 and above. Also, the AVE of all the latent variables is more than 0.5. Therefore, it can be concluded that reliability has been met and confirmed in this study.

Based on the validity and reliability of the test, several questions were eliminated and not used as final research questions.

B. Structural Model Analysis (Inner Model)

1) R-Square, F-Square, and Q-Square

Structural model testing in this research was performed using Partial Least Squares Structural Equation Modelling (PLS-SEM) through SmartPLS 4.0 software. This analysis process aims to evaluate the relationship between constructs in the model, as well as measure how strongly independent variables can predict dependent variables and moderating variables. The parameters tested in the analysis process included the coefficient of determination (R^2) and effect size (F^2) to ensure that the model created had significant relationships between variables and was able to explain the phenomenon under study well [31]. To determine the cross-verified redundancy measure for each endogenous construction, a PLSpredict procedure is used to calculate the predictive relevance value (Q^2), which assesses predictive performance using Q^2 predict, RMSE (Root Mean Square Error), and MAE (Mean Absolute Error) metrics. However, previously Q^2 was calculated using a blindfolding procedure. The latest version of SmartPLS (version 4) no longer supports masking methods or algorithms because it does not provide out-of-sample assessments of predictive power [34]

TABLE VII
R-SQUARE

Variable	R^2	R^2
IWB	0.477	0.457
EP	0.810	0.799

The effectiveness of dependent variables in the research model in explaining independent variables is indicated by the R-Square value [21]. R-Square values of 0.75, 0.50, and 0.25 are regarded as strong, moderate, and weak, respectively, in PLS-SEM [35]. Based on Table VII, the innovative work behavior (IWB) variable has an R-Square value of 0.477. This indicates that 47.7% of the innovative work behavior variable can be explained by knowledge management and digital competence, while the rest is influenced by other factors not part of the research model. In addition, the employee performance (EP) variable has an R-Square value of 0.810, indicating that 81% of the variation in employee performance is described by the variables in the model (knowledge management, digital competence, and innovative work behavior). These results show that employee performance has a strong accuracy value and a moderate accuracy value for innovative work behavior.

TABLE VIII
F-SQUARE

	f-square
DC -> IWB	0.046
DC -> EP	0.253
IWB -> EP	0.546
KM -> IWB	0.190

The F-Square value will measure how much influence (impact) each latent exogenous variable has on the endogenous variable in increasing the R-Square value in the model. The effect size for F-Square is 0.02, which is considered weak, 0.15 is considered moderate, and 0.35 is considered strong [33]. Based on Table VIII, the F-Square values in this study show that all hypotheses have F-Square impact values greater than 0.02. IWB has the strongest influence on employee performance. This indicates that each exogenous variable has a significant effect on the related endogenous variables. Thus, it can be inferred that all research hypotheses in this study have a significant impact on the related latent variables.

TABLE IX
Q-SQUARE

Variable	Q^2 predict	RMSE	MAE
IWB	0.384	0.807	0.631
EP	0.634	0.636	0.473

The Q^2 measure is appropriate if the latent endogenous variable has a reflective measurement model. Q^2 is performed using the PLSpredict procedure, which assesses predictive performance using the Q^2 predict metric, RMSE (Root Mean Square Error), and MAE (Mean Absolute Error). The RMSE value, which captures the variability of prediction errors, indicates that the model provides good accuracy. The MAE value reflects the average size of prediction errors [34]. The IWB construct had a Q^2 predict value of 0.384, which shows a moderate but meaningful level of how well the model can predict it. The EP construct had a higher Q^2 predict value of 0.634, meaning the model performs well in predicting it. The RMSE values, which tell us about the spread of prediction errors, also show the model has good accuracy. The RMSE scores are 0.807 for IWB and 0.636 for EP, which are relatively low. The MAE values, which show the average size of prediction errors, also indicate the model is precise in predicting both constructs. The MAE values are 0.631 for IWB and 0.473 for EP. All these results together show that the model is reliable and works well in predicting both constructs.

2) Hypothesis Testing for Direct impacts and Indirect impacts

The study used hypothesis testing to show how each variable directly and indirectly affects the outcome.

Hypothesis testing was performed by examining the path coefficient table and the specific indirect impact. The significance and reliability of these estimated path coefficients are checked using strict statistical methods, especially the bootstrapping method. Bootstrapping works by taking many copies of the original data set, each time randomly selecting data points with possible repeats, to create several new data sets. This helps researchers find out the confidence intervals and how significant each path coefficient is [35]. This test was conducted by looking at p-values < 0.05 , which indicate the existence of an influence between variables and vice versa [36]. For significance values, if the t-statistic value is > 1.96 , it can be said to be significant. The following are the results of hypothesis testing in this study:

TABLE X
PATH COEFFICIENT - DIRECT IMPACT

	Original sample	Sample mean	Standard deviation	T statistics	P value	Status
KM -> IWB	0.490	0.477	0.237	2.070	0.038	Proven
KM -> EP	0.222	0.232	0.152	1.457	0.145	Not Proven
DC -> IWB	0.239	0.266	0.220	1.088	0.276	Not Proven
DC -> EP	0.348	0.353	0.159	2.191	0.029	Proven
IWB -> EP	0.445	0.425	0.105	4.239	0.000	Proven

Based on Table VII, the findings of the hypothesis test on the direct impact between variables in the study are shown. Hypothesis 1 in this study is accepted with a t-statistic of 2.070 and a p-value of 0.038, which is < 0.05 . These results indicate that Knowledge Management (KM) has a significant impact on Innovative Work Behavior (IWB). It means that the better a company manages knowledge in creating, storing, sharing, and application knowledge, the higher the innovative behavior exhibited by its employees. The outcomes of this study are consistent with several previous studies by Isdiani and Tania, Anwar and Muis, Meylananda et al., which confirm that impactful knowledge management can build an innovative environment [4], [16], [17]. Through the implementation of this knowledge-sharing culture, interaction between employees and leaders increases, which can have a positive impact on innovative work behavior [37].

Meanwhile, hypothesis 2 in this study was rejected with a t-statistic value of 1.457 and a p-value of 0.145, which is > 0.05 . These findings indicate that Knowledge Management (KM) doesn't have a significant direct impact on Employee Performance (EP). From a theoretical perspective, there is research that states that the impact of knowledge management on performance usually appears indirectly through changes in employee behavior, such as innovation or innovative

behavior, rather than through direct results [13]. This shows that KM not only requires knowledge, but also the ability and opportunity for employees to transform that knowledge into creative actions. In addition, the results of this study may reflect the condition of organizations that are in the process of growing and adapting. In such an environment, knowledge is continuously created and shared, but its contribution to performance is often felt gradually as teams adjust their processes, routines, and shared understanding. Situational knowledge sharing, changes in team composition, and evolving tasks can influence how knowledge is interpreted and applied by each individual. This enriches the literature that KM does not automatically result in better performance without an organizational ecosystem that is ready to absorb it. This explains why the influence of knowledge management on performance is not significant in this research. These findings are consistent with those of Wibowo et al. in their study, which showed that Knowledge Management does not have a significant impact on Employee Performance except through innovation factors [6].

Hypothesis 3 in this study was rejected with a t-statistic value of 1.088 and a p-value of 0.276, which is > 0.05 . These results indicate that Digital Competence (DC) doesn't have a significant direct impact on Innovative Work Behavior (IWB). These results show that employees' digital skills do not fully encourage innovative behavior at work. These findings indicate that employees' digital capabilities in companies are currently used more to support operational efficiency than as a driver for exploring new ideas. Theoretically, the literature suggests that digital competence can be supported by factors such as e-work self-efficacy, organizational commitment, and e-work boundary strategy [10]. In this context, these factors likely need to be supplemented so that digital competence not only results in faster task completion, but also enhances innovative behavior. Therefore, it can be said that companies do not emphasize innovation in the completion of tasks. These findings match with what Chen and Shen found in their research, which states that digital competence has a small influence on innovative work behavior [11].

Hypothesis 4 in this study was accepted with a t-value of 2.191 and a p-value of 0.029, which is less than 0.05. This shows that Digital Competence (DC) has a positive and significant impact on improving Employee Performance (EP). This means that the higher the digital competence of employees, the better their performance in terms of working efficiently, being adaptive, and increasing productivity. These findings match with what Dewi et al. found in their research, which confirms that employees with good digital skills tend to be more impactful and efficient in completing their work [9]. So, digital competence is really important because it adds a lot of value to how teachers teach, which allows them to optimize their work performance [19]. Additionally, research by Sarinten and Raharja confirms that teachers' digital competence has a positive and significant impact on their teaching performance [21]. Tiong et al. also found that Digital

Competence has a significant effect on Employee Performance [38]. These findings emphasize the importance of digital competence in improving individual performance in today's digital era.

Finally, hypothesis 5 in this study was accepted with a t-value of 4.239 and a p-value of 0.000, which is less than 0.05. These results indicate that IWB has a positive and significant impact on EP. This means that more innovative employees can find new ways and ideas to complete their work, increase impactiveness, and contribute to the company's performance results. These findings match with what Alviani and Nuvriassari found in their research, which shows that the higher the innovative behavior of employees at work, the higher their performance will be [24]. In addition, Musneh's research also found that innovative work behavior has a positive and significant effect on organizational performance [39].

TABLE VIII
PATH COEFFICIENT - INDIRECT IMPACT

	Original sample	Sample mean	Standard deviation	T statistics	P value	Status
KM -> IWB -> EP	0.218	0.204	0.110	1.982	0.048	Proven
DC -> IWB -> EP	0.107	0.112	0.093	1.152	0.249	Not Proven

Based on Table VIII, the findings of the hypothesis test on the indirect impact between variables in the study are shown. Hypothesis 6 in this study is accepted with a t-statistic of 1.982 and a p-value of 0.048, which is < 0.05 . These results indicate that Innovative Work Behavior (IWB) plays a significant mediating role in strengthening the impact of Knowledge Management (KM) on Employee Performance (EP). This means that the better the knowledge management in a company, the higher the innovative behavior of employees, which will ultimately have a positive impact on improving employee performance. Therefore, these results answer why Knowledge Management doesn't have a direct impact on Employee Performance. These findings match with what Wibowo et al. found in their research, which shows that Knowledge Management has a significant indirect impact on performance through Innovative Work Behavior. The study states that through knowledge management, individuals can have the knowledge to innovate, which ultimately has an impact on their performance [6].

Meanwhile, Hypothesis 7 in this study was rejected with a t-value of 1.152 and a p-value of 0.249, which is greater than 0.05. These results showed that Innovative Work Behavior doesn't significantly mediate the relationship between Digital Competence (DC) and Employee Performance (EP). This shows that improving digital capabilities does not always

result in innovative actions that subsequently improve performance, especially when innovation is not yet a primary focus in daily work activities. Theoretically, IWB mediation only occurs when digital competence is actually utilized for the creation of new ideas and creative problem solving, rather than merely for task efficiency. This is supported by research conducted by Sagbas et al., which found that IWB has been proven to contribute significantly to performance, enabling it to become a significant mediator. Therefore, if in a particular organizational context, the contribution of IWB to performance is not yet strong or has not become an operational focus, then logically IWB will not be able to mediate the relationship between digital competence and performance [15]. This implies that having higher digital skills doesn't always directly lead to more innovative actions, which in turn don't always result in better performance.

IV. CONCLUSION

This study makes a dual contribution to both theoretical and practical realms. This study contributes both theoretically and practically. From a theoretical perspective, it strengthens the Knowledge-Based View (KBV) by providing evidence that knowledge resources do not automatically translate into performance outcomes unless they are transformed into innovative actions. The findings enrich the explanation of KBV regarding how knowledge becomes a strategic asset that creates value. Moreover, this research expands the discussion of KBV by integrating digital competencies as a form of digital knowledge capital. The results show that digital competencies directly improve performance, but they are not sufficient to encourage innovative behavior. This indicates that digital skills require complementary behavioral or organizational conditions to produce innovation. This adds an important nuance to KBV, highlighting that not all knowledge-based resources lead to innovation unless supported by a facilitating context.

In practical terms, this research has an important impact on medium-sized companies, especially those undergoing digital transformation. The results of the study show that organizations must build an organized knowledge management system in order to encourage employees to be innovative, because innovation is an important way of connecting knowledge with work results. In addition, high digital capabilities greatly affect employee performance. Employees who are able to use digital tools will be more efficient in their work and able to adapt more quickly, which is very important in the creative and technology fields. However, digital capabilities alone do not automatically make employees more innovative. Therefore, companies need to combine digital skills development with programs that encourage idea sharing and creative problem solving. For HR practitioners, this research can serve as a basis for creating performance appraisal systems that reward innovative initiatives, developing training that focuses on digital skills and innovation, and building a work environment that supports the continuous application of knowledge. For

employees, the results of this study emphasize the importance of not only building digital skills, but also actively transforming knowledge into innovative initiatives as a way to enhance personal and career growth in an ever-changing work environment.

For further research, it is recommended to increase the number of respondents and add other variables such as transformational leadership, organizational culture, or work environment to enrich knowledge about the factors that influence innovation and employee performance in various organizational contexts. This study has limitations related to the small sample size, which consisted of 56 respondents.

DAFTAR PUSTAKA

- [1] Suryanto, S. Hadi, and D. Subiyanto, "Analysis of The Effect of Work Environment and Knowledge Sharing on Employee Performance in Innovative Behavior Mediation," *JBTI: Jurnal Bisnis: Teori dan Implementasi*, vol. 14, no. 1, pp. 306–322, Jun. 2023, doi: 10.18196/jbti.v14i1.18804.
- [2] M. Alavi, D. E. Leidner, and R. Mousavi, "Knowledge Management Perspective of Generative Artificial Intelligence," 2024, *Association for Information Systems*. doi: 10.17705/ijais.00859.
- [3] K. Koivisto and T. Taipalus, "Pitfalls in Effective Knowledge Management: Insights from an International Information Technology Organization," *International Journal of Knowledge Management Studies*, vol. 16, no. 1, pp. 1–26, 2025, doi: 10.1504/IJKMS.2025.146083.
- [4] V. Y. Isdiani and K. D. Tania, "The Influence of Knowledge Management on Employee Performance and Innovative Work Behavior at PT. PBT SITE Bukit Asam," 2025.
- [5] M. Ramaditya, S. Syamsari, H. Hadirawati, and A. Hanifah, "The Effect of Digital Learning, Innovative Behavior and Knowledge Management on Private Higher Education Performance," *AL-ISHLAH: Jurnal Pendidikan*, vol. 15, no. 4, Nov. 2023, doi: 10.35445/alishlah.v15i4.3773.
- [6] D. Y. A. Wibowo, P. Muljono, and I. M. Sumertajaya, "Analysis of The Effect of Knowledge Management, Competency, and Innovation on Employee Performance," *Journal of Applied Management (JAM)*, vol. 19, no. 4, pp. 804–811, Sep. 2021, doi: 10.21776/ub.jam.
- [7] J. Yu and T. Moon, "Impact of Digital Strategic Orientation on Organizational Performance through Digital Competence," *Sustainability (Switzerland)*, vol. 13, no. 17, pp. 1–15, Sep. 2021, doi: 10.3390/su13179766.
- [8] L. P. de Carvalho, T. Poletto, C. C. Ramos, F. de A. Rodrigues, V. D. H. de Carvalho, and T. C. C. Nepomuceno, "Predictors of Digital Competence of Public University Employees and the Impact on Innovative Work Behavior," *Adm Sci*, vol. 13, no. 5, May 2023, doi: 10.3390/admsci13050131.
- [9] N. P. Dewi, Nurhatisyah, N. Elkarima, and A. Pawar, "Transformational Leadership, Digital Competence, and Employee Performance: Examining the Mediating Role of Self-Efficacy and the Moderating Influence of Perceived Organizational Support," *Jurnal Manajemen Bisnis*, vol. 16, no. 1, pp. 47–72, Mar. 2025, doi: 10.18196/mb.v16i1.25429.
- [10] Z. Liu, X. Chen, and Y. Ni, "Good tools are essential to do the job: A study of impact of digital competencies on innovative work behavior of Chinese remote work employees," *Information Development*, 2024, doi: 10.1177/02666669241264748.
- [11] Z. Chen and Y. Shen, "How Digital Competence, Self-Efficacy, and Perceived Organizational Support Shape Innovative Work Behavior: A Social Cognitive Approach," *Rajapark Journal*, vol. 19, no. 63, Feb. 2025.
- [12] I. W. G. Sarmawa, I. A. O. Martini, I. A. P. W. Sugianingrat, A. A. D. Widyani, and N. K. Karwini, "Innovative Work Performance as Mediation Organizational Culture On Employee Performance," *Jurnal Economia*, vol. 18, no. 2, pp. 186–203, Oct. 2022, doi: 10.21831/economia.v18i2.34445.
- [13] M. P. Mooduto, R. Ilato, and Z. Abdussamad, "Pengaruh Knowledge Management Terhadap Kinerja Pegawai Dimediasi Variabel Inovasi di Badan Perencanaan Pembangunan Daerah Gorontalo," *Hulondalo Jurnal Ilmu pemerintahan dan Ilmu Komunikasi*, vol. 3, no. 1, 2024, Accessed: Jul. 17, 2025. [Online]. Available: <https://ejurnal.unisan.ac.id/index.php/jipik/index>
- [14] Sugiyono. 2023. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- [15] M. Sagbas, O. Oktaysoy, E. Topcuoglu, E. Kaygin, and F. A. Erdogan, "The Mediating Role of Innovative Behavior on the Effect of Digital Leadership on Intrapreneurship Intention and Job Performance," *Behavioral Sciences*, vol. 13, no. 10, Oct. 2023, doi: 10.3390/bs13100874.
- [16] Y. Anwar and I. Muis, "The Relationship Among Knowledge Ambidexterity, Innovation, and Marketing Performance," *Jurnal Aplikasi Manajemen*, vol. 22, no. 3, pp. 864–877, Sep. 2024, doi: 10.21776/ub.jam.2024.022.03.17.
- [17] S. Meylananda, S. Sarkum, and Abd. Halim, "Analysis Market Orientation and Knowledge Management to Improve Innovation and Business Performance," *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, no. 3, pp. 4241–255, Aug. 2021, doi: 10.33258/birci.v4i3.2198.
- [18] M. Ariq, A. Akbar, H. Karimah, A. A. Ahmad, J. Brigadir, and J. H. Hasan Basry, "Knowledge Management and Employee Performance: A Systematic Review of Evidence from Asia," *Jurnal Akuntansi, Ekonomi dan Manajemen Bisnis*, vol. 13, no. 1, pp. 145–151, Jul. 2025.
- [19] M. G. Masias-Fernandez, T. Y. N. Acosta, J. L. T. Rivera, W. S. Ayambo-Cortez, and W. E. M. Chiparra, "Digital Competence and Job Performance in University Teachers in the Public Sector," *International Journal of Professional Business Review*, vol. 8, no. 8, p. e03251, Aug. 2023, doi: 10.26668/businessreview/2023.v8i8.3251.
- [20] A. Palimbong, M. Limbong, and W. Tambunan, "The Effect of Digital Competence on Improving Teacher Performance: A Case of Harapan Christian Vocational School in Rantepao," *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, vol. 5, no. 3, pp. 21043–21050, Aug. 2022, doi: 10.33258/birci.v5i3.6122.
- [21] Sarinten and S. Raharja, "Pengaruh Kompetensi Digital Guru terhadap Kinerja Mengajar Guru yang Dimediasi oleh Teacher Readiness for Change," *JAMP: Jurnal Administrasi dan Manajemen Pendidikan*, vol. 6, no. 1, pp. 83–92, Mar. 2023, [Online]. Available: <http://journal2.um.ac.id/index.php/jamp/>
- [22] S. H. Wahyuningsin and A. Hafid, "The influence of innovation climate and motivation on employee performance through innovative behaviour as a mediating variable," *Development Management*, vol. 24, no. 1, pp. 57–66, Jan. 2025, doi: 10.63341/devt/1.2025.57.
- [23] L. Alviani and A. Nuvriasari, "Pengaruh Perilaku Inovatif, Motivasi Kerja, Dan Teamwork Terhadap Kinerja Karyawan Yayasan Lautan Cendikia Mulia," *Jurnal Ekonomi dan Bisnis*, vol. 11, no. 1, Jul. 2022.
- [24] N. N. K. Yasa, P. L. D. Rahmayanti, I. A. P. W. Sugianingrat, I. B. A. Dharmanegara, and R. B. Suharto, "Peran Perilaku Inovatif Dan Komitmen Organisasional Memediasi Pengaruh Kebahagiaan Kerja Terhadap Kinerja Karyawan," *MIX: Jurnal Ilmiah Manajemen*, vol. 11, no. 2, pp. 258–273, Jun. 2021, doi: 10.22441/mix.2021.v11i2.008.
- [25] H. A. D. Mantow and B. M. Nilasari, "The Effect of Knowledge Management The Effect of Knowledge Management and Talent Management on Employee Performance," *Jurnal Manajemen*, vol. XXVI, no. 01, pp. 51–66, 2022, doi: 10.24912/jm.v26i1.834.
- [26] N. Sudibjo and R. K. Prameswari, "The effects of knowledge sharing and person–organization fit on the relationship between transformational leadership on innovative work behavior,"

- Heliyon*, vol. 7, no. 6, Jun. 2021, doi: 10.1016/j.heliyon.2021.e07334.
- [27] I. Romero and H. Mammadov, "Digital Transformation of Small and Medium-Sized Enterprises as an Innovation Process: A Holistic Study of its Determinants," *Journal of the Knowledge Economy*, vol. 16, no. 2, pp. 8496–8523, Jun. 2025, doi: 10.1007/s13132-024-02217-z.
- [28] B. Citra and K. D. Tania, "Peran Budaya Organisasi, Kepemimpinan Transformational, dan Motivasi Terhadap Knowledge Sharing Untuk Kinerja Organisasi," *Jurnal Algoritma*, vol. 21, no. 2, pp. 132–144, Nov. 2024, doi: 10.33364/algoritma/v.21-2.2104.
- [29] M. A. Bujang, E. D. Omar, D. H. P. Foo, and Y. K. Hon, "Sample size determination for conducting a pilot study to assess reliability of a questionnaire," Feb. 01, 2024, *Korean Academy of Conservative Dentistry*. doi: 10.5395/rde.2024.49.e3.
- [30] Jr., J. F. Hair, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) Third Edition*. SAGE Publications Asia-Pacific Pte. Ltd., 2022.
- [31] D. Rinayanti Pelealu, "The Effect Of Knowledge Management System And Knowledge Sharing On Employee Performance And Loyalty," *Indonesian Interdisciplinary Journal of Sharia Economics (IJISE)*, vol. 5, no. 1, pp. 371–389, 2022.
- [32] I. Hwang, H. Shim, and W. J. Lee, "Do an Organization's Digital Transformation and Employees' Digital Competence Catalyze the Use of Telepresence?," *Sustainability (Switzerland)*, vol. 14, no. 14, Jul. 2022, doi: 10.3390/su14148604.
- [33] A. Purwanto and Y. Sudargini, "Partial Least Squares Structural Squation Modeling (PLS-SEM) Analysis for Social and Management Research: A Literature Review," *Journal of Industrial Engineering & Management Research*, vol. 2, no. 4, doi: 10.7777/jiemar.v2i4.
- [34] M. A. H. Zebon, A. Sattar, and M. S. Ahamed, "An empirical study of exploring the predictors of university teachers' job satisfaction in Bangladesh: A structural equation modeling approach," *Heliyon*, vol. 11, no. 2, Jan. 2025, doi: 10.1016/j.heliyon.2025.e41740.
- [35] Arunraju Chinnaraju, "Partial least squares structural equation modeling (PLS-SEM) in the AI Era: Innovative methodological guide and framework for business research," *Magna Scientia Advanced Research and Reviews*, vol. 13, no. 2, pp. 062–108, Apr. 2025, doi: 10.30574/msarr.2025.13.2.0048.
- [36] I. Auliana and N. Achmad, "Pengaruh Knowledge Management, Lingkungan Kerja, Dan Beban Kerja Terhadap Kinerja Karyawan Dengan Kepuasan Kerja Sebagai Variabel Intervening Pada PT. Gendhis Multi Manis," *Jurnal Bisnis dan Manajemen*, vol. 3, no. 4, Apr. 2023.
- [37] A. W. Dari, K. D. Tania, A. Wedhasmara, and A. Meiriza, "The effect of transformational leadership on innovative work behavior: mediating role of knowledge sharing," *Management and Business Review*, Dec. 2023.
- [38] P. Tiong, P. Sumaryo, and S. A. P. Simamora, "The Influence of Digital Competency, Employee Engagement, and Leadership Style on SME Employee Performance in Indonesia: Innovation Capability as A Mediator and Organizational Culture as A Moderator in the Society 5.0 Era," *STI Policy and Management Journal*, vol. 9, no. 2, Dec. 2024, doi: 10.14203/stipm.2024.405.
- [39] S. N. H. Musneh, S. @ N. A. Ambad, and R. M. Roslin, "The Effect of Innovative Work Behaviour on the Performance of Service Sector SMEs in Sabah," *Journal of International Business, Economics and Entrepreneurship*, vol. 6, no. 1, pp. 20–30, Jun. 2021, [Online]. Available: <http://www.dosm.gov.my>