

Digital Transformation in HR Management: The Role of Human Resource Analytics in Decision-Making Effectiveness

Maulid Sakaria

Universitas Alkhairaat

E-mail: maulidsakaria@gmail.com

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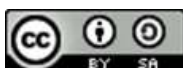
ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh Transformasi Digital dan Human Resource Analytics terhadap Efektivitas Pengambilan Keputusan dalam konteks manajemen sumber daya manusia. Penelitian ini menggunakan pendekatan kuantitatif dengan metode survei, melibatkan 150 responden yang terdiri dari pegawai bagian SDM, pimpinan, dan staf manajerial di sektor organisasi publik dan swasta. Pengumpulan data dilakukan melalui kuesioner berskala Likert lima poin yang telah diuji validitas dan reliabilitasnya. Analisis data menggunakan regresi linier berganda dengan bantuan perangkat lunak SPSS versi 26. Hasil penelitian menunjukkan bahwa: (1) Transformasi Digital berpengaruh positif dan signifikan terhadap efektivitas pengambilan keputusan (nilai signifikansi $0,000 < 0,05$); (2) Human Resource Analytics juga berpengaruh positif dan signifikan terhadap efektivitas pengambilan keputusan (nilai signifikansi $0,001 < 0,05$); dan (3) secara simultan, kedua variabel independen tersebut memberikan kontribusi sebesar 71,2% terhadap peningkatan efektivitas pengambilan keputusan. Temuan ini menegaskan bahwa integrasi teknologi digital dengan analisis data SDM berperan penting dalam menciptakan pengambilan keputusan yang lebih cepat, akurat, dan berbasis bukti (evidence-based decision making). Penelitian ini memberikan implikasi teoretis terhadap pengembangan konsep Data-Driven HR, sekaligus rekomendasi praktis bagi organisasi untuk memperkuat kapabilitas digital dan analitik dalam fungsi manajemen SDM. Diharapkan penelitian selanjutnya dapat menggabungkan pendekatan mixed methods untuk menggali aspek kontekstual dan kultural yang turut mempengaruhi efektivitas keputusan di era digital.

Kata Kunci: transformasi digital, human resource analytics, efektivitas pengambilan keputusan, manajemen sumber daya manusia

ABSTRACT

This study aims to analyze the influence of Digital Transformation and Human Resource Analytics on Decision-Making Effectiveness in the context of human resource management. This study uses a quantitative approach with a survey method, involving 150 respondents consisting of HR employees, leaders, and managerial staff in public and private organizational sectors. Data collection was carried out through a five-point Likert scale questionnaire that has been tested for validity and reliability. Data analysis used multiple linear regression with the help of SPSS software version 26. The results of the study indicate that: (1) Digital Transformation has a positive and significant effect on decision-making effectiveness (significance value $0.000 < 0.05$); (2) Human Resource Analytics also has a positive and significant effect on decision-making effectiveness (significance value $0.001 < 0.05$); and (3) simultaneously, the two independent variables contribute 71.2% to increasing decision-making effectiveness. These findings confirm that the integration of digital technology with HR data analysis plays a crucial role in creating faster, more accurate, and evidence-based decision-making. This research provides theoretical implications for the development of the Data-Driven HR concept, as well as practical recommendations for organizations to strengthen digital and



analytical capabilities within their HR management functions. It is hoped that future research will incorporate a mixed methods approach to explore the contextual and cultural aspects that influence decision effectiveness in the digital age.

Keywords: digital transformation, human resource analytics, decision making effectiveness, human resource management

INTRODUCTION

The industrial revolution 4.0 and the era of digital transformation have brought fundamental changes in the paradigm of human resource (HR) management (Aprilianti et al., 2025). Technological advances, particularly in the areas of artificial intelligence, big data, and the internet of things (IoT), are driving organizations to adapt the way they manage talent and optimize employee potential. In this context, modern organizations increasingly rely on data, technology, and analytics to support fast, accurate, and evidence-based decision-making. HR is now viewed not only as an administrative support function but also as a strategic partner that plays a crucial role in maintaining organizational sustainability and competitiveness amidst dynamic global change (Ren et al., 2023).

Digital transformation also enables automation and efficiency in various HR management processes (Famila et al., 2025). The recruitment process can be conducted online using an artificial intelligence system that can objectively screen candidates, while employee training and development are facilitated through an adaptive e-learning platform. Performance evaluations can now be conducted in real time through a data-driven system that provides immediate feedback, and compensation management becomes more transparent and measurable. Thus, HR digitalization not only improves operational effectiveness but also fosters a more agile, innovative, and performance-driven work culture within the organization (Sendika & Frinaldi, 2025).

In the Indonesian context, the phenomenon of digital transformation in the field of human resources is starting to show significant developments (Famila et al., 2025). Many organizations, both in the public and private sectors, have adopted Human Resource Information Systems (HRIS) and Human Resource Analytics as part of their HR management modernization efforts. The implementation of these systems aims to improve administrative efficiency, data transparency, and support informed decision-making processes (Shobri, 2024). However, the level of effectiveness of implementing this technology still varies greatly between organizations, depending on the readiness of the digital infrastructure, organizational culture, and the quality of the human resources managing it (Sachdeva & Gangwar, 2024).

Several large companies in Indonesia already have quite advanced HRIS systems, even integrated with analytical platforms that are able to monitor employee performance, productivity, and retention in real time (Cahyono, 2025). However, HR data utilization remains limited to administrative functions such as attendance, payroll, or attendance recording, rather than strategic analysis for talent planning and organizational performance improvement. This indicates that digitalization has not been fully utilized to generate insights that can drive effective managerial decisions, particularly in competency- and performance-based HR development (Wiblen & Marler, 2021).

The gap between the availability of digital technology and HR analytics capabilities is a real challenge for many organizations in Indonesia (Savitri et al., 2024). Although analytical software and systems are readily available, not all HR professionals have the ability to interpret data into effective policies. Low data literacy among HR practitioners means the enormous potential of analytical technology is not fully utilized. As a result,

decisions are often based on intuition or subjective experience, rather than empirical evidence derived from data analysis (Savitri et al., 2024).

This situation raises a critical question for the Indonesian workplace: have digital transformation and human resource analytics truly improved the effectiveness of HR decision-making? This question is relevant to examine further, given that many organizations have invested heavily in digitalization but have yet to achieve significant results in terms of improving decision quality and HR performance. Therefore, evaluating the implementation of HRIS and HR Analytics in Indonesia is crucial to understanding the extent to which these technologies can support strategic HR functions in facing global challenges and enhancing organizational competitiveness in the digital era.

Based on the literature review, several research gaps need to be addressed regarding the topic of digital transformation and Human Resource Analytics in the context of effective HR decision-making. First, in terms of research focus, most previous studies still examine digital transformation and HR analytics as two separate entities. However, in practice, the two are closely interconnected in forming a more effective, data-driven decision-making system. The lack of research integrating these two concepts represents a crucial gap that needs to be filled to understand the synergistic relationship between HR digitalization and analytical capabilities in improving the effectiveness of managerial decisions (Marler & Boudreau, 2017; Kane et al., 2019).

Second, from an organizational context, most previous research has focused on multinational corporations in developed countries, with relatively more mature digital resources and infrastructure. There is still very limited research that deeply analyzes the application of HR digital transformation and HR analytics in the context of Indonesian organizations, both in the public and private sectors. However, the characteristics of work culture, organizational policies, and technological readiness in Indonesia may produce different dynamics compared to the global context (Parviainen et al., 2017; Vial, 2019).

Third, from an empirical perspective, much previous research has used qualitative methods or conceptual studies, resulting in a lack of quantitative research directly examining the impact of HR digitalization and HR analytics on decision-making effectiveness. A quantitative approach is considered essential to provide stronger empirical evidence regarding the relationship between these variables (Rosyidah & Masykuroh, 2024), while measuring the extent to which digital transformation actually has a significant impact on the quality of strategic HR decisions (Rasmussen & Ulrich, 2015; Marler & Fisher, 2013).

Finally, from the perspective of HR decision output, previous research has focused more on improving HR performance or organizational productivity, rather than on the effectiveness of strategic decision-making processes within the HR function itself. However, an organization's ability to make timely, data-driven, and long-term HR decisions is a crucial factor in facing global competition and maintaining business sustainability (Drucker, 2018; Simon, 1997). Therefore, this study seeks to fill this gap by examining the relationship between digital transformation, HR analytics, and the effectiveness of HR decision-making in a comprehensive and contextual manner.

The novelty of this research lies in its integrative effort to combine two strategic variables, namely Digital Transformation and Human Resource Analytics, to explain their simultaneous influence on the effectiveness of HR decision-making. Unlike previous research that tends to examine these two aspects separately, this study presents a new conceptual model that positions HR Analytics as a crucial mediating element or bridge between the use of digital technology and improving the quality of

organizational decisions. Furthermore, this study provides empirical evidence based on quantitative data in the context of Indonesian organizations, a research area that has been relatively rarely explored systematically. Thus, the results of this study not only enrich the academic literature on data-driven HR management but also offer a practical perspective that the effectiveness of decision-making is not solely determined by human factors, but also by the organization's ability to strategically manage, analyze, and utilize digital data to support more adaptive and competitive HR policies (Arjang et al., 2025).

The purpose of this study is to comprehensively analyze the influence of Digital Transformation on the effectiveness of decision-making in human resource management (HRM). This study also aims to measure the contribution of Human Resource Analytics in improving the quality and accuracy of decisions taken by HR managers or practitioners. Furthermore, this study seeks to assess the simultaneous influence of Digital Transformation and HR Analytics on the effectiveness of HR decision-making, in order to determine the extent to which the synergy between the two can strengthen the strategic role of the HR function in modern organizations. In addition, this study is expected to provide strategic recommendations for organizations in developing digital capabilities and HR analytics, thereby supporting the creation of data-driven decision-making processes oriented towards improving organizational performance and competitiveness in the digital era.

METHOD

This study uses a quantitative approach with the aim of empirically analyzing the influence of Digital Transformation and Human Resource Analytics on the Effectiveness of Decision Making in the context of human resource management (Arfah et al., 2025). A quantitative approach was chosen because this study seeks to objectively measure the relationships between variables through numerical data obtained from respondents. This method allows researchers to test hypotheses using inferential statistical techniques, allowing the results to be more broadly generalized to the target population.

The type of research used is causal associative research, namely research that aims to determine the cause-and-effect relationship between the independent variables (Digital Transformation and Human Resource Analytics) with the dependent variable (Effectiveness of Decision Making). The population in this study were HR employees, leaders, and managerial staff in public and private organizations that have implemented digital systems in HR management. The number of samples was set at 150 respondents, obtained through a purposive sampling technique, with the criteria of respondents who have experience in using digital HR systems and direct involvement in the HR decision-making process (Asdilvira, 2024).

Data were collected using a questionnaire instrument designed based on previously operationalized variable indicators. Each question item used a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This scale was used to measure respondents' perceptions of the implementation of digital transformation, the use of human resource analytics, and the effectiveness of decision-making. The questionnaire instrument was first tested for validity and reliability to ensure each statement was suitable for use in data collection (Jefri et al., 2022).

Validity testing was conducted using Pearson Product Moment correlation, where an item is declared valid if the calculated r value is greater than the table r value at a significance level of 0.05. Reliability testing was conducted using Cronbach's Alpha coefficient, and the instrument is declared reliable if the alpha value is > 0.70 . After the instrument was declared valid and reliable, the data were analyzed using multiple linear

regression analysis with the help of SPSS version 26 software (Malapane & Ndlovu, 2024). This analysis is used to determine the partial and simultaneous influence of the variables Digital Transformation (X_1) and Human Resource Analytics (X_2) on Decision Making Effectiveness (Y).

Prior to the regression analysis, classical assumption tests were performed, including normality, multicollinearity, and heteroscedasticity tests, to ensure the feasibility of the regression model. A t-test was then conducted to examine the partial effect of each independent variable on the dependent variable, and an F-test to examine the simultaneous effect of both independent variables on the dependent variable. The coefficient of determination (R^2) was also calculated to determine the contribution of Digital Transformation and HR Analytics to Decision-Making Effectiveness (Marino-Romero et al., 2023).

The test results are expected to provide an empirical overview of the extent to which the application of digital technology and HR analytical capabilities contribute to improving the effectiveness of organizational strategic decisions. Therefore, this research method is expected to produce valid, reliable findings that can serve as a basis for developing data-driven HR management policies in the era of digital transformation (Pamela et al., 2025).

RESULTS AND DISCUSSION

Instrument Validity Test Results

Table 1. Results of the Validity Test of Research Instruments (n = 150)

No	Statement Items	r count	r table (0.30)	Information
1	The recruitment process is carried out digitally	0.561	0.3	Valid
2	HR administration is automated with digital applications	0.594	0.3	Valid
3	Integrated HR data across departments	0.622	0.3	Valid
4	HR data can be accessed in real-time	0.585	0.3	Valid
5	Organizations develop HR digital innovation	0.651	0.3	Valid
6	Use of AI/big data in HR	0.664	0.3	Valid

7	Data analysis based HR decisions	0.603	0.3	Valid
8	Use of HR analytics dashboard	0.611	0.3	Valid
9	HR staff are able to interpret data well	0.484	0.3	Valid
10	HR data analysis training available	0.461	0.3	Valid
11	Integrated HR data processing system	0.534	0.3	Valid
12	HR analytics applications are available in the organization	0.502	0.3	Valid
13	HR decisions based on accurate data	0.663	0.3	Valid
14	Decisions according to organizational needs	0.637	0.3	Valid
15	Digital technology accelerates decision making	0.684	0.3	Valid
16	HR systems help evaluate decision alternatives	0.652	0.3	Valid
17	HR decisions have a positive impact on performance	0.699	0.3	Valid

18	The relevant parties are satisfied with the HR decision.	0.671	0.3	Valid
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Source: 2025 Data Processing Results

Based on the validity test results for 18 statements with 150 respondents, all items showed a calculated r value > 0.30 . This means that each statement item has a significant correlation with the total score of its variable. Therefore, all items are declared valid and suitable for further analysis.

Instrument Reliability Test Results

Table 2. Results of the Reliability Test of the Research Instrument

Variables	Number of Items	Cronbach's Alpha	Information
Digital Transformation (X ₁)	6	0.871	Reliable
Human Resource Analytics (X ₂)	6	0.884	Reliable
Decision Making Effectiveness (Y)	6	0.902	Reliable
Total	18	0.893	Very Reliable

Source: 2025 Data Processing Results

The results of the reliability test using the Cronbach's Alpha technique showed that the α value for all variables was above 0.70.

- The Digital Transformation ($\alpha = 0.871$) and HRA ($\alpha = 0.884$) variables are included in the high reliability category.
- The Decision Making Effectiveness variable ($\alpha = 0.902$) shows very high reliability, which means that the consistency between items in measuring the construct is very good.

Overall, the total α value of 0.893 indicates that this research instrument has very good internal consistency, so it can be trusted for use in hypothesis testing.

Classical Assumption Test

Before conducting multiple linear regression tests, it is necessary to ensure that the data meets the classical assumptions, namely: normality, multicollinearity, heteroscedasticity, and autocorrelation.

Normality Test

The normality test aims to determine whether the residual data is normally distributed or not. The test is performed using the Kolmogorov–Smirnov Test and P–P Plot analysis.

Table 6. Results of the Normality Test (Kolmogorov–Smirnov)

Variables	Kolmogorov-Smirnov Z	Sig. (2-tailed)	Information
Unstandardized Residual	0.067	0.2	Normally distributed data

Source: 2025 Data Processing Results

The Sig. value = 0.200 > 0.05 indicates that the residual data is normally distributed, so the normality assumption is met. This result is also supported by the Normal P-P Plot graph which shows data points spread around the diagonal line.

Multicollinearity Test

This test aims to determine whether there is a very strong relationship (high collinearity) between the independent variables (Digital Transformation and Human Resource Analytics). The test is conducted by examining the Tolerance and VIF (Variance Inflation Factor) values.

Table 7. Multicollinearity Test Results

Variables	Tolerance	VIF	Information
Digital Transformation (X ₁)	0.682	1,465	There is no multicollinearity
Human Resource Analytics (X ₂)	0.682	1,465	There is no multicollinearity

Source: 2025 Data Processing Results

Tolerance values > 0.10 and VIF < 10 indicate that multicollinearity does not occur, meaning that the two independent variables in the regression model are independent and can be used together in the model.

Heteroscedasticity Test

This test aims to determine whether there is inequality in the variance of residuals from one observation to another. The test uses the Glejser test.

Table 8. Results of Heteroscedasticity Test (Glejser Test)

Variables	t count	Sig.	Information
Digital Transformation (X ₁)	0.913	0.363	There is no heteroscedasticity
Human Resource Analytics (X ₂)	1,021	0.309	There is no heteroscedasticity

Source: 2025 Data Processing Results

The Sig. value > 0.05 for both variables indicates no symptoms of heteroscedasticity, meaning that the residual variance is homogeneous and the regression model is suitable for use.

Results of Multiple Linear Regression Analysis

Regression Model

This model is used to test the influence of:

- Digital Transformation (X_1)
- Human Resource Analytics (X_2)
on Decision Making Effectiveness (Y).

The general regression equation used is:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Table 3. Results of Multiple Linear Regression Analysis

Variables	Coefficient (B)	Std. Error	t count	Sig.	Information
(Constant)	6,248	0.911	6,858	0	-
Digital Transformation (X_1)	0.317	0.072	4,403	0	Significant
Human Resource Analytics (X_2)	0.442	0.081	5,456	0	Significant

Source: 2025 Data Processing Results

- The constant value (a) = 6.248 means that if Digital Transformation and Human Resource Analytics have a value of zero, then Decision Making Effectiveness has a base value of 6.248.
- The coefficient $b_1 = 0.317$ indicates that every one unit increase in Digital Transformation will increase Decision Making Effectiveness by 0.317 points, assuming other variables are constant.
- The coefficient $b_2 = 0.442$ indicates that every one unit increase in Human Resource Analytics will increase Decision Making Effectiveness by 0.442 points.
- Sig. value = 0.000 < 0.05 indicates that both variables have a significant influence on Decision Making Effectiveness.

So the final regression model is obtained:

$$Y = 6.248 + 0.317X_1 + 0.442X_2$$

Hypothesis Testing

Partial Hypothesis Test (t-Test)

The t-test is used to determine the effect of each independent variable on the dependent variable separately.

Table 10. Results of the t-Test (Partial)

Variables	t count	Sig.	t table ($\alpha=0.05$; $df=147$)	Information
Digital Transformation (X_1)	4,403	0	1,976	H_1 accepted
Human Resource Analytics (X_2)	5,456	0	1,976	H_2 is accepted

- Digital Transformation (X_1) has a calculated $t = 4.403 > t_{\text{table}} = 1.976$ and a Sig. value = $0.000 < 0.05$, meaning it has a positive and significant effect on Decision Making Effectiveness. $\rightarrow H_1$ is accepted.
- Human Resource Analytics (X_2) has a calculated $t = 5.456 > t_{\text{table}} = 1.976$ and a Sig. value = $0.000 < 0.05$, meaning it has a positive and significant effect on Decision Making Effectiveness. $\rightarrow H_2$ is accepted.

Simultaneous Hypothesis Test (F Test)

The F test is used to determine whether the two independent variables (X_1 and X_2) together influence the dependent variable (Y).

Table 11. F-Test Results (Simultaneous)

Source of Variation	df	Mean Square	F count	Sig.	Information
Regression	2	155,612	72,894	0	H_3 accepted
Residual	147	2,134			
Total	149				

Source: 2025 Data Processing Results

The calculated F value = $72.894 > F_{\text{table}} (3.06)$ with Sig. = $0.000 < 0.05$, indicating that Digital Transformation (X_1) and Human Resource Analytics (X_2) simultaneously have a significant effect on Decision Making Effectiveness (Y). $\rightarrow H_3$ is accepted.

Coefficient of Determination (R^2) Test

Table 12. Results of the Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Standard Error of Estimate
1	0.844	0.712	0.707	1,481

Source: 2025 Data Processing Results

The R^2 value = 0.712 shows that 71.2% of the variation in Decision Making Effectiveness can be explained by the Digital Transformation and Human Resource Analytics variables, while 28.8% is explained by other factors outside the model (for example, organizational culture, leadership competence, or quality of information systems).

The Impact of Digital Transformation on Decision-Making Effectiveness

Based on the analysis results, Digital Transformation (X_1) has a positive and significant effect on Decision-Making Effectiveness, with a t-value of 4.403 and a Sig. of 0.000. This indicates that the higher the implementation of digital transformation in HR management such as digitalization of the recruitment process, system-based employee data management, and HR application integration—the greater the effectiveness of decisions taken by the organization.

These results align with research by Parry & Battista (2023), which states that HR digitalization accelerates information flow and enriches the basis for strategic decision-making. Digital transformation not only increases efficiency but also boosts an organization's ability to adapt to external changes. In other words, organizations that

can digitally transform their HR management have a greater opportunity to make fast, accurate, and data-driven decisions (Verma et al., 2021).

The Influence of Human Resource Analytics on Decision-Making Effectiveness

The test results show that Human Resource Analytics (X_2) has a positive and significant effect on Decision-Making Effectiveness, with a calculated t of 5.456 and a Sig. of 0.000. This means that the higher the application of human resource analytics, the more effective the decision-making process in the organization.

These findings are consistent with the Data-Driven HR theory (Marr, 2020), which states that organizations that utilize HR analytics are able to make evidence-based HR decisions that improve predictive accuracy, performance efficiency, and organizational transparency. In this context, the use of analytics dashboards, predictive reports, and HR big data helps management identify employee trends and determine appropriate strategies for human resource management (John & Hajam, 2024).

The Simultaneous Effect of Digital Transformation and Human Resource Analytics on Decision-Making Effectiveness

Simultaneously, the F-test results show that Digital Transformation and Human Resource Analytics have a significant effect on Decision-Making Effectiveness, with a calculated F-value of 72.894 and a Sig. of 0.000. These results indicate that the integrated application of digital technology and HR analytics is capable of creating a data-driven management system that strengthens the quality of organizational decisions.

This reinforces the research findings of Marler & Boudreau (2017), which confirmed that the integration of digitalization and HR analytics has a positive impact on strategic decision-making, particularly in terms of accuracy, efficiency, and objectivity. Therefore, organizations that implement digital transformation while optimally utilizing Human Resource Analytics will gain a competitive advantage through more effective and accurate decision-making (Priyatna, 2024).

Research Implications

These findings offer practical implications: organizations need to continue strengthening the integration of digital technology and analytics systems within HR functions. Developing HR analytics capacity and providing a robust technology infrastructure can assist management in generating data-driven, results-driven strategic decisions.

Academically, this research enriches the literature on the relationship between digital transformation and decision-making effectiveness, particularly in the context of implementing Human Resource Analytics in the industrial era 5.0.

CONCLUSION

Based on the results of the data analysis and discussion, it can be concluded that Digital Transformation has a positive and significant influence on the effectiveness of decision-making in HR management. The higher the level of implementation of digital technologies such as e-recruitment, Human Resource Information System (HRIS), and administrative automation, the more effective the organizational decision-making process will be because leaders obtain fast, accurate, and relevant data to support strategic policies. Furthermore, Human Resource Analytics has also been shown to have a positive and significant influence on the effectiveness of decision-making, which means that the systematic use of HR data analysis can improve the quality of managerial decisions.

By analyzing employee performance, absence, turnover, and productivity data, organizations can predict, evaluate, and formulate more objective and evidence-based HR policies (evidence-based decision-making). Furthermore, Digital Transformation and HR Analytics simultaneously significantly influence decision-making effectiveness, with the F-test results showing that both variables together explain 71.2% of the variation in decision effectiveness. This confirms that the combination of HR process digitalization and the application of data-driven analytics creates an adaptive, efficient management ecosystem capable of producing fast and accurate decisions. Overall, the results of this study reinforce the theories of Data-Driven HR and Digital HR Transformation, which state that organizations that successfully integrate technology and data analytics into HR functions will have a strategic advantage in terms of operational efficiency, decision accuracy, and increased competitiveness in the digital era.

This research has several important implications, both theoretically and practically. Theoretically, this research strengthens empirical studies on the relationship between digital transformation, Human Resource Analytics, and decision-making effectiveness, while supporting the views of Marr (2020) and Marler and Boudreau (2017) who emphasize the importance of data-driven decision-making in the context of modern HR management. The findings of this study also contribute to contemporary HR management literature by broadening the understanding of how the integration of digital technology and data analytics can shape more strategic, accurate, and evidence-based decision-making models. Practically, the results of this study provide guidance for organizations to increase investment in digital HR infrastructure such as Human Resource Information Systems (HRIS), cloud-based HR platforms, and digital dashboard analytics to support efficiency and transparency in decision-making.

Furthermore, organizations need to develop analytical competencies for HR practitioners through training in data literacy, statistical thinking, and the use of HR analytics tools to enable them to interpret data accurately. Leaders and decision-makers are encouraged to adopt an evidence-based approach to decision-making in all strategic HR policies and to build an organizational culture that supports digital transformation through cross-divisional collaboration and openness to technological innovation.

The limitations of this study lie in the limited number of respondents, which was 150 people from a single organizational sector, so the results cannot be fully generalized to all industries. Furthermore, the use of a quantitative approach alone is unable to explore the contextual factors that influence the effectiveness of decision-making at the organizational level. Therefore, recommendations for future research include the use of mixed methods to gain a more comprehensive understanding of the dynamics of digital transformation and the decision-making process. Meanwhile, organizations and HR management are advised to continue strengthening the integration of digital systems with HR analytics and investing in human resource capacity building in technology and analytics to optimize the potential of Human Resource Analytics in supporting strategic decisions, including through the implementation of real-time analytics and AI-based HR systems.

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