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Relationship Among Digital Competence, Organizational Culture, Leadership Towards Digital Transformation Readiness, Study Case: Digital Transformation Program in PT XYZ Stamping Industries

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ABSTRACT

In today's technology-driven industrial landscape, digital transformation has become imperative for companies to gain and sustain a competitive advantage. This research examines the critical factors influencing employee readiness for such transformation. Focusing on PT Anugerah Stamping Industries, which faced declining sales and rising operational costs, this study investigates the relationship between digital competencies, digital organizational culture, and digital leadership towards digital transformation readiness. Using a mixed-methods approach, quantitative data from 106 employees were analyzed via multiple linear regression, supplemented by qualitative insights from internal interviews. The findings reveal a positive and significant relationship between all three independent variables—digital competencies, digital organizational culture, and digital leadership—and the dependent variable of digital transformation readiness. This study provides practical insights for business leaders to strategically develop human capital for digital initiatives. A key limitation is the use of cross-sectional data, which offers only a snapshot in time. Future research is recommended to test this model across different industries and to incorporate additional variables to enhance the robustness of the framework..

KEYWORDS *Digital Competencies, Digital Organizational Culture, Digital Leadership, Digital Transformation Readiness, Manufacturing Industries*

INTRODUCTION

The current business industry is a dynamic set of actions that needs to be corrected periodically. Each Business industry has a unique strategic approach that needs to be carefully managed by making the right policies to counter the uncertainty in each company's business line. Furthermore, Management needs to develop the most suitable planning and analysis to guide the company effort to achieve its objectives (United Nation Human Resources, 2018). The strategic factors evaluated by the manager can be divided into two main parts consist of technical and Human Capital evaluation (KPMG, 2024).

Digital Transformation is becoming a necessity for a company to be able to keep on competing in the dynamic business Industries (Kearney,2024). Companies need to conduct the Digital Transformation in the short term to stay competitive towards their competitors. Since the COVID-19 pandemic, industry productivity growth has become one of the strongest economic growths, with almost 5 per cent growth per year (Dao & Platzer, 2024). Digital technological advancement has become quicker and massive to cooperate with, and it requires quite a large amount of investment, both for the Tools and Instruments and the Human Capital Aspect (Kearney,2024)

In Indonesia, for the current years, the investment in digital transformation has become a priority for each business owner (Aminah & Saksono, 2021; Wagola et al., 2023). The company tried to do it as soon as possible to evaluate their readiness as part of the strategic people change management (Accenture,2023). The company that decides to do Digital Transformation face a certain obstacle to fully implement it (Dolganova & Деева, 2019). The condition showed there are limitations regarding the Human usage implementation and Integration of Digital Transformation towards the existing business process (KPMG, 2024).

Key Challenges of Digital Transformation in Indonesia that need to be solved by each company to achieve successful Digital Transformation are the Country's Economic Performance, Digital Services and Process Adoption, Digital Industry Foundation, Digital Ecosystem, Digital Investment, Financial System and Regulatory Framework (Kearney, 2024). Furthermore, other challenges are the Digital Transformation Readiness that needs to be mapped by the company from Organisational and Individual Levels to improve the successfulness of Digital Transformation (Schumacher, Erol, & Sihn, 2016).

PT XYZ Stamping Industries, as a manufacturer, has faced a challenge in conducting Digital Transformation. The last two years show a concern about decreasing Revenue and Profits in all of their business activities and increasing operational Activities Spending, which contributed to an inefficient business operation (Imhanzenobe, 2019; Mun & Jang, 2018). The condition was stated in an interview with the Managing Directors of PT XYZ Stamping Industries and confirmed by the actual data given of PT XYZ Stamping Industries. Besides decreasing revenue, the company also faced Some of the causes of the decreasing revenue due to the disruption of Chinese car manufacturers can be seen as one of the most modernised manufacturers that integrated with the support of Software and Integrated Systematic Program.

This study is guided by three central research questions aimed at examining the foundational drivers of Digital Transformation Readiness. Specifically, it seeks to determine: (1) whether a positive and significant relationship exists between Digital Competencies and Digital Transformation Readiness; (2) whether a positive and significant relationship exists between Digital Organisational Culture and Digital Transformation Readiness; and (3) whether a positive and significant relationship exists between Digital Leadership and Digital Transformation Readiness.

To address these questions, the research establishes corresponding objectives. The primary aim is to analyze the relationship between Digital Competencies and Digital Transformation Readiness. Subsequently, it seeks to analyze the relationship between Digital Organisational Culture and Digital Transformation Readiness. Finally, the study aims to analyze the relationship between Digital Leadership and Digital Transformation Readiness. Through these objectives, the research endeavors to provide empirical insight into the key factors influencing an organization's preparedness for digital transformation.

Digital Transformation Readiness refers to an individual's capabilities, measured through internal and external factors, to participate in a digital transformation program and to adapt and implement it without diminishing day-to-day performance (Thuy et al., 2023). This readiness has evolved into one of the foundational soft skills essential for the success of digital transformation programs, which are now both a trend and a global necessity in facing dynamic industries (Ota Novotný, 2022). A key supporting factor is Digital Competencies, which

encompass the level of technological implementation—including knowledge, skills, and attitudes—among employees in using information technology to enhance productivity, talent management, learning, and organizational competitiveness (Abbas, 2020). Digital competencies are also regarded as a primary predictor of a company's individual advantages in industry competition (Qu, 2024). Additionally, Digital Organizational Culture serves as an organizational culture developed within the dynamics of the digital-native manufacturing industry to support business growth and adaptation to an increasingly digitalized market (Cahit Uysal, 2021). Previous research indicates that digital organizational culture acts as a main driver in preparing for digital transformation, enabling individuals to develop their readiness by embracing a modified, technology-based organizational culture aligned with company objectives (Jewapatarakul & Ueasangkomsate, 2024). On the other hand, digital transformation requires leaders within the company to develop leadership traits suited to modern, dynamic business conditions, giving rise to the concept of Digital Leadership. Digital leadership is defined as a guiding framework of leadership skills related to the ability to direct and lead teams in a fast-paced, cross-hierarchical, and collaborative environment, encouraging employees to contribute added value in achieving the company's short- and long-term goals (Kokot et al., 2021). Based on discussions with the Managing Director and a review of the literature, the variables proposed to assess factors related to Digital Transformation Readiness are Digital Competence, Digital Leadership, and Digital Organizational Culture, with the following hypotheses:

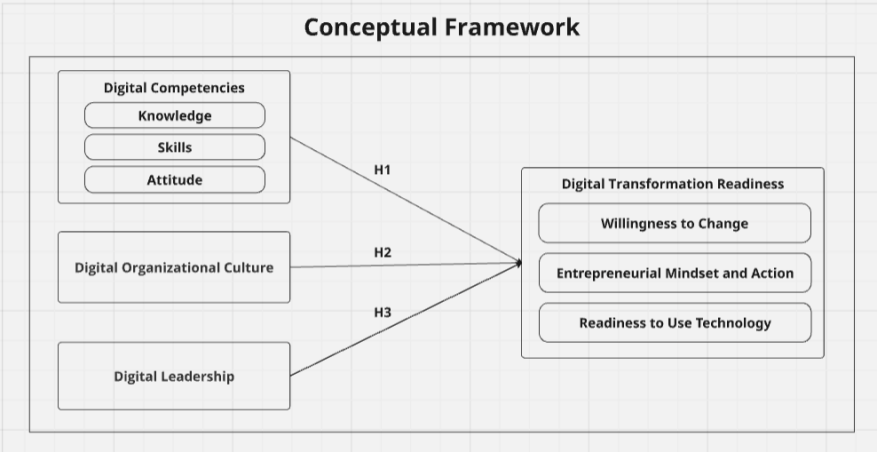

Figure 1. Conceptual Framework

Source: Developed by researcher based on literature review (2025)

Hypothesis Construct

a. **H1:** Digital Competencies have a positive and significant relationship towards the Digital Transformation Readiness
b. **H2:** Digital Organizational Culture has a positive and significant relationship towards Digital Transformation Readiness
c. **H3:** Digital Leadership has a positive and significant relationship towards the Digital Transformation Readiness (Taherdoost, 2022)

METHOD

The methodology used was to analyze the relationship using Multiple Linear Regression based on the Employee Survey Questionnaire form, which was implemented by using a structured questionnaire. This questionnaire provided respondents with a Likert scale, where 5 represented (Strongly Agree) and 1 represented (Strongly Disagree). The type of data was ordinal, used to acquire individual opinions regarding each variable, which helped the author obtain validated results in the research (Taherdoost, 2022). The questionnaire consisted of 32 questions. The method of sampling used was random sampling to gain an unbiased result that represented the actual condition of the company. Besides that, the analysis later was conducted using multiple linear regression after testing the classical assumptions, followed by the robustness model test.

RESULT AND DISCUSSION

Validity and Reliability

The following Sub Chapter will define the Validity and reliability for all of the questionnaire variable based on the questionnaire results from the employees

Table 1. Digital Competencies Validity

Digital Competencies			
Instrument	**r count**	**r table**	**Result**
DC1	0.757	0.1891	Valid
DC2	0.857	0.1891	Valid
DC3	0.879	0.1891	Valid
DC4	0.815	0.1891	Valid
DC5	0.743	0.1891	Valid
DC6	0.844	0.1891	Valid
DC7	0.738	0.1891	Valid
DC8	0.742	0.1891	Valid
DC9	0.811	0.1891	Valid
DC10	0.798	0.1891	Valid
DC11	0.800	0.1891	Valid
DC12	0.766	0.1891	Valid

Source: Primary data processed, 2025

Table 2. Digital Organizational Culture Validity

Digital Organizational Culture			
Instrument	r count	r table	Result
DOC1	0.808	0.1891	Valid
DOC2	0.843	0.1891	Valid
DOC3	0.922	0.1891	Valid
DOC4	0.834	0.1891	Valid
DOC5	0.820	0.1891	Valid
DOC6	0.736	0.1891	Valid
DOC7	0.790	0.1891	Valid

Source: Primary data processed, 2025

Table Digital Leadership Validity

Digital Leadership			
Instrument	r count	r table	Result
DL1	0.807	0.1891	Valid
DL2	0.827	0.1891	Valid
DL3	0.879	0.1891	Valid
DL4	0.874	0.1891	Valid

Source: Primary data processed, 2025

Table 3. Digital Transformation Readiness Validity

Digital Transformation Readiness			
Instrument	r count	r table	Result
DTR1	0.879	0.1891	Valid
DTR2	0.909	0.1891	Valid
DTR3	0.911	0.1891	Valid
DTR4	0.744	0.1891	Valid
DTR5	0.929	0.1891	Valid
DTR6	0.930	0.1891	Valid
DTR7	0.938	0.1891	Valid
DTR8	0.913	0.1891	Valid
DTR9	0.946	0.1891	Valid

Source: Primary data processed, 2025

Table 4. Questionnaire Reliability Result

No	Variables	Cronbach's Alpha	N of Items
1	**Digital Competencies**	**0.946**	**12**
2	**Digital Organizational Culture**	**0.919**	**7**
3	**Digital Leadership**	**0.865**	**4**
4	**Digital Transformation Readiness**	**0.971**	**9**

Source: Primary data processed, 2025

Based on the table of validity and reliability, it did not show any violation and all the instruments are valid and reliable because it fulfil the Cronbach's alpha threshold of 0.6 and also exceed the T table value for each item questionnaire. The test that also conducted are the classical assumption which the result show there are no violations for Heteroscedasticity, normality, and Multicollinearity on the research.

1 Multiple Linear Regression

The Regression model will consist of 2 model. First model will only measure the relationship among core independent variables towards dependent variables. Second model will also measure core independent variables with an additional control variable toward dependent variable.

Table 5. Regression Model 1

Coefficients[a]					
Model		**Unstandardized Coefficients**		**t**	**Sig.**
		B	**Std. Error**		
1	(Constant)	6.042	3.265	1.851	0.067
	Digital Competencies	0.253	0.049	5.165	0.000***
	Digital Organizational Culture	0.211	0.091	2.328	0.022**
	Digital Leadership	0.986	0.195	5.059	0.000***

a. Dependent Variable: Digital Transformation Readiness

b. ***Standards errors in parentheses; *p<0.10, **p<0.05, ***p<0.01***

Source: Primary data processed, 2025

Based on the analysis result regression model 1 that implemented in the research will be

Y= 6.042 + 0.253 X1 + 0.211 X2 + 0.986 X3

The descriptions that can be retrieved from the formula above are as follows:

Y = Dependent Variables (Digital Transformation Readiness)

X1 = Independent Variable (Digital Competencies)

X2 = Independent Variable (Digital Organizational Culture)

X3 = Independent Variable (Digital Leadership)

Table 6. Regression Model 2

Coefficients[a]					
Model		**Unstandardized Coefficients**		**t**	**Sig.**
		B	**Std. Error**		
1	(Constant)	9.880	4.226	2.338	0.021
	Digital Competencies	0.287	0.051	5.644	0.000***
	Digital Organizational Culture	0.207	0.092	2.257	0.026**
	Digital Leadership	0.958	0.189	5.070	0.000***
	High School	0.584	1.052	0.555	0.580
	Work Duration	0.223	0.140	1.591	0.115
	Age	-0.259	0.103	-2.527	0.013**
	Male	1.077	1.197	0.900	0.370

a) a. Dependent Variable: Digital Transformation Readiness

b) ***Standards errors in parentheses; *p<0.10, **p<0.05, ***p<0.01***

Source: Primary data processed, 2025

Based on the second calculation result it can be seen that based on the table above the second regression model for this research is:

$Y= 9.759 + 0.286\ X_1 + 0.208\ X_2 + 0.959X_3 + 0.605X_4 + 0.214\ X_5 – 0.254\ X_6 – 1.065\ X_7$

The descriptions that can be retrieved from the formula above are as follows:

Y= Dependent Variables (Digital Transformation Readiness)

X1= Independent Variable (Digital Competencies)

X2= Independent Variable (Digital Organizational Culture)

X3= Independent Variable (Digital Leadership)

X_4= High School Graduate

X_5= Work Duration
X_6= Age
X_7= Male

Based on the regression result of both regression model 1 and regression model 2 it can be seen that for the relationship among the main core independent variables towards the dependent variables the significance value is showing the same result of significance relationship result. Based on the findings it means that the regression model that being utilized in this research can be considered as a Robust model. Furthermore, there is no significance relationship among control variables towards the dependent variables.

Table 7. Model Summary

Model Summary[b]				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.747[a]	0.558	0.545	4.06625
2	.780[a]	0.609	0.581	3.90025

Source: Primary data processed, 2025

Based on the summary of the regression model it can be seen that the relationship between the Independent Variables X and the dependent variable Y in the first model can be defined as the independent variables has 55.8% relationship towards the Dependent variable. Furthermore, from the second regression model it can be seen that the value of R square is increasing means that with additional Variable the relationship between independent variables and the dependent variable can be defined as the independent variables has 60.9% relationship towards dependent variable.

Table 8. of Hypothesis Testing Result

Coefficients[a]					
Model		**Model 1**		**Model 2**	
		t	**Sig.**	**t**	**Sig.**
	(Constant)	1.851	0.067	2.338	0.021
	Digital Competencies	5.165	0.000***	5.644	0.000***
	Digital Organizational Culture	2.328	0.022**	2.257	0.026**
	Digital Leadership	5.059	0.000***	5.070	0.000***
	High School			0.555	0.580
	Work Duration			1.591	0.115
	Age			-2.527	0.013
	Male			0.900	0.370

a) **Dependent Variable: Digital Transformation Readiness**
b) ***Standards errors in parentheses; *p<0.10, **p<0.05, ***p<0.01***

Source: Primary data processed, 2025

Based on the table result above we can draw a conclusion regarding each of the hypothesis of the research, based on the two model above it can be seen that the model are robust due to showing a consistent result of the Hypothesis testing.

a. **H1: Digital Competencies** have a positive and significant relationship towards the Digital Transformation Readiness**. H1 are accepted**, the basic underlying decision making is the significance value of the variable Digital Competencies, are shows a value of 0.000, which is less than 0.05, and the t-count result showed that (5.165) is greater than the t table of (1.984). These findings show that there is are positive and significant relationship between digital competencies towards Digital Transformation Readiness. The Findings are aligned with several previous studies that have already been published in different circumstances all around the world. Based on several previous journals, the importance of Digital Competencies is becoming the most fundamental thing that needs to be fulfilled in terms as it should be taught properly as a mandatory module by the company if they want them to be able to implement and utilise a new management system effectively (Qu, 2024).
b. **H2: Digital Organizational Culture** have a positive and significant relationship towards Digital Transformation Readiness. **H2 is Accepted**, the basic underlying decision making is the significance value of the variable Digital Organizational Culture is 0.022, which shows a result lower than 0.05, and the t-count (2.328) is greater than the t-table of (1.984). This finding showed that there is a positive and significant relationship between Digital Organizational Culture and Digital Transformation Readiness. The Digital organisational characteristics usually align with the Proactive approach for each individual to conduct something in the daily business activities, besides that, also the Agile and Flexibility approach to make problem-solving become one of the main things that will improve the Digital organisational culture of a company (Kocak & Pawlowski, 2022). This means that if the employees succeed in having a Proactive approach and the agility or the flexibility to face the uncertainty to solve the business, it might trigger a significant impact towards their Transformation Readiness.
c. **H3: Digital Leadership** have a positive and significant relationship towards the Digital Transformation Readiness**. H3 are accepted**, the basic underlying decision making is the significance value of the variable Digital Leadership, are shows a value of 0.000, which is less than 0.05, and the t-count result showed that (5.509) is greater than the t table of (1.984). These findings show that there is are positive and significant relationship between Digital leadership towards Digital Transformation Readiness. The directiveness and the technological understanding make Digital Leadership an enabler that may give an advantage if able to be developed properly by the management team of the PT XYZ Stamping Industries. This was aligned with the previous journal article, which stated that Digital Leadership has a significant role in developing the proper digital transformation readiness to gain the highest advantage for the companies and to improve the Employee contribution performance towards the company (Turyadi, Zulkifli, Tawil, Ali, & Sadikin, 2023).

CONCLUSION

Based on the Multiple Linear Regression analysis of respondents, this study found positive and significant relationships between Digital Competencies, Digital Organisational Culture, and Digital Leadership toward Digital Transformation Readiness at PT XYZ Stamping Industries. The research, limited to these three variables and conducted using cross-sectional primary data collected in 2025, provides valuable insights for company policies but represents only a snapshot in time. Future research should expand the population size, incorporate additional variables to enhance the model's complexity, and conduct multi-industry studies to compare the model's applicability across different sectors. For companies, collaborating with academic institutions is recommended to support employee readiness and knowledge development for digital transformation.

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