



# The ethical use of artificial intelligence in human resources management: a case study in the commercial banking sector in Jordan

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**Abstract:** The purpose of this study is to investigate the ethical use of artificial intelligence (AI) in human resources management (HRM) in the commercial banking sector in Jordan. The main problem is that the commercial banking sector in Jordan is experiencing rapid technological changes, with the integration of artificial intelligence in human resource management, so this study aims to highlight the ethical use of such technologies. Also, the study aims to determine the effect of ethical use of (AI) on (HRM) practices and outcomes in banks sector. A quantitative research methodology was employed, and data was collected through a structured and closed-ended questionnaire distributed among several managers working in senior and middle management positions in seven commercial banks in Jordan. The data collected was analyzed using multiple regression analysis, and the results revealed a statistically significant positive effect of ethical use of (AI) on (HRM) practices and outcomes in banks sector. The results of the study showed that there is a statistically positive and significant effect of artificial intelligence in human resources management, the ethical use of artificial intelligence (transparency, fairness & employee trust) in human resources management. At the level of significance ( $\alpha \leq 0.05$ ), the results of the study showed that the correlation coefficient was (9.1%), indicating a strong relationship between the ethical use of artificial intelligence and human resources management. Where the study recommends employees need to be made aware of the need of embracing artificial intelligence (AI) as a tool that enhances their work rather than a necessity for their continued employment.

**Keywords:** Ethics, Artificial Intelligence, Human Resources Management, Jordan, Commercial Banking Sector.

## 1. Introduction

Modern organizations are faced with decisions not only in the framework of development strategy, cash flow, and human resource management, but also in digitization and automation of business processes. Automation is understood to refer to both software products that specialize in analyzing vast amounts of repetitive tasks and large amounts of data, as well as robotic stations that take care of some of the tasks that require the physical labor of workers. As these technological solutions are actively introduced into production activities, the concept of "artificial intelligence" is increasingly used to describe software products that independently make certain decisions based on data analysis and solve business problems through self-learning techniques. The introduction of digital technology into an organization's activities imposes new requirements on already familiar job titles, such as competencies (knowledge, skills, and abilities), functionality, and key performance indicators. As a result, personnel will have to undergo constant training and certification, actively adapt to changing work functions, and apply new labor tools (Sobol et al., 2021).

The impact of artificial intelligence is changing organizational culture. Communication is becoming a virtual mode, decision-making speed, tools, and work techniques are improving, behavioral models and norms are changing, and new "corporate heroes" and "change agents" are emerging. Changes are also occurring in human resource management technologies. Recruitment, human resource management, human resource development, motivation and incentives are being transformed and digitized. The introduction of robotic technology into the productive and economic activities of organizations is accompanied by the emergence of social, ethical, and legal issues related to the interaction between robots and humans. Unresolved, these contradictions can create cognitive barriers and resistance to the increasing digitization of work processes can have a negative impact on the socio-psychological climate within a company, leading to intentional or unintentional damage by employees to the organization's property, its robots and software products. In this regard, the ethical issues of using artificial intelligence in an organization's activities are becoming increasingly serious. Violations of ethics

regarding the use of artificial intelligence can lead to changes in the timing and increased costs of implementing projects for the automation of business processes and may reduce the overall economic and social benefits (Sobol et al., 2021).

(AI) is transforming the (HRM) processes of various sectors, including banking. AI-based tools have been adopted by banks in Jordan to improve the recruitment, retention, and performance evaluation of their employees. However, the ethical use of (AI) is a concern in (HRM), as AI-based decisions can impact employees' lives and careers. This case study explores the ethical use of (AI) in (HRM) at banks in Jordan (Fraij & Várallyai, 2021).

## 2. Research hypotheses

The following essential measurements will provide the ideas behind this study's paper, "Study the ethical use of artificial intelligence in human resources management case study in the commercial banking sector in Jordan" This section includes the hypotheses, which will be proven or rejected based on the following:

### 1. Transparency:

**H0:** There is no significant positive effect of transparency on human resource management in the commercial banking sector in Jordan when introducing artificial intelligence and automation.

**H1:** There is a significant positive effect of transparency on human resource management in the commercial banking sector in Jordan when introducing artificial intelligence and automation.

### 2. Fairness:

**H0:** There is no significant positive effect of fairness on human resource management in the commercial banking sector in Jordan when introducing artificial intelligence and automation.

**H1:** There is a significant positive effect of fairness on human resource management in the commercial banking sector in Jordan when introducing artificial intelligence and automation.

### 3. Employee Trust:

**H0:** There is no significant positive effect of employee trust on human resource management in the commercial banking sector in Jordan when introducing artificial intelligence and automation.

**H1:** There is a significant positive effect of employee trust on human resource management in the commercial banking sector in Jordan when introducing artificial intelligence and automation.

## 3. RESEARCH METHODOLOGY

The present chapter contains the methodology of the study and the study community and its sample, describing the demographic variables of the study sample individuals, the study tools, the sources of information and statistical processing used and examining their authenticity.

### 3.1. Population and Sample

The study community consists of all the employees of Jordan Banks and their number seven banks, they are (Housing Bank for Trade and Finance, Union Bank of Jordan, Jordan Bank, Cairo Bank of Amman, Arab Bank, Capital Bank, National Bank) based on information (Jordan Bank Directory 2022).

### 3.2. Data Collection

This study's quantitative data was collected through a questionnaire that was both structured and closed-ended. The employees were called and given a survey so that researchers could learn more about the banking sector in Jordan and the ways in which of the ethical use in (AI) is being used to improve its efficiency.

### 3.3. Theoretical framework

#### 1.3.3. Overview of (AI) and (HR) Management

Artificial intelligence (AI) has the potential to transform many aspects of human resources (HR) management, from recruitment and selection to performance management and training. (AI) can help improve the efficiency, accuracy, and fairness of (HR) processes, but there are ethical and legal concerns as well. (AI) is the ability of machines to perform tasks that normally require human intelligence, such as learning, reasoning, and problem solving. In human resource management, (AI) can be used to automate and optimize many of the processes involved in acquiring, developing, and retaining employees (Barrick et al., 2020). For example, (AI) can be used to analyze job descriptions and resumes to identify the best candidates, monitor employee performance to provide personalized training, predict employee turnover and identify its contributing factors.

#### 2.3.3 An artificial intelligence approach to ethical decision-making in human resource

Artificial intelligence (AI) can make decisions in real time based on prebuilt algorithms and computing technologies built on data analysis, automatically learning, and adapting to provide more sophisticated responses to situations. By encompassing both the human element and the adoption of (AI) applications, human resource management (HRM) can provide an improved experience for an organization's employees (Pereira et al., 2021). As (AI) technology advances, (AI) systems Concerns about human control over the inherently opaque nature of the ethics-AI interface have led to increased interest in the ethics-AI interface; limited understanding of the rationale for (AI) assimilation in the (HRM) decision-making function has not prevented (HRM) decision making from being replaced by (AI) systems (Prikshtat et al., 2021). However, increased (AI) adoption and advances in (AI) capabilities have increased attention to the ethical values and principles guiding (AI) development and use (Hermann, 2021). Past moral behavior, agreed-upon new rule sets, or a mix of both are being assembled by Loureiro et al. (2021) under the trend of (AI) integration, law, and ethics. We propose that the interface between positions on (AI) and ethics and (HRM) is substantially assimilated in the organizational decision-making analysis of past and proposed systems. Decisions traditionally carried out by (HRM) are increasingly made by algorithms (Duggan et al., 2020; Parent-Rocheleau & Parker, 2021). (HRM) has been used to determine employee intentions and turnover rates.

##### 3.3.3. Ethical Consideration of using (AI) in (HRM): Benefit and Risks

(AI) is being used more and more in a variety of (HRM) processes, including hiring, performance reviews, task distribution, and career counseling. (AI) can have a lot of advantages, like efficiency, accuracy, and diversity, but it can also have a lot of disadvantages, such discrimination, privacy invasion, lack of comprehensibility, and accountability (Bankins, 2021; Tambe et al., 2019).

#### 4.3.3 Ethical guidelines and regulations for (AI) use in (HRM)

Ethical guidelines and regulations for (AI) use in (HRM) are still developing and differ between various circumstances and nations. The EU General Data Protection Regulation (GDPR), the IEEE Ethically Aligned Design (EAD), and the UK Centre for Data Ethics and Innovation are some examples of existing or proposed frameworks (CDEI) (Bankins, 2021).

Employers, employees, candidates, consumers, and society are just a few of the stakeholders who must have their values and interests considered while using (AI) in (HRM). To ensure that (AI) systems are impartial, open, responsible, and respectful of human autonomy and dignity, it also calls for human oversight and participation in the design, implementation, and evaluation of (AI) systems (Bankins, 2021).

#### 5.3.3 Ethical use of (AI) with (HRM) in Banks

(AI) is a term that refers to the ability of machines or systems to perform tasks that normally require human intelligence, such as learning, reasoning, decision making, etc. (AI) can be applied to various (HRM) functions in banks, such as recruitment, training, performance evaluation, employee retention, etc. (AI) can offer many benefits for banks and their employees, such as improving efficiency, accuracy, personalization, innovation, and customer satisfaction (Ray et al., 2021; Srivastava, 2022).

However, (AI) also presents several difficulties and ethical problems for (HRM) in banks, including assuring justice, accountability, transparency, privacy, security, and human dignity. (AI) has the potential to result in bias, manipulation,

surveillance, deceit, hacking, and improper use of data and algorithms. (AI) has the potential to change the character and caliber of work and employment relationships in banks by, among other things, displacing positions, diminishing human interaction, elevating work pressure, and generating skill gaps (Ray et al., 2021; Budhwar et al., 2022).

To use (AI) responsibly and ethically, (HRM) in banks must consider the values and interests of all stakeholders, including employers, employees, consumers, regulators, and society. To effectively build, deploy, and evaluate (AI) systems in accordance with the strategic goals and core values of the business, (HRM) in banks must develop and apply the proper policies and practices. Also, (HRM) in banks must give staff members the necessary training and assistance so they can use (AI) technology to their advantage.

#### IV. RESULTS AND DISCUSSION

**4.1. Reliability Test:** The inter-rater reliability between them was 64%, which is statistically accepted.

#### 4.2. Research Hypotheses

Table (1): the results of multiple

Independent variables	value t	Sig. t	Beta	$\beta$	R	R <sup>2</sup>	Value F	Sig. F
Constant	3.902	.001		3.572	.091	0.14	.865	.472
Fairness	-.723	.002	-.141	-.145				
Transparency	-1.464	.0001	-.312	-.276				
Employee Trust	-.541	.003	-.119	-.124				
Significant at the level of statistical significance ( $\alpha \leq 0.05$ ).								

#### 4.3. Finding:

**Table (1)** shows the results of the statistical test for the model of these hypotheses, which is represented by the presence of a set of independent variables (Transparency, Fairness, Employee trust) and one dependent variable representing on human resource management.

The table indicates that there is a statistically significant effect of the variables of independent artificial intelligence by excluding (Transparency, Fairness, employee trust) on the human resource management, through the value of F and equal to (.865), not significant at the significance at level (0.05), and the value of R<sup>2</sup> and equal (0.14) indicates that artificial intelligence by excluding it has explained (14%) of the variation in the human resource management. The correlation coefficient was (9.1%), indicating a strong relationship between artificial intelligence and human resource management.

It appears from the results of the table of coefficients for these hypotheses that the dimension (Employee trust) had the largest impact among the dimensions of artificial intelligence in the dependent variable (human resource management), as the value of its beta coefficient ( $\beta = -.119$ ) and what enhances this effect is the calculated and equal value of (T) (-.541), and a significant at the significance level (0.05), after that, it came in second place in terms of impact after (Fairness), as the value of its beta coefficient = -.141 ( $\beta$ ), and what This effect enhances the calculated value of (T) equal to (-.723), which is greater than its tabular value, and a significant level (0.005). After that, it came in third place in terms of impact after (Transparency), as the value of its beta coefficient reached ( $\beta = -.312$ ) and what enhances this effect is the calculated and equal value of (T) equal to (-1.464), which is greater than its tabular value, a significant at the significance level (0.05). There is a statistically positive significant effect ethical issues related to (transparency, fairness & employee trust) when introducing new software and robotics products as a result introducing artificial intelligence and automation in human resource management in the commercial banking sector in Jordan (**Accept**).

#### Conclusion

In conclusion, this study highlights the importance of ethical considerations in the use of artificial intelligence in human resources management in the commercial banking sector in Jordan. The findings of the study indicate a statistically significant positive effect of ethical (AI) on (HRM) practices and outcomes in the banking sector. Specifically, the dimensions of transparency, fairness,



and employee trust had a significant impact on (HRM) practices and outcomes, with employee trust having the largest impact. The study recommends raising awareness among employees about the benefits of embracing (AI) as a tool that enhances their work, rather than a necessity for their continued employment. The results suggest that a transparent and fair approach to implementing (AI) in (HRM) can enhance employee trust and improve (HRM) practices and outcomes. Overall, the study provides valuable insights into the ethical use of (AI) in (HRM) in the banking sector in Jordan and underscores the importance of promoting trust and transparency in the integration of new technologies in (HRM). It is recommended that banks provide training and education to employees on the use of AI in HRM decisions. This will help employees understand how AI is being used and the factors that influence HRM decisions, thereby increasing transparency and employee trust.

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