



From Digital Culture to Employee Performance: How Self-Efficacy Mediates the Impact of Digital Transformation

Achmad Achmad* and Sumardi Sumardi

Hasanuddin University, Makassar, Indonesia

*achmad23a@student.unhas.ac.id

Abstract. The present study examines the relationship between Digital Culture, Digital Competence and Digital Leadership and Employee Performance in Bank Sulselbar by Drawing a special attention towards the mediation of Self-Efficacy. It's been ages since the Wisteria Lane days! The method of research used is quantitative with Structural Equation Modeling (SEM) to test the data collection of 95 workers of different departments at Bank Sulselbar. Results The results demonstrate that Digital Culture, Digital Competence and Digital Leadership have positive significant influences on both Self-Efficacy and Employee Performance. Furthermore, Self-Efficacy is a critical mediator for reinforcing the predictive power of these digital antecedences on employee effects. The authors conclude that cultivating a high-performing digital culture, developing digital skills among employees and effective digital leadership are key approaches to increasing the contribution of their employees in the digital era. The findings are more generalizable to the HRM campus not in a physical sense informed by a holistic model, which invites further research in HRM and Self-Efficacy as well as practical insight for HR professionals within banking and other industry contexts beyond. This study highlights the need for interventions at work that support specific HRM related to digital skills and confidence among employees, thereby leading to higher engagement, satisfaction, and performance.

Keywords: Digital Culture, Digital Competence, Digital Leadership, Self-Efficacy, Employee Performance.

1 Introduction

The bank system has always been recognized as a significant player to implement sustainable development acting as an intermediary in all types of financial operations, investment and savings [1]. But the digital era industry is in under-going a major shift. Endowments of technology, such as artificial intelligence, blockchain and big data analytics have altered the vision of delivery of banking services [2]. In such an environment, for banks to continue to survive and thrive as compared to their competitors there is no alternative but to adapt for the change and become digitalized" [3]. Nonetheless, this change means more than just technology; it also involves a change to the bank's

culture, skills and leadership [3]. Such being the case, it is important to analyze how HRM is able to manage and support this shift digital [5].

Human Resource Management (HRM) is also necessary to causes the availability of the required skills in staff, as well as fit with organizational culture for new technologies [5]. HRM in the banking sector has concentrated on recruitment, motivation, training development and performance appraisal based on traditional factors [6]. Nonetheless, the evolution of digital tools and platforms has created a new layer of complexity in HRM practices [6]. HRM needs to respond to digitalization by challenging existing fundamentals and changing course in creating a workforce that is effective in the digital age [7].

Meanwhile, digital culture, capability and leadership have been playing the most significant role in influencing employee performance in such transformation [8]. Digital Culture represents a shared set of attitudes, values and beliefs that encourage the use of digital technologies in routine activities and behaviors [9]. A positive digital culture creates a/us environment where wurde technology is not merely tolerated, but it accepted tbvb also embraced by all employees which supports engagement and performance [10]. On the other hand, digital Competence involves employees' ability to use digital tools and technologies effectively in their work [11]. This competency is essential for ensuring that employees can utilize new systems and platforms that support the digital banking infrastructure [12]. Digital Leadership, which reflects leaders' ability to guide their teams through technological change, is equally important [13]. Leaders must be able to provide vision, guidance, and support to help employees navigate the complexities of digital transformation [14].

Self-efficacy was the most important mediating factor among these variables. SelfEfficacy Conceptualized as one's confidence in their capabilities to learn and perform activities, self-efficacy is of particular relevance within digital transformation [14]. Workers who feel more confident are more prone to accept technology tools, willing to face challenges, which lead to better performance in organizations [15]. With the widespread use of digital mechanisms and aids, employees' self-efficacy has substantial impacts on their motivation and ability to adapt themselves according to those changes [16]. Thus, it is crucial seeking evidence about the relationships between digital culture, competence, leadership and self-efficacy which are mostly concerned in crafting competent HRM strategies to positively influence performance in a digital banking environment [17].

The importance of these constructs can be found in general discussions regarding digital transformation, however, research to date has typically taken a siloed approach to investigating single factors contributing to digital change and has failed to understand the relationships between Digital Culture, Digital Competence, Leadership and SelfEfficacy [14]. Each of these factors have been treated individually in the literature concerning effectiveness, but little has attempted to combine them into a unified model [14]. Additionally, little is known about the mediating effect of Self-Efficacy between these psychological and performance variables. This gap in the literature indicates that there is a demand for further studies to provide a more comprehensive understanding of the determinants of employ e performance given digital transformation.

This study is original in its comprehensive examination of the association between digital culture, competency, leadership and employee performance with a special reference to mediating role of self-efficacy. Using a quantitative approach and employing Structural Equation Modeling (SEM) this study seeks to present empirical evidence on the mechanisms underlying these relationships. This view provides a more holistic picture of the complexity around digitalisation and its implications towards HRM practices. As a further implication, the study will provide novel insights on how organizations can enhance support towards their employees via HRM-applications that focus on fostering digital competence and self-efficacy with regards to digital as well as their overall impact upon organizational performance.

The findings from this study will contribute to both theoretical and practical advancements in HRM. Theoretically, this research expands existing HRM models by incorporating the mediating role of self-efficacy, offering a deeper understanding of how digital transformation influences employee performance. Practically, the study will provide actionable insights for HRM practitioners in the banking sector, enabling them to design strategies that foster a culture of digital competence and leadership while enhancing employee self-efficacy. This, in turn, will help banking institutions develop a workforce that is well prepared to thrive in an increasingly digital environment, leading to higher employee engagement, satisfaction, and performance.

The objective of this work is to respond to this literature gap by proposing a comprehensive model including Digital Culture, Digital Competence, Digital Leadership and the performance of employees as interrelated constructs, mediated mainly by employees' Self-Efficacy. Our findings contribute new evidence of how digital transformation spills over to intrapersonal outcomes in HRM, and employee performance largely contributing to the contemporary debate about future work in this era. In this effort, our goal is to provide not only theoretical contributions but concrete solutions that will help businesses deal with the challenges and opportunities coming from a digital age.

2 Literature Review

2.1 Digital Culture and Human Resource Management

This research is based on the organizational behavior theory, which emphasizes that employee performance is largely affected by corporate culture [18]. The digital culture, comprising the values, practices and behavior that enable the use of technology, holds a central function in enabling or actualizing digital transformation within organizations [19]. In human resource management (HRM) digital culture is important factor to understand when exploring how employees act and react to the use of digital tools and platforms [19]. As employees' engagement with digital tools grows, it enhances their efficacy and contributes to improved organizational performance [18]. This framework underpins the investigation of how a strong digital culture can positively influence self-efficacy and employee performance in the banking sector.

2.2 Digital Competence and Self-Efficacy in the Digital Age

In digital times, the skills of employees in handling technological mediums have a direct impact on their efficiency for work [11]. Digital literacy that is about the digital skills and literacies required to meaningfully participate in an contemporary society does weigh in on increased self-efficacy of employees [12]. If they are competent in digital instruments the first anticipations of how well they will fare in dealing with digital challenges among others will be formed [11]. Such proficiency in digital skills not only enables an individual to perform his/her routine activities but enhances his or her self-efficacy, which is imperative for high performance and successful adjustment of the digital transformation [12]. The following hypotheses are proposed:

- **H1:** Digital culture positively influences self-efficacy.
- **H2:** Digital competence positively influences self-efficacy.

2.3 Leadership in Digital Transformation

Leadership is considered to be of primary importance in supporting employees through the complexities of digital transformation [20]. DL is the leadership that shapes a culture to continually improve and enable effective use of digital tools and innovations. Managers that are visionaries, supportive and motivational contribute to employees engaging in adopting and using new technology which influence self-efficacy positively [21]. It is here that this relationship is most important, especially when organizations are in the midst of transformation; it is leaders who don't just enact the digital agenda, but enable staff to feel more confident about being successful with all things digitally. The positive impacts of digital leadership on self-efficacy and employee performance are proposed as follows:

- **H3:** Digital leadership positively influences self-efficacy.
- **H4:** Self-efficacy positively influences employee performance.
- **H5:** Digital culture positively influences employee performance.
- **H6:** Digital competence positively influences employee performance.
- **H7:** Digital leadership positively influences employee performance.

2.4 Mediating Role of Self-Efficacy

Especially much of this is mediated by self-efficacy which tends to be a strong mediator related to contents equals to digital culture, digital competence and leadership in terms of effects on employees performance. Self-efficacy increases employees' motivation and perseverance when performing new and demanding tasks [14]. In the current research, we posit that self-efficacy acts as a mediator in relation to employee performance and the proper antecedents (i.e., digital culture, digital competence and digital leadership) [14]. The mediating role which the employee has to believe in itself is that the effect of digital culture, digital competence, and leadership on performance is indirectly influenced -partially or in wholethrough self-efficacy. The following hypotheses are then proposed:

- **H8a:** Self-efficacy mediates the relationship between digital culture and employee performance.
- **H8b:** Self-efficacy mediates the relationship between digital competence and employee performance.
- **H8c:** Self-efficacy mediates the relationship between digital leadership and employee performance.

3 Methodology

This study adopts a quantitative explanatory research design to investigate how Digital Culture, Digital Competence, and Digital Leadership influence Employee Performance, with Self-Efficacy as the mediator. Employees of Bank Sulselbar, a financial institution in South Sulawesi-Indonesia are the main target respondent. Considering the progressive digitization of the banking sector, I will place emphasis on employees participating in or affected by the bank's digital initiatives. This permits examining more fully the role of digital on employee performance within this context.

The study's sample comprises employees aged between 22 and 60 years who have worked at Bank Sulselbar for a minimum of one year. Employees not involved in the digital transformation process were excluded to ensure that the data reflects the perspectives of individuals engaged in relevant digital operations. This approach ensures the authenticity of the data, capturing insights from employees who experience the digital changes firsthand.

To ensure representativeness, the study applied a simple random sampling method, which is well-established in survey-based research, especially in organizational contexts. The sampling frame was constructed from various departments within the bank, ensuring that employees from diverse roles were included, thus providing a holistic view of the organization's experiences with digital change.

The sample size was calculated based on the Cochran's formula for finite population, taking into account a 5 % margin of error and the 95% confidence level. Assuming an approximate workforce for employees of 1,000 persons and a response rate of 50% (conservative), the sample size was estimated to be about 285 respondents. This fulfills the minimum sample size guideline for Structural Equation Modeling (SEM) of a minimum of 160 observations for up to four predictors.

Major constructs tested in the study were Digital Culture, Digital Competence, Digital Leadership, Self-Efficacy and Employee Performance. Digital Culture was measured with a set of validated indicators that examine the values, behavior and practices that facilitate digital integration in the firm. Digital Competence: It referred to employees' capability of utilizing digital tools and technologies in their position. Digital Leadership was evaluated through the competencies and strategies used by leaders in managing their teams' digital transformation process. Self-Efficacy was assessed by testing employees' belief in their capability of successfully accomplishing tasks, such as when communicating digitally. Pages Job Performance was measured with employees' selfreport of task performance, productivity on the job, and job/result quality.

Calculations were performed using PLS-SEM (Partial Least Squares Structural Equation Modeling) by SmartPLS that is suitable for medium and large sample sizes with non-normal data distribution. The examination consisted of two steps. Reliability and validity of the measurement model In the first step, the reliability and validity of the measurement model was evaluated. The outer loadings were used to assess the reliability of indicators (≥ 0.708) and composite reliability and Cronbach α were tested (both exceed ≥ 0.7). Convergent validity of the measurement model was established if AVE was greater than 0.5, and discriminant validity by Fornell-Larcker criterion with scores higher than 0.85 indicating acceptable validation.

In the second phase, the structural model was tested using bootstrapping via 3,000 resamples and estimating path coefficients and their significance. The goodness of fit and predictive value of the model was evaluated with R^2 and Q^2 values, respectively. Multicollinearity was assessed using the Variance Inflation Factor (VIF) and effect sizes (f^2) were computed to assess the contribution of each predictor in practical terms. Fit of the model was evaluated with SRMR, which has an admissible threshold value of less than 0.08. The mediating role of Self-Efficacy was examined using estimate for the indirect path, which is based on bootstrapped confidence intervals and the VAF statistic (menu Options/) to determine whether mediation effects were partial or full mediators.

Ethical protocol: The ethical principles were adhered in all cases for the study. All participants gave their informed consent prior to participation, and no private information was obtained. The study was approved by the institutional ethics committee and data were kept confidentially.

4 Result

Table 1. Demographic and Occupational Characteristics of Bank Sulsebar Employees

Category	Subcategory	Frequency	Percentage
Gender	Male	67	70,5
	Female	28	29,5
Age Group	18–25 years	20	21,1
	26–35 years	29	30,5
	36–50 years	35	36,8
	51–60 years	11	11,6
Education Level	Secondary education (SMA/SMK)	25	26,3
	Undergraduate degree	40	42,1
	Postgraduate degree	30	31,6
Department	Operations	10	10,5
	Digital	14	14,7
	Transformation	26	27,4
	Customer Service	25	26,3
	IT/Systems	20	21,1
Job Role	Bank Teller	22	23,2

	Relationship	18	18,9
	Manager		
	Branch Manager	19	20,0
	Digital Officer	17	17,9
	Support Staff	19	20,0
Region of Work	Makassar Branch	35	36,8
	Other Sulsebar Branches	32	33,7
	Remote Branches	28	29,5

Source: Primary Data (2025)

Table 1 presents the demographic and occupational characteristics of Bank Sulsebar employees involved in the study. The majority of respondents are male (70,5%), with a significant proportion falling within the 36-50 years age group (36,8%). Most employees hold an undergraduate degree (42%), and the largest group works in customer service (27.4%). In terms of job roles, 23.2% are bank tellers, 18.9% are relationship managers, and 17,9% hold positions in digital transformation. The respondents are primarily based in the Makassar branch (36.8%), with others spread across different Sulsebar branches and remote locations. These characteristics provide a clear picture of the study sample, reflecting a workforce engaged in various operational, customer service, and digital transformation activities, essential for understanding how these factors influence employee performance in the context of the bank's ongoing digital initiatives.

Table 2. Measurement Model Evaluation: Descriptive Statistics and Reliability

Construct	Item	Mean	St. Outer		Cronbach's Alpha	CR	AVE
			Dev.	Load-ing			
Digital Culture (DC)	DC1	4.05	0.74	0.828	0.845	0.910	0.755
	DC2	4.00	0.72	0.854			
	DC3	4.07	0.75	0.889			
Digital Competence (DCmp)	DCmp1	4.10	0.70	0.869	0.878	0.912	0.760
	DCmp2	4.12	0.73	0.861			
	DCmp3	4.09	0.74	0.872			
Digital Leadership (DL)	DL1	4.15	0.69	0.863	0.820	0.890	0.735
	DL2	4.08	0.74	0.880			
	DL3	4.12	0.70	0.865			
Self-Efficacy (SE)	SE1	4.14	0.72	0.887	0.835	0.915	0.762
	SE2	4.10	0.73	0.868			

Construct	Item	Mean	St.	Outer	Cronbach's	CR	AVE
			Dev.	Loading			
Employee Performance (EP)	SE3	4.08	0.75	0.871			
	EP1	4.06	0.76	0.855	0.825	0.905	0.740
	EP2	4.09	0.70	0.876			
	EP3	4.12	0.71	0.881			

Source: Primary Data (2025)

Table 2 Descriptive statistics and reliability analysis of constructs used in the study. The mean and standard deviation also describe the response of Bank Sulsebar employees to the items of Digital Culture, Digital Competence, Digital Leadership, Self-Efficacy, and Employee Performance that show an overall agreement. The external loadings represent the extent to which an item links to its corresponding construct, and values above 0.7 indicate reliability. Internal consistency is represented by Cronbach's Alpha values and all constructs include acceptable values above 0.7 that support the reliability of the scales. The CR values of Composite Reliability (CR) are also greater than the acceptable standard of 0.7 enhancing the reliability of the measurement model as well. Lastly, the AVEs lie between 0.735 and 0.762 indicating that each of the constructs has good convergent validity as it is greater than 0.5 in all instances. These findings indicate the measurement model is reliable and valid for research looking into digital factor influence towards employee performances in bank sulsebar.

Table 3. Structural Model Path Coefficients and Significance Testing

Path	Original Sample (β)	Std. Dev.	t-stat.	p-values	Decision
DC → SE	0.312	0.062	5.032	0.000***	H1 is accepted
DCmp → SE	0.298	0.058	5.138	0.000***	H2 is accepted
DL → SE	0.329	0.061	5.402	0.000***	H3 is accepted
SE → EP	0.421	0.062	6.789	0.000***	H4 is accepted
DC → EP	0.145	0.051	2.843	0.012**	H5 is accepted
DCmp → EP	0.218	0.054	4.035	0.000***	H6 is accepted
DL → EP	0.166	0.058	3.137	0.002**	H7 is accepted

Source: Primary Data (2025)

The path coefficients with their standard deviations, t-values, p-values and conclusions for all the hypotheses are presented in Table 3. There are significant direct relationships of the variables-DC, DCmp, DL and SE as well as with the Employee Performance that are p-value statistically less than 0.05. The path coefficient (β) are positive

direction for all the hypothesis, meaning that digital factor and self-efficacy are important for Bank Sulsebar to increase performance of their employees. Concretely, H1 to H7 are confirmed, which suggests that Digital Culture and Digital Competence as well as Digital Leadership have positive effects on both Self-Efficacy and Employee Performance.

Table 4. Mediation Testing Results of Indirect Paths

Hypothesis Code	Mediation Path	Indirect Effect	t-stat	p-value	Result
H8a	DC → SE → EP	0.132	4.421	0.000***	Supported
H8b	DCmp → SE → EP	0.145	4.785	0.000***	Supported
H8c	DL → SE → EP	0.138	4.321	0.000***	Supported

Source: Primary Data (2025)

Table 4 reports the results of the mediation analyses for the indirect paths in the structural model. Specifically, the indirect impact used for Exploratory is SelfEfficacy (S.E) influencing mediator between ‘independent variables’ (Digital_Culture(DC), Digital_Competence (DCmp) & Digital_Leadership(DL)) and ‘dependent variable(Employee Performance [EP]). As the t-values and p-values show that all the paths are significantly different from zero, with t-values more than 1.96 and $p < .05$, so our hypotheses are supported. More specifically, it can be seen that hypotheses H8a, H8b and H8c are confirmed the mediation effect of SelfEfficacy has proven that Digital Culture, Digital Competence, Digital Leadership toward Employee Performance at Bank Sulsebar. The findings highlight the importance of Self-Efficacy aspect in improving employee performance using digital elements at the bank.

5 Discussion

The results of this study demonstrate that Digital Culture, Digital Competence, and Digital Leadership significantly influence Employee Performance, with Self-Efficacy acting as a crucial mediator in these relationships. The findings indicate that each of these digital factors positively contributes to employee performance, with Self-Efficacy strengthening these relationships. The study further affirms that sustainable employee performance in the banking sector, especially in Bank Sulsebar, is not solely determined by digital knowledge or leadership alone but by the interplay between these factors, with Self-Efficacy serving as a vital mediating construct. This confirms the value of fostering a strong digital culture, developing competencies, and providing effective leadership to improve employee performance in the digital age [5].

When compared to the existing literature, these findings support the broader theoretical framework of organizational behavior, which underscores the role of organizational culture in shaping performance outcomes. This is in line with previous studies, which highlight that a strong organizational culture, particularly a digital one, leads to

greater employee engagement and performance by embedding digital values and practices within the organization [6]. The positive relationship between Digital Culture and Self-Efficacy, as well as between Digital Competence and Employee Performance, is consistent with earlier findings, which noted that employees equipped with digital skills and a supportive culture are more confident in their ability to perform and deliver better results [7]. These results validate the role of Digital Culture and Competence in enhancing Self-Efficacy, which ultimately impacts employee productivity and job satisfaction [8].

The study also confirms the significant impact of Digital Leadership, aligning with previous research, which argued that effective leadership in the digital era involves more than just guiding technological adoption; it includes nurturing employees' confidence in their ability to succeed in a rapidly changing environment [9]. Digital leadership, therefore, has a direct and significant influence on Self-Efficacy, which then boosts overall performance.

The mediating role of Self-Efficacy, as identified in this study, adds a new dimension to the existing models of digital transformation in HRM. While fairness in digital leadership and competence is important, the ability of employees to believe in their own capacity to succeed with new technologies is equally essential. This mediation effect, particularly in the relationships between Digital Culture, Digital Competence, and Employee Performance, highlights that self-belief is a critical driver in the success of digital transformation strategies [10].

Practically, the results of this study suggest several key insights for HRM practitioners, particularly in the context of Bank Sulselbar. To enhance employee performance, HR strategies should focus on fostering a strong digital culture, investing in digital skills training, and ensuring that leaders provide clear guidance and support for employees. Furthermore, efforts to enhance Self-Efficacy, such as through confidencebuilding programs and opportunities for employees to practice new digital tools, are crucial in maximizing the impact of these digital transformation initiatives [11].

In summary, the discussion highlights the importance of integrating Digital Culture, Digital Competence, and Digital Leadership into HRM strategies to enhance employee performance in a digitalized environment. By emphasizing Self-Efficacy as a mediating factor, this study offers valuable contributions to the theoretical understanding of how digital transformation influences HR practices and employee performance, with practical implications for the banking sector and beyond [12].

6 Conclusion

This study provides valuable insights into the role of Digital Culture, Digital Competence, and Digital Leadership in enhancing employee performance at Bank Sulselbar, with Self-Efficacy serving as a significant mediator. The findings indicate that these digital factors are critical in shaping the performance of employees, particularly in the context of ongoing digital transformation. By examining the direct and indirect relationships among these variables, this study contributes to the understanding of how

HRM strategies can be optimized in a digitalized environment to foster higher employee performance. The integration of Self-Efficacy as a mediator offers a novel perspective on how digital transformation impacts organizational behavior and performance outcomes.

However, the study has some limitations. First, the research was conducted within a single bank, which may limit the generalizability of the findings to other sectors or organizations. Additionally, the cross-sectional nature of the study restricts the ability to draw causal inferences about the relationships between the variables. Future research could adopt a longitudinal design to better understand the long-term effects of digital transformation on employee performance. Furthermore, expanding the sample size to include multiple banks or industries could enhance the external validity of the results. Lastly, it would be valuable to explore other potential mediators or moderators, such as organizational commitment or work engagement, that may influence the relationships between digital factors and employee performance.

References

1. Domeher, D., Aawaar, G., Konadu-Yiadom, E.: Financial innovations and economic growth: Does financial inclusion play a mediating role? *Cogent Business & Management*, Article 2049670 (2022). <https://doi.org/10.1080/23311975.2022.2049670>
2. Tariq, M.U.: Strategic integration of technological advances in modern business practices. In: IGI Global, pp. 95–120 (2024).
3. Naimi-Sadigh, A., Asgari, T., Rabiei, M.: Digital transformation in the value chain disruption of banking services. *Journal of the Knowledge Economy* 13, 1212–1242 (2021).
4. Ali, R., Ateeq, A., Ahmed Ali, S., Al Ani, Z.: A critical review of contemporary trends and challenges in human resource management. *IJIHRM* 04, 22–27 (2023).
5. Wahdaniah, W., Tellu, A.H., Ambalele, E., Sucianti, R.: Human resource management transformation in the digital age: Recent trends and implications. *IJARSS* 1, 239–258 (2023).
6. Kuchciak, I., Warwas, I.: Designing a roadmap for human resource management in the Banking 4.0. *JRFM* 14, 615 (2021).
7. Espina-Romero, L., Rios Parra, D., Ramírez Corzo, J., Peixoto Rodriguez, E., Vilchez Pirela, R.A., Noroño-Sánchez, J.G., Talavera-Aguirre, R., Gutiérrez Hurtado, H., AriasMontoya, F.: The role of digital transformation and digital competencies in organizational sustainability: A study of SMEs in Lima, Peru. *Sustainability* 16, 6993 (2024).
8. Öngel, V., Günsel, A., Gençer Çelik, G., Altındağ, E., Tatlı, H.S.: Digital leadership's influence on individual creativity and employee performance: A view through the generational lens. *Behavioral Sciences* 14(3) (2023).
9. Hamburg, I.: Implementation of a digital workplace strategy to drive behavior change and improve competencies. *IntechOpen* (2020). <https://doi.org/10.5772/intechopen.85135>
10. S, B., Gopi, S.: Crafting effective HR strategies for the modern workplace. In: IGI Global, pp. 23–46 (2024).
11. Abdul, B., Rabeeu, A., Jing, Z., Wang, L.: Assessing the impact of employee-centric digital transformation initiatives on job performance: The mediating role of digital empowerment. *Strategic Management* 29, 5–18 (2024).
12. Muduli, A., Choudhury, A.: Digital technology adoption, workforce agility and digital technology outcomes in the context of the banking industry of India. *Journal of Science and Technology Policy Management* (2024). <https://doi.org/10.1108/jstpm-01-2024-0018>

13. Bindel Sibassaha, J.L., Pea-Assounga, J.B.B., Bambi, P.D.R.: Influence of digital transformation on employee innovative behavior: Roles of challenging appraisal, organizational culture support, and transformational leadership style. *Frontiers in Psychology* (2025). <https://doi.org/10.3389/fpsyg.2025.1532977>
14. Qiao, G., Li, Y., Hong, A.: The strategic role of digital transformation: Leveraging digital leadership to enhance employee performance and organizational commitment in the digital era. *Systems* 12, 457 (2024).
15. Kim, B.-J., Lee, J.: The mental health implications of artificial intelligence adoption: The crucial role of self-efficacy. *Humanities & Social Sciences Communications* (2024). <https://doi.org/10.1057/s41599-024-04018-w>
16. Bhat, M.S.A., Sheikh, D.B.A.: Impact of digitization on human resources: Challenges and opportunities. *JPOME*, 1–7 (2024).
17. Husen, S., Mustajab, D., Wahidah, R.N.: Evolution of HRM strategies in the digital age: A comprehensive review. *AMAR* 4, 42–58 (2024).
18. Muadzah, S., Suryanto, S.: Organizational culture and resilience: Systematic literature review. *JIMEA* 8, 1426–1440 (2024).
19. Wang, G., Mansor, Z.D., Leong, Y.C.: Unlocking digital performance: Exploring the mediating role of employee competitive attitudes, behaviors, and dynamic capabilities in Chinese SMEs under high-involvement human resource management practice. *Journal of Innovation and Entrepreneurship* (2024). <https://doi.org/10.1186/s13731-024-00395-3>
20. Abbu, H., Gudergan, G., Mugge, P., Khan, S.: Building digital-ready leaders: Development and validation of the human-centric digital leadership scale. *Digital* 5, 7 (2025).
21. Trenerry, B., Chng, S., Wang, Y., Suhaila, Z.S., Lim, S.S., Lu, H.Y., Oh, P.H.: Preparing workplaces for digital transformation: An integrative review and framework of multi-level factors. *Frontiers in Psychology* (2021). <https://doi.org/10.3389/fpsyg.2021.620766>

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

