

## ARTIFICIAL INTELLIGENCE AND ITS ROLE IN HUMAN RESOURCES MANAGEMENT

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### Abstract

This study reveals the definition of human resource management by examining definitions proposed by various theorists and attempting to arrive at new definitions. Previous studies have identified several benefits that can be achieved through the use of human resource management within an organization. In this study, partial least squares structural equation modeling (PLS-SEM) was used in statistical software (Smart PLS, version 4.0.8.9) to analyze data and measure the role of artificial intelligence in human resource management at Najaf International Airport, serving 120 employees. The results of this study showed that artificial intelligence plays a role in human resource management at Najaf International Airport. The study's key recommendations include linking employee incentives for this new technological skill (artificial intelligence) with employee learning if Najaf International Airport aims to enhance the adoption of new working methods.

Keywords: Artificial Intelligence, Human Resource Management, Najaf International Airport

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### 1. Introduction

Human resource management (HRM) has undergone a major transformation as a result of the diversity of issues related to the HR function and its impact on the strategic decision-making processes of organizations. Today, the HRM function is increasingly moving toward customizing HR practices to take into account the specifics of each objective. The main objective is to enable managers to achieve better intergenerational collaboration; HR analytics allows organizations to leverage their "employee" database to make better decisions and improve operational performance (Marr, 2016; Bernard, 2016).

As business leaders prepare for the digital world, machine learning-based artificial intelligence (Michalski et al.: Transforming HR at many levels, including recruitment, training, mobility, career management, compensation, and benefits, to attract high potential talent, process candidates quickly and evaluation, checking the fit between profile and position, and predicting the candidate's added value to the organization (Kamaruddin et al.) One of the most difficult situations faced by companies that want to be competitive and modern is losing one or more of their successful employees to competitors (Bratton & (Bratton & Gold, 2017).

Thanks to AI, HRM can conduct human capital performance indicators based on the analysis of internal data and cross-referenced with external market data, especially competitors. The results of these analyses make it possible to map existing profiles

according to the effectiveness and productivity of each employee (Haneda & Ito, 2018, Comptier, 2017, Koshal et al., 2016). Data processing is a key element of the tech giants (Apple, Facebook, Google, Microsoft) is an intelligence that must be interpreted and mastered in order to make the most of it, as in the case of Based on this introspection and intuition, HRM departments will be able to leverage its capabilities and place it at a higher strategic and decision-making level.

While some may think that data and algorithms can substitute for decision intelligence, in reality, data and algorithms can better represent decision intelligence. It is essential to understand that once data becomes deterministic, it is not autonomous. Its value lies entirely in the reading and interpretation of information by human intelligence. Data does not replace the intelligence and courage of human resources; it serves them. Human resources, supported by data, have the means to build their own future. Challenging ready-made representations and ideas and deriving propositions based on these observations is the challenge associated with HR's taming of data (Giry, 2017).

## **2. Theoretical framework**

### **2.1 Artificial Intelligence**

The term artificial intelligence originated in the 50s of the 20th centuries, specifically in 1950, when scientist 'Alan Tolleng' introduced the Turing Test to assess the intelligence of computers and classified them as 'intelligent' if they could imitate the human mind. (Parveen & Palaniammal, 2019: 513 - 516). Al-Talidi, 2021: 79-96 also noted that AI emerged in the 1950s and has evolved into what it is today through a combination of several factors: today, the availability of larger amounts of data and their structured and unstructured sources has made the existence of AI functions possible, Cloud computing helps to speed up the processing of large volumes of data and reduce costs through AI-enhanced systems that perform parallel processing. In addition, social media platforms have played an important role in facilitating advances in many aspects of AI, such as deep learning and augmentation, which have contributed to the development and sharing of AI tools and applications.

The goal of AI is to help human capabilities make high-level decisions with far-reaching consequences. This is a technical answer. From a philosophical perspective, AI has the potential to free people from drudgery, enabling them to lead more meaningful lives, and to help manage and operate complex networks of interconnected individuals, companies and nations for the benefit of all humanity (Al-Assiouti, 2020: 15). Ashe (2019: 64 – 80), Asheri defines AI as a science concerned with the study of ideas that are added to machines to be able to respond to stimuli in line with traditional responses from humans, such as the ability to think, judge and willpower that allows machines to evaluate, criticize and select different opinions within themselves. According to the review, the ability to simulate the advanced mental functions of the human brain, program computers to use language, array and organize virtual and artificial neurons, shape consciousness and ideas, determine and measure the complexity of a problem is the ability for self-improvement, randomness and innovation.

The following are noted Kaplan & Haenlein, (2020: 37-50) It is the system's ability to correctly interpret external data, learn from this data and use these lessons to achieve

specific goals and tasks through flexible adaptation. Whereas Makarius (2020: 262-273) the definition of AI is the ability of a system to accurately interpret external data, learn from that data, and use those lessons to achieve a specific goal or task through flexible adaptation. Wamba-Taguimdje & Tchatchouang (2021: 1893-1924) defined AI as a general term that includes the use of computers to model intelligent behavior with minimal human intervention; According to Khattab (2021) AI is thinking, understanding, logical reasoning, judgment, hearing and speech, The ability of a machine to perform tasks that require human intelligence, such as the ability to act in an orderly and logical manner, In this study, AI refers to the fourth industrial revolution, including media organization, high-resolution 3D imaging technology, high-speed internet, internet of things, robotics, augmented reality, virtual reality, algorithms.

Boubay (2022) defines AI as 'the ability of computer-controlled robots to perform tasks performed by humans'. The term is often applied to projects that develop systems with intelligent processes typical of humans. Examples include the ability to reason, discover meaning, generalize and learn from past experiences. It is also defined by the European Parliament (2023) as technology or technology contained in a legal annex that has the ability to process data or other types of input to infer how to achieve specific human-defined goals through learning and reasoning.

**Table 1.** Definitions of the Terms

No.	Definition	Researchers
1	We're looking for ways to get computers to do things that people used to be good at.	Elaine Rich (1983)
2	A branch of computer science concerned with the automation of intelligent behavior.	Luger and Stubblefield (1993)
3	Faster processing improves productivity by providing improved working environments, reduced errors, faster documented information exchange, and better and faster communication between all stakeholders. Dec.	Nivoudi (2014)
4	Artificial intelligence is a computer system that can think.	Haugeland, J. (2014)
5	Artificial intelligence is a computer system that can perform human-like thought processes such as learning, complex problem solving, and reasoning.	Haugeland, J. (2016)
6	Artificial intelligence is generally the ability to perform tasks such as visual recognition, speech recognition, decision making, and translation between languages	Chollet, F. (2020)
7	Artificial intelligence is the ability to perform tasks that require human intelligence.	Marr, B. (2022)

Analysis of definitions of AI by various scholars shows that AI is often defined in general terms, but some definitions lack specificity and each author offers his or her own interpretation. In short, AI can be seen as an interdisciplinary field that aims to create systems and machines capable of performing tasks that normally require human intelligence, with an emphasis on learning, adaptation and autonomy.

**Table 2.** Shows the dimensions of AI from the point of view of many authors and researchers.

The Dimensions														Researchers and year	
Memory and representation	Adaptation and flexibility	Natural Language Processing	Continuous learning	Superintelligence (ASI)	Multimodal Cognition	Self-awareness	Planning and reasoning	Data	Social responsibility	Social intelligence	Infrastructure	Deep learning	General Intelligence	Narrow Intelligence	
						*							*	*	Russell & Norvig (2010)
*	*														Jagetia et al. (2003)
					*	*				*					Card & Miller (2005)
									*	*			*	*	Hooi (2006)
								*	*	*			*	*	Hooi (2006)
					*					*					Panayotopoulou et al. (2007)
		*	*	*											Pouyan & Nazari (2009)
	*	*						*							Zafar (2009)
		*									*	*			Parry & Tyson (2011)
		*									*		*		Rawash & Saydam (2012)
								*	*	*	*				Okwechime, 2022

## 2.2 Human Resource Management

Human resource management (HRM) approaches are controversial; researchers and authors have different views on HRM practices and policy implications. Some researchers believe that HRM is primarily focused on task accomplishment, while others believe that HRM is a developmental approach. Due to the difference between these two concepts, HRM practices and policies in the US are categorized into soft HRM and hard HRM. The strategic orientation of soft HRM focuses on relationships by encouraging employee effort and behavior, treating employees as valuable assets and seeing them as a source of competitive advantage in the organization through their loyalty, adaptability, expertise and quality results (2020: 76, Goyal). Thus, with the participation of all employees, effective systems can be developed within the organization that value trust and collaboration. Solid HRM, on the other hand, focuses on the qualitative, accounting and strategic business dimensions of managing 'employee

numbers', which is called human asset accounting and is also related to scientific management.

Human resource management stems from efforts to optimize the investment of an organization's resources, especially human resources, which is a key element in achieving its goals effectively and efficiently, hence the need for an entity that deals with managing this resource and optimizing its investment, development, and meeting its needs (Allaqi, 2019: 65).

Allaqi (2019: 65) defined HRM as the process of attracting, developing and retaining individuals within the framework of achieving organizational goals and objectives. (Ali, 2019: 253) defined HRM as the art of acquiring, developing and retaining a competent workforce to achieve organizational goals with maximum efficiency and economy. Amin (2019: 109-127) defined HRM as one of the most important departments responsible for human resource management practices in order to achieve the goals set for the organization and employees. Brazma (2019) defined HRM as a department that has the capacity to provide human resources to different areas of the organization and also to maintain and develop human capacity to achieve the desired goals of the organization set by the organization. Al-Dhiban (2019), while defining human resource management, stated that it is a department that deals with human resources and works to achieve the goals set by the organization to achieve competitive advantage through the human resources available in the organization.

Boxall & Purcell (2020: 197-218) stated that human resource management (HRM) is a strategic approach to managing industrial relations, work systems, and the attitudes, skills, and behaviors of employees to contribute to the goals of the organization. It involves attracting, developing, motivating and retaining the human resources needed for the organization to achieve its strategic objectives. Key activities include recruitment and selection, performance management, reward management, employee development, employee relations, cultural management and organizational climate. (Acharya, 2020:780) defines human resource management as the process of planning, organizing, directing and controlling the procurement, development, rewarding, integration, retention and separation of human resources in order to achieve individual, organizational and social goals effectively and efficiently.

Ben Achour and Al-Qadiri, (2020: 1085) Alagi (2020: 230) defines the concept of human resource management as "a set of strategies, processes and activities designed to support common goals by creating some form of integration between the needs of the organization and the needs of the individuals working there. Ben Bouzid (2020) defines Human Resources as 'all the human elements of managers and employees doing business in an organization'. Salim (2020) defines Human Resources as 'a group of motivated and qualified people who have the appropriate skills and competencies for a particular type of work and who perform their duties with enthusiasm and conviction'. It is also defined by (Zadi, 2020) as 'a function concerned with how to prepare the competencies required for the organization and how to allocate them to various positions within the organization, as well as supervising and guiding these competencies and rewarding them appropriately for performing their assigned tasks and functions' (Batarsa, 2003).

Batarsa (2021) is the main axis that coordinates the relationship between the organization and its employees and aims to achieve its goals through a series of activities and specific programs to effectively attract, develop, recruit, evaluate performance, retain and retain talent. Bani Hani (2021: 23-58) is one of the most

important sectors of business management where the organization provides the necessary human resources in various fields and strives to retain, develop and promote them and develop various competencies. Farndale et al, (2022:325) Here, human resource management (HRM) can be defined as an organizational function that focuses on the structured and comprehensive management of people working in an organization. Specifically, HRM encompasses all organizational activities related to the management of the employment relationship, including recruitment, selection, training and development, performance management, compensation management, employee relations, corporate culture management and organizational climate. Paauwe & Boselie, (2022:289-300) define HRM as 'organizational activities, functions and processes for managing people at work'. This includes workforce planning, recruitment and selection, performance management, organizational development, compensation and benefits management, health and safety, employee relations and representation, training and development, etc.

Ulrich & Dulebohn (2022:188-204) define human resource management (HRM) to include all managerial decisions and practices that directly affect or influence the people and human resources working in an organization. This includes tasks such as strategic workforce planning, job analysis, equal employment opportunity, recruitment and selection, performance management, compensation and benefits management, health and safety, skills development and training, employee relations and industrial relations (Armstrong & Taylor, 2022). It is the process of recruitment, training, policy setting and developing retention strategies. Unlike in the past when HRM meant processing payrolls, sending birthday gifts to employees, organizing company outings, and ensuring that forms were filled out correctly, it was an administrative role rather than a strategic role critical to the success of the organization. (Abbas, Abdul-Hussein et al., 2022) further stated that the concept of human resource management includes a set of strategies, policies, practices, and programs necessary to implement the range of workforce-related activities an administration needs to maximize its functioning.

Having defined HRM above, through these definitions, the concept of human resource management (HRM) is the managerial decisions and practices that directly and indirectly affect individuals working in any organization, including the core functions of the organization such as strategic workforce planning, job analysis, regulation, motivation, equal employment opportunities and other organizational activities. In the view of researchers, these functions can be divided into a number of core functions, both internal and external.

## 2.3 The Dimensions of HRM

### 2.3.1 Planning

Human resource planning is one of the most important areas of master planning and is linked to the comprehensive development plan of a country or agency. It is to provide a skilled and trained workforce that can successfully develop and support development and development programs in institutions. Developing countries have paid more attention to the material factors of production than to the human factor, reflecting the development of the human factor that is not commensurate with a comprehensive development plan due to the emergence of many problems faced by human resources, such as over-employment and disguised unemployment. Therefore, the human factor is considered to be the main driving force of all the activities of an institution and an important source of its effectiveness due to the competencies and skills commensurate with the nature of the work practiced by the institution (Al-Qamiri et al.2021:555 ).

### 2.3.2 Recruitment

Recruitment is the process of selecting the people most likely to fill a position according to the procedures required by the organization. Selecting the right employees is essential to balance the applicant's desires with the organization's requirements for important reasons such as implementation, cost savings, and legal obligations. Recruitment processes in organizations vary from organization to organization, depending on the size of the organization and the nature of the work when organizing and integrating the workforce (Abbasi, et al., 2022: 2). Hafidz, et al., (2023: 418). The recruitment and selection process is an important aspect for an organization to obtain new employees that meet the organization's needs so that the organization can achieve its goals. The recruitment function is what managers use as a reference for placing employees in the workplace. Selection, on the other hand, is the process of selecting and defining a group of applicants or personnel according to the organization's requirements and according to the criteria needed for the incumbent job. Therefore, recruitment and selection strategies are important. The recruitment and selection procedures undertaken by the organization affect the quality of the organization's human resources. Human resource management covers the functions of planning, recruitment, human resource analysis, equal employment opportunity, benefits and compensation, occupational health and safety, and all employment relationships.

### 2.3.3 Training and Capacity Building

Sound human resource management involves training and developing employees to meet the needs of the organization by planning with respect to individuals and groups that require training. Organizations spend a lot of money on training and developing their employees by developing external and internal training programs so that employees can perform their jobs efficiently and keep pace with the organization's development. The main purpose of training is to reduce external recruitment and to train employees in the work systems and regulations required by the organization (Khan, et al., 2023: 4). Ahmed et al., (2020: 7) Training is an important component of creating a positive work environment that fosters the ability of employees to think in a certain direction, act in ways that benefit the organization, and properly deal with emergencies and unprecedented events that the organization faces (Al-Khrabsheh, et al., 2022: 8). Organizations conduct training activities in order to increase employees' competence, knowledge, and skills, and to guide their attitudes toward certain activities. subordinates' needs for training, and use appropriate methods and techniques to evaluate the effectiveness of training.

### 2.3.4 Recruitment

Mimouni, et al., (2022: 25) The recruitment process is a very important activity. This is because it is the first step in building an effective workforce and through recruitment, organizations can convey the message to all applicants that they are the right place to work and develop their careers, thereby increasing their chances of being selected among applicants (Swihal, 2020: 17).

### 2.3.5 Motivation.

Muhammed Fare defined motivation as an individual's extrinsic feelings that create a desire to perform certain activities or behaviors in order to achieve certain goals. The purpose of motivation is to increase competence, which is positively reflected in the effectiveness of productivity in terms of quantity and quality and leads to the achievement of organizational goals (Mimouni et al., 2022: 28-29).

### 2.3.6 Evaluation

Al-Tahir et al., (318:2022). Performance appraisal is a method used to measure an employee's workplace performance within an approved plan according to specific criteria that help the organization grow and progress, and relies on quantitative and qualitative measurements to evaluate the results of an employee's work (2023: 234 Mostafa, etal.).

Keya, (2023: 28) considers that the main objectives of implementing a performance appraisal process are

1. show the employee's past performance
2. Recognize the needs of employees to develop and improve their competencies.
3. Develop the individual competence of the employee.
4. Identify employees who need to be promoted.
5. Solving problems and crises faced by the organization.

### 2.3.7 Compensation

Compensation is a phenomenon used by organizations to attract the talents, abilities and skills that individuals possess, while salaries and wages are often the driving force behind an organization's hiring decisions. There are two types of compensation: monetary (financial) compensation, which includes base pay, incentives and bonuses, and non-monetary (non-financial) compensation, which includes deferred payment, health insurance, fair pay, and vacation pay. Compensation varies from one organization to another depending on its size and the nature of its work (2021: 1456, Boudreaux). Compensation is one of the benefits that employees receive in return for their commitment and services to the organization, and it is an essential part of human resources and executives' gateway that helps in motivating employees and improving the viability of the organization. This positively affects employee retention and motivates them to perform the required tasks efficiently and effectively.

## 3. Methods

In this applied research, we worked on the role of artificial intelligence and human resources management at Najaf International Airport. The study started with a review of the relevant literature, and along with the presentation of previous studies aimed at extracting the concepts of (artificial intelligence) and (human resource management), a survey was conducted on employees of Najaf International Airport registered with the Iraqi Ministry of Transport. We have distributed questionnaires to the staff at each airport. Therefore, the study sample includes (120) employees, all of whom completed the questionnaire completely. The survey was effective for analysis. The first consisted of a question describing the demographics of the sample, the second a question related to artificial intelligence, the third a question related to human resource management, the fourth a 5-point Rickert scale for interpreting the participants' answers, and the fifth a statistical test to analyze a research hypothesis. Version for evaluating research hypotheses in the Smartpls program (4.0.0.8.9). Artificial intelligence (independent variables) has been tested against human resource management (dependent variables).

## 4. Results and Discussion

### 4.1 Demographic Data Analysis

The demographic data collected from the survey were analyzed and distributed to the study population samples.



**Table 3.** Distribution of the Sample by Demographic Factors

Demographic Variable	Section	Frequency	Percent
Gender	Male	100	83.3
	Female	20	16.6
	Total	120	100.0
Educational level	Bachelor	90	75.0
	Master	20	16.6
	PhD	10	8.3
	Total	120	100.0
Years of experience	Less than 10	60	50.0
	10-15	40	33.33
	More than 15	20	16.66
	Total	120	100.0

Table 4 analyzes the gender, education level, and years of experience of the survey sample; the majority of participants have a bachelor's degree and little experience. This confirms that Najaf Ashraf International Airport aims to attract the best and the brightest with excellent education. Results of Statistical and Reliability Analysis.

**Table 5.** Means and Standard Deviations

Dimensions	No. of items	mean	Sd.	Level
AI	12	4.34	0.77	High
HRM	21	4.26	0.73	High
Planning	3	4.28	0.78	High
Recruitment	3	4.57	0.74	High
Training and Capacity Building	3	4.11	0.72	High
Recruitment	3	4.12	0.79	High
Motivation	3	4.08	0.78	High
Evaluation	3	4.39	0.76	High
Compensation	3	4.15	0.70	High

Mean ranks (2.33 and less: low; 2.34 - 3.67: moderate; 3.68 and more: high)

Table 5 shows the means and standard deviations of AI and HRM dimensions. The mean values ranged between 4.18 and 4.58 in December. Specifically, the recruitment dimension scored the highest at 4.57, while the motivation dimension scored the lowest at 4.08. Overall, AI and HRM scored higher with mean scores of 4.34 and 4.26 respectively. The study tested the hypotheses using covariance-based structural equation modeling (CB-SEM) CB-SEM is a statistical technique used to analyze data and examine relationships between variables and is used in business, economics, psychology and social sciences (Hair, J.F., Hult, G, T.M., Ringle, C.M. and Sarstedt, M. (2022)). The structure, reliability and validity of the HTMT matrix were therefore tested by factor analysis (CFA) validated by SmartPLS statistical software (version 4.0.8.9).

Table 6 summarizes the results of the convergent validity, discriminant validity and reliability indices.

**Table 6.** Results of Validity and Reliability Tests

Constructs	1	2	3	4	5	6	7	8	9
HTMT									
1. Planning									
2. Recruitment	0.751								
3. Training and	0.685	0.841							

Capacity Building									
4. Recruitment	0.756	0.611	0.711						
5. Motivation	0.815	0.485	0.832	0.441					
6. Evaluation	0.451	0.832	0.451	0.451	0.451				
7. Compensation	0.385	0.441	0.385	0.415	0.385	0.441			
8. (HRM)	0.481	0.552	0.511	0.472	0.438	0.441	0.451		
9. (AI)	0.585	0.371	0.881	0.681	0.475	0.815	0.385	0.441	
VIF	1.856	2.445	1.310	1.694	1.410	1.794	2.110	1.984	---
Loadings range	0.664-0.812	0.701-0.764	0.653-0.792	0.703-0.788	0.682-0.771	0.682-0.865	0.771-0.864	0.682-0.564	0.543-0.654
BIC	-23.043	-25.600	-12.473	-14.982	-15.982	-15.182	-13.282	-11.082	-10.282
AVE	0.562	0.530	0.512	0.543	0.571	0.532	0.580	0.592	0.553
Cronbach alpha	0.871	0.860	0.898	0.925	0.967	0.818	0.821	0.907	0.858
Composite Reliability	0.860	0.851	0.889	0.910	0.950	0.800	0.810	0.900	0.830

Table 6 shows that the standard loadings of each item ranged from 0.653 to 0.812, exceeding the minimum threshold for retention based on the standard loadings (Al-Lozi et Dec., 2018; Sung et al., 2019). The inferential average variance (AVE), a measure of convergence adequacy, should be greater than 0.50 (Howard, 2018). The results show that the AVE values for all constructs are greater than 0.50 and the measurement model has sufficient convergent validity. For variance-based SEM, Rimkeviciene et al. (2017) suggested comparing the maximum shared variance (MSV) with the AVE value and the square root of the AVE with the correlation between the components to assess the validity of the discriminant. Therefore, the measurement model exhibits adequate discriminant validity. As a benchmark to evaluate the measurement model, internal consistency was measured using Cronbach's alpha and composite reliability with McDonald's  $\Omega$ . As shown in Table 5, Cronbach's alpha and McDonald's  $\Omega$  are both 0 (2019).

#### 4.2 Hypothesis Testing

Testing the hypotheses, the following research hypotheses were tested throughout the study:

H0: Artificial intelligence has no statistically significant impact on human resource management at Najaf International Airport at 0.05 level of significance. The following sub-hypotheses are derived

H0-1: Artificial intelligence has no statistically significant effect on planning at Najaf Al Ashraf International Airport at 0.05 significance level.

H0-2: AI has no statistically significant effect on staffing at Najaf Al Ashraf International Airport at 0.05 significance level.

H0-3: The impact of AI on training and capacity building at Najaf Al Ashraf International Airport is not statistically significant at 0.05 level of significance.

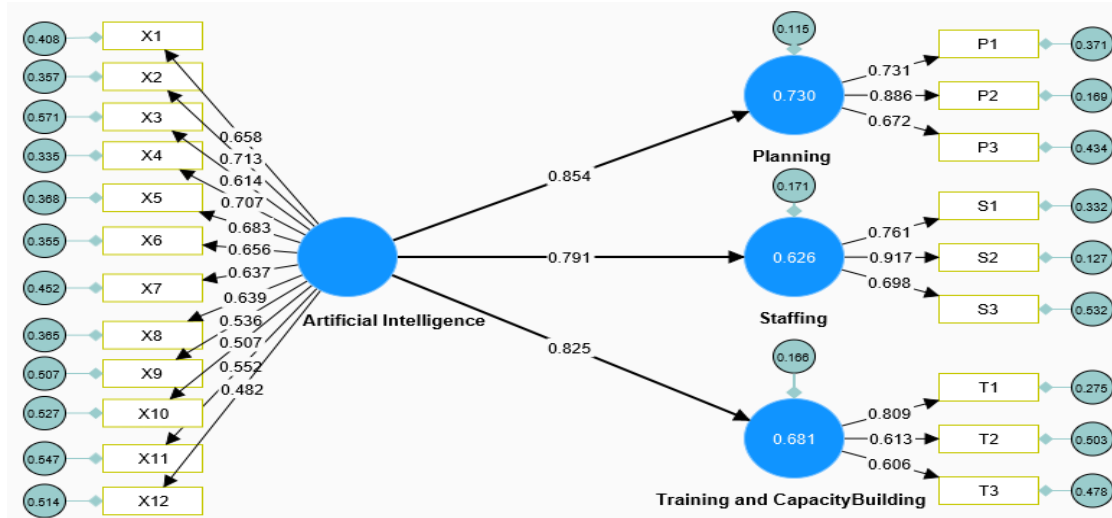
H0-4: There is no statistically significant effect of AI on recruitment at Najaf Al Ashraf International Airport at 0.05 level of significance.

H0-5: The effect of AI on motivation at Najaf Ashraf International Airport is not statistically significant at the 0.05 level.

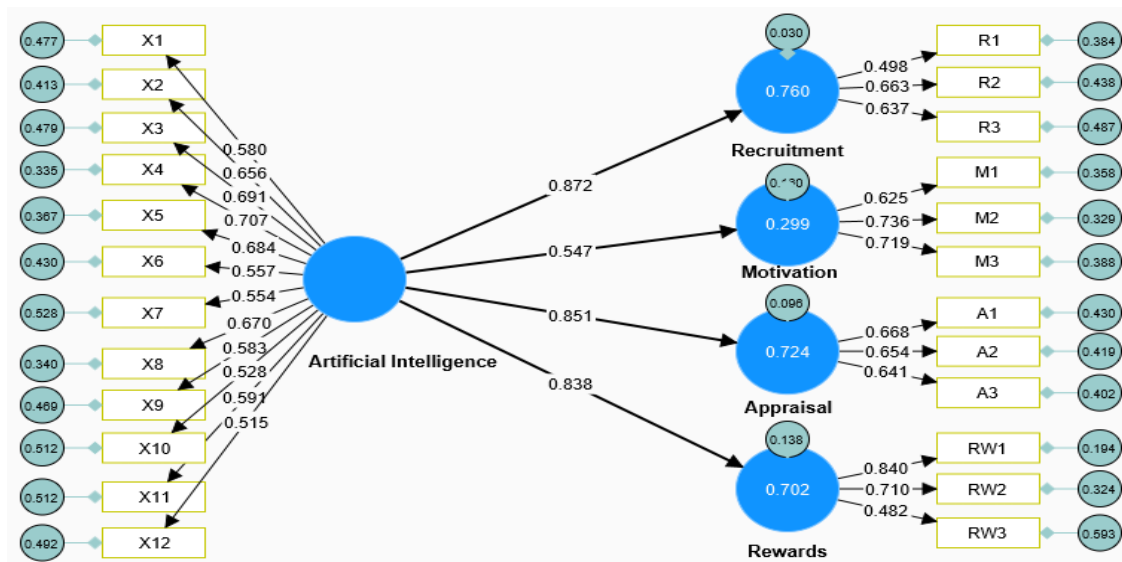
H0-6: The effect of AI on appraisal at Najaf Ashraf International Airport is not statistically significant at 0.05 level.

H0-7: The effect of AI on rewards at Najaf Ashraf International Airport is not statistically significant at 0.05 level.

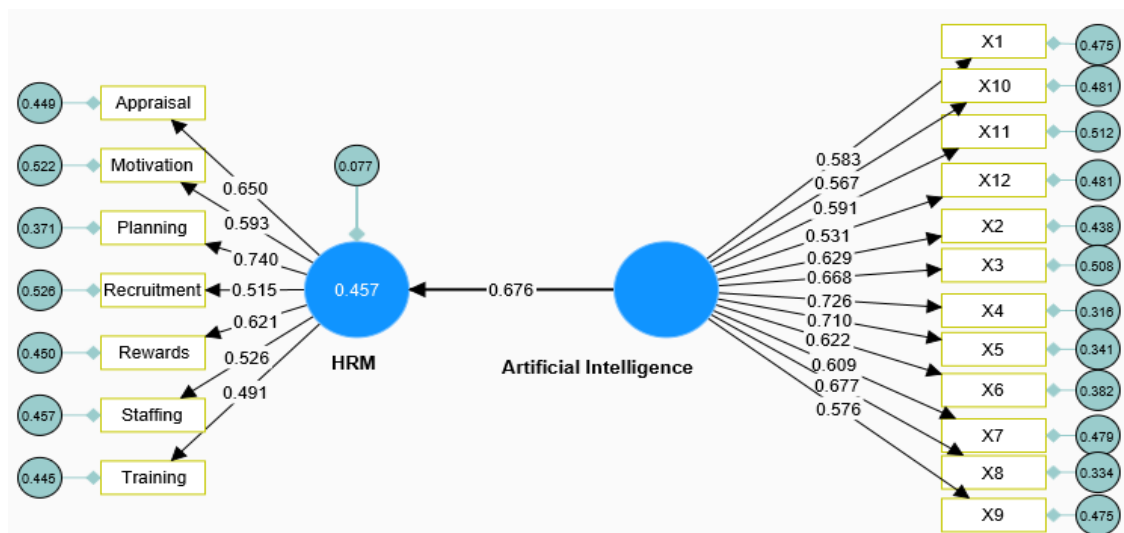
In order to provide a comprehensive explanation of the results related to the hypotheses, the researchers applied covariance-based structural equation modeling (CB-SEM) in smartpls (version 4.0.8.9) and applied Boolean analysis to test the proposed model. Figure (1) shows the impact of AI on HRM dimensions, while Figure (2) shows the impact of AI on HRM based on the figures presented in Table (7).



**Figure 1.** Standardized Effects AI on (Planning, Staffing, and Training and capacity building)



**Figure 2.** Standardized Effects AI on (Recruitment, Motivation, Appraisal, and Rewards)



**Figure 3.** Standardized Effects AI on (HRM)

**Table 7.** Standardized Effects

Hypothesis	Impact Direction	B	T	Prob	R2	F2
H0	Artificial intelligence no impact on human resource management	0.676	8.370	0.000	0.457	0.211
H0-1	Artificial intelligence effect on planning	0.854	24.786	0.000	0.730	0.240
H0-2	Artificial intelligence effect on staffing	0.791	13.870	0.000	0.626	0.221
H0-3	Artificial intelligence effect on training and capacity building	0.825	14.288	0.000	0.691	0.234
H0-4	Artificial intelligence effect on recruitment	0.872	15.786	0.000	0.760	0.256
H0-5	Artificial intelligence effect on motivation	0.547	7.870	0.000	0.299	0.161
H0-6	Artificial intelligence effect on appraisal	0.851	12.288	0.000	0.724	0.244
H0-7	Artificial intelligence effect on rewards	0.838	10.786	0.000	0.702	0.226

The results for testing the main hypothesis Table (7) shows that the value of the impact of AI on (HRM), as reported through the standardized beta coefficient, is (0.676). This effect value is considered statistically significant as the associated probability value (0.000) is less than 0.05. Therefore, the null hypothesis that AI has no impact on (HRM) is rejected.

1) Test the first sub-hypothesis

The results in Table (7) show that AI has a significant and positive impact on planning, as indicated by the standardized beta coefficient of (0.854) ( $p < 0.05$ ). This statistically significant finding rejects the null hypothesis and supports the alternative hypothesis that AI has a positive impact on planning.

2) Test the second sub-hypothesis

The results in Table (7) show that AI has a significant and positive impact on staff, as indicated by the standardized beta coefficient (0.791) ( $p < 0.05$ ). This statistically significant finding rejects the null hypothesis and supports the alternative hypothesis that AI has a positive impact on staff.

3) Testing the third sub-hypothesis

The results in Table (7) show that AI has a significant and positive impact on training and capacity building, as indicated by the standardized beta coefficient (0.825) ( $p < 0.05$ ). This statistically significant finding rejects the null hypothesis and supports

the alternative hypothesis that AI has a positive impact on training and capacity building.

4) Testing the fourth sub-hypothesis

The results in Table (7) show that AI has a significant and positive impact on recruitment, as indicated by the standardized beta coefficient (0.872) ( $p < 0.05$ ). This statistically significant finding rejects the null hypothesis and supports the alternative hypothesis that AI has a positive impact on recruitment.

5) Testing the fifth sub-hypothesis

The results in Table (7) show that AI has a significant and positive impact on motivation, as indicated by the standardized beta coefficient (0.547) ( $p < 0.05$ ). This statistically significant finding rejects the null hypothesis and supports the alternative hypothesis that AI has a positive impact on motivation.

6) Testing the sixth sub-hypothesis

The results in Table (7) show that AI has a significant and positive impact on appraisal, as indicated by the standardized beta coefficient (0.851) ( $p < 0.05$ ). This statistically significant finding rejects the null hypothesis and supports the alternative hypothesis that AI has a positive impact on appraisal.

7) Testing the seventh sub-hypothesis

The results in Table (7) show that AI has a significant and positive impact on rewards, as indicated by the standardized beta coefficient (0.838) ( $p < 0.05$ ). This statistically significant finding rejects the null hypothesis and supports the alternative hypothesis that AI has a positive impact on rewards.

#### 4.3 Discussion

The results showed that AI has a statistically significant impact on Najaf Ashraf International Airport. AI was also found to have a statistically significant impact on Najaf Ashraf International Airport's practices (planning, recruitment, training, capacity building, hiring, motivation, evaluation and rewards); the higher the level of AI, the higher the level of Najaf International Airport. This result is due to a higher awareness of the importance and control of the organization through the adoption of approach, culture and modern technology. The results of this study are consistent with the following findings (Tiwari, 2020); (Kalra, 2020); (Prasanna, Peter, & Valery, 2018).

Based on the overall average relative weights of the AI-related items, it was found that Najaf International Airport manages human resources electronically at the management level in an accurate and robust manner, but unfortunately there is interference and pressure on employees by the management and the information is well protected. The system also provides secure and accurate information used for planning and is flexible to changes required in human resource management. This result can be attributed to recent technological advances in the development of administrative working methods applied in organizations that have witnessed a shift from traditional working methods to electronic methods, including artificial intelligence. This is also in line with the findings of this study (Nyathi and Kekualitsui, 2023).

The results show that there is a high level of planning at Najaf International Airport. The results showed that Najaf International Airport has practices that develop appropriate planning and prioritize the board of directors to carry out the planning process. Moreover, planning is part of the airport's management policy. The results of this study are in line with (Sanchez et al., 2023).

The results showed that Najaf International Airport has the capacity to attract and recruit staff. The results proved that Najaf International Airport has practices that enhance the recruitment process and thus employ appropriate staff with computer skills. The results of this study are in line with the results of (Al-Alawi et al., 2021).

found that Najaf International Airport used an assessment process to identify the need for training and skills development, and as a result, Najaf International Airport developed a robust training program and practices to increase employee productivity by developing employees after assessing their training needs. The results of this study are in line with the results of (Na, 2023).

The results proved that Najaf International Airport motivates its employees by providing adequate rewards and as a result, Najaf International Airport has practices that improve the process of motivating its employees by providing acceptable rewards. The results of this study are in line with the results of Yakovenko et al. (Yakovenko et al., 202).

## 5. Conclusion

For example, some literature shows that artificial intelligence (Damioli et al., 2021) improves productivity by enabling faster processing, better ergonomics, proper error reduction, faster sharing of documented information, and better and faster communication among all stakeholders. The study found that most definitions of HRM are very similar, with minor differences. The main focus of the concept is the ability to 'respond' to changes in the external environment. The researchers arrived at the following definition: (HRM) is a strategic process aimed at maximizing the human potential of an organization. This process includes a range of activities focused on attracting, developing and motivating employees, as well as fostering a positive work environment that supports innovation and creativity. performance and productivity. The results showed that AI has a statistically significant impact on Najaf Al Ashraf International Airport (infrastructure, social intelligence, social responsibility and data). The results also showed that the higher the level of AI, the higher the level of Najaf International Airport. This result is due to a higher awareness of the importance and control of the organization through the introduction of approach, culture and modern technology. It has also been proven that Najaf International Airport in Iraq has practices that include a culture of flexibility and prioritizes employees with awareness, interest, knowledge and development of necessary knowledge and skills in all aspects of the program.

### Recommendations

- If airports want to encourage the use of new methods such as AI, they need to build the appropriate infrastructure.
- Continue the education process of employees by organizing training courses to educate them in the field of AI.
- Raise awareness among managers and employees on the importance of the (human resource management) concept and focus on its implementation in airports as it has a significant impact on improving employee performance and management processes.
- The need to focus on artificial intelligence in the research sample due to its impact on human resource management.

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