

**HUMAN RESOURCE SKILLS TRANSFORMATION THROUGH  
ARTIFICIAL INTELLIGENCE AND AUTOMATION: STRATEGIES  
TO DRIVE THE GROWTH OF THE CREATIVE INDUSTRY IN THE  
DIGITAL ERA**

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**Abstract**

This research aims to analyze the influence of Artificial Intelligence (AI) and Automation on human resource (HR) skills, with Digital Transformation as a mediating variable, in the creative industry, mainly the event organizer sector in Indonesia. The approach used is a quantitative explanatory method with the Structural Equation Modeling method based on Partial Least Squares (SEM-PLS). Primary data were collected via online questionnaires distributed. The population in this research is unknown because it involves active and experienced workers in the event organizer sector in Indonesia. The number of samples was determined using the Hair formula, with a minimum sample size of 10 times the number of research indicators. With 21 indicators, the minimum sample size is 210 respondents. The data were then processed using SmartPLS software version 3. The results of the study indicate that Artificial Intelligence (AI) has a direct effect on human resource (HR) skills. Automation is having a significant impact on Digital Transformation, and Digital Transformation has a significant effect on human resources (HR) skills. In addition, Digital Transformation also mediates the impact of Automation on HR skills.

**Keywords:** Artificial Intelligence, Automation, HR Skills, Digital Transformation, Creative Industries, Digital Era

**Introduction**

The development of digital technology in the era of the Industrial Revolution 4.0 has driven rapid change in various sectors, including the creative industry. The creative industry, driven by innovation, ideas, and digitalization, is projected to be a significant engine of future economic growth, contributing to GDP, exports, and employment. The creative economy subsector contributes approximately 7.3–7.4 percent of GDP. % of national GDP in 2018 – 2019, absorbing 14 – 15 % of the workforce, and contributes 11.9–13.8 % of national exports (Limanseto, 2021).

The creative industry leverages ideas, innovation, and digital technology as key drivers of Indonesia's future economic growth, making human resource (HR) skills a key factor in building national competitiveness. However, studies show that human resource (HR) readiness to adopt technology is uneven. Most workers, particularly younger generations in the creative sector, still do not fully understand how to utilize technology to enhance their work productivity (Rogo & Radiana (2024), and there are also limited training programs supporting digital skills development aligned with field need today's era of rapid digital transformation, human resource (HR) skills are one of the main challenges faced by the creative industry, particularly the event organizer sector. The need for work skills relevant to the digital ecosystem is increasing. Yet, many organizations still face a skills gap between the technological demands of their business and the capabilities of their human resources (HR). In the creative industry, competencies such as technological literacy, data management, and critical thinking are now integral to the quality of a workforce ready to compete in a changing environment (Fadilah & Anshori, 2025). Even though technology has been systematically implemented, increased work efficiency will not be maximized without adequate competencies from human resources (HR) (Sari et al., 2023). This skills gap cannot be separated from the digital transformation taking place within organizations. National digital literacy falls into the "moderate" category, with a score of 3.54 on a scale of 5.00 (Wijaya, 2023).

One of the supporting factors for digital transformation and human resource (HR) skills is the use of Artificial Intelligence (AI) and Automation. Artificial Intelligence (AI) has been used to develop data-driven strategies, understand consumer behavior, and even automatically design event concepts (Indriastuti & Kartika, 2022). Currently, more than 80 % of businesses in Indonesia are adopting basic forms of Artificial Intelligence (AI), such as chatbots and workflow automation (Tech Collective, 2025). The use of Artificial Intelligence (AI) can improve decision-making efficiency through real-time data analytics and serve as a driver for market-responsive strategies (Indriastuti & Kartika, 2022; Suhairi et al., 2024). Furthermore, AI integration is effective when accompanied by increased technological literacy among human resources (HR) users (Harefa & Lase, 2025).

However, the use of Artificial Intelligence (AI) is not yet fully supported by the readiness of human resources (HR) to manage and analyze the resulting information. Currently, only 13 % of those who use advanced Artificial Intelligence (AI), such as the success of technology integration, are highly dependent on employees' understanding of the technology's benefits (Harefa & Lase, 2025). Therefore, the importance of using Artificial Intelligence (AI) to formulate adaptive strategies in response to market dynamics poses a challenge for creative industry players who lack a strong digital foundation (Suhairi et al., 2024).

Automation is a crucial element that enables work efficiency and reduces operational burdens. While automation can increase efficiency, these benefits can only be realized

if human resources (HR) have a sufficient understanding of (Asadi & Sularsih, 2022; Sari et al., 2023). Systemic automation encourages organizations to enhance their digital infrastructure and adopt a technology-based work culture. This process triggers changes in collaboration patterns and workflows (Kusumo et al., 2024). Automation presents a need for new digital skills in the field of human resources (HR). Skills such as automated system literacy, real-time data management, and technology adaptability are becoming increasingly important and evolving in tandem with the trajectory of digital transformation.

This research will develop human resources (HR) by integrating digital literacy and critical thinking (Fadilah & Anshori, 2025). The novelty of this research lies in using digital transformation as a mediating variable, focusing on the creative industry sector, which has received relatively little attention in similar research. In particular, few studies specifically examine the relationship between these variables in the event organizer subsector, which is characterized by its dynamic, project-based nature and heavy reliance on technological adaptation to maintain competitiveness.

Based on the background above, this research aims to determine the influence of Artificial Intelligence (AI) and Automation on the development of human resource (HR) skills through Digital Transformation in the creative industry, using Digital Transformation as an intervening variable.

### **Theoretical Framework**

The theoretical framework in this research was developed to explain the conceptual relationships among Artificial Intelligence (AI), Automation, Digital Transformation, and Human Resource (HR) Skills in the context of the creative industry.

#### **Artificial Intelligence (AI)**

Theoretically, this research is based on the Technology Acceptance Model (TAM) by Davis (1989), which explains that technology acceptance by individuals is influenced by two primary constructs: perceived usefulness and perceived ease of use (Davis, 1989). This model is relevant for explaining how workers in the creative industry sector adopt technologies such as AI. In addition to TAM, this research also draws on Digital Transformation Theory, which states that digital transformation is a process of fundamental change in an organization's structure, processes, and culture, driven by the adoption of digital technology (Vial, 2019).

Previous research (Indriastuti & Kartika, 2022; Suhairi et al., 2024) shows that implementing AI can improve efficiency, innovation, and data-driven decision-making. However, the success of AI implementation is primarily determined by the readiness of human resources to understand and operate the technology (Asadi & Sularsih, 2022; Sari et al., 2023). It emphasizes that automation plays a crucial role in improving operational efficiency, but a positive impact on human resource skills will

only be achieved if digital transformation is comprehensive and integrated with human resource development strategies (Asadi & Sularsih, 2022; Sari et al., 2023).

Based on the literature review, this research identifies Artificial Intelligence (AI) as a technology that mimics human thought processes through data analytics, machine learning, and natural language processing. In the creative industry, AI is used to assist decision-making, support automated creative design, and personalize content based on consumer behavior (Indriastuti & Kartika, 2022). As AI advances, organizations must prepare their workforce to adopt and operate this technology effectively. AI is considered capable of increasing efficiency, expanding analytical capacity, and encouraging work innovation that can support the sustainable development of human resource competencies. AI drives the need for new skills in human resources, such as data literacy and adaptability (Harefa & Lase, 2025).

The use of AI not only transforms operations but also acts as a catalyst for digital transformation within organizations. AI accelerates digitalization by providing intelligent analytics, processing big data, and facilitating automated system-based customer interactions. AI plays a crucial role in formulating digital strategies that are adaptive and responsive to global market dynamics (Suhairi et al., 2024). AI encourages organizations to adapt their work systems and cultures to a comprehensive digital direction. Utilizing AI requires companies to establish a robust digital technology foundation, encompassing both infrastructure and human resources, as well as digitized work processes (Harefa & Lase, 2025). Thus, AI has great potential to accelerate organizational digital transformation.

**H<sub>1</sub>: Artificial Intelligence (AI) has a positive influence on human resource (HR) skills in the creative industry sector.**

**H<sub>2</sub>: Artificial Intelligence (AI) has a positive influence on digital transformation in the creative industry sector.**

### **Automation**

Automation is the integration of systems or technologies that replace manual processes with automated ones, thereby increasing work efficiency by directly improving the efficiency of the work system and reducing reliance on manual processes. In the creative industry, automation is being utilized across content management systems, event data processing, and chatbot-based customer service. (Pristiwaningsih et al., 2024).

Automation is the gateway to digital-based structural change (Pristiwaningsih et al., 2024). Automation is also a crucial element in the era of digital work transformation, which requires adaptation from human resources to remain relevant. This aligns with findings by Asadi & Sularsih (2022) that organizations systematically implementing automation will be encouraged to accelerate digital transformation to achieve a competitive advantage. Automation is seen as having a positive impact on human resource skills because it enables the workforce to develop their capacities beyond

routine work. Therefore, automation can foster new technical skills, such as system understanding, digital collaboration, and technology management (Sari et al., 2023). However, automation will not be effective if it is not balanced with increased workforce competency (Asadi & Sularsih, 2022).

**H<sub>3</sub>: Automation has an impact on HR skills in the creative industry sector.**

**H<sub>4</sub>: Automation has an impact on digital transformation in the creative industry sector.**

### **Digital Transformation**

Digital transformation is not only about procuring technological infrastructure, but also encompasses a shift in mindset, a culture of innovation, and the development of new digital competencies that support organizational sustainability. Digital transformation refers to the fundamental changes in how organizations operate and deliver value to customers using digital technologies. These changes create new challenges and opportunities for developing human resource skills, particularly in technological literacy, digital collaboration, and the use of digital tools for problem-solving.

A fundamental aspect of the digital transformation framework is the integration of leadership, strategy, technology, and human resources. Similarly, Xu et al. (2022) present a comprehensive framework that categorizes digital transformation into four main dimensions: technology use, value creation changes, structural modifications, and financial aspects—thereby enhancing strategic formulation and assessment capabilities (Zomer et al., 2022). Digital transformation capability comprises three key micro foundations: digital-savvy skills, digital intensity, and contextual environments for action and interaction (Zomer et al., 2022). Their empirical validation demonstrates that these components are crucial to enhancing organizational performance during the digital transformation process.

Digital transformation is driving greater HR competency by increasing the need for more adaptive, flexible skills. The practical implementation of digital HR practices can lead to a more engaged workforce and enhanced organizational performance. Because digital tools facilitate more effective communication and collaboration, employee experiences can be enriched, aligning individual goals with corporate objectives amidst the evolving digital landscape (Berampu & Sari, 2020; Halid, 2020; Trenerry et al., 2021). The success of an organization in digital transformation depends heavily on the readiness and skills development of its workforce (Fadilah & Anshori, 2025).

**H<sub>5</sub>: Digital Transformation has a positive influence on HR skills.**

### **Human Resources Skills**

Human resource skills integrate multiple perspectives and resource-based views, which are central to understanding the dynamics of human resource management. Furthermore, digital transformation in HR practices necessitates continuous

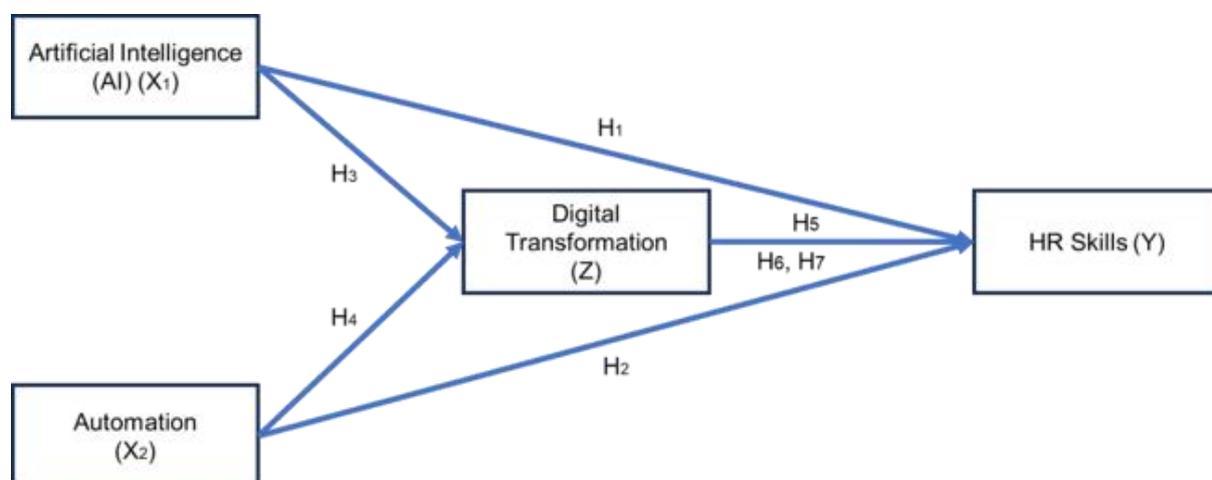
reassessment of skills and competencies in line with emerging trends and technologies, driving organizational innovation and effectiveness. The integration of advanced technologies, such as artificial intelligence, big data analytics, and Smart HRM practices (collectively referred to as Smart HR 4.0), requires HR professionals to develop new competencies. Technology enables various HR functions, including talent acquisition, employee development, and performance management, thereby necessitating a focus on continuous learning and organizational adaptation to foster a culture of flexibility and responsiveness. This ensures that HR personnel are equipped to manage change effectively.

In the context of this research, digital transformation serves as a mediating variable that links the influence of technology (AI and automation) to the improvement of HR skills. Several other studies emphasize the significance of digital transformation in enhancing technological literacy and HR adaptability to digital change (Fadilah & Anshori, 2025; Rogo & Radiana, 2024). Digital transformation creates a more collaborative, flexible, and data-driven work environment, enabling HR to develop critical thinking, problem-solving, and data management skills. Meanwhile, AI indirectly influences HR skills by encouraging self-directed learning and technology-based work (Suhairi et al., 2024).

Furthermore, the impact of automation on HR skills requires support from digital transformation as a mediating element. Automation will only replace manual work without improving HR competency. Digital transformation can change the way work becomes more collaborative, flexible, and data-driven (Rogo & Radiana, 2024). When automation is combined with effective digital transformation, HR professionals are encouraged to adapt to technology, learn new systems, and significantly enhance their digital literacy.

**H<sub>6</sub>: Artificial Intelligence (AI) has a positive influence on human resource (HR) skills in the creative industry sector mediated by digital transformation.**

**H<sub>7</sub>: Automation has a positive influence on human resource (HR) skills in the creative industry sector mediated by digital transformation.**



### Figure 1. Conceptual Framework

#### Method

The approach used in this research is quantitative and explanatory, aiming to test and explain the causal relationships among variables derived from prior theories and findings. The study was conducted in Indonesia, focusing on workers in the creative industries sector. The research was conducted from February to June 2025.

The primary data used in this research were collected directly from respondents via an online questionnaire distributed via Google Forms. All items in the questionnaire were structured around theoretical indicators and measured on a five-point Likert scale, with ratings ranging from 1 (strongly disagree) to 5 (strongly agree).

The population size in this study is unknown because it involved both active and experienced workers in the event organizer sector in Indonesia. Therefore, the sample size was determined using Hair's formula, which states that the minimum sample size is 10 times the number of research indicators (Hair et al., 2019). The study included 21 indicators, so the minimum sample size required was 210 respondents.

The data analysis method used is quantitative. The data analysis technique employed is Structural Equation Modeling (SEM), based on Partial Least Squares (PLS), using SmartPLS software version 3, which enables simultaneous structural model analysis and hypothesis testing. Stages in data analysis include outer model testing to assess construct validity and reliability, including convergent validity analysis through loading factor values and Average Variance Extracted (AVE), reliability through Cronbach's Alpha and Composite Reliability (CR) values, and discriminant validity using the Fornell-Larcker Criterion. After ensuring that the indicators are valid and reliable, the analysis proceeds to the inner model testing stage to evaluate the relationship between constructs, including the R-Square ( $R^2$ ) and Adjusted R-Square tests, to determine the model's strength in explaining the endogenous variables. Next, hypothesis testing is conducted using path coefficient values, t-statistics, and p-values. The final step involves analyzing mediation effects through indirect effects and interpreting the results in both theoretical and empirical contexts, based on significant and insignificant hypotheses.

This research consists of four primary variables: two independent (exogenous) variables, namely Artificial Intelligence ( $X_1$ ) and Automation ( $X_2$ ), one mediating variable (both exogenous and endogenous), namely Digital Transformation ( $Z$ ), and one dependent (endogenous) variable, Human Resource Skills ( $Y$ ).

**Table 1. Research Variables**

<b>Variables</b>	<b>Dimensions</b>	<b>Indicator</b>	<b>Reference</b>
Artificial Intelligence (X)	Utilization of AI in Work	Use of AI applications for event planning	(Neuhofer & Magnus,

1)		AI for customer data analysis	2021)(Huang & Rust, 2021)(Wu et al., 2022)
	Acceptance and Adaptation to AI	Willingness to learn AI	
		Comfort level in using AI	
Automation (X <sub>2</sub> )	Operational Efficiency	Use of automation tools	(Mohamed et al., 2022)(Rahmani a et al., 2023)(Josten & Id, 2022)
		Automated system integration	
	Impact on job roles	Changes in job duties	
Digital Transformation (Z)	Digital Infrastructure	Use of digital platforms	(Mohamed et al., 2022)(Paulišić et al., 2024)(Khoi et al., 2023)
		Access to digital information	
	Changes in Work Culture	Work flexibility	
HR Skills (Y)	Technical Skills	Data management skills	(Ahmed, 2022)(Paulišić et al., 2024)(Chan & Pan, 2019)
	Social and Cognitive Skills	Problem-solving skills	

Source: Processed Primary Data (2025)

## Results

The questionnaire distributed to respondents was divided into two sections: respondent characteristics and research variables, to determine respondents' responses to the variables used in the research. A total of 28 items were used to measure the constructs in this research.

## Characteristics Of Respondents

**Table 2. Respondent Demographics**

Information	Amount	Percentage
Gender :		
- Man	110 People	52%
- Woman	100 People	48%
Respondent Age:		
- 20 – 29 Years	141 People	67%

<ul style="list-style-type: none"> <li>- 30 – 39 Years</li> <li>- 40 – 49 Years</li> <li>- &gt; 49 Years</li> </ul>	<p>61 People</p> <p>6 People</p> <p>2 persons</p>	<p>29%</p> <p>3%</p> <p>1%</p>
<p>Respondent's Domicile:</p> <ul style="list-style-type: none"> <li>- Jakarta</li> <li>- Bogor</li> <li>- Depok</li> <li>- Tangerang</li> <li>- Bekasi</li> <li>- Outside Jabodetabek</li> </ul>	<p>139 People</p> <p>13 People</p> <p>14 People</p> <p>25 People</p> <p>17 People</p> <p>2 persons</p>	<p>67%</p> <p>6%</p> <p>6%</p> <p>12%</p> <p>8%</p> <p>1%</p>
<p>Respondent's Educational Background:</p> <ul style="list-style-type: none"> <li>- High School/Vocational High School or Equivalent</li> <li>- Diploma (D1/D2/D3) / Vocational</li> <li>- Bachelor degree)</li> <li>- Postgraduate (S2)</li> </ul>	<p>25 People</p> <p>30 People</p> <p>151 People</p> <p>4 People</p>	<p>12%</p> <p>14%</p> <p>72%</p> <p>2%</p>
<p>Respondent's Job Position:</p> <ul style="list-style-type: none"> <li>- <i>Project-Based / Freelancer</i></li> <li>- Contract employees</li> <li>- Permanent employees</li> </ul>	<p>107 People</p> <p>51 People</p> <p>52 People</p>	<p>51%</p> <p>24%</p> <p>25%</p>
<p>Length of Work in the Creative Industry:</p> <ul style="list-style-type: none"> <li>- 3 – 12 Months</li> <li>- 13 years old</li> <li>- &gt; 3 Years</li> </ul>	<p>62 People</p> <p>93 People</p> <p>55 People</p>	<p>30%</p> <p>44%</p> <p>26%</p>
<p>Number of Projects Worked On:</p> <ul style="list-style-type: none"> <li>- 2 – 5 projects/events</li> </ul>	<p>81 People</p>	<p>39%</p>

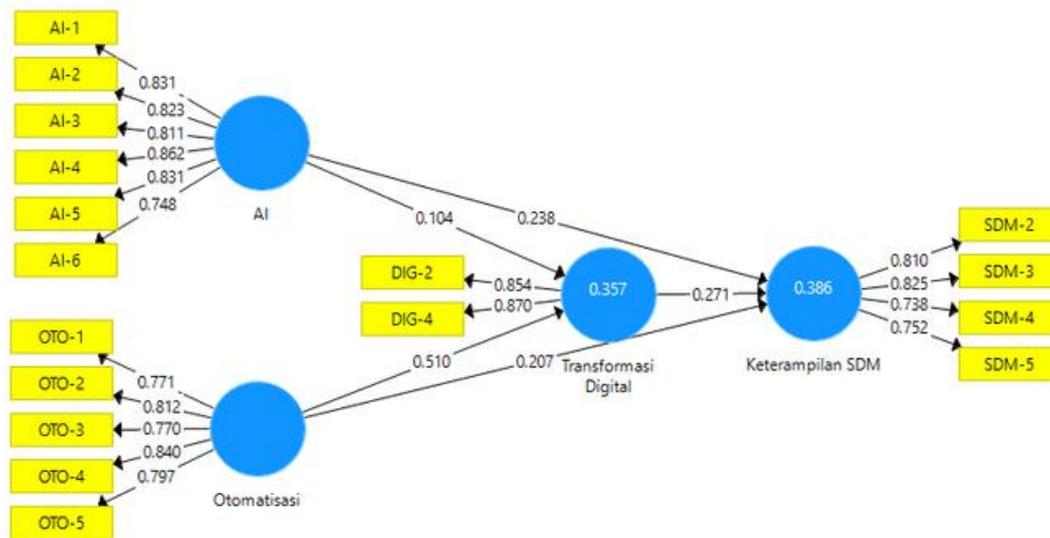
- 6 – 10 projects/events	62 People	30%
- > 10 projects/events	67 People	31%

Source: Processed Primary Data (2025)

The characteristics of this research sample, based on gender, show that the number of men is slightly larger than that of women, at 52%. Based on age, the average age is 20-29 years old, accounting for 67%. Based on domicile, most come from Jakarta, accounting for 67% of the total. Based on educational background, most come from Bachelor's (S1) than others at 72%. Based on job position, *Project-Based/Freelancer* is slightly more dominant than other positions at 51%. Based on the length of work, the average is 1 to 3 years at 44% and based on the number of projects worked on, the average is 2 to 5 projects or events at 39%.

### Outer Model Testing

This test aims to evaluate the extent to which the indicators used are valid and reliable in representing the research constructs (latent variables).



**Figure 2. Structural Model of Hypothesis Testing**

### Measurement Model Test (Convergent Validity)

Convergent validity testing is conducted to measure the extent to which indicators of a construct are positively correlated with each other. In this test, an indicator is declared valid if the loading factor value is greater than 0.70. Validity testing is conducted by examining the loading factor of each indicator against the construct. A value greater than 0.7 or close to it is considered to have met the requirements and can be used in further testing (Hair et al., 2019)

**Table 3. Indicator Validity Test Results**

Construct	Statement	Loading	Information
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		<i>Factor</i>	
Artificial Intelligence (X <sub>1</sub> )	AI-1	0.831	Valid
	AI-2	0.823	Valid
	AI-3	0.811	Valid
	AI-4	0.862	Valid
	AI-5	0.831	Valid
	AI-6	0.748	Valid
Automation (X <sub>2</sub> )	OTO-1	0.771	Valid
	OTO-2	0.812	Valid
	OTO-3	0.770	Valid
	OTO-4	0.840	Valid
	OTO-5	0.797	Valid
Digital Transformation (Z)	DIG-2	0.854	Valid
	DIG-4	0.870	Valid
HR Skills (Y)	SDM-2	0.810	Valid
	SDM-3	0.825	Valid
	SDM-4	0.738	Valid
	SDM-5	0.752	Valid

Source: Processed Primary Data (2025)

Based on these criteria, the indicators for construct Z (Digital Transformation), namely DIG-1, DIG-3, and DIG-5, were discarded because they had a loading factor below 0.7. The indicator for construct Y (Human Resources Skills), namely SDM-1, was discarded because its loading factor was below 0.7. The results of the validity test for all construct indicators after re-modeling are shown in Table 3. The construct indicators, based on the loading factor values, are all declared valid, indicating that all indicators have met the requirements for convergent validity and are worthy of proceeding to the next stage of analysis.

#### **Discriminant Validity Test (Fornell-Larcker Criteria)**

Discriminant validity is tested to ensure that each construct in the model does not overlap with any other construct. The Fornell-Larcker method is a traditional approach that has been employed for over 30 years, comparing the root mean square of the Average Variance Extracted (AVE) for each construct with the correlations among other constructs in the model (Henseler et al., 2015).

**Table 4. Results of Discriminant Validity Test**

	<b>AI</b>	<b>HR Skills</b>	<b>Automation</b>	<b>Digital Transformation</b>
(X <sub>1</sub> ) AI	<b>0.819</b>			
(Y) HR Skills	0.545	<b>0.782</b>		
(X <sub>2</sub> ) Automation	0.806	0.561	<b>0.799</b>	
(Z) Digital Transformation	0.516	0.517	0.549	<b>0.862</b>

Source: Processed Primary Data (2025)

The analysis results show that the AVE root value of each variable, such as the AI value of 0.819, is greater than the correlations of constructs X2 (0.806), Y (0.545), and Z (0.516). Automation is greater than Z of 0.799, which is 0.549. Digital Transformation and HR Skills have higher correlation values than those of other variables. Thus, it can be concluded that the model meets the criteria of discriminant validity.

### Reliability Test (Cronbach's Alpha and Composite Reliability)

To test the construct reliability, two indicators are used: Cronbach's Alpha and Composite Reliability. A Composite Reliability value of 0.6–0.7 is considered to have good reliability (Sarstedt et al., (2017) and is acceptable Latan & Ghazali (2015).

**Table 5. Reliability Test Results**

	<b>Cronbach's Alpha</b>	<b>Information</b>	<b>Composite Reliability</b>	<b>Average Variance Extracted (AVE)</b>
AI	0.901	<b>Reliable</b>	0.924	0.670
HR Skills	0.788	<b>Reliable</b>	0.863	0.612
Automation	0.858	<b>Reliable</b>	0.898	0.638
Digital Transformation	0.654	<b>Reliable</b>	0.853	0.743

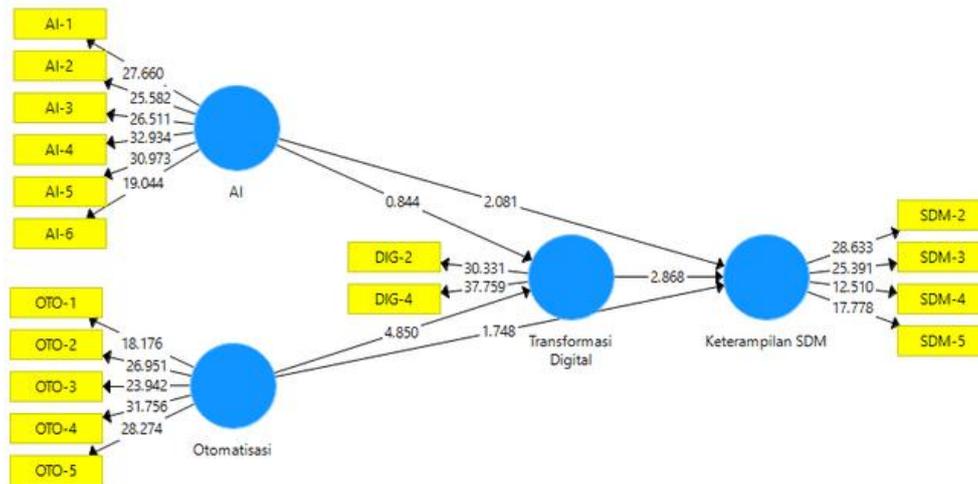
Source: Processed Primary Data (2025)

Based on the data processing results, all constructs had Cronbach's Alpha and Composite Reliability values above 0.70, with some approaching 0.70. This means that all constructs in this model have good internal reliability, making them reliable for measuring research variables.

After the measurement model is declared valid and reliable, the next stage is to test the structural model to determine the relationships among the constructs, known as the Inner Model.

### Inner Model Testing

Inner Model testing through bootstrapping procedures aims to assess the significance of relationships, whether direct (direct effects), indirect (indirect effects), or total effects. This test involves t-statistics and p-values. All relationships are considered significant if the t-table value is greater than 1.96 and the p-value is less than 0.05, indicating a statistically significant relationship.



**Figure 3. Bootstrapping Structural Model**

**Direct Effect Test**

The effect refers to the direct influence of an independent (exogenous) variable on a dependent (endogenous) variable, without going through an intermediary (mediating) variable. In SmartPLS analysis, the direct effect refers to the strength of the causal relationship between two primary constructs when the exogenous variable influences the endogenous variable directly through a path in the structural model.

**Table 6. Inner Model Test Results - Direct Effect**

	<b>t Statistics ( O/STD EV )</b>	<b>P Values</b>	<b>Decision</b>	<b>Information</b>
AI -> HR Skills	2,165	<b>0.031</b>	Reject H <sub>0</sub>	Significant on α = 0.05
AI -> Digital Transformation	0.862	0.389	Accept H <sub>0</sub>	Not significant on α = 0.05
Automation -> HR Skills	1,949	0.052	Accept H <sub>0</sub>	Not significant on α = 0.05
Automation -> Digital Transformation	4,727	<b>0.000</b>	Reject H <sub>0</sub>	Significant on α = 0.05
Digital Transformation -> HR Skills	2,827	<b>0.005</b>	Reject H <sub>0</sub>	Significant on α = 0.05

Source: Processed Primary Data (2025)

The results of the direct inner model hypothesis test in Table 6 show that the supported hypothesis ( $H_0$  is rejected) is that AI has a significant effect on HR Skills, and Automation has a significant impact on Digital Transformation. Digital Transformation has a significant effect on HR Skills. The unsupported hypothesis ( $H_0$ ) is that AI does not have a significant impact on Digital Transformation, and Automation does not have a significant effect on HR Skills.

### Indirect Effect Test

An indirect effect refers to the influence of an independent (exogenous) variable on a dependent (endogenous) variable, which occurs indirectly through an intermediary (mediating) variable. In SmartPLS analysis, the indirect effect represents the strength of the causal relationship between two primary constructs when an exogenous variable influences an endogenous variable through an indirect pathway in the structural model.

**Table 7. Inner Model Test Results - Indirect Effect**

	t Statistics ( O/STD EV )	P Values	Decision	Information
AI -> Digital Transformation -> HR Skills	0.819	0.413	Accept $H_0$	Not significant on $\alpha = 0.05$
Automation -> Digital Transformation -> HR Skills	2,349	<b>0.019</b>	Reject $H_0$	Significant on $\alpha = 0.05$

Source: Processed Primary Data (2025)

The indirect inner model hypothesis test in Table 7 shows that the supported hypothesis ( $H_0$  is rejected) is that Automation has a significant effect on HR Skills through Digital Transformation. The unsupported hypothesis ( $H_0$  is accepted) is that AI has no significant impact on HR Skills through Digital Transformation.

### R Squared

The coefficient of determination ( $R^2$ ) is a statistical measure used to evaluate the proportion of variability in an endogenous construct that can be explained by exogenous constructs in a structural model.  $R^2$  values range from 0 to 1, with the closer the value is to 1, the higher the proportion of explanation by exogenous variables over endogenous variables.

(Sarstedt et al., 2017)  $R^2$  values of 0.75, 0.50, and 0.25 can be interpreted as strong, moderate, and weak levels of explanation, respectively (Sarstedt et al., 2017). R-

squared ( $R^2$ ) is a statistical measure that indicates how well a regression model explains the variability in the data.

**Table 8. Results of R-Squared and Adjusted R-Squared Tests**

Variables	R-square	R-square adjusted
HR Skills	0.386	0.377
Digital Transformation	0.357	0.351

Source: Processed Primary Data (2025)

The R-square ( $R^2$ ) value of the simultaneous influence of AI ( $X_1$ ) and Automation ( $X_2$ ) on HR Skills ( $Y$ ) is 0.386. From this result, it can be inferred that both exogenous constructs ( $X_1$  and  $X_2$ ) simultaneously influence  $Y$  by 0.386, or 38.6%. Because the R-square is more than 25% but less than 50%, the influence of all exogenous constructs of AI ( $X_1$ ) and Automation ( $X_2$ ) on HR Skills ( $Y$ ) is moderate.

R-square ( $R^2$ ) value of the simultaneous influence of AI ( $X_1$ ), Automation ( $X_2$ ), and HR Skills ( $Y$ ) on Digital Transformation ( $Z$ ) is 0.357. Therefore, it can be explained that all exogenous constructs ( $X_1$ ,  $X_2$ , and  $Y$ ) simultaneously influence  $Z$  by 0.357 or 35.7%. Because the R-square is between 25% and 50%, the influence of all exogenous constructs—AI ( $X_1$ ), Automation ( $X_2$ ), and HR Skills ( $Y$ )—on Digital Transformation ( $Z$ ) is moderate. To assess the level of significance of this simultaneous influence, the Goodness of Fit can be used in the following analysis.

### Goodness of Fit

In multivariate analysis, such as Smart PLS, goodness of fit is used to demonstrate the validation of the combined performance of the measurement model (outer model) and the structural model (inner model) based on the collected empirical data. A Wetzels et al.(2009) small GoF value is 0.1. For medium, it is 0.25, and for large, it is 0.36 (Wetzels et al., 2009).

**Table 9. Goodness of Fit Test Results**

Variables	Average Variance Extracted (AVE)	R-Square
AI	0.670	
HR Skills	0.612	0.386
Automation	0.638	
Digital Transformation	0.743	0.357
Average	0.66575	0.3715
GoF	$\sqrt{(0.66575 \times 0.3715)} = 0.4973$	

Source: Processed Primary Data (2025)

With a GoF value of 0.4973, this research model has a strong Goodness of Fit, indicating excellent predictive ability.

## **Discussion**

Artificial Intelligence has a significant impact on HR skills. Theoretically, Artificial Intelligence (AI) has great potential to improve HR skills through automation, data-driven decision-making, and work efficiency (Indriastuti & Kartika, 2022). Test results show that AI's direct impact on HR skills is significant.

Based on questionnaire data, approximately 47% of respondents reported participating in and receiving structured training or guidance on using AI in their daily work. This supports the findings of Harefa & Lase (2025), which State that without technological literacy readiness, AI adoption will not be optimal in improving human resource competency (Harefa & Lase, 2025). AI has not yet been fully internalized as a learning or skills development tool, but it remains a passive aid.

Automation has no significant effect on HR Skills, indicating that the influence of new technology does not immediately improve workers' skills, except through a structured change management process that includes training and reorientation to digital-based work systems (Sari et al., 2023).

Test results indicate that automation has no direct impact on human resource skills. This is supported by field data, which shows that more than 60% of respondents stated that automation only replaces routine activities and does not entail additional skill development. However, Sari et al., (2023) suggest that automation, when accompanied by training, can develop new technical skills, such as systems management and digital data analysis (Sari et al., 2023). In other words, automation that is not combined with upskilling or digital reskilling only creates efficiency, without improving human resource skills.

In the research "The Influence of Artificial Intelligence on Digital Transformation," this hypothesis was not supported by the evidence. Most respondents (58%, equivalent to 46 respondents) considered that the implementation of AI in their workplace was not yet part of an integrated digitalization system. The use of AI was limited to small units and did not support cultural changes or work models. I only drive digital transformation when it is used as a strategic system, not merely as a functional tool (Suhairi et al., 2024). Therefore, these results suggest that digital transformation has not been significantly driven by AI in the creative industry sector under study.

Automation significantly impacts digital transformation. Seventy-two percent of respondents stated that implementing automated systems, such as digital attendance, ticketing, or cloud-based content management, has encouraged companies to transform processes into digital platforms. This reinforces the assertion (Pristiwaningsih et al., 2024)that automation acts as a gateway to digital

transformation (Pristiwaningsih et al., 2024). When automation is implemented comprehensively, companies are encouraged to adapt their digital infrastructure and culture to optimize work processes.

Digital transformation has a significant impact on improving HR skills. More than 78% of respondents reported that digital transformation has encouraged them to learn collaborative platforms, data management tools, and digital communication. This finding is consistent with Fadilah & Anshori (2025), which states that digital skills develop rapidly when organizations establish comprehensive digital ecosystems.

Digital transformation does not significantly mediate the relationship between AI and HR skills. This is because AI has not been strategically integrated into an organization's digital transformation system. Questionnaire data shows that only 28% of respondents reported using AI-based work platforms. Therefore, while digital transformation can theoretically bridge AI and HR development (Kusumo et al., 2024), in practice, this has not yet occurred systematically in the field.

Digital transformation significantly mediates the impact of automation on HR skills. Seventy percent of respondents stated that when automation is combined with digital transformation through training, digitalization of work systems, and online collaboration, competency increases. This finding supports research that promotes continuous learning (Rogo & Radiana, 2024).

Digital transformation plays a significant role as a mediating variable that bridges the relationship between automation and HR skills. These results support previous research by Bahasoan et al. (2024), which stated that digital transformation is a crucial factor in integrating technology into organizational work systems, particularly in the creative industries.

## **Conclusion**

This research aims to analyze the influence of Artificial Intelligence (AI) and Automation on human resource (HR) skills, with Digital Transformation as a mediating variable, in the context of the creative industry, especially the event organizer sector in Indonesia.

The research results show a significant direct impact of Artificial Intelligence on human resource skills. This finding is supported by the direct effect test, which showed a t-statistic of 2.165 and a p-value of 0.031 ( $p < 0.05$ ). It indicates that the use of AI in the creative industry has been accompanied by a direct increase in workforce skills, supported by the integration of training and adaptation into its operations.

Automation also has no direct impact on HR skills, with a t-statistic of 1.949 and a p-value of 0.052 ( $p > 0.05$ ). While automation reduces manual workload, it does not

encourage workforce competency development unless accompanied by learning and technological adaptation.

Artificial Intelligence has not significantly impacted digital transformation. AI has not yet become a fully integrated part of the digitally integrated work systems of most organizations in this research.

Automation has been shown to have a positive and significant impact on digital transformation, with a t-statistic of 4.727 and a p-value of 0.000 ( $p < 0.05$ ). This suggests that implementing automation systems in the workplace encourages companies to undertake comprehensive digitalization, thereby improving efficiency and modernizing work systems.

Digital transformation has a significant impact on human resource skills. It is evident from the t-statistic of 2.827 and p-value of 0.005 ( $p < 0.01$ ). Digitalization has been shown to enhance digital literacy, the utilization of collaborative platforms, and the adoption of technology, all of which directly impact workforce competency.

Digital transformation does not mediate the effect of AI on HR skills, with a t-statistic of 0.819 and a p-value of 0.413. Although AI has the potential to strengthen digital systems, in practice, it has not been optimally utilized in the digitalization ecosystem, which impacts skills.

Digital transformation has been proven to successfully mediate the effect of automation on HR skills, with a t-statistic of 2.349 and a p-value of 0.019. It means that automation integrated into digital work systems can drive skill improvement, as HR must adapt to new technologies and systems.

On the Outer model test, all research indicators meet the loading factor value of greater than 0.70 and the AVE value of greater than 0.5, which indicates good convergent validity. Construct reliability is also supported by Composite Reliability and Cronbach's Alpha values above 0.7 for all variables, so the instrument in this research can be said to be valid and reliable. From the results of the Fornell-Larcker Criterion, all constructs show a higher AVE root value compared to their correlation with other constructs, which proves that discriminant validity is met. The Goodness of Fit model of 0.4973 also indicates an intense match between the model and the empirical data.

R-squared value of 0.386 for the HR Skills variable indicates that the combination of AI, Automation, and Digital Transformation explains 38.6% of the variation in HR skills. Meanwhile, the R-squared value of 0.357 for Digital Transformation explains that AI and Automation explain 35.7% of the variation in digital transformation. Both values are in the moderate range, indicating that factors beyond the model also influence HR skills and digital transformation.

This research has significant theoretical implications in the context of digital-based human resource development. Theoretically, the research results strengthen the concept that Digital Transformation is a crucial mediating variable in connecting technology and HR competencies. Specifically, the contribution of this new conceptual model expands the literature on the application of AI and automation in the creative economy sector. This research also enriches the literature in human resource management and digital technology, particularly regarding the mediating role of Digital Transformation in bridging the influence of technology (AI and automation) on HR skills development.

In terms of practical implications, more specifically for creative industry players, particularly in the event organizer sector, the results of this research imply that technology integration is only effective if accompanied by comprehensive digital transformation, including technology-based training, strengthening digital literacy, and restructuring workflows. The implementation of AI and automation does not automatically improve workers' skills; it requires a digital work environment that supports collaboration and innovation.

For event organizers, this research confirms that adopting technologies such as AI and automation must be accompanied by a robust digital transformation infrastructure. It includes improving digital literacy, collaborative work systems, and technology-based training to optimize human resource skills.

For the government, particularly in the subtheme "MSMEs and the Creative Economy as Drivers of National Economic Inclusivity," this research provides evidence that policy support for digital infrastructure and technology literacy programs is urgently needed to ensure the implementation of AI and automation has a real impact on workforce skills in the creative sector. The government needs to expand initiatives such as "AI Merdeka" and the "Digital Talent Scholarship" comprehensively to the event organizer sector.

For further research, this research has several limitations, including the geographic coverage of respondents, who were mainly from the Greater Jakarta area. It also did not include in-depth aspects of technological behavior such as attitudes, subjective norms, and perceived control. Future research is recommended to expand the scope of respondents and to add psychological variables or organizational culture as moderators. Therefore, future HR skills development strategies must integrate technology with a systemic approach based on digital transformation, enabling the creative industry sector to adapt and drive sustainable growth of the national digital economy. Bridging the technology-HR gap by emphasizing data literacy, critical thinking, and adaptability to AI and automation systems is needed to face the challenges of the digital-based creative industry.

### **Acknowledgments**

The author would like to express his most profound appreciation to all parties who have contributed to the completion of this research. Profound appreciation to Universitas Dirgantara Marsekal Suryadarma for its academic support, research facilities, and a conducive scientific environment during the preparation of this scientific work.

The author also extends his sincere gratitude to all respondents from various event organizer companies and creative industry players in Indonesia who took the time to participate in the questionnaire and provided invaluable empirical information for this research. The author thanks his colleagues and supervisors from the Faculty of Economics and Business who provided conceptual, methodological, and analytical input throughout the research process. Their moral and professional support has been crucial to the success of this research.

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