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The Impact of Generative Artificial Intelligence Adoption on Changes in Job Tasks and Required Skills of Human Resource Professionals

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Abstract

This study aimed to investigate the effect of generative artificial intelligence adoption on changes in job tasks and the skills required of human resource professionals in Tehran. This applied, quantitative, cross-sectional study was conducted among 320 human resource professionals working in public and private organizations in Tehran in 2026. Participants were selected using stratified convenience sampling. Data were collected using a structured questionnaire comprising measures of generative AI adoption, changes in HR job tasks, and changes in required professional skills. The instruments assessed perceived usefulness, ease of use, behavioral intention, actual AI use, organizational support, task automation and augmentation, and emerging competencies such as AI literacy, data literacy, prompt formulation, critical evaluation of AI outputs, ethical judgment, privacy awareness, and human-AI collaboration. Data were analyzed using descriptive statistics, confirmatory measurement assessment, and partial least squares structural equation modeling in SPSS and SmartPLS. Bootstrapping with 5,000 resamples was used to test the significance of structural paths. Generative AI adoption had a significant positive effect on changes in HR job tasks ($\beta = .62$, $t = 15.12$, $p < .001$) and changes in required HR skills ($\beta = .68$, $t = 18.38$, $p < .001$). Changes in HR job tasks also significantly predicted changes in required professional skills ($\beta = .32$, $t = 7.11$, $p < .001$). Generative AI adoption explained 38% of the variance in task transformation ($R^2 = .38$) and 46% of the variance in skill transformation ($R^2 = .46$). In addition, frequency of generative AI use was significantly associated with both task transformation, $F(3, 316) = 52.84$, $p < .001$, $\eta^2 = .33$, and skill transformation, $F(3, 316) = 68.27$, $p < .001$, $\eta^2 = .39$. Generative AI adoption is a substantial driver of occupational transformation in HRM, affecting both the structure of professional tasks and the competencies required for effective performance, with particularly strong implications for AI literacy, analytical judgment, ethical oversight, and human-AI collaboration.

Keywords: Generative artificial intelligence; human resource management; job task transformation; professional skills; AI adoption; human-AI collaboration

1. Introduction

The rapid diffusion of artificial intelligence (AI) across organizational functions has begun to redefine both the technological architecture of work and the competencies required from employees who operate within increasingly digitalized environments. Among organizational functions, human resource management (HRM) is particularly affected because it occupies a central position between technological transformation and human capital development. HR departments are responsible not only for recruitment, selection, training, performance management, compensation, employee relations, and workforce planning, but also



for shaping the capabilities through which organizations respond to environmental and technological change. The emergence of generative artificial intelligence (GenAI), including large language models, conversational agents, content-generation systems, and AI-supported analytical platforms, has accelerated this transformation by introducing tools capable of producing text, synthesizing information, generating recommendations, automating repetitive documentation, supporting communication, and assisting decision-making. Consequently, AI adoption in HRM is no longer limited to traditional algorithmic applications such as applicant tracking, predictive analytics, or automated screening; rather, generative AI increasingly interacts directly with the everyday cognitive, communicative, and administrative activities of HR professionals. Recent scholarship has therefore emphasized that AI is not merely an efficiency-enhancing technology but a strategic mechanism capable of reconfiguring HR processes, roles, and organizational capabilities (Sharifi et al., 2025; Subrahmanyam, 2025).

The transformation associated with AI has important implications for the traditional design of HR work. Historically, many HR roles have combined transactional activities, such as processing employee information and preparing administrative documentation, with relational and strategic responsibilities involving employee development, organizational culture, workforce planning, and managerial consultation. Digital transformation has gradually shifted this balance by automating routine administrative functions and expanding the importance of analytics, strategic partnering, and technology-mediated decision-making. Generative AI intensifies this shift because it can participate in tasks that were previously considered knowledge-intensive rather than merely routine. For example, generative systems may assist in preparing job descriptions, drafting recruitment advertisements, generating interview questions, developing training materials, summarizing employee feedback, preparing policy documents, producing performance-related communications, generating reports, and synthesizing organizational information. Such capabilities suggest that the influence of generative AI extends beyond task automation toward task augmentation, in which technological systems operate alongside human professionals and alter how work is completed rather than simply eliminating activities. The strategic transformation of talent acquisition and talent management is particularly illustrative, as AI-supported systems can accelerate candidate identification, communication, evaluation, and workforce planning while simultaneously changing the professional responsibilities of HR specialists (Tak, 2025). In this context, the central question is increasingly not whether AI will be used in HRM, but how its adoption will redistribute tasks, modify professional roles, and redefine the contribution expected from human resource specialists.

The adoption of AI in human resource management is influenced by a complex combination of technological, organizational, individual, ethical, and institutional factors. Organizations may recognize the potential efficiency gains associated with AI while remaining constrained by inadequate infrastructure, insufficient employee readiness, concerns regarding data quality, resistance to technological change, limited managerial support, or uncertainty about legal and ethical consequences. A systematic synthesis of AI adoption in HRM has shown that implementation should be understood as a multidimensional organizational phenomenon rather than as a purely technical decision, because adoption depends on perceived usefulness, compatibility with organizational processes, trust, skills, leadership support, technological readiness, and broader institutional conditions (Pedrami & Vaezi, 2025). This multidimensional perspective is particularly important in the case of generative AI because the technology is often adopted informally and rapidly by individual employees before organizations establish comprehensive governance structures. HR professionals may therefore integrate generative tools into recruitment communication, report writing, learning design, documentation, or analysis even where formal organizational policies remain incomplete. As a result, the intensity of adoption may differ considerably between professionals and organizations, producing corresponding differences in the extent to which work tasks and skill demands are transformed.

One of the primary arguments supporting AI adoption in HRM is its potential to improve efficiency, organizational performance, and the quality of administrative decision-making. AI can reduce the time required for repetitive activities, provide rapid access to information, support data-based decisions, and enable employees to redirect attention toward more complex responsibilities. Evidence from sector-specific studies indicates that AI-supported HRM can contribute to digital transformation and administrative performance by improving the speed and effectiveness of organizational processes (Basheer, 2026). Similarly, systematic evidence regarding AI in HRM suggests that the technology can influence employee and organizational performance by improving productivity, streamlining operations, and strengthening decision support when implemented effectively (Sulthoni & Pandin, 2026). These advantages are highly relevant for HR departments, which are frequently responsible for managing substantial volumes of textual, procedural, and employee-related information. Generative



AI can reduce the cognitive and time burden associated with producing routine materials while enabling HR professionals to devote greater attention to interpretation, employee interaction, strategic planning, and organizational problem-solving. However, such productivity gains also imply that the composition of HR work may change substantially, as tasks requiring routine content generation or basic information processing become increasingly automated or AI-assisted.

The changing nature of work also raises a parallel question regarding the competencies required from HR professionals. As organizations adopt AI-enabled systems, the ability to perform traditional HR procedures may no longer be sufficient for effective professional performance. Employees increasingly require digital literacy, AI literacy, data interpretation capabilities, critical thinking, ethical judgment, and the ability to collaborate effectively with intelligent systems. The development of future workforce competencies has therefore become a central issue in the literature on digital transformation. Silva proposed a competency-development perspective in which workforce capabilities must continually evolve in response to technological change, emphasizing that digital transformation and AI create dynamic rather than static skill requirements (Silva, 2025). Within HRM specifically, this implies that professionals must understand not only how to operate AI tools but also how to assess the accuracy, relevance, bias, and organizational implications of AI-generated outputs. Prompt formulation, evaluation of generated content, interpretation of algorithmic recommendations, protection of confidential employee information, and integration of machine-generated insights with professional judgment are emerging as important components of HR expertise. These skills fundamentally differ from conventional administrative competencies and suggest a transition toward more analytical, supervisory, and technologically mediated professional roles.

Training and development therefore occupy an increasingly important position in the relationship between AI adoption and HR transformation. If AI changes the content of HR jobs, organizations must also redesign the learning systems through which HR professionals acquire the capabilities needed to operate effectively in AI-enabled environments. Research on AI in HRM training highlights the necessity of preparing HR practitioners to understand AI applications, interpret technological outputs, and use intelligent systems as part of professional decision-making rather than treating AI literacy as an exclusively technical competency (Orhan & Kurnaz, 2025). This educational requirement is especially important because generative AI systems are accessible to nontechnical users and can produce outputs that appear authoritative even when they contain inaccuracies, contextual limitations, or biases. Therefore, effective use depends not simply on access to technology but on users' capacity to critically interrogate AI outputs. In this respect, the adoption of generative AI may increase rather than diminish the importance of professional expertise, because HR specialists are expected to determine when machine-generated content is valid, appropriate, lawful, ethical, and compatible with organizational objectives.

The effect of AI on HR roles is also evident in contexts where organizations operate under conditions of rapid technological and competitive change. Studies examining AI and Industry 5.0 have emphasized that HRM is increasingly expected to integrate technological capabilities with human-centered organizational practices, especially in sectors where digital systems are reshaping service delivery, workforce coordination, and employee experience (Temjanovski et al., 2025). Industry 5.0 perspectives are particularly relevant because they shift attention away from a purely automation-driven model and toward collaboration between humans and intelligent technologies. From this viewpoint, generative AI should not necessarily be interpreted as a substitute for HR professionals but as a technological partner that may redistribute the boundary between automated and human work. Routine information production may increasingly be delegated to AI, whereas responsibilities involving empathy, ethical judgment, contextual interpretation, conflict management, trust-building, organizational culture, and strategic decision-making may become more central to the human component of HRM. Accordingly, understanding AI adoption requires examining not only which tasks are reduced but also which tasks are expanded, enriched, or newly created.

Despite its potential benefits, AI integration in HRM also raises significant ethical and human-centered concerns. Artificial intelligence systems may influence decisions related to hiring, promotion, performance evaluation, workforce allocation, or employee development, all of which have direct consequences for individuals' professional opportunities. A systematic review focusing on diversity, equity, and inclusion has shown that AI may produce a dual impact: it can potentially reduce certain forms of human bias and standardize decision processes, but it may also reproduce or amplify inequalities when algorithms are trained on biased data or applied without sufficient transparency and accountability (Naoum et al., 2026). Generative AI introduces further concerns because its outputs may contain hidden assumptions, inaccurate information, culturally inappropriate recommendations, or discriminatory patterns that are difficult for users to detect. Consequently, HR professionals

need increased competence in fairness assessment, bias detection, explainability, data governance, and responsible AI use. These requirements reinforce the proposition that AI adoption changes not only the technological tools used by HR specialists but also the ethical responsibilities attached to their professional roles.

The human consequences of AI adoption must also be considered from the perspective of employee reactions and organizational experience. The integration of AI into HR functions may be perceived negatively if employees believe that important organizational decisions are becoming impersonal, opaque, or excessively automated. Research has demonstrated that AI-supported HRM can contribute to perceptions of organizational dehumanization and may generate negative employee responses when technological systems are perceived as replacing meaningful human interaction or reducing employees to quantifiable data points (Shin et al., 2025). This concern is particularly important in HRM because the function is expected to represent both organizational interests and employee needs. Accordingly, the adoption of generative AI may create new expectations for HR professionals to act as mediators between technological efficiency and human-centered management. Skills such as communication, empathy, transparency, ethical explanation, and change management may become more important precisely because organizations are becoming more technologically mediated. Thus, the skill transformation associated with AI should not be interpreted exclusively as a shift toward technical competencies; it may simultaneously increase the strategic importance of interpersonal and human-centered capabilities.

At the organizational level, AI-enabled HRM can also support agility and resilience by improving access to information, accelerating workforce responses, and supporting more adaptive decision-making. Research examining the relationship between human resource management, AI, and organizational resilience suggests that AI can strengthen organizations' ability to respond to changing operational environments when technological tools are integrated with effective HR practices (Sadeghi et al., 2025). Generative AI may contribute to this capacity by allowing HR units to produce information, training content, workforce communications, and analytical summaries rapidly during periods of change. However, the development of such capabilities requires HR professionals to move beyond purely operational expertise toward broader competencies in environmental interpretation, organizational learning, scenario assessment, and strategic adaptation. Therefore, the introduction of generative AI may generate a layered transformation in which administrative tasks become less dominant while analytical, advisory, and strategic functions expand.

The literature also identifies practical challenges associated with AI implementation in HR systems. Although AI offers opportunities for efficiency and innovation, organizations face concerns regarding privacy, cybersecurity, algorithmic bias, employee acceptance, integration with existing systems, and the reliability of AI-generated information. Studies addressing AI applications and challenges in HRM systems have emphasized that technological advantages are accompanied by implementation barriers that require coordinated managerial and organizational responses (Moghadam et al., 2025). For HR professionals, these challenges imply new responsibilities involving the governance of AI use, protection of employee data, evaluation of technological vendors, monitoring of AI-generated recommendations, and development of organizational policies for responsible use. Generative AI adoption therefore has the potential to create entirely new tasks rather than merely automate existing ones. Examples include designing acceptable-use guidelines, reviewing generated content for confidentiality risks, auditing AI-supported decisions, educating employees about responsible AI practices, and coordinating between HR, information technology, legal, and senior management functions.

These issues are particularly relevant in the Iranian organizational context, where AI adoption is developing alongside broader processes of digital transformation but remains uneven across industries and organizational types. Research examining the future of human resources in the insurance industry in Tehran has indicated that AI is becoming increasingly relevant to the redesign of HR processes and professional roles, highlighting the importance of understanding how technological change affects employees responsible for human capital management (Heydari, 2026). Tehran represents an especially appropriate context for examining this transformation because it contains a substantial concentration of large public and private organizations, corporate headquarters, technology-oriented firms, financial and service organizations, and professional HR communities. The rapid diffusion of publicly accessible generative AI applications means that HR practitioners in such organizations may increasingly use AI even in the absence of comprehensive organizational adoption strategies. This creates a need for empirical research that captures actual professional experiences rather than focusing exclusively on organizational intentions or technological capabilities.



Furthermore, contemporary research increasingly conceptualizes AI-driven HR transformation as a strategic rather than merely operational phenomenon. Artificial intelligence has been described as an important driver of the transition toward a more digitally integrated form of HRM in which technology affects recruitment, training, employee evaluation, knowledge management, and strategic workforce planning simultaneously (Subrahmanyam, 2025). Similarly, the broader transformation literature emphasizes that AI can alter the position of HR within the organization by shifting it from administrative processing toward strategic decision support and organizational capability development (Sharifi et al., 2025). If this transition occurs, the professional identity of HR specialists may also change. Employees previously valued primarily for knowledge of HR procedures may increasingly be expected to combine domain expertise with technological judgment, data literacy, communication skills, strategic thinking, and the ability to supervise human–AI interaction. Such changes may ultimately influence recruitment criteria for HR roles, professional development priorities, performance evaluation standards, and university or vocational curricula related to human resource management.

Nevertheless, an important gap remains in the existing literature. A substantial proportion of prior studies has addressed AI adoption at the organizational level, examined general benefits and challenges, or focused on particular HR functions such as recruitment and talent management. Fewer studies have empirically examined the simultaneous relationship between the degree of generative AI adoption, the transformation of HR job tasks, and the changing skills required from HR professionals. This distinction is important because organizational adoption does not automatically indicate that professional roles have changed to the same extent. Some organizations may adopt generative AI primarily for routine administrative support, whereas others may integrate it deeply into recruitment, learning, analytics, communication, and strategic decision-making. Similarly, frequent users of generative AI may experience more substantial changes in their work than professionals who use such tools only occasionally. Understanding these differences requires a framework that connects technology acceptance and use to both occupational task restructuring and competency transformation.

Such an integrated perspective is also necessary because task transformation and skill transformation are theoretically interdependent. When AI assumes responsibility for routine drafting, information retrieval, or preliminary analysis, the relative value of human capabilities shifts toward activities that are more difficult to automate, including contextual reasoning, verification, ethical assessment, strategic interpretation, and interpersonal interaction. At the same time, new technology-specific competencies become necessary because professionals must understand how to collaborate with AI effectively. The transformation may therefore produce both skill substitution and skill complementarity. Certain traditional competencies may become less central as automated systems perform standardized activities, while other competencies become more valuable because they complement technological capabilities. This pattern is consistent with emerging workforce-development approaches emphasizing continuous skill renewal in response to AI-driven technological change (Silva, 2025). It is also consistent with evidence showing that effective AI adoption requires organizations to address technological, human, managerial, and ethical dimensions simultaneously (Pedrami & Vaezi, 2025).

Accordingly, empirical examination of generative AI in HRM should move beyond the binary question of whether AI is beneficial or harmful and instead identify how adoption changes the architecture of professional work. The literature demonstrates significant potential for improved productivity and administrative effectiveness (Basheer, 2026; Sulthoni & Pandin, 2026), strategic transformation in talent management (Tak, 2025), stronger organizational agility and resilience (Sadeghi et al., 2025), and the modernization of HR systems (Moghadam et al., 2025). At the same time, it identifies risks related to dehumanization (Shin et al., 2025), fairness and inclusion (Naoum et al., 2026), and deficiencies in employee preparedness and AI-related competencies (Orhan & Kurnaz, 2025; Temjanovski et al., 2025). The practical significance of generative AI therefore depends on whether HR professionals can reconfigure their roles in ways that combine technological efficiency with human judgment, ethical responsibility, and strategic organizational contribution. Examining the relationship between AI adoption, task change, and skill change can provide evidence relevant to HR departments, organizational leaders, educational institutions, and policymakers seeking to prepare the workforce for increasingly AI-mediated professional environments.

Therefore, the aim of the present study was to investigate the impact of generative artificial intelligence adoption on changes in job tasks and the skills required of human resource professionals in Tehran.



2. Methods and Materials

The present study employed an applied, quantitative, cross-sectional research design to examine the impact of generative artificial intelligence (GenAI) adoption on changes in job tasks and the skills required of human resource professionals. The study population consisted of human resource professionals working in public and private organizations located in Tehran, Iran, during 2026. Eligible participants included human resource managers, HR supervisors, recruitment and talent acquisition specialists, training and development specialists, compensation and benefits specialists, performance management experts, organizational development professionals, and other employees whose principal occupational responsibilities were directly related to human resource management. A total of 320 HR professionals were included in the final study sample. Participants were selected through stratified convenience sampling to ensure representation of professionals working across different organizational sectors and HR functional areas. The inclusion criteria were current employment in a human resource management position in an organization located in Tehran, at least one year of professional experience in HR-related activities, familiarity with digital technologies used in human resource management, and voluntary willingness to participate in the study. Participants who returned substantially incomplete questionnaires or provided patterned or internally inconsistent responses were excluded from the final analysis. Data were collected using an online questionnaire distributed through professional HR networks, organizational contacts, and electronic communication channels. Before completing the questionnaire, participants received information regarding the objectives of the research, the voluntary nature of participation, confidentiality of responses, and their right to discontinue participation at any stage without consequence. No personally identifiable information was collected, and all responses were analyzed in aggregate form. The conceptual model considered generative AI adoption as the principal explanatory construct and changes in HR job tasks and changes in required professional skills as the principal outcome constructs.

Data were collected using a structured questionnaire consisting of four sections. The first section recorded participants' demographic and occupational characteristics, including age, gender, educational level, professional position, years of HR experience, organizational sector, organizational size, and frequency of using generative AI applications in professional activities. The second section assessed generative AI adoption using a scale developed on the basis of the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology. The instrument evaluated the extent to which HR professionals accepted and incorporated generative AI applications, such as conversational AI systems, AI-supported content generation platforms, automated analytical tools, and generative decision-support applications, into their routine professional activities. The scale covered perceived usefulness, perceived ease of use, behavioral intention, actual professional use, and perceived organizational support for AI utilization. Items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores representing a greater degree of generative AI acceptance and adoption. The wording of the items was adapted to the human resource management context to capture the professional rather than purely personal use of generative AI. Content validity was evaluated by a panel of experts in human resource management, organizational behavior, information systems, and artificial intelligence, and minor wording modifications were made on the basis of their recommendations before administration of the final questionnaire.

The third section measured changes in the job tasks of HR professionals resulting from generative AI adoption. This instrument was developed on the basis of contemporary HR functions and the emerging applications of generative AI in human resource management. The items examined the degree to which the use of generative AI had altered the content, frequency, complexity, or relative importance of traditional HR tasks. The assessed areas included preparation of job descriptions, résumé and applicant screening, recruitment communication, generation of interview questions, preparation of training materials, employee communication, drafting of HR policies and reports, performance-related documentation, workforce data interpretation, generation of managerial recommendations, routine administrative activities, and strategic HR decision support. Particular attention was given to the distinction between task automation and task augmentation. Automation referred to situations in which generative AI reduced or replaced direct human involvement in routine and repetitive activities, whereas augmentation referred to situations in which AI assisted HR professionals in completing complex tasks more efficiently while professional judgment remained necessary. Participants indicated the perceived extent of change in each task using a five-point Likert scale ranging from 1 (no change) to 5 (very substantial change). Higher total scores indicated a greater transformation of HR job tasks associated with generative AI adoption.



The fourth section assessed changes in the skills required of HR professionals in response to the increasing use of generative AI. The scale was developed to capture competencies that are becoming increasingly important in AI-augmented HR work and included items related to AI literacy, digital literacy, prompt formulation and prompt engineering, critical evaluation of AI-generated outputs, data literacy, analytical reasoning, ethical judgment, privacy and information-security awareness, detection of algorithmic bias, strategic decision-making, problem-solving, interpersonal communication, change management, continuous learning, and human–AI collaboration. Respondents evaluated the extent to which each competency had become more important in their professional role as a consequence of generative AI implementation. Responses were recorded on a five-point Likert scale ranging from 1 (not more important) to 5 (substantially more important). Higher scores indicated a stronger perceived increase in the importance of AI-related, analytical, strategic, and human-centered competencies. Prior to the main data collection, the complete questionnaire was pilot-tested with 30 HR professionals who met the eligibility criteria but were not included in the final sample. The pilot study was used to evaluate item clarity, comprehensibility, completion time, and preliminary internal consistency. Content validity was additionally assessed through expert review, and construct validity was examined in the main sample using confirmatory factor analysis. Internal consistency reliability was evaluated using Cronbach's alpha and composite reliability, with coefficients of .70 or higher considered acceptable. Convergent validity was evaluated through standardized factor loadings and average variance extracted, whereas discriminant validity was assessed by examining the heterotrait–monotrait ratio of correlations.

Data analysis was conducted using IBM SPSS and SmartPLS software. Prior to hypothesis testing, the dataset was screened for missing values, outliers, implausible response patterns, and data-entry errors. Descriptive statistics, including frequency, percentage, mean, standard deviation, minimum, and maximum values, were calculated to summarize participants' demographic characteristics and the principal study variables. The distributional characteristics of the variables were evaluated using skewness and kurtosis coefficients. Potential common method bias associated with the collection of predictor and outcome variables through the same questionnaire was examined through procedural safeguards during questionnaire design and appropriate statistical diagnostics. Multicollinearity among the predictor constructs was evaluated using variance inflation factor values. The reliability of the measurement model was assessed using Cronbach's alpha and composite reliability, with values of .70 or higher regarded as satisfactory. Convergent validity was evaluated using standardized outer loadings and average variance extracted, with an average variance extracted value of at least .50 considered acceptable. Discriminant validity was assessed using the heterotrait–monotrait ratio, with values below .85 interpreted as evidence of adequate distinction between the constructs.

Partial least squares structural equation modeling was employed to test the proposed relationships between generative AI adoption, changes in HR job tasks, and changes in required professional skills. The measurement model was initially evaluated to confirm the reliability and validity of the latent constructs, after which the structural model was assessed. Path coefficients were estimated to determine the magnitude and direction of the relationships between generative AI adoption and the two principal outcomes. The statistical significance of the structural paths was evaluated using a bootstrapping procedure with 5,000 resamples, and results were reported using standardized beta coefficients, t values, and p values. The explanatory power of the model was assessed using the coefficient of determination (R^2), while effect size (f^2) was calculated to determine the contribution of generative AI adoption to the variance explained in each endogenous construct. Predictive relevance was evaluated using Q^2 values, and standardized root mean square residual was considered as an additional indicator of overall model adequacy. Supplementary analyses were performed to examine whether perceptions of task and skill transformation differed according to demographic and occupational characteristics such as professional experience, organizational sector, managerial level, and frequency of generative AI use. Statistical tests were two-tailed, and a significance level of $p < .05$ was adopted throughout the analyses.

3. Findings and Results

A total of 320 human resource professionals were included in the final statistical analysis. Of the participants, 174 (54.4%) were men and 146 (45.6%) were women. In terms of age, 128 participants (40.0%) were between 25 and 34 years of age, 119 (37.2%) were between 35 and 44 years, and 73 (22.8%) were 45 years of age or older. Regarding educational attainment, 93



participants (29.1%) held a bachelor's degree, 183 (57.2%) held a master's degree, and 44 (13.8%) held a doctoral degree. A total of 190 respondents (59.4%) were employed in private-sector organizations, whereas 130 (40.6%) worked in public-sector organizations. Regarding professional experience in human resource management, 80 participants (25.0%) had between 1 and 5 years of experience, 105 (32.8%) had 6–10 years, 78 (24.4%) had 11–15 years, and 57 (17.8%) had more than 15 years of professional experience. In terms of occupational function, 77 respondents (24.1%) were HR managers or supervisors, 88 (27.5%) worked primarily in recruitment and talent acquisition, 59 (18.4%) were engaged in training and development, 49 (15.3%) worked in performance management or organizational development, and 47 (14.7%) occupied other specialized HR positions, including compensation, benefits, employee relations, and HR analytics. With respect to generative artificial intelligence use, 35 respondents (10.9%) reported using generative AI rarely, 68 (21.3%) reported occasional or monthly use, 121 (37.8%) reported weekly use, and 96 (30.0%) reported daily or almost daily use. Therefore, more than two-thirds of the participants (67.8%) used generative AI at least weekly in their professional activities, indicating that the sample had substantial practical exposure to generative AI applications in the workplace.

Table 1. Descriptive Statistics and Correlations Among the Main Study Variables

Variable	Mean	SD	Minimum	Maximum	1	2	3
1. Generative AI adoption	3.67	0.72	1.52	5.00	1.00		
2. Changes in HR job tasks	3.74	0.69	1.46	5.00	.62***	1.00	
3. Changes in required HR skills	3.92	0.64	1.68	5.00	.68***	.71***	1.00

As shown in Table 1, participants reported relatively high levels of generative AI adoption, with a mean score of 3.67 (SD = 0.72), indicating that generative AI applications had already become an appreciable component of HR-related professional activities among the surveyed respondents. The mean score for changes in HR job tasks was 3.74 (SD = 0.69), suggesting that participants generally perceived generative AI as having produced substantial changes in the nature, frequency, or execution of their occupational duties. The highest mean was observed for changes in required HR skills (M = 3.92, SD = 0.64), indicating that respondents perceived the competency requirements of HR professionals to be changing even more strongly than the tasks themselves. The correlational analysis revealed statistically significant positive relationships among all three constructs. Generative AI adoption was positively associated with changes in HR job tasks ($r = .62, p < .001$) and changes in required professional skills ($r = .68, p < .001$). Changes in job tasks were also strongly and positively associated with changes in required skills ($r = .71, p < .001$). These findings indicate that greater integration of generative AI into HR activities was associated with greater perceived transformation of both occupational tasks and competency requirements. At the same time, none of the interconstruct correlations approached a level suggesting problematic redundancy, providing preliminary support for treating generative AI adoption, task transformation, and skill transformation as conceptually distinct but closely related constructs.

Table 2. Reliability and Convergent Validity of the Measurement Model

Construct	Number of Items	Loading Range	Cronbach's α	Composite Reliability	AVE	VIF Range
Generative AI adoption	12	.71–.89	.91	.93	.61	1.42–2.73
Changes in HR job tasks	12	.69–.88	.92	.94	.59	1.36–2.91
Changes in required HR skills	15	.70–.90	.94	.95	.62	1.48–3.08

The measurement model demonstrated satisfactory reliability and convergent validity, as presented in Table 2. Cronbach's alpha coefficients were .91 for generative AI adoption, .92 for changes in HR job tasks, and .94 for changes in required HR skills, substantially exceeding the minimum acceptable threshold of .70. Composite reliability values ranged from .93 to .95, further confirming a high degree of internal consistency among the indicators representing each latent construct. Standardized outer loadings were predominantly above .70, ranging from .71 to .89 for generative AI adoption, .69 to .88 for changes in job tasks, and .70 to .90 for changes in required skills. The limited number of indicators with loadings slightly below .70 were retained because of their theoretical importance and because overall composite reliability and convergent validity remained satisfactory. Average variance extracted values were .61, .59, and .62 for generative AI adoption, changes in HR job tasks, and changes in required HR skills, respectively, and therefore exceeded the recommended threshold of .50. These results indicate that each construct explained more than half of the variance in its corresponding indicators. Variance inflation factor values ranged from 1.36 to 3.08 and remained well below the conventional threshold of 5.00, indicating that multicollinearity among indicators was not problematic. Discriminant validity was also supported by the heterotrait–monotrait criterion; the HTMT



value between generative AI adoption and changes in HR job tasks was .69, the value between generative AI adoption and changes in required skills was .75, and the value between task changes and skill changes was .79. All values were below .85, confirming that the three constructs possessed adequate empirical distinctiveness. The standardized root mean square residual for the estimated model was .061, which was below the recommended value of .08 and indicated satisfactory overall model fit.

Table 3. Structural Model Results for the Effects of Generative AI Adoption

Structural Path	β	SE	t	p	95% CI	f^2	R^2	Q^2
Generative AI adoption → Changes in HR job tasks	.62	.041	15.12	<.001	[.54, .70]	.63	.38	.25
Generative AI adoption → Changes in required HR skills	.68	.037	18.38	<.001	[.61, .75]	.86	.46	.31
Changes in HR job tasks → Changes in required HR skills	.32	.045	7.11	<.001	[.23, .41]	.15	—	—

The results of the structural model, reported in Table 3, demonstrated that generative AI adoption had a statistically significant and substantial positive effect on changes in the job tasks performed by human resource professionals ($\beta = .62$, $SE = .041$, $t = 15.12$, $p < .001$, 95% CI [.54, .70]). The coefficient of determination indicated that generative AI adoption explained 38% of the variance in perceived task transformation ($R^2 = .38$), representing moderate explanatory power. The corresponding effect size was large ($f^2 = .63$), and the Q^2 value of .25 indicated meaningful predictive relevance for changes in HR job tasks. These findings show that more intensive acceptance and use of generative AI was associated with substantially greater restructuring of professional HR activities, including the automation of routine documentation, assistance with recruitment-related content, support for data interpretation, generation of reports, and augmentation of analytical and decision-support tasks. Generative AI adoption exerted an even stronger direct effect on changes in required HR skills ($\beta = .68$, $SE = .037$, $t = 18.38$, $p < .001$, 95% CI [.61, .75]). The model explained 46% of the variance in changes in required professional competencies ($R^2 = .46$), while the effect size associated with generative AI adoption was large ($f^2 = .86$). The Q^2 value of .31 confirmed substantial predictive relevance for this endogenous construct. Moreover, task transformation itself was positively related to changes in skill requirements ($\beta = .32$, $SE = .045$, $t = 7.11$, $p < .001$, 95% CI [.23, .41]), indicating that as the content of HR work changed, professionals perceived a corresponding increase in the importance of new technological, analytical, evaluative, and strategic capabilities. The overall pattern therefore suggests that generative AI adoption influences HR competency requirements both directly and through the broader restructuring of work activities.

Table 4. Differences in Task and Skill Transformation According to Frequency of Generative AI Use

Frequency of Generative AI Use	n	Task Change Mean $\pm$ SD	Skill Change Mean $\pm$ SD
Rare use	35	2.91 $\pm$ 0.61	3.08 $\pm$ 0.58
Occasional/monthly use	68	3.39 $\pm$ 0.59	3.55 $\pm$ 0.54
Weekly use	121	3.82 $\pm$ 0.55	4.00 $\pm$ 0.48
Daily/almost daily use	96	4.19 $\pm$ 0.51	4.35 $\pm$ 0.44
ANOVA	—	$F(3, 316) = 52.84$, $p < .001$, $\eta^2 = .33$	$F(3, 316) = 68.27$, $p < .001$, $\eta^2 = .39$

The supplementary analysis presented in Table 4 revealed clear differences in perceived task and skill transformation according to participants' frequency of professional generative AI use. For changes in HR job tasks, the mean increased progressively from 2.91 ($SD = 0.61$) among rare users to 3.39 ($SD = 0.59$) among occasional or monthly users, 3.82 ($SD = 0.55$) among weekly users, and 4.19 ($SD = 0.51$) among daily or almost daily users. The overall difference was statistically significant, $F(3, 316) = 52.84$, $p < .001$, with an eta-squared value of .33, indicating that approximately 33% of the observed variance in perceived task transformation was associated with differences in generative AI use frequency. A similar but even stronger pattern was found for changes in required professional skills. Participants who rarely used generative AI reported the lowest level of perceived skill transformation ($M = 3.08$, $SD = 0.58$), whereas the corresponding mean was 3.55 ($SD = 0.54$) among occasional users, 4.00 ($SD = 0.48$) among weekly users, and 4.35 ($SD = 0.44$) among daily or almost daily users. The difference was statistically significant, $F(3, 316) = 68.27$, $p < .001$, $\eta^2 = .39$. Post hoc comparisons using the Bonferroni procedure indicated that daily users reported significantly greater task and skill transformation than each of the other three groups (all adjusted p values $< .01$), while weekly users also reported significantly higher scores than rare and occasional users. These findings provide additional evidence that the transformation of HR work is not merely associated with general awareness of generative AI but becomes progressively more pronounced as professionals integrate these technologies more frequently into their actual work practices.



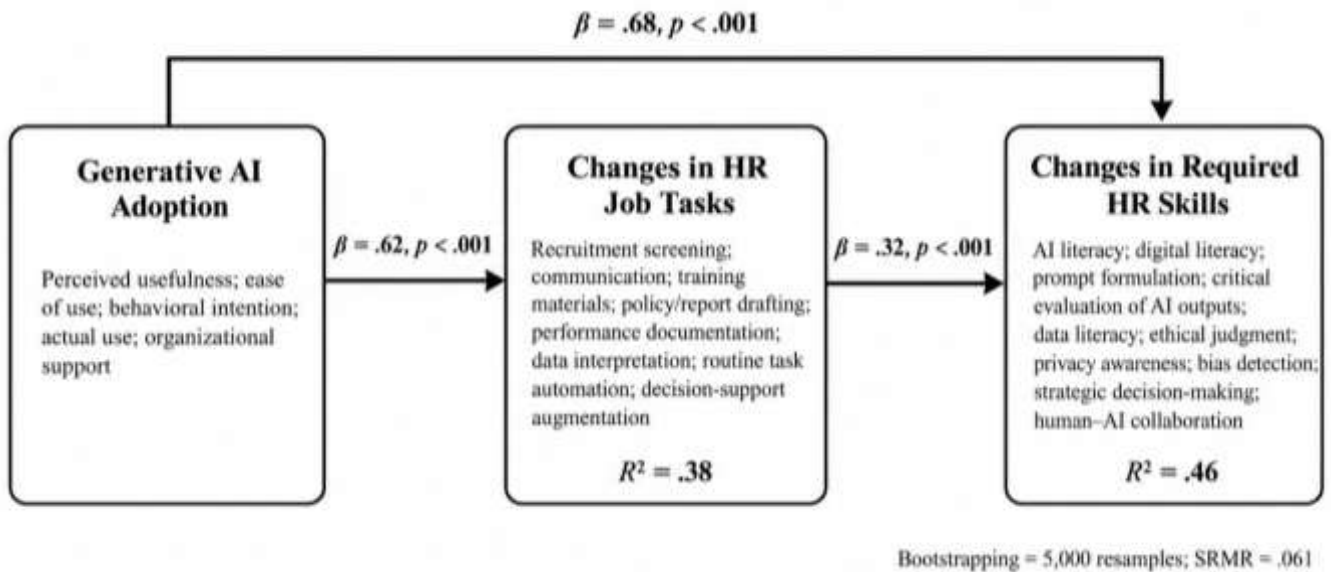


Figure 1. Structural Model of the Effects of Generative Artificial Intelligence Adoption on HR Job Task Transformation and Required Professional Skills

The structural pattern summarized in Figure 1 demonstrates that generative AI adoption was positively associated with both principal dimensions of HR work transformation. The standardized direct path from generative AI adoption to changes in required professional skills ($\beta = .68, p < .001$) was somewhat stronger than the corresponding path to changes in HR job tasks ($\beta = .62, p < .001$), indicating that the competency implications of generative AI may be at least as substantial as its immediate effects on the composition of work. In practical terms, the findings suggest that the adoption of generative AI does not simply replace or accelerate isolated HR activities; rather, it changes the combination of competencies needed to perform those activities effectively. Greater AI adoption was particularly associated with an increased perceived need for AI literacy, critical evaluation of machine-generated output, data literacy, prompt formulation, ethical judgment, privacy awareness, bias recognition, strategic reasoning, and the ability to integrate machine-generated information with human professional judgment. At the same time, task transformation was itself significantly related to changing skill requirements ($\beta = .32, p < .001$), suggesting that occupational restructuring acts as an important mechanism through which technological adoption generates new competency demands. Taken together, the model indicates a transition from predominantly administrative and execution-oriented HR work toward a more technology-mediated professional role in which human resource specialists are increasingly expected to supervise, evaluate, contextualize, and strategically apply outputs produced by generative AI systems.

4. Discussion and Conclusion

The present study examined the impact of generative artificial intelligence adoption on changes in the job tasks and required skills of human resource professionals in Tehran. The findings showed that generative AI adoption was positively and significantly associated with both task transformation and skill transformation, with the effect on required professional skills being somewhat stronger than the effect on job tasks. Specifically, generative AI adoption significantly predicted changes in HR job tasks ($\beta = .62, p < .001$) and changes in required HR skills ($\beta = .68, p < .001$), while changes in HR job tasks also significantly predicted changes in required skills ($\beta = .32, p < .001$). The model explained 38% of the variance in task transformation and 46% of the variance in skill transformation, indicating that generative AI adoption constitutes an important explanatory factor in the changing structure of HR work. In addition, the descriptive results showed relatively high average scores for generative AI adoption, task change, and especially skill change, suggesting that the participating HR professionals perceived AI-driven transformation as an already observable feature of their professional environment rather than as a purely anticipated future development. These findings are consistent with the emerging literature that conceptualizes AI as a strategic force capable of reshaping HR functions, changing the distribution of work between humans and technologies, and redefining the capabilities required of HR professionals (Sharifi et al., 2025; Subrahmanyam, 2025).

The significant effect of generative AI adoption on changes in HR job tasks supports the argument that AI technologies are altering the content and execution of HR work. In the present study, greater adoption was associated with stronger perceived changes in recruitment screening, communication, training-material development, policy and report drafting, performance documentation, data interpretation, routine administrative work, and decision-support activities. This pattern is theoretically understandable because generative AI has capabilities that extend beyond traditional automation. Earlier HR technologies mainly supported data storage, applicant tracking, payroll, or standardized workflow management, whereas contemporary generative AI systems can produce text, summarize information, draft content, formulate recommendations, and support analytical interpretation. Therefore, the technology can enter activities that have historically depended on professional knowledge and cognitive labor. This finding is consistent with Tak, who emphasized that AI is strategically transforming talent acquisition and talent management by changing how information is generated, processed, and used in HR decisions (Tak, 2025). It also aligns with Moghadam et al., who highlighted both the expanding applications of AI in HRM systems and the corresponding changes in organizational processes and HR responsibilities (Moghadam et al., 2025).

The findings also support the broader view that AI adoption in HRM should be understood as task reconfiguration rather than as simple job replacement. The relatively strong relationship between generative AI adoption and task transformation indicates that the technology changes the way HR professionals perform their work, but it does not necessarily imply the elimination of the HR role itself. Instead, some routine and repetitive components can be partially automated, while other activities are augmented and may become more strategically significant. For example, generative AI can produce a first draft of a job description, summarize employee feedback, or generate a training outline, but HR professionals remain responsible for contextualizing the output, assessing its suitability, ensuring legal and ethical compliance, and aligning it with organizational requirements. This interpretation is compatible with Industry 5.0 perspectives that emphasize human–technology complementarity rather than exclusively technology-driven substitution. Temjanovski et al. similarly described AI-enabled HR transformation as part of a broader movement toward human-centered digital systems in which technological efficiency must be combined with human judgment, flexibility, and organizational values (Temjanovski et al., 2025). The present findings therefore suggest that generative AI adoption is contributing to a redistribution of HR tasks away from repetitive production activities and toward evaluation, oversight, strategic interpretation, and human-centered responsibilities.

The significant positive effect of generative AI adoption on required professional skills was even stronger than its effect on job tasks. This is an important finding because it suggests that the consequences of AI are not restricted to what HR professionals do; they also extend to what HR professionals must know and be able to perform effectively. Participants perceived increased importance of AI literacy, digital literacy, prompt formulation, critical evaluation of AI-generated outputs, data literacy, ethical judgment, privacy awareness, bias recognition, strategic decision-making, and human–AI collaboration. This finding strongly aligns with Silva's competency-based framework, which argues that digital transformation and artificial intelligence create an ongoing need for workforce capability renewal and continuous skill development (Silva, 2025). The finding also supports Orhan and Kurnaz's emphasis on AI-related training in HRM and the need to prepare HR professionals not merely to access technological tools but to understand, interpret, and apply them appropriately in organizational settings (Orhan & Kurnaz, 2025). The stronger effect on skills than on tasks may indicate that organizations experience competency pressure even before all HR activities are fully redesigned. In other words, professionals may need to acquire new capabilities in anticipation of technological change, while the complete restructuring of formal job descriptions and work processes may occur more gradually.

The relationship between task transformation and changing skill requirements provides additional support for this interpretation. The significant path from changes in HR job tasks to changes in required skills ($\beta = .32, p < .001$) indicates that when the content of HR work changes, competency demands also change accordingly. As routine tasks become automated or augmented by generative AI, the skills that remain distinctly valuable become more complex and evaluative. For example, if AI can rapidly generate recruitment materials, the HR professional's contribution shifts from producing content to assessing whether the content accurately reflects the position, avoids discriminatory language, aligns with organizational culture, and complies with relevant policies. Similarly, when AI systems assist with workforce analytics, professionals must be able to evaluate the quality and meaning of generated interpretations rather than simply accept them. This pattern reflects a movement from execution-oriented competence toward supervisory, interpretive, and strategic competence. Subrahmanyam's



conceptualization of HRM 2.0 similarly emphasizes that AI transforms the HR function by combining technological automation with higher-level professional responsibilities and more strategic human contribution (Subrahmanyam, 2025).

The observed skill transformation is also closely related to the ethical risks associated with AI use in HRM. Because HR decisions directly affect recruitment, development, promotion, evaluation, and employee experience, inappropriate use of generative AI can have serious consequences. Naoum et al. showed that AI has a dual impact on diversity, equity, and inclusion: it can improve consistency and reduce some forms of human bias, but it can also reproduce or intensify inequalities when underlying data, algorithms, or decision processes are biased (Naoum et al., 2026). The present finding that ethical judgment, bias detection, privacy awareness, and critical evaluation are becoming more important is therefore theoretically and practically coherent. As HR professionals increase their use of generative AI, they require competencies that allow them to identify problematic outputs and prevent automation from becoming a source of unfairness or opacity. This means that AI literacy in HRM cannot be reduced to technical proficiency. A professionally competent HR user of generative AI must understand when AI output should be questioned, when human review is mandatory, and how technology-mediated decisions may affect employee rights and organizational legitimacy. Page | 12

The findings are also consistent with concerns regarding organizational dehumanization. Shin et al. demonstrated that AI use in HRM may trigger negative employee reactions when technological systems are perceived as reducing human interaction or making organizational processes impersonal (Shin et al., 2025). The current results suggest that generative AI adoption increases the need for human-centered professional skills precisely because technological mediation is becoming more extensive. As AI becomes increasingly involved in communication, recruitment, performance management, and employee support, HR professionals may need stronger interpersonal, ethical, and change-management capabilities to preserve trust and meaningful human contact. Therefore, technological adoption does not necessarily reduce the importance of human skills. On the contrary, it may increase the value of empathy, communication, contextual interpretation, and relational judgment because these capabilities distinguish effective human resource management from purely automated administration. The future HR professional may therefore require a hybrid competency profile that combines technological fluency with distinctly human forms of judgment and interaction.

Another important result was that generative AI adoption explained a substantial proportion of variance in both task and skill transformation, with R^2 values of .38 and .46, respectively. These values indicate moderate explanatory power and suggest that AI adoption is a major, though not exclusive, determinant of changes in HR work. Other factors are likely to contribute, including organizational strategy, industry characteristics, leadership support, digital maturity, workforce composition, legal requirements, and availability of training. This interpretation is consistent with Pedrami and Vaezi's systematic review, which showed that AI adoption in HRM is shaped by multidimensional technological, organizational, human, and contextual considerations (Pedrami & Vaezi, 2025). The present results therefore reinforce the importance of treating AI adoption as an organizational process rather than as a simple individual choice. HR professionals may be willing to use generative AI, but the degree to which the technology actually changes their work depends on how deeply it is integrated into formal workflows, how much support organizations provide, and whether institutions develop appropriate governance and capability-building mechanisms.

The supplementary analyses regarding frequency of generative AI use further strengthened the main findings. Professionals who used generative AI daily or almost daily reported substantially higher levels of task and skill transformation than those who used it weekly, occasionally, or rarely. The differences were statistically significant and had large effect sizes. This result suggests a dose-response pattern in which more frequent practical engagement with generative AI is associated with greater perceived transformation of professional work. Such a pattern is important because it indicates that exposure intensity may influence not only attitudes toward AI but also the actual experience of occupational change. Professionals who interact with generative systems regularly are more likely to discover tasks that can be automated, identify new forms of decision support, and recognize the need for new competencies. The result is consistent with findings suggesting that effective AI use can improve administrative performance and digital transformation outcomes when the technology is meaningfully integrated into organizational routines (Basheer, 2026). It also corresponds with Sulthoni and Pandin's review, which linked AI-enabled HRM to improvements in employee and organizational performance when adoption moves beyond superficial experimentation and becomes embedded in work processes (Sulthoni & Pandin, 2026).



The stronger transformation reported by frequent users can also be interpreted through a learning mechanism. As professionals use generative AI repeatedly, they gain a better understanding of both its capabilities and its limitations. Initial use may focus on simple activities such as drafting emails or summarizing documents, whereas more experienced users may extend AI use into recruitment analysis, learning design, policy development, workforce planning, or decision support. Greater familiarity can therefore reveal opportunities for deeper task redesign while simultaneously exposing the need for more sophisticated skills, such as prompt engineering, output validation, bias recognition, and strategic integration. This interpretation reinforces Orhan and Kurnaz's argument that HR training must evolve alongside AI adoption and that continuous learning is essential for effective use of increasingly intelligent systems (Orhan & Kurnaz, 2025). It also supports Silva's view that competency development in the AI era should be cyclical and continuous rather than treated as a one-time training intervention (Silva, 2025).

The findings have particular relevance to the Iranian context. Heydari's study of AI and the future of human resources in the insurance industry in Tehran indicates that AI is already being considered an important driver of HR transformation within Iranian organizations (Heydari, 2026). The present findings extend that perspective by focusing specifically on generative AI and showing that adoption is associated with measurable differences in both work tasks and required skills among HR professionals in Tehran. This is particularly significant because organizational adoption of generative AI may occur rapidly and unevenly. Some organizations may have formal policies and structured AI initiatives, whereas others may rely on informal employee use of publicly available tools. The findings therefore indicate that HR transformation can begin before complete institutional standardization occurs. This creates both opportunities and risks, because individual professionals may innovate rapidly while organizational governance, training, and accountability structures remain underdeveloped.

The results also have implications for organizational agility and resilience. Sadeghi et al. emphasized the contribution of AI and HRM to more agile and resilient organizational systems (Sadeghi et al., 2025). The present findings help explain one mechanism underlying this contribution: generative AI can alter the task portfolio of HR professionals and increase demand for capabilities that support faster information processing, adaptation, and strategic decision-making. When routine content production is accelerated by AI, HR professionals can potentially devote more attention to workforce planning, organizational learning, and employee development. However, such benefits are contingent on appropriate skill development. Without sufficient critical judgment and technological literacy, rapid AI use may simply accelerate poor-quality decisions. Therefore, organizational resilience depends not only on adopting AI but on developing the human capabilities necessary to use it responsibly and strategically.

The results are also consistent with broader arguments that AI is transforming HRM from an administrative support function into a more strategic, data-informed, and technology-enabled organizational partner. Sharifi et al. emphasized the transformative role of AI in HRM, particularly in relation to organizational decision-making and the reconfiguration of traditional HR responsibilities (Sharifi et al., 2025). The present findings provide empirical support for this view by demonstrating simultaneous changes in task structures and skill requirements. The combination of a strong path from AI adoption to task change and an even stronger path to skill change suggests that the transformation of HRM is multidimensional. Generative AI does not simply make existing activities faster; it changes what counts as valuable professional expertise. The emerging HR role requires individuals who can integrate technology with strategic reasoning, human judgment, organizational knowledge, and ethical responsibility.

Overall, the findings suggest that generative AI should be understood as a catalyst for occupational transformation within HRM. The technology appears to reduce the relative importance of some routine production activities while increasing the importance of interpretation, verification, ethical oversight, strategic thinking, and human-AI collaboration. This conclusion is compatible with previous work emphasizing both the opportunities and challenges associated with AI implementation in HR systems (Moghadam et al., 2025), the potential of AI to improve administrative and organizational performance (Basheer, 2026; Sulthoni & Pandin, 2026), and the need to maintain human-centered governance as AI becomes increasingly embedded in HR decisions (Naoum et al., 2026; Shin et al., 2025). Taken together, the results indicate that successful adoption of generative AI in HRM depends not merely on technological access but on the coordinated redesign of work processes, competency development systems, and ethical governance mechanisms.



The present study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design does not permit definitive causal conclusions, even though the structural model was theoretically specified in terms of predictive relationships. Changes in tasks and skills may also influence the willingness of professionals to adopt generative AI, producing reciprocal effects that cannot be fully assessed using cross-sectional data. Second, the study relied on self-reported perceptions of AI adoption and work transformation, which may be affected by common method variance, social desirability, recall bias, or differences in participants' subjective interpretations of technological change. Third, the sample was limited to HR professionals working in Tehran, and the findings may not be fully generalizable to organizations operating in other cities, rural contexts, industries, or national settings with different levels of technological infrastructure and institutional regulation. Fourth, the study examined broad dimensions of generative AI adoption, task transformation, and skill transformation rather than specific AI platforms or organizational implementation models. Fifth, although the sample included professionals from different HR functions and organizational sectors, the study did not investigate all possible moderators, such as organizational size, digital maturity, leadership support, AI governance policies, or sector-specific regulatory constraints. Finally, the rapid development of generative AI means that the specific technologies available to HR professionals may change quickly, and the competency requirements identified in the present study may therefore evolve over time.

Future research should employ longitudinal designs to examine how HR tasks and competency requirements change before, during, and after the implementation of generative AI systems. Experimental and quasi-experimental studies could also compare HR teams with different levels of AI access or training to identify causal effects on productivity, decision quality, employee experience, and professional skill development. Future studies should expand sampling beyond Tehran and compare different regions, industries, public and private organizations, and levels of organizational digital maturity. Researchers should also distinguish between specific applications of generative AI, such as recruitment support, learning and development, employee communication, HR analytics, policy drafting, and performance management, because the effects on tasks and skills may differ across functional areas. Qualitative interviews and ethnographic studies could provide deeper insight into how professionals negotiate human–AI boundaries in actual workplace settings. Additional research should investigate moderating and mediating variables such as organizational support, AI self-efficacy, perceived risk, trust in AI, ethical climate, technology readiness, job autonomy, and leadership commitment. It would also be valuable to assess objective outcomes, including time savings, error rates, quality of HR decisions, employee satisfaction, fairness indicators, and changes in workforce productivity.

From a practical perspective, organizations should treat generative AI adoption in HRM as a work-design and capability-development initiative rather than as a simple software implementation project. HR departments should identify which activities are appropriate for automation, which should be augmented by AI, and which require substantial human control because of ethical, legal, or relational considerations. Structured training should be provided in AI literacy, prompt formulation, output verification, data interpretation, privacy protection, bias recognition, and responsible use. Organizations should establish clear governance policies specifying acceptable uses of generative AI, requirements for human review, handling of confidential employee information, and accountability for AI-supported decisions. HR leaders should redesign job descriptions and competency frameworks to reflect emerging expectations regarding human–AI collaboration and strategic technology use. At the same time, organizations should protect the human-centered character of HRM by ensuring that sensitive employee interactions, high-stakes decisions, conflict resolution, and matters involving fairness or well-being remain subject to meaningful human judgment. Regular audits of AI-supported HR processes should be conducted to identify bias, privacy risks, inaccuracies, and unintended effects, while professional development programs should be continuously updated as generative AI capabilities evolve.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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References

- Basheer, S. e. (2026). Artificial Intelligence in Human Resource Management: Opportunities for Digital Transformation and Administrative Performance Improvement Among Employees in the Palestinian Health Sector. <https://doi.org/10.21203/rs.3.rs-9666254/v1>
- Heydari, M. (2026). The Impact of Artificial Intelligence on the Future of Human Resources in the Insurance Industry: A Case Study of Tehran. Tehran.
- Moghadam, A., Zarei, A., & Sadr Jahanian, M. (2025). Applications and Challenges of Artificial Intelligence in Human Resource Management Systems. 2nd International Conference on Management, Industrial Engineering, and Economics, <https://civilica.com/doc/2531107/>
- Naoum, R. F., Szakadáti, T., & Balogh, G. (2026). Artificial intelligence (AI) in human resource management (HRM): A systematic review of its dual impact on diversity, equity, and inclusion (DEI). *Management Review Quarterly*. <https://doi.org/10.1007/s11301-025-00580-y>
- Orhan, A., & Kurnaz, S. (2025). Artificial Intelligence in Human Resource Management Training. In *Economic Innovations and Technological Developments in HRM* (pp. 405-444). IGI Global.
- Pedrami, M., & Vaezi, S. K. (2025). Factors influencing artificial intelligence adoption in human resource management: A meta-synthesis and systematic review of multidimensional considerations. *Journal of Work-Applied Management*, e44048. <https://doi.org/10.1108/JWAM-10-2024-0158>
- Sadeghi, H., Asgari, V., & Elahiari, N. (2025). The Role of Human Resource Management and Artificial Intelligence in Agile and Resilient Supply Chains (Case Study: Hospitality Industry of Isfahan City). Third National Conference on the Modern Management Student Branch in the Age of Artificial Intelligence, Tehran. <https://en.civilica.com/doc/2350311/>
- Sharifi, A. R., Pashayi Samar, M., & Talashan, M. (2025). The Role of Artificial Intelligence in Transforming Human Resource Management. 1st International Conference on Management and Technology Engineering, <https://civilica.com/doc/2324148/>
- Shin, H. H., Choi, S., & Kim, H. (2025). Artificial Intelligence (AI) in Human Resource Management (HRM): A driver of organizational dehumanization and negative employee reactions. *International Journal of Hospitality Management*, 131, 104230. <https://doi.org/10.1016/j.ijhm.2025.104230>
- Silva, C. A. G. (2025). The Future Competencies & Skills Development Cycle: A New Workforce Model in the Context of Digital Transformation and Artificial Intelligence. *Journal of Human Resource Management*, 28(2), 139-155. <https://doi.org/10.46287/TWKU1629>
- Subrahmanyam, S. (2025). Role of Artificial Intelligence in Re-Inventing Human Resource Management (HRM) 2.0. In (pp. 243-264). <https://doi.org/10.4018/979-8-3693-8679-8.ch012>
- Sulthoni, Y., & Pandin, M. G. R. (2026). Artificial Intelligence in Human Resource Management and Its Impact on Employee Performance in Indonesian Companies: A Systematic Literature Review. <https://doi.org/10.21203/rs.3.rs-10074758/v1>
- Tak, M. (2025). Artificial Intelligence in Human Resources: Strategic Transformation in Talent Acquisition and Management.
- Temjanovski, R., Loku, A., & Bezovski, Z. (2025). Transforming Human Resource Management in Healthcare: The Role of Artificial Intelligence and Industry 5.0. *Journal of Economics*, 10(1), 54-71.

