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AI-Enabled Human Resource Practices and Quality of Work Life: Evidence from the Saudi Telecommunications Sector

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ABSTRACT

The research examines how artificial intelligence-based human resource management systems affect work life quality for Saudi telecommunications sector employees. Drawing on Social Exchange Theory, the research examines how AI-driven recruitment and selection, performance appraisal, training and development, and employee support systems affect employees' perceptions of fairness, well-being, and career development. The research used quantitative methods through an online survey, which reached staff members at major telecommunications organizations. The researcher conducted regression analysis on 390 valid responses. The research shows that AI-based HR systems create positive effects on QWL, and performance appraisals and training & development prove to be the most influential factors. The study shows that work-life balance quality depends on demographic factors because managers and employees with extended service time achieve better QWL results than customer service personnel and junior staff members. The study presents fresh perspectives on HRM research by studying human-focused AI implementation in developing nations and providing actionable recommendations for managers and policymakers to create ethical AI-based HR systems that boost employee satisfaction and motivation and decrease employee turnover.

Keywords: AI-enabled HR practices, Quality of work life (QWL), Digital HR transformation, Social exchange theory, Telecommunications sector, Saudia Arabia.

Introduction

Human resources have become the core element of corporate success because they form the base of knowledge-intensive and service-driven businesses (Shetgaonkar *et al*., 2022; Suragimath *et al*., 2023; Ahn *et al*., 2025). The Saudi telecommunications sector has emerged as the top competitive industry since 2000 because of liberalization policies and digitalization and rising consumer demand for mobile and internet services (OECD, 2023).

The companies compete through aggressive strategies that extend beyond price competition and coverage to include service quality, consumer engagement, and product innovation. The workforce functions as the fundamental component of this type of workplace. The first point of contact for clients is employees who also manage complex networks and lead innovation efforts (Zhang & Jiang, 2023). Quality of work life (QWL) functions as a core business principle in contemporary markets because of fast business operations (Chatterjee & Khan, 2022; Padma *et al*., 2023). It includes a wide range of characteristics such as job stability, fair income, chances for advancement, supportive leadership, involvement in decision-making, and work–life balance (Rodríguez-Modroño & López-Igual, 2021).

The level of quality of working life (QWL) determines employee motivation and engagement and job loyalty because high QWL produces positive outcomes (Bhat, 2023). The Saudi telecommunications sector should establish QWL as its primary strategic initiative because its staff members handle demanding work tasks alongside continuous system

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breakdowns during non-stop 24-hour customer service operations, which directly affects service quality and market position.

Aon (2024) states that AI-enabled HR practices use data-based methods and automated systems and customized methods to handle workforce management. Organizations that incorporate AI into their HR processes can enhance efficiency, minimize prejudice, and provide more personalized employee experiences. AI-enabled HR practices generate instant changes in QWL.

According to Abdelraouf and Kadry (2024), AI recruiting systems use artificial intelligence technology to build fair employment methods that eliminate prejudice. Machine learning performance management solutions assist firms in conducting objective performance assessments and providing fast feedback, resulting in reduced employee stress and clearer performance targets (Alqahtani *et al*., 2022; Afzal *et al*., 2023; Ahmed *et al*., 2023; Elamin *et al*., 2023).

The implementation of AI in HR operations generates multiple substantial obstacles. Staff members worry about the extent of monitoring, the reduction of personal freedom, and the absence of human involvement in decision-making processes. Sadeghi (2024) predicts that public doubts about AI system explainability and discrimination will lead to decreased trust in HR operations. This study offers three scholarly contributions.

The study contributes to digital HR transformation research by studying how AI-based HR practices affect Quality of Work Life (QWL) in emerging markets, which lack sufficient research on this topic. Much of the existing research has been conducted in advanced economies, overlooking the distinct institutional, cultural, and labor market dynamics of countries like Saudi Arabia (Maghsoudi *et al*., 2023). Second, the study adds to HRM theory by shifting the focus away from purely efficiency-oriented goals of AI adoption (such as cost savings and process speed) toward human-centered outcomes that reflect the quality of employee experiences. The study includes empirical data from Saudi Arabia's telecommunications sector, which serves as a suitable and impactful context to analyze the relationship between HR technological innovation and employee welfare. The research objectives of this study align with the results presented in these studies. The main research goal focuses on understanding how AI-based HR systems impact the work-life quality of Saudi telecommunications staff members (Shams & Valiev, 2022). The study aims to discover which AI-based HR practice factors, such as fairness in recruitment, objectivity in evaluation, personalization in training, and responsiveness in employee assistance, have the greatest impact on QWL.

The study investigates employee responses to these practices by studying both positive and negative aspects that affect staff members. The research aims to create organizational knowledge about building AI-based HR systems that improve rather than harm Quality of Work Life (QWL). The research results create significant practical applications. The research results will enable telecommunications managers to understand how AI-based HR strategies lead to improved employee satisfaction and motivation and lower employee turnover.

The paper uses examples of AI applications that go beyond operational optimization to show how businesses may combine technological growth with employee welfare (Sabar *et al*., 2022; Afzal *et al*., 2023; Husein *et al*., 2024). The results of the study will guide the development of AI learning platforms that enable staff members to advance their skills, performance management systems that prioritize development through feedback rather than discipline, and recruitment algorithms that encourage diversity (Akhtanin *et al*., 2022; Mathew *et al*., 2022; Binassfour *et al*., 2023; Ghabashi *et al*., 2023; Madanchian *et al*., 2023; Hashem *et al*., 2024). By connecting these practices to QWL, the study enables businesses to develop evidence-based strategies for creating more resilient, competitive organizations.

The National AI Strategy of Saudi Arabia drives digital transformation, but Saudi Arabia needs to defend its workers from AI system marginalization to reach social equity and economic sustainability, according to the OECD (2023) (Nguyen & Le, 2022; Sedova, 2022; Ncube *et al*., 2023; Garbarova & Vartiak, 2024). The development of positive labor market and organizational practice changes through AI requires clear rules that establish transparency and accountability and protect employee data.

Literature Review and Hypotheses Development

Social Exchange Theory

The research depends on Social Exchange Theory (SET) to investigate how workplace activities affect employee responses. Blau (1964) established Social Exchange Theory (SET) through his work, which showed that social bonds

emerge from reciprocal exchanges between people who give benefits to each other, thus creating an obligation to reciprocate (Blau, 1964; Cropanzano & Mitchell, 2005). Organizations use SET to understand how employee investments like support and fairness and development opportunities and perceived organizational support lead to loyalty and commitment and positive behaviors and performance (Cropanzano & Mitchell, 2005).

The research shows that AI-based HR practices function as organizational expenses that generate value for employee development. Organizations that use AI for recruitment and performance evaluation and training personalization and wellness support create a message that demonstrates their commitment to care and transparency and fairness. The signals that managers send to employees lead employees to believe that they receive support and reciprocity according to SET.

The proposed link between employee feedback and organizational change will result in improved Quality of Work Life (QWL) because employees view their workplace to be fair, helpful, and responsive, leading to higher job satisfaction and organizational commitment. The SET model explains how AI-based HR systems act as social indicators that go beyond their mechanical essence. The AI recruitment approach, which provides equitable treatment and consistent results, leads employees to feel that the firm makes decisions based on qualifications rather than personal relationships.

The instant feedback provided by AI-based performance feedback systems helps organizations build trust between employees and managers while decreasing uncertainty between them, as Sweiss (2024) explains. The way employees view the HR system determines their job attitude because they believe the system operates fairly and addresses their needs. SET also supports the differentiation between material/moral and functional/organizational dimensions of QWL (e.g., compensation, safety, relational fairness; decision-making, stability, advancement). From an SET lens: The company views AI systems that deliver fair compensation and protect worker safety, and provide social appreciation as investments that benefit employee welfare (H1a). The investments create positive emotions that build trust between employees and their organization, which results in higher job satisfaction and employee commitment. The organizational and functional elements of AI systems (H1b) create perceptions of respect and fairness through their transparent promotion rules and participative decision algorithms and consistent performance criteria. The organization receives employee support through their endorsement of better organizational commitment and clearer roles and job stability. The SET model includes demographic factors as variables that affect the relationship between social media use and social capital (H2).

Employees' perceptions of organizational actions, as well as their reactions to these acts, are influenced by their personal social perceptions and cultural standards, which vary depending on their age, gender, educational level, and job position. Staff members under 30 who engage with algorithms on a daily basis see AI-based HR systems as useful tools, while these technologies induce sentiments of limitation and danger among workers aged 40 and up (Sadeghi, 2024). Demographic differences may alter the degree and direction of exchange-based activities. The SET theoretical framework provides a unified paradigm for understanding how HR firms use AI-enabled practices to promote sentiments of support and fairness, which leads to employees developing positive work attitudes and work-life quality perceptions. The model supports the concept that different demographic groupings will exhibit distinct patterns in their mutual effect.

Conceptual Model Development

Integrating AI into HRM is a major facet of organizational digital transformation (Gong *et al*., 2024). The HR department faced criticism for its traditional operation, which included slow processing and paper-based, systems and human judgment errors. The use of AI in HR practices through algorithmic recruitment and predictive analytics for performance evaluation and adaptive learning and AI chatbots and sentiment analytics enables organizations to achieve automated processes with quick results and tailored solutions and objective decision-making (Gong *et al*., 2024). The implementation of these technological advancements results in process optimization and changes the way employees experience their work activities, according to scholars.

Quality of Work Life (QWL) represents a multifaceted workplace concept that encompasses physical aspects together with non-physical elements of work environment conditions. Telecommunication companies face high levels of

workload pressure and technical issues and ongoing customer service needs, which makes QWL particularly important for their employees.

Organizations that implement AI-based HR systems, which enhance transparency and employee perceptions of fairness and organizational support, will achieve superior QWL. Thus:

H1: AI-enabled HR practices will have a significant positive relationship with overall quality of work life among employees in the Saudi telecommunications sector.

A growing strain of research parses QWL into material/moral versus functional/organizational subdimensions:

- H1a: AI-enabled HR practices positively influence the material and moral dimensions of QWL (e.g., health & safety, relational fairness, compensation, social relations). AI systems can monitor workload stress, detect burnout, suggest rest periods, and ensure equitable reward allocations—thereby enhancing employees' perceptions of wellbeing and fairness (Azeem *et al*., 2024; Sweiss, 2024).
- H1b: AI-enabled HR practices positively influence the functional/organizational dimensions of QWL (e.g., participative decision-making, job security, promotion prospects). For instance, AI-based feedback systems reduce ambiguity and reinforce transparency; adaptive learning pathways signal growth potential; algorithmic decision support can facilitate more fair promotion decisions (Sweiss, 2024).

However, employees do not uniformly perceive or respond to AI systems; demographic factors can moderate these effects:

- H2: The positive relationship between AI-enabled HR practices and quality of work life is moderated by employees' demographic characteristics (e.g., age, gender, education, and job category). In other words, the strength or direction of the impact of AI HR practices on QWL differs across demographic groups.

The conceptual model positions AI-based HR practices as predictors that lead to QWL outcomes, while demographic characteristics function as moderators. The SET framework supports this model because it shows how AI investments create a social exchange relationship between employers and their employees. The proposed conceptual model appears in **Figure 1**.

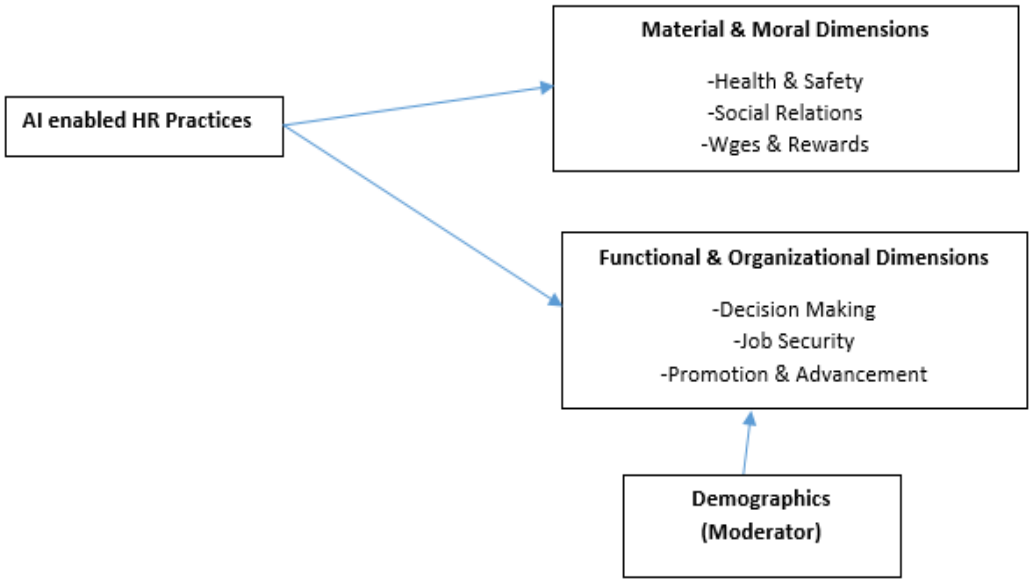

Figure 1. Proposed Conceptual Model

Materials and Methods

The research design of this study used quantitative methods through an online survey method. The researcher created a structured questionnaire through modifications of established HRM and organizational behavior scales, which were

originally designed for use in the Saudi telecommunications sector. Three experts who specialize in HRM and organizational psychology evaluated the instrument to establish content validity. The survey instrument contained four sections, which started with an introduction followed by confidentiality assurance, then moved to questions about tenure and AI-enabled HR practice familiarity, and finally used a 5-point Likert scale to measure constructs and collected demographic information. The items and their sources are listed in **Table 1**.

The target population comprised employees working in major Saudi telecommunications companies. The survey distribution occurred through professional networks and company forums and employee groups. The research obtained 390 valid participant responses through self-selection sampling during a one-month data collection period.

Data Analysis

Data analysis was conducted using IBM SPSS Statistics v.26 (George & Mallery, 2019; Pallant, 2020). A series of statistical techniques were applied:

- Descriptive statistics (means, standard deviations, and relative weights) were computed to provide an overview of participants' perceptions of AI-enabled HR practices and QWL.
- Reliability analysis was performed using Cronbach's Alpha. All constructs exceeded the recommended threshold of 0.70, demonstrating strong internal consistency (Taber, 2018; George & Mallery, 2019).
- Validity was supported through squared multiple correlations, indicating satisfactory construct validity.
- Pearson correlation coefficients were calculated to examine associations between AI-enabled HR practices and QWL. Results showed significant and positive correlations across all constructs, consistent with prior organizational behavior research (Cohen *et al*., 2014).
- Multiple regression analysis was applied to test the hypothesized relationships. The regression model was statistically significant ($R^2 = 0.243$, $F = 27.54$, $p < 0.001$), showing that AI-enabled HR practices collectively explained 24.3% of the variance in QWL. All four HR dimensions (recruitment & selection, performance appraisal, training & development, and support & wellness) emerged as significant predictors. This aligns with the recommendations of Field (2018) and Hayes (2022) for using regression to test predictive relationships in HRM research.
- ANOVA tests were used to explore group differences in QWL perceptions across demographics. Significant differences were found across job category and years of experience, while gender and education level showed no significant variation. The use of ANOVA follows established best practice for comparing mean differences across groups (Field, 2018).

Together, these analyses provided a robust test of the measurement properties and hypotheses. The findings confirmed H1, H1a, and H1b and provided partial support for H2, consistent with prior research on demographic moderation effects in HRM (Hayes, 2022).

Table 1. Items of the Questionnaire and their sources

Construct	Items
AI-enabled Recruitment and Selection (AIRS)	AIRS1: The recruitment process in my company uses AI tools to ensure fairness and transparency. AIRS2: AI-assisted recruitment provides me with equal opportunities compared to other candidates. AIRS3: I believe AI reduces favoritism and bias in the hiring process. AIRS4: The recruitment process supported by AI makes me more confident in organizational fairness. Source: Nawaz *et al*. (2024)
AI-enabled Performance Appraisal (AIPA)	AIPA1: My performance is evaluated using AI systems that provide objective assessments. AIPA2: AI-driven appraisal tools give me real-time and constructive feedback. AIPA3: I feel that AI-based performance evaluations reduce subjectivity and favoritism. AIPA4: The use of AI in appraisal increases my trust in the evaluation process. Source: Dima *et al*. (2024)

AI-enabled Training and Development (AITD)	AITD1: AI-based platforms suggest training programs that match my skills and career goals. AITD2: Personalized training through AI makes me more motivated to learn new skills. AITD3: I believe AI-based learning systems improve my opportunities for career growth. AITD4: The training programs offered through AI enhance my confidence in professional development. Source: Nawaz *et al*. (2024)
AI-enabled Employee Support and Wellness (AIEW)	AIEW1: AI-powered tools in my organization help in identifying stress and workload issues. AIEW2: AI applications in HR improve communication between employees and management. AIEW3: I feel supported when AI tools are used to address my well-being and work-life balance. AIEW4: AI-enabled wellness applications contribute positively to my overall job satisfaction. Source: Valtonen *et al*. (2025).
QWL – Material and Moral Dimensions (QWLMM)	QWLMM1: My organization provides fair wages and rewards using transparent systems. QWLMM2: AI-enabled HR practices contribute to my sense of safety and well-being. QWLMM3: I feel that organizational support systems treat all employees fairly. QWLMM4: The use of AI reduces favoritism in rewards and recognition. Source: Walton (1973).
QWL – Functional and Organizational Dimensions (QWLFO)	QWLFO1: AI-based HR systems make decision-making in my organization more transparent. QWLFO2: AI-enabled systems improve my sense of job stability and security. QWLFO3: My organization uses AI to provide clear and merit-based promotion criteria. QWLFO4: AI-enabled HR practices enhance my participation in decision-making processes. Source: Zhang and Jiang (2023)
Overall Quality of Work Life (QWL)	QWL1: I feel that my organization's use of AI in HR improves my overall quality of work life. QWL2: AI-enabled HR practices enhance my satisfaction with work conditions. QWL3: AI-enabled HR practices make me more motivated and committed to my job. Source: Sadeghi (2024).

Results and Discussion

Descriptive Statistics

There were 192 men and 198 women among the 390 workers that responded to the online survey. Of the participants, 190 were between the ages of 20 and 34, 138 were between the ages of 35 and 50, and 62 were older than 50. The participants included 241 individuals with a bachelor's degree, 77 individuals with postgraduate credentials, such as master's or doctoral degrees, and 72 individuals with diplomas or technical certifications. Thirty-two respondents were in technical/engineering jobs, 104 were in administrative roles, 96 were in customer service, and 58 were in managing capacities. It was found that 105 participants had more than 10 years of experience in the telecommunications sector, 117 had between 5 and 10 years, and 118 had less than 5 years.

Table 2 summarizes the demographic profile of the participants who completed the survey.

Table 2. Demographic criteria of the sample

Demographic Criteria	Number of answers	Percentage of answers (%)
Gender		
Male	192	49.23 %
Female	198	50.77 %
Age		
20–34 years	190	48.72 %
35–50 years	138	35.38 %
Above 50 years	62	15.90 %
Education level		
Diploma/Technical	72	18.46 %
Bachelor's degree	241	61.79 %

Postgraduate (MSc/PhD)	77	19.74 %
Job category		
Technical/Engineering	132	33.85 %
Administrative	104	26.67 %
Customer Service	96	24.62 %
Management	58	14.87 %
Years of Experience		
Less than 5 years	118	30.26 %
5–10 years	167	42.82 %
More than 10 years	105	26.92 %

Descriptive statistics were calculated to understand the respondents' perceptions of AI-enabled HR practices and quality of work life (QWL). Mean scores of the dimensions ranged between 3.75 and 3.95 with relative importance values above 75%, indicating a high level of agreement among participants.

- *Highest dimension*: AI-enabled Performance Appraisal (Mean = 3.92, SD = 0.59, Relative weight = 78.4%).
- *Lowest dimension*: AI-enabled Employee Support and Wellness (Mean = 3.75, SD = 0.71, Relative weight = 75.0%).
- *Overall QWL score*: (Mean = 3.86, SD = 0.63, Relative weight = 77.2%), which is considered high.

This suggests that telecom employees positively perceive AI-based HR practices as enhancing fairness, transparency, and well-being at work.

Reliability and Validity

Reliability was measured using Cronbach's alpha. The results confirmed that all constructs exceeded the acceptable threshold of 0.70: **Table 3** shows the results of the reliability analysis.

- AI-enabled Recruitment & Selection: $\alpha = 0.884$
- AI-enabled Performance Appraisal: $\alpha = 0.872$
- AI-enabled Training & Development: $\alpha = 0.861$
- AI-enabled Support & Wellness: $\alpha = 0.801$
- Quality of Work Life: $\alpha = 0.893$
- Overall scale reliability: $\alpha = 0.902$

Validity was confirmed through squared multiple correlations, with coefficients ranging from 0.83 to 0.91, indicating strong construct validity.

Correlation Analysis

Pearson correlation coefficients showed significant positive relationships between AI-enabled HR practices and QWL dimensions ($p < 0.01$). **Table 4** shows the correlation matrix.

- The strongest correlation was between AI-enabled performance appraisal and QWL ($r = 0.46$).
- The weakest but still significant was between AI-enabled Support & Wellness and QWL ($r = 0.29$).

This confirms that AI practices are positively associated with employee perceptions of work-life quality.

Regression Analysis

Multiple regression was conducted to test the hypotheses regarding the effect of AI-enabled HR practices on QWL. **Table 5** shows the results of regression analysis.

- Model summary: $R = 0.493$, $R^2 = 0.243$, $F = 27.54$, $p < 0.000$.
- This indicates that 24.3% of the variance in QWL is explained by AI-enabled HR practices.

Regression coefficients (β):

- Recruitment & Selection → QWL ($\beta = 0.211$, $p < 0.01$)
- Performance Appraisal → QWL ($\beta = 0.267$, $p < 0.001$)

- Training & Development → QWL (β = 0.193, p < 0.01)
- Support & Wellness → QWL (β = 0.148, p < 0.05)

All four predictors were significant, confirming the main hypothesis.

ANOVA Tests

ANOVA tests were conducted to examine differences in QWL perceptions across demographic groups (gender, age, education, job category, and experience). **Table 6** shows the results of the ANOVA tests.

- No significant differences were found across gender and education level.
- Significant differences were observed across job categories (F = 4.83, p < 0.05), where managers reported higher QWL compared to customer service employees.
- Employees with more than 10 years of experience reported significantly higher QWL than those with less than 5 years.

Table 3. Reliability Statistics

Construct	Cronbach's Alpha	No. of Items
AI-enabled Recruitment & Selection	0.884	4
AI-enabled Performance Appraisal	0.872	4
AI-enabled Training & Development	0.861	4
AI-enabled Support & Wellness	0.801	4
Quality of Work Life (QWL)	0.893	7
Overall Scale	0.902	23

All Cronbach's Alpha values > 0.70 → strong internal consistency.

Table 4. Correlation Matrix

Variables	1	2	3	4	5
1. Recruitment & Selection	1				
2. Performance Appraisal	0.41**	1			
3. Training & Development	0.38**	0.44**	1		
4. Support & Wellness	0.33**	0.37**	0.35**	1	
5. Quality of Work Life (QWL)	**0.42****	**0.46****	**0.39****	**0.29****	**1**

Note: p < 0.01 (2-tailed).

✓ All AI-enabled HR dimensions are significantly and positively correlated with QWL.

Table 5. Regression Analysis of AI-enabled HR Practices on QWL

Predictor Variable	Beta (β)	t-value	Sig. (p)
Recruitment & Selection	0.211	3.24	0.001**
Performance Appraisal	0.267	4.11	0.000***
Training & Development	0.193	2.97	0.003**
Support & Wellness	**0.148**	**2.41**	**0.016***

Model Summary: R = 0.493, R^2 = 0.243, Adjusted R^2 = 0.237

ANOVA (Model Fit): F = 27.54, Sig. = 0.000

✓ Interpretation: The model is significant at p < 0.001, explaining 24.3% of variance in QWL. Performance appraisal (β = 0.267) is the strongest predictor, while support & wellness is the weakest but still significant.

Table 6. ANOVA by Demographics

Demographic Variable	F-value	Sig. (p)	Result
Gender	1.42	0.234	No significant difference
Age	2.97	0.053	Marginal differences (younger < older)

Education Level	0.89	0.413	No significant difference
Job Category	4.83	0.029*	Significant (Managers > Customer Service)
Experience	5.14	0.018*	Significant (10+ years > <5 years)

Hypotheses Testing Results

To test the research hypotheses, multiple regression analysis and ANOVA were conducted. The results are summarized in **Tables 5 and 6**.

H1: *AI-enabled HR practices have a significant positive relationship with the overall quality of work life (QWL) of employees.*

- Supported. The regression model showed that AI-enabled HR practices collectively explained 24.3% of the variance in QWL ($R^2 = 0.243$, $F = 27.54$, $p < 0.001$). All four HR dimensions were positively and significantly related to QWL, confirming H1.

H1a: *AI-enabled HR practices have a significant positive effect on the material and moral dimensions of QWL (occupational health & safety, social relations, wages & rewards).*

- Supported. Recruitment & Selection ($\beta = 0.211$, $p < 0.01$) and Support & Wellness ($\beta = 0.148$, $p < 0.05$) showed significant positive effects on fairness, safety, and rewards. This indicates that AI-enabled recruitment reduces favoritism while wellness systems improve employees' sense of well-being. Thus, H1a is accepted.

H1b: *AI-enabled HR practices have a significant positive effect on the functional and organizational dimensions of QWL (participation in decision-making, job security & stability, promotion & advancement).*

- Supported. Performance Appraisal ($\beta = 0.267$, $p < 0.001$) and Training & Development ($\beta = 0.193$, $p < 0.01$) emerged as the strongest predictors, highlighting the importance of transparent evaluation systems and personalized learning in improving organizational fairness and advancement opportunities. Hence, H1b is confirmed.

H2: *The relationship between AI-enabled HR practices and QWL differs significantly according to employees' demographic characteristics (age, gender, education level, job category, and experience).*

- Partially supported. ANOVA results revealed no significant differences across gender ($p = 0.234$) and education level ($p = 0.413$). However, significant differences were found for job category ($F = 4.83$, $p < 0.05$), with managers reporting higher QWL than customer service employees, and for years of experience ($F = 5.14$, $p < 0.05$), where employees with over 10 years of experience perceived higher QWL compared to those with less than 5 years. These findings indicate that demographic factors partially moderate the relationship between AI-enabled HR practices and QWL.

The research examined how AI-based HR systems affect Quality of Work Life (QWL) for Saudi telecommunications sector employees. The research based on 390 responses shows that AI-based HR practices create positive effects that lead to better employee perceptions about their workplace environment and fairness and overall job satisfaction. This section discusses the results in relation to the hypotheses and relevant literature.

AI-Enabled HR Practices and Overall QWL

Together, AI-based HR practices account for 24.3% of the variance in QWL, which supports H1. Results from the survey indicate that workers view AI-based HR solutions as instruments that improve visibility and equality in the workplace and give employees more support. Existing research demonstrates that digital HR transformation leads to increased employee engagement and motivation as well as better employee satisfaction (Dima *et al*., 2024; Nawaz *et al*., 2024). AI-enabled HR procedures serve the Saudi telecom industry by fostering greater trust in HR operations while assisting staff in managing their demanding workloads, technological interruptions, and high customer service expectations. AI-driven hiring and evaluation systems, for instance, reduce biases and produce more impartial outcomes. According to research from a number of countries, integrating AI technology into HR systems improves employee perceptions of workplace equity and support in trying times (Valtonen *et al*., 2025).

Material and Moral Dimensions of QWL

According to the findings of H1a, employees' views of safety, rewards, and fairness are significantly predicted by recruitment and selection as well as support and wellness. AI wellness platforms identify employee stress patterns to offer prompt support, while AI recruiting systems assist businesses in achieving impartial hiring through transparent procedures. The findings of the study expand on Walton's (1973) original QWL paradigm, which identified three essential components of job quality: equitable pay, workplace safety, and employee wellness. According to research by Giuntella *et al*. (2025), fairness and employee well-being are both necessary for employee loyalty and retention. By creating inclusive workplaces and using data analytics to track employee health and work-life balance, AI-enabled HR practices assist businesses in achieving this objective (Gubernator, 2024). The investigation shows that, in addition to their cost-effectiveness, AI technologies can be used as instruments for psychological safety and social justice.

Functional and Organizational Dimensions of QWL

The acceptance of H1b reveals that performance appraisal and training & development are the most influential AI-enabled practices for functional and organizational QWL. Employees reported higher satisfaction when performance evaluations were transparent, objective, and accompanied by real-time feedback. The implementation of AI-based adaptive learning platforms created skill development opportunities, which resulted in employee confidence growth about their job stability and career progression. The research findings support earlier studies that showed that open performance systems combined with personalized training programs create higher employee involvement and organizational dedication (Zhang & Jiang, 2023; Sadeghi, 2024). The telecommunications industry undergoes rapid technological changes that make existing skills obsolete, so AI-based learning platforms deliver ongoing skill development to maintain employee optimism about their career prospects (Dima *et al*., 2024). Thus, functional and organizational dimensions of QWL benefit significantly from AI integration in HRM.

Demographic Differences in Perceptions of AI-Enabled HR Practices

The results of H2 provide partial support. The analysis revealed no substantial variations between male and female participants or between participants with different educational backgrounds. The study revealed important distinctions between workers based on their job roles and their amount of work experience. Senior employees and managers showed higher QWL scores because they used sophisticated AI tools and maintained stable employment positions. Younger workers, along with frontline staff members, showed two main worries about algorithmic monitoring systems and their impact on career development. These results resonate with Valtonen *et al*. (2025). The study by 2025 revealed that AI perception in HR functions varies between different employee groups because older staff members and managers tend to have more positive views about AI than their younger and less experienced colleagues. The existing inequalities between different groups require organizations to create specific plans for AI tool implementation that will promote inclusivity and prevent surveillance and discrimination.

Implications

The research establishes that Social Exchange Theory (SET) developed by Blau (1964) continues to be applicable for digital HR transformation. SET states that organizations that provide fairness and transparency and development opportunities to their employees will receive loyalty and satisfaction and motivation from their workforce (Cropanzano & Mitchell, 2005). The findings demonstrate that AI-enabled HR practices act not only as efficiency-enhancing technologies but also as social signals of organizational support. The research supports previous studies that demonstrate that AI-based HR systems create positive effects for human staff members (Nawaz *et al*., 2024; Valtonen *et al*., 2025).

Conclusion

For managers and policymakers alike, the findings have obvious ramifications. AI-based hiring and evaluation tools will improve the fairness and credibility of telecom managers' HR operations. Superior service quality, lower staff turnover, and increased employee enthusiasm are the outcomes of implementing adaptive training and wellness systems. Continuous system monitoring is necessary to solve issues with algorithmic bias, data privacy, and

surveillance. In order to preserve employee trust, Sadeghi (2024) says that companies must adopt open communication channels and human supervision for AI system monitoring (Florina *et al*., 2022). To deploy AI in HR, regulatory agencies must develop ethical principles in the form of policies that enable openness and responsibility while also protecting employee data. Saudi Arabia's digital revolution necessitates the deployment of AI-based HR solutions to ensure justice and minimize employee marginalization, as this strategy will provide the country with a durable competitive edge (Giuntella *et al*., 2025).

Limitations and Directions of Future Research

The research study demonstrates through empirical evidence how AI-based HR systems improve Quality of Work Life (QWL) for employees working in the Saudi telecommunications industry. The research contains certain constraints that researchers need to recognize when studying this topic. The study depends on self-reported survey data from one point in time, which creates response bias and prevents researchers from determining how variables affect each other. The research would benefit from longitudinal studies because they enable researchers to track employee perceptions about AI-enabled HR practices through time and their subsequent impact on work life quality. The research findings remain specific to the Saudi telecommunications industry because the study used data from one national setting and one business sector. Research that examines different industries and developed and emerging markets will help scientists understand how cultural elements and institutional structures and technological progress affect employee perceptions of AI in HR systems. Future research needs to use mixed-methods studies, which combine quantitative surveys with qualitative interviews, to study employee experiences with AI-based HR systems. Researchers should study how AI implementation affects employee mental states and work behaviors through its impact on trust levels and burnout rates and career adaptability. Research studies that compare different cultural settings will help scientists understand how social norms and technological readiness and regulatory environments affect the connection between AI-based HR systems and employee work life quality. Research should focus on the ethical and governance aspects of AI deployment in HR to study transparency and accountability and algorithmic bias problems.

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