

Digital Transformation of Human Resource Management and Its Implications for Employee Productivity and Accounting Information Systems: Evidence from Azerbaijan

Masim Vagif Nadirli

Western Caspian University

v_gifnadirli@gmail.com

Abstract

Digital transformation is reshaping human resource management (HRM) by automating administrative processes, expanding data-driven decision-making, and changing how employees access organizational services. Yet evidence remains limited on whether digital HRM is simultaneously associated with employee productivity and the quality of accounting information systems (AIS), particularly in transitional economies. This study examines these relationships using a cross-sectional survey of 250 employees working in public- and private-sector organizations in Azerbaijan. The reported analyses combine descriptive statistics, multiple regression, one-way analysis of variance, Pearson correlations, and mediation analysis. Digital HR processes were the strongest reported predictor of HRM effectiveness ($\beta = .385$, $p < .001$), followed by digital infrastructure ($\beta = .298$), employee digital skills ($\beta = .248$), and top-management support ($\beta = .178$). Organizations categorized as highly digitalized reported higher task completion, work quality, innovation, decision speed, and collaboration than organizations with lower digitalization levels. Digital transformation was also positively correlated with AIS quality ($r = .652$, $p < .01$) and organizational performance ($r = .718$, $p < .01$). The reported mediation results suggest that HRM/HRD mechanisms partially transmit the association between digital transformation and employee productivity, whereas AIS quality partially transmits the association between digital transformation and organizational performance. The study contributes an integrative perspective linking digital HRM and AIS in Azerbaijan. Because the design is cross-sectional and based on self-reported data, the findings should be interpreted as associations rather than causal effects.

Keywords: digital transformation; digital HRM; employee productivity; accounting information systems; HRM effectiveness; Azerbaijan

1. Introduction

Digital transformation refers to an organization-wide process in which digital technologies alter value creation, operating routines, organizational structures, and stakeholder relationships rather than merely computerizing existing tasks (Vial, 2019). In human resource management, this process encompasses digital workplaces, technology-enabled HR processes, employee self-service, people analytics, and digitally mediated learning and performance management (Bondarouk & Ruël, 2009; Zhang & Chen, 2024). Digital HRM therefore differs from narrow administrative automation: its strategic value depends on whether technological resources are combined with appropriate employee capabilities, management support, and redesigned work practices.

The expected benefits of digital HRM include faster transactions, more consistent HR services, improved access to workforce information, and stronger analytical support for managerial decisions. However, prior evidence also cautions against deterministic claims. Reviews and meta-analyses show that the performance consequences of electronic or digital HRM are generally positive but heterogeneous across organizational and national contexts (Marler & Fisher, 2013; Theres & Strohmeier, 2023; Zhou et al., 2022).

Technology may fail to produce value when it is layered onto immature processes, when employees lack digital competence, or when implementation is not supported by leadership and change management.

A second issue is that HR digitalization does not operate in isolation. Employee data generated through recruitment, attendance, compensation, performance appraisal, and workforce planning often interact with accounting and enterprise information systems. Consequently, the quality of system integration can influence payroll accuracy, labor-cost information, budgeting, internal control, and managerial reporting. The DeLone–McLean information systems success model emphasizes that system quality and information quality shape use, satisfaction, and net organizational benefits (DeLone & McLean, 2003). Recent accounting research similarly indicates that digital transformation can improve the timeliness, relevance, and decision usefulness of accounting information when technological readiness and strategic alignment are present (Nguyen et al., 2024; Yerdavletova et al., 2024).

Azerbaijan provides a substantively important setting for this investigation. The country has positioned digital development, information infrastructure, human-capital development, and digitally enabled public and business services as national priorities. The Digital Development Concept approved in January 2025 emphasizes improved ICT infrastructure, digitally enabled business processes, digital skills, cybersecurity, and innovation ecosystems (Ministry of Digital Development and Transport of the Republic of Azerbaijan, 2025). These institutional developments create opportunities for digital HRM while also highlighting implementation constraints commonly found in transitional economies, including uneven organizational capabilities, legacy systems, and shortages of specialized digital skills.

Despite the growing literature, three gaps remain. First, many studies examine digital HRM or digital accounting separately, leaving their organizational interdependence underexplored. Second, evidence from Azerbaijan and comparable transitional economies remains limited. Third, studies frequently report direct associations with performance without examining the organizational mechanisms through which digital transformation may generate value. This study addresses these gaps by integrating HRM effectiveness, human resource development (HRD), employee productivity, AIS quality, and organizational performance within one empirical framework.

The study makes three contributions. Theoretically, it combines the ability–motivation–opportunity (AMO) logic of HRM with the DeLone–McLean information systems success perspective. Empirically, it reports evidence from 250 respondents in Azerbaijan. Practically, it identifies the relative importance of digital HR processes, infrastructure, employee digital skills, and top-management support, while documenting the implementation challenges perceived by respondents. The central research question is: How is digital transformation in HRM associated with HRM effectiveness, employee productivity, AIS quality, and organizational performance in Azerbaijan?

2. Theoretical Background and Hypothesis Development

2.1 Digital transformation and digital HRM

Digital HRM can be understood as the planning, implementation, and use of digital technologies to support HR actors and HR activities across operational, relational, and transformational domains (Bondarouk & Ruël, 2009; Strohmeier, 2007). Operational applications include payroll and attendance; relational applications include recruitment, training, performance management, and employee self-service; transformational applications include workforce analytics, strategic capability development, and organizational redesign. This layered view is relevant to the present study because the reported adoption patterns suggest that Azerbaijani organizations have digitalized transaction-oriented HR functions more extensively than employee self-service and development-oriented functions.

The literature identifies both technological and organizational antecedents of digital HRM. Digital infrastructure provides availability, interoperability, security, and processing capacity. Digital HR processes translate technological capacity into redesigned workflows. Employee digital skills determine whether users can interpret and exploit new systems. Top-management support legitimizes the transformation, allocates resources, and resolves cross-functional implementation barriers. Meta-analytic evidence indicates that perceived usefulness, organizational resources, user knowledge, and social influence are important antecedents of e-HRM adoption and outcomes (Zhou et al., 2022).

2.2 AMO mechanisms and employee productivity

The AMO framework proposes that employee performance improves when individuals possess the ability to perform, are motivated to contribute, and have opportunities to participate (Appelbaum et al., 2000). Applied to digital transformation, digital training and employee competence enhance ability; timely feedback and transparent processes can strengthen motivation; and self-service platforms, collaboration tools, and accessible information can expand opportunity. Digital HRM should therefore improve productivity only when systems are embedded in effective HRM and HRD practices rather than treated as standalone technologies.

HRM effectiveness captures the extent to which HR processes deliver accurate, timely, consistent, and strategically relevant services. HRD captures capability-building activities that enable employees to use digital tools and adapt to redesigned jobs. Both mechanisms can transmit the relationship between digital transformation and productivity. This logic is consistent with evidence that digital HRM performance effects are mediated by organizational and employee-level implementation conditions rather than arising automatically from technology adoption (Marler & Fisher, 2013; Theres & Strohmeier, 2023).

2.3 Information-systems success and AIS quality

The DeLone–McLean model conceptualizes information-systems success through system quality, information quality, service quality, use, user satisfaction, and net benefits (DeLone & McLean, 2003). In the present context, AIS quality refers to the perceived accuracy, relevance, timeliness, accessibility, and decision usefulness of accounting information supported by organizational systems. HR digitalization can influence AIS quality because personnel transactions feed accounting records, payroll liabilities, labor-cost allocation, budgeting, and performance-control processes.

Accounting digitalization studies show that information quality is strengthened when organizations align digital strategy with business processes, build IT readiness, develop employee awareness, and secure top-management support (Nguyen et al., 2024). Hence, AIS quality may operate as an intervening mechanism between broader digital transformation and organizational performance by improving managerial visibility, control, and decision speed.

2.4 Research model and hypotheses

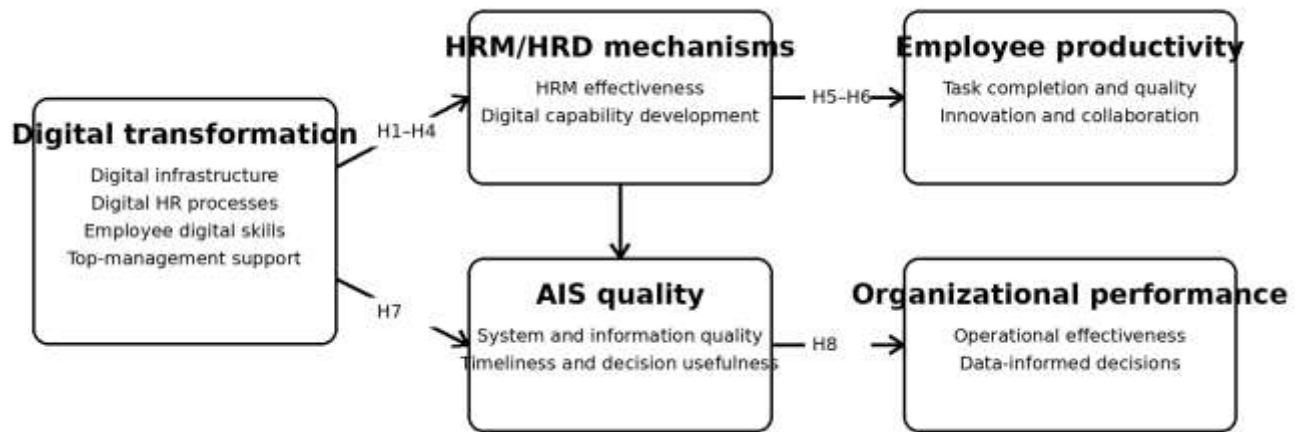


Figure 1. Proposed integrative research model.

H1: Digital infrastructure is positively associated with HRM effectiveness.

H2: Digital HR processes are positively associated with HRM effectiveness.

H3: Employee digital skills are positively associated with HRM effectiveness.

H4: Top-management support is positively associated with HRM effectiveness.

H5: Higher organizational digitalization is associated with higher employee productivity.

H6: HRM effectiveness and HRD partially mediate the association between digital transformation and employee productivity.

H7: Digital transformation is positively associated with AIS quality.

H8: AIS quality partially mediates the association between digital transformation and organizational performance.

3. Method

3.1 Research design and setting

The study used a quantitative, cross-sectional, descriptive–explanatory survey design. The unit of analysis was the individual employee, while several variables—such as digitalization level and organizational performance—were measured through respondents’ perceptions of their organizations. Accordingly, the design supports tests of statistical association but does not establish temporal ordering or causality. The empirical setting comprised public- and private-sector organizations in Azerbaijan that had implemented, or were implementing, digital transformation initiatives.

3.2 Population, sampling, and respondents

The reported sample consisted of 250 respondents, including HR professionals, accounting and finance personnel, operations employees, and personnel from other functions. The original manuscript describes the procedure as random sampling. A probability-sampling claim is scientifically defensible only when a defined sampling frame and random-selection mechanism can be documented. If participants were recruited through participating organizations or open questionnaire distribution, the method should instead be reported as purposive, convenience, or stratified non-probability sampling, as applicable.

3.3 Instrument and construct measurement

Data were collected using a structured questionnaire with five sections: respondent demographics, the level of digital transformation, digital HRM practices, employee productivity, and AIS quality. The analytical model also included HRM effectiveness, HRD, and perceived organizational performance. Unless otherwise stated, constructs were evaluated using five-point Likert-type response categories ranging from 1 (strongly disagree/very low) to 5 (strongly agree/very high). Digital transformation was operationalized through digital infrastructure, digital HR processes, employee digital skills, and top-management support. The conceptualization of digital workplace, digital HR processes, and digital employee services was informed by Zhang and Chen (2024), while AIS quality was aligned with the information-quality logic of DeLone and McLean (2003) and recent accounting-transformation research (Nguyen et al., 2024).

3.4 Data analysis

The reported analysis combined: (1) descriptive statistics for respondent characteristics and HRM digitalization; (2) exploratory factor analysis for the measurement structure; (3) multiple linear regression for the predictors of HRM effectiveness; (4) one-way analysis of variance (ANOVA) for productivity differences across low-, medium-, and high-digitalization groups; (5) Pearson correlations among the principal constructs; and (6) structural equation or path analysis for indirect effects. This specification replaces the original description of “simple linear regression,” which was inconsistent with the multivariable regression and mediation results actually reported. Statistical significance should be accompanied by effect sizes and confidence intervals rather than interpreted solely from p values.

3.5 Reliability, validity, and common-method considerations

Content validity was reportedly evaluated through expert review, construct validity through factor analysis, and internal consistency through Cronbach’s alpha, with .70 used as the minimum criterion. For an international journal, construct-specific values should be reported for factor loadings, Cronbach’s alpha, composite reliability, average variance extracted, and discriminant validity. Because predictor and outcome data were collected from the same respondents at one point in time, procedural and statistical controls for common-method bias are also required (Podsakoff et al., 2003).

3.6 Ethical considerations

Participation was described as voluntary, responses were anonymized, and respondents were informed about confidentiality and the academic purpose of the study. Organizational information was aggregated to reduce re-identification risk.

4. Results

4.1 Respondent characteristics

Table 1 summarizes the reported demographic composition of the 250 respondents. The largest age group was 35–44 years (38.0%), and 84.0% held either a bachelor's or master's degree. HR and accounting/finance personnel represented 62.8% of the sample, providing direct exposure to the organizational processes examined in the study.

Table 1. Respondent characteristics (N = 250)

Characteristic	Category	n	%
Gender	Male	142	56.8
	Female	108	43.2
Age	25–34 years	78	31.2
	35–44 years	95	38.0
	45–54 years	52	20.8
	55 years or older	25	10.0
Education	Bachelor's degree	112	44.8
	Master's degree	98	39.2
	Doctoral degree	18	7.2
	Other	22	8.8
Department	Human resources	85	34.0
	Accounting/finance	72	28.8
	Operations	58	23.2
	Other	35	14.0
Experience	1–5 years	62	24.8
	6–10 years	88	35.2
	11–15 years	65	26.0
	16 years or more	35	14.0

4.2 Digitalization of HRM functions

Digitalization was most advanced in payroll processing and attendance management, whereas employee self-service showed the lowest mean score and the largest proportion of traditional practice. This pattern suggests that organizations initially prioritize high-volume administrative processes before moving toward relational and employee-centered digital HRM.

Table 2. Reported digitalization of HRM functions

HRM function	Fully digitalized (%)	Partially digitalized (%)	Traditional (%)	Mean (1–5)
Recruitment and selection	32.4	48.8	18.8	3.72
Training and development	28.0	52.4	19.6	3.58
Performance management	35.2	44.0	20.8	3.68

HRM function	Fully digitalized (%)	Partially digitalized (%)	Traditional (%)	Mean (1–5)
Payroll processing	58.4	32.8	8.8	4.21
Attendance management	52.0	38.4	9.6	4.08
Employee self-service	24.8	42.4	32.8	3.42

4.3 Measurement quality

The source manuscript states that the scales satisfied the .70 reliability threshold and that factor analysis supported construct validity. However, the construct-level measurement statistics required for independent evaluation were not included in the available document. The substantive structural results below should therefore be treated as provisional until the complete measurement model is reported.

4.4 Predictors of HRM effectiveness

The multiple regression model explained 58.4% of the variance in HRM effectiveness (adjusted $R^2 = .577$). All four predictors were positive and statistically significant. Digital HR processes had the largest standardized association ($\beta = .385$), followed by digital infrastructure ($\beta = .298$), employee digital skills ($\beta = .248$), and top-management support ($\beta = .178$). These results support H1–H4 at the level of statistical association.

Table 3. Multiple regression predicting HRM effectiveness

Predictor	B	SE	95% CI for B	β	t	p
Constant	1.245	.198	[.856, 1.634]	—	6.287	< .001
Digital infrastructure	.312	.058	[.198, .426]	.298	5.379	< .001
Digital HR processes	.428	.062	[.306, .550]	.385	6.903	< .001
Employee digital skills	.267	.054	[.161, .373]	.248	4.944	< .001
Top-management support	.189	.048	[.095, .283]	.178	3.938	< .001

Note. $R^2 = .584$; adjusted $R^2 = .577$; reported $F = 85.742$, $p < .001$. Confidence intervals were calculated from the reported coefficients and standard errors using an approximate 95% critical value. Verify against the original software output.

4.5 Employee productivity by digitalization level

Mean productivity scores increased monotonically from the low- to the high-digitalization group across all five indicators. The reported omnibus ANOVA tests were significant at $p < .001$, with estimated eta-squared values ranging from .239 to .293, indicating substantial between-group differences. The pattern supports H5, but pairwise post-hoc tests are needed to establish which groups differed significantly.

Table 4. Employee productivity across organizational digitalization levels

Productivity indicator	Low digital (n = 62)	Medium digital (n = 108)	High digital (n = 80)	F	p	η^2
Task completion rate	3.24	3.78	4.32	42.156	< .001	.255
Work quality	3.18	3.65	4.18	38.724	< .001	.239
Innovation contribution	2.86	3.42	4.05	45.892	< .001	.271
Decision-making speed	3.02	3.58	4.22	51.234	< .001	.293
Collaboration effectiveness	3.12	3.72	4.15	39.456	< .001	.242

Note. Scale: 1 = very low to 5 = very high. η^2 was calculated from the reported F statistic using $df_{\text{between}} = 2$ and $df_{\text{within}} = 247$. Add the group-classification rule, homogeneity test, and verified post-hoc comparisons before submission.

4.6 Correlations and indirect effects

Digital transformation was strongly and positively correlated with HRM effectiveness ($r = .764$), employee productivity ($r = .698$), AIS quality ($r = .652$), and organizational performance ($r = .718$). AIS quality was also positively associated with organizational performance ($r = .682$). These findings support H7 and provide the correlational conditions for the reported mediation analysis. Because several correlations are high, discriminant validity and multicollinearity diagnostics should be reported.

Table 5. Correlations among the principal constructs

Variable	1	2	3	4	5
1. Digital transformation	1.000				
2. HRM effectiveness	.764**	1.000			
3. Employee productivity	.698**	.712**	1.000		
4. AIS quality	.652**	.687**	.624**	1.000	
5. Organizational performance	.718**	.745**	.756**	.682**	1.000

Note. ** $p < .01$. Report means, standard deviations, exact p values where available, and the correlation type used.

The reported path analysis indicated partial mediation for four indirect pathways. HRM effectiveness and HRD partially mediated the digital transformation–productivity association, supporting H6. HRM effectiveness partially mediated the digital transformation–AIS quality relationship, and AIS quality partially mediated the digital transformation–organizational performance association, supporting H8. The indirect effects should not be considered confirmed until their bootstrapped confidence intervals and model-fit statistics are reported.

Table 6. Reported direct, indirect, and total effects

Path	Direct effect	Indirect effect	Total effect	Interpretation
DT → HRM → productivity	.324**	.218**	.542**	Partial mediation
DT → HRD → productivity	.298**	.186**	.484**	Partial mediation
DT → HRM → AIS quality	.286**	.195**	.481**	Partial mediation
DT → AIS → performance	.312**	.172**	.484**	Partial mediation

Note. DT = digital transformation; HRM = human resource management effectiveness; HRD = human resource development; AIS = accounting information systems quality. ** $p < .01$ as reported in the source manuscript. Add standard errors, bootstrapped 95% confidence intervals, estimator, model fit, and explained variance for endogenous constructs.

4.7 Perceived implementation challenges

Employee resistance to change was the highest-rated challenge, followed by insufficient digital skills and budget constraints. Integration with legacy systems and data-security concerns were also prominent. The ranking reinforces the socio-organizational character of digital transformation: adoption depends not only on purchasing technology but also on capability development, process redesign, governance, and trust.

Table 7. Perceived challenges in implementing digital HRM

Challenge	Mean	SD	Rank
Employee resistance to change	3.82	.94	1
Insufficient digital skills	3.68	.88	2
Budget constraints	3.54	1.02	3
Integration with legacy systems	3.48	.96	4
Data-security concerns	3.42	.92	5
Insufficient top-management support	3.28	1.08	6
Unclear digital strategy	3.18	.98	7

5. Discussion

5.1 Interpretation of the main findings

The reported findings indicate that digital transformation is associated with stronger HRM effectiveness, higher employee productivity, better AIS quality, and higher perceived organizational performance in the surveyed Azerbaijani organizations. The strongest regression coefficient belonged to digital HR processes rather than infrastructure. This distinction is theoretically important: technological capacity creates potential value, but process redesign determines whether that capacity changes how recruitment, training, appraisal, payroll, attendance, and employee services are performed. The result aligns with digital-transformation research that treats transformation as organizational change rather than technology acquisition alone (Vial, 2019; Zhang & Chen, 2024).

Employee digital skills also showed a meaningful association with HRM effectiveness. Through the AMO lens, digital competence strengthens employees' ability to engage with new processes, while well-designed platforms can expand opportunities for participation and access to information. The perceived importance of resistance to change and skill shortages in Table 7 further suggests that capability and acceptance are central implementation constraints. Organizations may therefore obtain limited value from digital HRM when training is episodic, systems are difficult to use, or employees do not understand how digital tools support their roles.

The productivity results reveal a consistent gradient: organizations with higher digitalization reported better task completion, work quality, innovation, decision speed, and collaboration. This pattern is compatible with meta-analytic evidence that digital HRM is generally associated with operational and organizational performance, although effect sizes depend on implementation context (Theres & Strohmeier, 2023; Zhou et al., 2022). The cross-sectional design, however, cannot exclude reverse causality. More productive organizations may possess greater resources and managerial capacity to digitalize.

The positive relationship between digital transformation and AIS quality extends the contribution beyond conventional HRM outcomes. HR and accounting systems share data relating to compensation, time, labor costs, benefits, budgeting, and performance. Better integration can reduce duplicate data entry, improve consistency, and accelerate reporting. These findings are consistent with the DeLone–McLean model and with empirical research showing that accounting digitalization is associated with improved information quality when IT readiness, strategic alignment, and top-management support are present (DeLone & McLean, 2003; Nguyen et al., 2024).

The reported partial mediation effects imply that technology is associated with outcomes through organizational mechanisms. HRM effectiveness and HRD transmit part of the digital transformation–productivity relationship, while AIS quality transmits part of the digital transformation–organizational performance relationship. Partial rather than full mediation is plausible because digital transformation can also influence outcomes through workflow automation, communication, customer interfaces, supply-chain coordination, and other mechanisms not included in the model.

5.2 Theoretical implications

First, the study connects digital HRM with AIS quality in a single framework. This integration addresses the tendency to study HR digitalization and accounting digitalization as separate functional transformations. The results suggest that organizational value is partly cross-functional: digital HRM affects the quality and availability of workforce-related information used in accounting and managerial control.

Second, the findings support a capability-based interpretation of digital transformation. Infrastructure alone was not the strongest predictor; digital HR processes and employee skills also mattered. This is consistent with the AMO framework and with research showing that e-HRM outcomes depend on users, organizational resources, and implementation conditions (Appelbaum et al., 2000; Zhou et al., 2022).

Third, the study extends evidence to Azerbaijan. National context matters because institutional digital maturity, labor-market skills, cybersecurity capacity, and organizational governance shape the adoption and performance of digital systems. The findings provide a basis for comparative research across the South Caucasus and other transitional economies.

5.3 Managerial implications

Organizations should begin with process architecture rather than software procurement. Before automating an HR process, managers should map decision rights, data ownership, exception handling, control points, and integration requirements. Digitalizing a poorly designed process may accelerate inconsistency rather than improve performance.

Digital capability development should be role-specific and continuous. HR professionals need competencies in process design, analytics, privacy, and change management; accounting personnel need data-governance and integration competencies; managers need the ability to interpret dashboards and avoid mechanically treating algorithmic outputs as decisions. Training should be accompanied by user support, feedback channels, and opportunities to practice in realistic workflows.

HR, finance, accounting, and IT governance should be coordinated. Shared data definitions, master-data management, access controls, audit trails, and integration standards are necessary to improve AIS quality without weakening confidentiality. Cybersecurity and privacy should be incorporated at the design stage, particularly because HR systems contain sensitive personal and compensation data.

Transformation programs should use phased implementation and measurable benefits. Early stages can prioritize reliable transactional systems, but the roadmap should subsequently expand to employee self-service, learning, performance feedback, and analytics. Benefits should be assessed through processing time, error rates, user satisfaction, decision latency, productivity, and data quality rather than system installation alone.

5.4 Policy implications for Azerbaijan

The findings are consistent with Azerbaijan's policy emphasis on ICT infrastructure, digital skills, cybersecurity, and digitally enabled business processes (Ministry of Digital Development and Transport of the Republic of Azerbaijan, 2025). Policy support can accelerate organizational adoption by expanding professional certification, sector-based digital-skills programs, and guidance on interoperable HR and accounting systems.

For small and medium-sized organizations, shared platforms, cloud standards, and implementation support may reduce budget and legacy-system constraints. Public policy should nevertheless avoid equating digitalization with mandatory technology adoption. Capacity, cybersecurity, data protection, accessibility, and organizational readiness must advance together.

5.5 Limitations and future research

The study has several limitations. First, its cross-sectional design prevents causal inference and does not establish whether digital transformation preceded the reported outcomes. Longitudinal designs, phased rollouts, or quasi-experimental comparisons are needed to assess temporal effects.

Second, the variables were measured through self-reports from the same questionnaire, creating potential common-method variance, social-desirability bias, and perceptual inflation. Future studies should combine survey responses with objective indicators such as processing times, payroll error rates, absenteeism, task-output measures, financial close duration, and system logs.

Third, the sampling frame, response rate, organizational clustering, and fieldwork period require fuller documentation. Probability claims should be avoided unless a complete sampling frame and random-selection procedure are available. Sectoral and organizational heterogeneity should be modeled directly, potentially through multilevel analysis.

Fourth, the available manuscript did not report the full measurement model, regression diagnostics, ANOVA post-hoc tests, SEM fit indices, or bootstrapped confidence intervals. These are essential before the results can be considered reproducible. Future research should also test alternative models, including reciprocal effects and moderators such as organizational size, sector, digital maturity, and cybersecurity capability.

Finally, employee productivity and organizational performance are multidimensional. Future studies should distinguish operational efficiency, adaptive performance, innovation, employee well-being, and unintended consequences such as work intensification, surveillance concerns, and digital exclusion.

6. Conclusion

This study develops an integrative account of digital HRM, employee productivity, and AIS quality in Azerbaijan. The reported evidence indicates that digital HR processes, infrastructure, employee digital skills, and top-management support are positively associated with HRM effectiveness. Higher digitalization is also associated with stronger employee productivity indicators, while AIS quality is positively related to digital transformation and organizational performance.

The central implication is that digital transformation should be managed as a socio-technical and cross-functional program. Technology generates organizational value when it is combined with redesigned HR processes, employee capability development, management commitment, and reliable information-system integration. For organizations in Azerbaijan, the practical priority is therefore not merely to digitalize existing tasks, but to align people, processes, data, controls, and strategy.

The manuscript's empirical claims remain conditional on verification of the raw data, instruments, analytical output, and research documentation identified in the highlighted notes. Resolving those items is necessary before submission to a reputable international journal.

Declarations

Acknowledgements: The author thanks academic reviewers and colleagues who may provide comments during the journal submission process.

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Competing interests: The authors declare no competing interests.

Data availability: The dataset may be requested from the corresponding author subject to institutional permission and confidentiality requirements.

References

- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. L. (2000). *Manufacturing advantage: Why high-performance work systems pay off*. Cornell University Press.
- Bondarouk, T., & Ruël, H. (2009). Electronic human resource management: Challenges in the digital era. *The International Journal of Human Resource Management*, 20(3), 505–514. <https://doi.org/10.1080/09585190802707235>
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE.
- Lou, Y., Hong, A., & Li, Y. (2024). Assessing the role of HRM and HRD in enhancing sustainable job performance and innovative work behaviors through digital transformation in ICT companies. *Sustainability*, 16(12), 5162. <https://doi.org/10.3390/su16125162>
- Marler, J. H., & Fisher, S. L. (2013). An evidence-based review of e-HRM and strategic human resource management. *Human Resource Management Review*, 23(1), 18–36. <https://doi.org/10.1016/j.hrmr.2012.06.002>

- Ministry of Digital Development and Transport of the Republic of Azerbaijan. (2025, January 16). Concept of Digital Development in the Republic of Azerbaijan approved. <https://mincom.gov.az/en/media-en/news/concept-of-digital-development-in-the-republic-of-azerbaijan-approved>
- Nguyen, T., Le-Anh, T., Nguyen Thi Hong, N., Huong Nguyen, L. T., & Nguyen Xuan, T. (2024). Digital transformation in accounting of Vietnamese small and medium enterprises. *Journal of Financial Reporting and Accounting*, 23(2), 769–787. <https://doi.org/10.1108/JFRA-12-2023-0761>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Strohmeier, S. (2007). Research in e-HRM: Review and implications. *Human Resource Management Review*, 17(1), 19–37. <https://doi.org/10.1016/j.hrmr.2006.11.002>
- Theres, C., & Strohmeier, S. (2023). Met the expectations? A meta-analysis of the performance consequences of digital HRM. *The International Journal of Human Resource Management*, 34(20), 3857–3892. <https://doi.org/10.1080/09585192.2022.2161324>
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- Yerdavletova, F., Bimendiyeva, L., Amankeldi, A., & Shmygol, N. (2024). Digitalization of accounting and auditing as a factor in increasing the efficiency of national resource management. *The Journal of Economic Research & Business Administration*, 149(3), 59–72. <https://doi.org/10.26577/be.2024-149-i3-05>
- Zhang, J., & Chen, Z. (2024). Exploring human resource management digital transformation in the digital age. *Journal of the Knowledge Economy*, 15(1), 1482–1498. <https://doi.org/10.1007/s13132-023-01214-y>
- Zhou, Y., Cheng, Y., Zou, Y., & Liu, G. (2022). e-HRM: A meta-analysis of the antecedents, consequences, and cross-national moderators. *Human Resource Management Review*, 32(4), 100862. <https://doi.org/10.1016/j.hrmr.2021.100862>