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THE IMPACT OF AI-SUPPORTED JOB FLEXIBILITY ON ACHIEVING WORKFORCE SUSTAINABILITY

Hayder Ibrahim Hassoon[1*]

[1]Ministry of Higher Education and Scientific Research, Baghdad, IRAQ

*Corresponding Author's Email: qoboulleen@gmail.com

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ABSTRACT

The current research intends to investigate the influence of AI-enabled job flexibility on the realization of functional sustainability in terms of human resource management in the Iraqi context. A descriptive-analytic method is used in this research, where a Likert-scale questionnaire including 36 questions about each dimension of both variables is used. For collecting the data, the Krejcie and Morgan sample size technique has been used for selecting 200 employees in total from four firms operating in Baghdad (Zain Iraq, Asiacell, General Company for Electronic Industries, and Korkas). There are very strong positive correlations between the variables (0.693-0.755), as well as a significant positive effect (R^2=0.659). Functional flexibility prevails (β=0.488).

Keywords**:** *Job Flexibility; Artificial Intelligence; Functional Sustainability; Human Resources; Iraq***.**

JEL Classification: J24, M12, O33, Q01, L86

1.0 INTRODUCTION

The modern world is experiencing radical changes in the business world, which arise as a result of the digital revolution and the Fourth Industrial Revolution. (Rani & Kansra, 2026, p. 372) As a result, today's human resource systems play a leading role in creating a sustainable competitive advantage (Murugesan et al., 2023, p. 5). Given this situation, classical approaches to human resource management become ineffective, especially in a volatile environment like the one in Iraq, where not only employee retention but also flexibility in creating a favourable working environment for employees is key (Fenwick et al., 2024, p. 37).

In this regard, the notion of job flexibility has been proposed as a modern strategy that allows individuals to be flexible in their working hours, working locations, and methods of performing tasks. As artificial intelligence technology becomes more advanced, job flexibility continues to evolve, with factors like dynamic scheduling, delegating tasks remotely, and preventing job burnout playing significant roles (Zayid et al., 2024, p. 1125).

There are significant issues that organizations experience in Iraq, including employee attrition and poor productivity rates. These conditions have made it essential for organizations in Iraq to adopt artificial intelligence to promote flexibility in order to ensure job sustainability, which is defined as productivity alongside balancing professional and personal lives. It is with these considerations that the current research evaluates the association and causation between these constructs, with the objective of formulating a framework to expedite digital transformation in HRM in Iraq.

1.1 Previous Studies

An exploratory study was conducted by Al-Hashimi (2025), using both quantitative and qualitative approaches, which was titled "The Role of AI-Supported Proactive Leadership in Achieving Sustainability in the Oil Sector: An Exploratory Study of Managers' Perceptions in Najaf Governorate." In the research, data was collected through a survey, where 88 oil companies' managers in Iraq were questioned, and also through in-depth interviews, where nine managers were interviewed. Structural Equation Modelling (SEM) analysis was used via SPSS and AMOS. Results indicated that artificial intelligence played a very crucial role in proactive leadership, and thus integration among the three aspects of sustainability was achieved; this is reflected in reducing the percentage of emissions from 15% to 28%, increasing safety, and enhancing efficiency.

Likewise, Al-Khabbaz (2022) conducted research in an article titled "The Impact of Employees' Attitudes towards Artificial Intelligence on Job Insecurity: The Moderating Role of Authoritarian Culture and Technophobia," which focused on Syria as another environment similar to Iraq regarding its economic and skills crises. Utilizing the descriptive-analytical method, the study analysed 425 employees working in telecommunications firms and adopted Structural Equation Modelling through SmartPLS. It found that employees' attitudes towards artificial intelligence positively impacted job insecurity. Although organizational culture and technophobia moderated the effect, their significance was not entirely conclusive. This research indirectly connected artificial intelligence to job flexibility due to the modification of tasks and the necessity of job reallocation in a complex environment.

In terms of international research, the current trends have been further confirmed. Rožman et al. (2023) have completed an empirical research entitled "AI-Supported Reduction of Employee Workload to Enhance Company Performance in the Current VUCA Environment". A multidimensional model was

formed, which is based on a relationship between the AI-based organization culture, leadership, and training and reduction of employee workload, commitment to their work, and improved organizational performance as a whole. The data collection process involved 317 middle and large enterprises in Slovenia with a questionnaire containing questions in a Likert scale, and analysis of the data was made mediante SEM. It turned out that there was a significant effect of artificial intelligence concerning reducing workload in order to ensure increased job flexibility through the automation of standard activities and redistribution of tasks, resulting in employees' increased commitment to the work and improving organizational performance in VUCA (volatile, uncertain, complex, and ambiguous) conditions.

On another front, Adiguzel et al. (2024) in their paper entitled "The Effects of AI Readiness on Lean Sustainability and Value Creation: A Mediation Analysis of Organizational Flexibility in Technology-Based Companies," sought to determine the effect of AI readiness on lean sustainability and value creation, with organizational flexibility (job flexibility inclusive) being the mediating variable. The research was conducted through a quantitative framework that involved surveys and structural equation modelling (SEM, SmartPLS). A sample of 456 participants from technology companies in Istanbul was used for the analysis. It was established that AI readiness positively affects organizational flexibility, thereby resulting in lean sustainability and competitive value creation. Job flexibility, being an aspect of organizational flexibility, was determined to be the mediation mechanism for value creation.

1.2 Similarities, Differences, and Research Gap

The discussed research articles (Al-Hashimi, 2025; Rožman et al., 2023; Adiguzel et al., 2024; Al-Khabbaz, 2022) agree with the current study in their discussion of the importance of using artificial intelligence in human resources management. Nevertheless, the articles differ from the current study in terms of the geographic locations discussed (Syria, Slovenia, and Turkey against Iraq) and the themes they cover. The challenge posed by the migration of talents in developing regions does not receive sufficient attention.

In this regard, an apparent knowledge gap exists in relation to the effects of temporal, spatial, and task flexibility dimensions provided by artificial intelligence on job sustainability. To bridge the existing knowledge gap, the proposed study attempts to investigate this topic through causality with a view to enriching the Arabic literature in this regard.

1.3 Research Problem

Despite the worldwide trend towards the adoption of artificial intelligence within all operational areas, there remains a considerable disparity between theoretical progress and actual application in Iraq-based enterprises. This disparity is evident in the poor job sustainability witnessed through high staff turnover, job burnout, and skilled migration. Additionally, there is an ineffective application of artificial intelligence by these companies to improve job flexibility. Accordingly, the research problem arises from the following central inquiry: Can artificial intelligence applications enhance job flexibility—across its temporal, spatial, and task-related dimensions—and thereby improve human resource sustainability through increased engagement, psychological well-being, and organizational loyalty? Or can artificial intelligence serve as a fundamental solution to the ongoing depletion of human resources in Iraq?

1.4 Main Research Question

What is the impact of AI-supported job flexibility on achieving human resource job sustainability in Iraqi organizations?

1.5 Sub-Questions

Derived from the main research question, the study addresses the following sub-questions:

1. What is the level of availability and implementation of job flexibility in the organizations under study?
2. What role does artificial intelligence play in supporting and enhancing the dimensions of job flexibility within these organizations?
3. What is the level of job sustainability achieved among employees in the selected organizations?
4. What is the impact of each dimension—temporal flexibility, spatial flexibility, and task-related flexibility—supported by artificial intelligence on achieving job sustainability?

1.6 Research Objectives

The present study seeks to achieve a set of objectives aligned with the variables' dimensions and the research questions, as follows:

1. Assessing the current state: To evaluate the extent to which AI-supported job flexibility is implemented in Iraqi organizations included in the study sample.
2. Measuring job sustainability: To determine the level of job sustainability of human resources—across its various dimensions—among employees in these organizations.

3. Testing causal relationships: To examine the nature of both correlational and causal relationships between the dimensions of AI-supported job flexibility (independent variable) and job sustainability (dependent variable).
4. Proposing an Explanatory Model: The purpose of creating an explanatory model is to create a link between modern technology (AI) and organizational behaviour, which would help overcome the knowledge gap in the Iraqi context.

1.7 Research Significance

The significance of this research may be considered in several ways:

First: Scientific (Academic) Significance

1. This paper is significant because it enriches the Arabic scientific literature in the field of digital human resources management, where more research could be done regarding artificial intelligence, flexibility, and sustainability in the context of developing countries.
2. It serves as an empirical test for modern theories in a new environment (Iraqi context), making the scientific theory more generalizable or defining its boundary conditions.
3. It develops a rigorous survey instrument that could be used for follow-up research in the future.

Secondly: Applied Importance

1. To Iraqi organizations: The study provides practical guidelines for managers on creating an intelligent flexibility from organizational rigidity, which will help minimize brain drain.
2. The research is useful in minimizing cost incurred in turnover and recruitment since it sustains the existing staff.
3. The study shows how Artificial Intelligence technologies like big data, expert systems, and robotics management can operate as complementaries to manpower.

1.8 Research Variables

First: Independent Variable

AI-Assisted Job Flexibility – It has the following three dimensions:

1. AI-supported temporal flexibility.
2. AI-supported spatial flexibility.
3. AI-supported task (functional) flexibility.

Second: Dependent Variable

Job Sustainability in Human Resource Management, with the following three dimensions:

1. Psychological and Social Sustainability.
2. Cognitive and Skill Sustainability.
3. Behavioural Sustainability.

1.9 Hypotheses Formulation

Major Hypothesis

H0: AI-enabled job flexibility does not have any statistically significant impact on human resource job sustainability.

H1: AI-enabled job flexibility has some statistically significant impact on human resource job sustainability.

Minor Hypotheses

H0-1: AI-enabled temporal flexibility does not have any statistically significant impact on job sustainability.

H0-2: AI-enabled spatial flexibility does not have any statistically significant impact on job sustainability.

H0-3: AI-enabled functional flexibility does not have any statistically significant impact on job sustainability.

1.10 Research Methodology

In accordance with the research aims and goals and in an effort to ensure that scientific answers are provided to the research questions and hypotheses, the descriptive-analytical approach will be used in this research. This research strategy is especially relevant when studying organizational behaviour and other variables, since it involves describing the existing reality in terms of quantity and quality, followed by analysis of the links between the independent and dependent variables, thus enabling logical and statistical inference.

1.11 Research Boundaries

In order to increase the validity and reliability of the findings and make them generalizable, the study will be conducted within the following limitations:

Boundaries in space: The empirical investigation will be conducted only in Baghdad, Iraq, within organizations that utilize the digital transformation technologies.

Boundaries in time: The investigation period will run from January 1, 2025, to November 1, 2025.

Boundaries in humans: The participants will include the executives, supervisors, and advisors of the organizations that demonstrate knowledge of flexible employment and artificial intelligence.

1.12 Theoretical Framework

1. First: AI-Supported Job Flexibility

Flexibility of function is regarded as one of the most important notions in contemporary human resource management. (Wu et al., 2026, p. 5) It demonstrates an organization's ability to foster the development of diversified skills among its employees that would allow them to undertake different kinds of work due to fast-changing technologies, demands, and practices (Thomas et al., 2025, p. 6).

The integration of artificial intelligence into job flexibility represents a qualitative shift, transforming flexibility from a traditional practice into an intelligent, predictive, and adaptive system (Kurniawan et al., 2025, p. 22). Lee et al. define job flexibility as "the ability of employees to decide where, when, and how they exercise control over their tasks" (Lee et al., 2024, p. 4). Within the context of artificial intelligence, Al-Hashimi (2025, p. 245) argues that intelligent support for flexibility evolves into a predictive system that shifts leadership from reactive to proactive modes through the analysis of big data.

Based on the above, the researcher defines AI-supported job flexibility as:

"The strategic capability of Iraqi organizations to reconfigure the temporal, spatial, and task-related dimensions of work using predictive AI algorithms and intelligent automation, in order to ensure immediate responsiveness to economic, security, and operational fluctuations, while enhancing the efficiency and well-being of human resources in a post-conflict and digitally transforming environment."

Accordingly, AI-supported job flexibility in this study is examined through three main dimensions:

First Dimension: AI-Supported Temporal Flexibility

Temporal flexibility refers to an employee's ability to adjust working hours in alignment with both personal and organizational needs without compromising productivity (Fenwick & Edwards, 2025, p. 52). AI helps improve this aspect by scheduling tools, which make use of availability, demand, and performance records to create a tailored schedule that is highly efficient and avoids any potential conflict, leading to an improvement in work-life balance (Gemmano et al. 2026**,** p. 15).

Second Dimension: AI-Supported Spatial Flexibility

Spatial flexibility means having the capacity to complete the assigned tasks regardless of location, (Mehmood & Hakeem, 2026, p. 10) either in remote settings or through hybrid work models. Artificial intelligence improves this component through intelligent collaboration systems that include features such as instant translation, non-disruptive performance tracking (Alherimi et al., 2025, p. 12) and the personalization of virtual workplaces based on the individual requirements of each worker (Pereira et al., 2025, p. 7).

According to Mohapatra et al. (2025, p. 142), spatial flexibility entails having control over the workspaces, their designs, and availability in the form of remote settings, partly remote environments, and co-located offices.

Third Dimension: AI-Supported Task (Functional) Flexibility

Task flexibility is an attribute whereby workers can undertake various tasks and shift roles quickly where necessary. (Ajuluchukwu et al., 2026, p. 15) Artificial intelligence provides this attribute by automating repetitive tasks, shifting strategies, and offering customized learning tools that make it possible for individuals to acquire skills instantly (Aust et al., 2024, p. 18).

According to Gratton and Rigby (2025, p. 83), task flexibility is described as "the capacity to assure diversification of skills among employees in undertaking various tasks amid rapid technological and demand changes."

2. Second: Human Resource Job Sustainability

The sustainability of HR jobs is considered a critical strategy in modern companies, which guarantees optimal performance and ability to respond to difficulties without affecting the welfare of employees (Ridwan et al., 2025, p. 270). As part of the digital transformation, AI-assisted job flexibility adds more value to the sustainability of jobs as a source of competitive advantage in terms of effective resource management and minimizing risks (Shaikh et al., 2025, p. 12).

In relation to the situation in Iraq, job sustainability transforms into an important component of strategic capital for rebuilding and economic development (Gomes et al., 2024, p. 48). According to Úbeda-García et al. (2025, p. 5), sustainability involves integrating social and economic elements with the help of digital technologies. Taking into account this information, the researcher considers job sustainability to be: "Long-term potential for maintaining psychological and social welfare, cognitive abilities, skills, and excellence-oriented behaviour of Iraqi workers through digital integration, creating a balance between the requirements of organizational performance and sustainable human development under conditions of economic, security, and social turbulence."

First Dimension: Psychological and Social Sustainability

This dimension includes psychological well-being, social belonging, and work-life balance. (Mollah et al., 2024, p. 10850) The artificial intelligence system helps in this dimension by providing the ability to predict job burnout, personalized support programs, and real-time feedback (Sundari et al., 2025, p. 3015). In Iraq, where workers usually encounter stress after the war, the AI system can analyse their stress levels and suggest vacation or mental training programs. Thus, social integration improves among dispersed work groups (Al-Hashimi, 2025, p. 270).

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Second Dimension: Cognitive and Skill Sustainability

This dimension is based on the theme of learning and skills improvement. (Khan et al., 2025, p. 8) This is made possible by artificial intelligence in the form of customized learning systems, which customize learning materials according to individual worker's requirements and proficiency level (Ali et al., 2026, p. 4). In Iraq, the importance of this dimension lies in addressing the issue of the lack of digital skills in conventional industries. For example, artificial intelligence will be able to develop customized learning programs for engineers in the shift towards renewable energies (Al-Hashimi, 2025, p. 255).

Third Dimension: Behavioural Sustainability and Excellence

This factor includes positive workplace behaviours, organizational commitment, and performance excellence (Ali et al., 2025, p. 7). Behavioural changes associated with performance excellence may result from using artificial intelligence for behavioural analytics, providing instant feedback, and developing customized reward schemes (Umer et al., 2025, p. 4). For example, in the Iraqi context, this factor is crucial for excellence, especially among oil companies where AI can facilitate the tracking of positive behaviours and the development of innovative ways to cope with environmental issues (Al-Hashimi, 2025, p. 275). In turn, Chauhan et al. (2024, p. 8) note that AI-based flexibility will contribute to better performance and productivity in the long term.

2.0 EMPIRICAL FRAMEWORK

2.1 Research Population and Sample

The study population comprises all workers (administrative and technical) employed in the technology and industrial firms that operate in Baghdad Governorate, which have been officially recognized by the Baghdad Investment Commission. The four large firms selected are those belonging to the telecommunications and manufacturing industries. According to the researcher, these firms are viewed as a microcosm of the digital revolution era in Iraq. The size of the total study population is estimated to be around 1,900 workers. Table 1 shows the important attributes of the study population in relation to sector, number of workers, and percentage of each sector relative to the total population:

Table 1: Research Population

No.	Company Name	Sector Type	Number of Employees	Percentage of Population	Justification for Selection
1	Zain Iraq	Telecommunications & Technology	750	39.5%	Represents leadership in the adoption of AI technologies and

					digital customer services.
2	Asiacell	Telecommunications & Technology	600	31.6%	Provides a flexible model in human resource management and retail operations.
3	General Company for Electronic Industries	Industrial (Public Sector)	300	15.8%	Represents government institutions pursuing industrial digital transformation.
4	Korkas Automotive Manufacturing Company	Industrial (Mixed Sector)	250	13.1%	Applies automation systems and robotics in production lines.
		Total	**1900**	**100%**	

Source: Prepared by the researcher based on field study data.

Telecommunications industry is made up of 71% of the total number of the researched population due to the key importance of technology and innovation in creating the digital workplace. On the contrary, the industrial industry represents about 29% of the whole population giving room for comparison and showing difficulties in implementing digital technologies in traditional workplaces. Sample size was calculated through the Krejcie and Morgan formula, resulting in obtaining the necessary statistical sample equal to 220 respondents. Data processing and interpretation led to obtaining the results shown below in Table 2.

Table 2: Sample Determination Stages and Questionnaire Collection Results

Description	Frequency	Percentage (%)
Distributed questionnaires	220	100%
Unreturned questionnaires	13	5.9%
Retrieved questionnaires	207	94.0%
Incomplete questionnaires	7	3.1%
Valid questionnaires for analysis	200	90.9%

Source: Prepared by the researcher based on field study data.

The findings from the survey show that the response rate is relatively high at 94%, and this adds credibility to the statistical representation. Even though 3.1% of the surveys have been rejected for being

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incomplete, the total sample size is adequate to carry out some complex statistical calculations like regression and correlation.

2.2 Psychometric Properties of the Instrument

First: Construct Validity

To ensure that the instrument accurately measures the constructs it was designed to assess, Exploratory Factor Analysis (EFA) was conducted using orthogonal rotation.

Table 3: Measures of Sampling Adequacy for Exploratory Factor Analysis

Statistical Indicator	Calculated Value
Kaiser-Meyer-Olkin (KMO) Measure	0.891
Bartlett's Test of Sphericity	p = 0.000
Total Variance Explained	97.53%
Number of Extracted Factors	6 Factors

Source: Prepared by the researcher based on SPSS (Version 28) outputs.

The result obtained from Table (3) above shows the output of the Exploratory Factor Analysis (EFA) done in order to establish the reliability and validity of the measurement tool used for the study. From the results, it is evident that there are excellent indicators of data adequacy. First, Kaiser-Meyer-Olkin (KMO) test came up with a figure of 0.891 which is described as 'Excellent' indicating strong intercorrelations between the variables of interest. Additionally, the p-value of Bartlett's Test of Sphericity was significant at (p = 0.000) thus rejecting the null hypothesis since there is sufficient shared variance justifying the use of factor analysis.

In the course of analysing the study data, orthogonal rotation technique (Varimax) was applied in order to determine the factor structure. As a result, six dimensions were extracted. This factor explains 97.53% of the total variance, a very high percentage signifying the strength of the measurement tool in explaining the phenomenon being examined. These factors include:

1. Factors Relating to Job Flexibility: It was determined that there were three factors relating to job flexibility, which included the following: time flexibility, spatial flexibility, and task flexibility. All the above factors scored very high loadings, which exceeded (0.775), showing that the instrument is capable of accurately assessing smart scheduling, telework, and automation at work.

2. Factors Relating to Job Sustainability: In relation to job sustainability, three major factors were determined, namely: psychological and social sustainability; cognitive and skill sustainability; and behavioural sustainability and excellence. The above factors have scored extremely high loadings (above 0.809), indicating that the tool can accurately measure psychological well-being, skills attainment, and innovation behaviour.

Second: Reliability

Table (4) presents the reliability results:

Table 4: Cronbach's Alpha Coefficients for the Study Variables

Study Variable	Dimension	Number of Items	Cronbach's Alpha (α)	Assessment
AI-Supported Job Flexibility	Temporal Flexibility	6	0.865	High
	Spatial Flexibility	6	0.843	High
	Task (Functional) Flexibility	6	0.881	High
Job Sustainability	Psychological and Social Sustainability	6	0.896	High
	Cognitive and Skill Sustainability	6	0.854	High
	Behavioral Sustainability and Excellence	6	0.869	High
Overall		**36**	**0.945**	**Very High**

Source: Prepared by researcher based on SPSS (Version 28) outputs.

From the above table, the overall Cronbach's Alpha value for the research was found to be (0.945), which is far greater than the minimum acceptable value of (0.70). This shows that there is a high degree of reliability in the measurement tool. In addition, each dimension was noted to have obtained a score greater than (0.80). This proves that there is consistency in the answers provided and also that the measuring tool is appropriate for use in the next stage of data analysis.

Descriptive Statistical Analysis of the Data

The purpose of this section is to highlight the nature of the sample and also to assess the respondents' attitudes towards the key variables under consideration. This will be done by calculating arithmetic means and standard deviations.

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Table 5: Means and Standard Deviations of Sample Responses

No.	Variable / Dimension	Mean	Standard Deviation	Rank	Response Level
1	AI-Supported Temporal Flexibility	3.85	0.56	1	High
2	AI-Supported Spatial Flexibility	3.72	0.61	3	High
3	AI-Supported Task (Functional) Flexibility	3.79	0.58	2	High
Overall Mean of Independent Variable		**3.79**	**0.58**		**High**
4	Psychological and Social Sustainability	3.68	0.62	3	Moderate to High
5	Cognitive and Skill Sustainability	3.71	0.59	2	High
6	Behavioural Sustainability and Excellence	3.85	0.55	1	High
Overall Mean of Dependent Variable		**3.75**	**0.59**		**High**

Source: Prepared by the researcher based on SPSS (Version 28) outputs.

It is evident from the findings that the availability of job flexibility using AI is at a high level, with an average of (3.79). Out of the dimensions within job flexibility using AI, temporal flexibility came out first with an average of (3.85), demonstrating that there is a heightened sense of awareness on the part of firms operating in Baghdad that they must adapt working hours using artificial intelligence algorithms in order to accommodate employees' needs.

In relation to job sustainability, the findings reveal that it was also at a high level, with an average of (3.75). Behavioural sustainability and excellence emerged as the top dimension (3.85), which can be seen as an indication that the present level of flexibility has positively impacted employees' commitment and performance. However, the psychological dimension had a lower average of (3.68).

2.3 Hypothesis Testing

In order to meet the goals of the study and its hypotheses, a Pearson Correlation test was used to assess the relationships among the variables, while Multiple Linear Regression was performed to ascertain the nature and strength of the relationship.

First: Correlation Analysis

This test aims to identify the strength and direction of the relationship between the independent variable (AI-supported job flexibility) and the dependent variable (job sustainability).

Table 6: Correlation Matrix between AI-Supported Job Flexibility Dimensions and Job Sustainability

Variables	Temporal Flexibility	Spatial Flexibility	Task (Functional) Flexibility	Job Sustainability
Temporal Flexibility	1			
Spatial Flexibility	0.632	1		
Task (Functional) Flexibility	0.587	0.610	1	
Job Sustainability	0.711	0.693	0.755	1

Source: Prepared by the researcher based on SPSS (Version 28) outputs.

It is clear from the above table that the values shown reflect the presence of high and positive relationships with statistical significance at the (0.01) level of significance among all aspects of job flexibility supported by AI and the job sustainability aspect. It is important to mention here that the aspect of functional flexibility is highly correlated with job sustainability (r=0.755).

Second: Multiple Linear Regression Analysis

To test the main and sub-hypotheses related to the effect, a multiple linear regression model was used.

Table 7: Results of Multiple Linear Regression Analysis

Independent Variable (Dimensions)	Beta (β)	Standard Error	T-value	Sig.	Type of Effect
Constant	0.685	0.142	4.824	0.000	-
Time Elasticity	0.245	0.058	4.224	0.000	Statistically Significant
Spatial Elasticity	0.210	0.061	3.442	0.001	Statistically Significant
Functional Elasticity	0.488	0.054	9.037	0.000	Highly Significant
Multiple Correlation Coefficient	0.812				
R^2 Coefficient of Determination	0.659				65.9% of the Variance

F-value of Model as a Whole	127.18			0.000	Statistically Significant

Source: Prepared by the researcher based on SPSS (Version 28) outputs.

Based on the results presented in Table (7), the following conclusions can be drawn:

1. Strength of the Statistical Model:

   The coefficient of determination ($R^2 = 0.659$) reveals that the three constructs of AI-enabled job flexibility account for 65.9% of variation in job sustainability. It is a relatively high percentage, indicating that the model has considerable strength as an explanatory and predictor variable concerning the job sustainability in the digital economy.

2. Statistical Significance of the Model:

   The F-value (127.18) is statistically significant ($p = 0.000$), suggesting that the regression model is statistically valid and has a high predictive strength.

3. Ranking of Sub-Dimensions by Impact (Based on Beta Coefficients):

   a- Task (Functional) Flexibility: This dimension has the strongest effect, with ($\beta = 0.488$, $t = 9.037$, $p = 0.000$). This indicates that a one-unit increase in the use of AI for task allocation leads to an increase of 0.488 units in job sustainability, holding other variables constantly.

   b- Temporal Flexibility: Demonstrates a moderate effect ($\beta = 0.245$, $t = 4.224$, $p = 0.000$), highlighting the role of intelligent scheduling in supporting sustainability.

   c- Spatial Flexibility**:** Shows a positive and significant effect ($\beta = 0.210$, $t = 3.442$, $p = 0.001$), reinforcing the effectiveness of remote work arrangements.

   Based on these findings, the alternative hypothesis (H1) is accepted, and the null hypothesis (H0) is rejected. The results confirm the presence of a statistically significant effect of AI-supported job flexibility on achieving human resource job sustainability. Furthermore, all alternative sub-hypotheses (H1-1, H1-2, H1-3) are accepted, while their corresponding null hypotheses are rejected. It is worth noting that time, space, and task flexibility have all been shown to exhibit positive and statistically significant relationships in the sustainability of jobs, especially at the ($p \leq 0.01$) level. In general, the statistical model, which explains 65.9% of the variation, clearly indicates that the use of AI to achieve flexibility in jobs is an important strategic factor in improving the sustainability of human resources. Indeed, task flexibility is the most important aspect.

3.0 RESULTS AND RECOMMENDATIONS

3.1 Research Conclusions

Based on the statistical findings, the main conclusions can be summarized as follows:

1. The impact of AI-enabled job flexibility on the realization of sustainability within human resource management positions is highly positive and significant, accounting for 65.9% of the explained variance in sustainability.
2. AI-enabled task flexibility emerges as the key driver behind sustainable practices in Iraq, underlining the significance of automation and continuous training for skills in an ever-evolving setting.
3. While temporal and spatial flexibility enabled through artificial intelligence make contributions towards better psychological, social, and cognitive sustainability, their contributions are less pronounced compared to those made by task flexibility. In other words, Iraqi organizations should consider adopting AI-driven scheduling and teleworking approaches to effectively address socio-economic and security-related challenges.
4. In spite of overall high levels of sustainability, the Iraqi case demonstrates a gap between the current state and what can be achieved through artificial intelligence, notably in the field of psychological sustainability and the reduction of job burnout and talent outflow.
5. The suggested conceptual framework facilitates digital HRM transformation through the integration of technology with organizational practices in pursuit of sustainable competitive advantage.

3.2 Recommendations

Considering the findings and conclusions, the following recommendations are proposed:

1. Leverage AI technology for designing personalized training programs that can assess individuals' skill requirements and help transition them from conventional tasks to digital activities, especially in industries like telecommunication and manufacturing. Such interventions can improve task flexibility, which exhibited the highest positive relationship ($\beta = 0.488$).
2. Apply AI-enabled scheduling systems to set working hours based on demand and availability information. It is imperative for public organizations like the General Company for Electronic Industries, especially in reducing absenteeism and fostering psychological sustainability amid security challenges.
3. Use intelligent virtual collaboration platforms together with surveillance applications. Personalization of virtual workplace arrangements according to workers' needs—especially in firms like Zain Iraq—will increase spatial flexibility and address related infrastructure issues.

4. Conduct stress tests utilizing AI analytics and provide custom-designed psychological intervention programs in industrial firms like Corcas for promoting psychological and social sustainability, which showed the lowest mean rating (3.68).
5. Develop a comprehensive strategy for digital HRM using AI technology alongside an organization's loyalty policies. The plan should be implemented in a pilot test among selected organizations in Iraq, followed by periodic evaluation every six months to minimize talent migration problems.

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DECLARATIONS

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ETHICAL APPROVAL

Formal ethical approval was not obtained for this study. However, the study adhered to recognized ethical guidelines, including voluntary participation, informed consent, confidentiality, anonymity, and the responsible handling of participant data.

DATA AVAILABILITY

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

ARTIFICIAL INTELLIGENCE (AI) DECLARATION

The authors declare that artificial intelligence tools (such as ChatGPT or similar technologies) were used to assist in language editing and improve the readability of the manuscript. The authors take full responsibility for the content, accuracy, and integrity of the manuscript

AUTHOR CONTRIBUTIONS STATEMENT

H.I.H.: Conceptualization, Methodology, Formal analysis, Investigation, Data curation, Writing – original draft preparation, Writing – review & editing, Visualization, Supervision, Project administration. All authors have read and agreed to the published version of the manuscript.

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