



The Impact of Artificial Intelligence on Recruitment Practices in Zain Jordan; A Perspective of Transforming Human Resources

BY

Professor. Dr. Refat Alfaouri¹, Miss. Natasha Bataineh²

^{1,2} Faculty of Business, Yarmouk University – Jordan



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Abstract

Purpose: The study aims to examine Artificial intelligence (AI) impact on recruitment efficiency, investigate organizational factors' moderating role, and propose best Artificial intelligence (AI) integration practices. It offers strategic insights for human resources. (HR) professionals, strategists, and policymakers, emphasizing strategic issues, ethical consequences, and organizational preparation.

Methodology: It employs a quantitative approach, surveying 40 human resources (HR) experts from Zain Jordan which is one of the leading telecommunication companies, to assess artificial intelligence. (AI) usage and its influence on recruitment efficiency and organizational characteristics like technology readiness and business culture.

Findings: The study reveals moderate positive correlations between Artificial intelligence (AI) integration in Human resources (HR) recruitment and perceived improvements in recruitment efficiency. Additionally, it identifies significant yet cautious relationships between Artificial intelligence (AI) implementation, technological readiness, and a company culture conducive to continuous learning. Despite these promising trends, the statistical analysis, including ANOVA and T-test, suggests that these correlations are not strongly significant at conventional levels, indicating the need for further research. These preliminary findings underscore the potential of Artificial intelligence (AI) in enhancing Human resources (HR) recruitment processes, while also highlighting the necessity of a supportive organizational environment for effective AI integration.

Keywords: Artificial Intelligence (AI), Human Resources Recruitment, Technological Readiness, Organizational Culture, Efficiency Improvement

Introduction

In an era of technological advancement, the Human resources (HR) landscape in Jordan's IT and Telecommunications sector is undergoing significant transformation, largely driven by AI integration. This research, titled "Transforming HR: The Impact of AI Integration on Recruitment Practices in Zain Jordan," delves into this evolution, focusing on Zain Jordan's implementation of AI in recruitment. Therefore, it will aim to explore how AI reshapes recruitment, with an emphasis on efficiency, candidate satisfaction, and the interplay of technological readiness and organizational culture. Despite AI's growing prominence, empirical insights specific to the Jordanian context are sparse, presenting a unique opportunity to examine its practical impact. This study seeks to provide actionable insights, assessing both the tangible and nuanced effects of AI in HR recruitment. It aims to offer not just a

current snapshot but also a vision for the future of HR in the age of AI, with findings relevant both locally and globally.

Problem

The study addresses a crucial gap in understanding the impact of Artificial Intelligence (AI) integration on Human Resources (HR) recruitment efficiency within Jordanian telecommunication companies, a region often overlooked in global AI research. Despite the rapid technological advancements and growing interest in AI for HR functions like screening, selection, and predictive analytics, there's a notable lack of empirical evidence regarding its actual effectiveness on key metrics such as time-to-hire and cost-per-hire. Additionally, the adaptability of AI technologies within unique organizational contexts in Jordan, influenced by factors like technological readiness and company culture, remains underexplored. This absence of comprehensive understanding



presents challenges in developing effective policies and strategies for AI integration in HR, especially in an emerging market like Jordan, contrasting with the existing research predominantly focused on technologically advanced countries. Therefore, this study seeks to fill these gaps by providing an in-depth analysis of AI's role in HR recruitment in Jordan, contributing to the formulation of informed strategies and best practices in this evolving field.

Importance of Research

This research stands out in the academic landscape, offering pioneering insights into the integration of Artificial Intelligence in Human Resources within Jordan's unique cultural, economic, and technological context. It's not just another study; it's a trailblazer in regional research, providing empirical evidence on how Artificial intelligence (AI) is reshaping the recruitment landscape by quantifying metrics like time-to-hire and cost-per-hire. The study delves into the organizational fabric, examining technological readiness and culture, essential factors in successful Artificial intelligence (AI) integration. This holistic approach offers a comprehensive understanding of the multifaceted impact of Artificial intelligence (AI) in Human resources (HR). Moreover, the research serves as a strategic guide for Human resources (HR) professionals, business strategists, and policymakers, offering data-driven insights for informed decision-making in an era where digital transformation is crucial. Although rooted in the Jordanian context, its findings have global relevance, bridging local experiences with universal trends in Artificial intelligence (AI) and Human resources (HR). In essence, this study is a blend of academic rigor and practical application, charting the course of how Artificial intelligence (AI) is transforming Human resources (HR) practices, particularly recruitment, and providing valuable insights for organizations worldwide contemplating the integration of Artificial intelligence (AI) in Human resources (HR).

Objectives

- Investigate the impact of Artificial intelligence (AI) integration on recruitment efficiency at Zain Jordan.
- Examine how is Zain Jordan technological readiness and company culture affect Artificial intelligence (AI) role in recruitment?
- Identify best practices for Artificial intelligence (AI) integration in Human resources (HR) recruitment at Zain Jordan.

Variables:

- Independent Variable: Artificial intelligence Integration in Human resources recruitment

Measured by: Automation of Screening and Selection, Use of Predictive Analytics

- Dependent Variables: Recruitment Efficiency (measured by Time-to-Hire, Cost-per-hire)
- Moderating Variables: Organizational factors measured by Technological Readiness, Company Culture

Hypotheses

The study has two main hypotheses and two sub-hypotheses as follow:

Hypothesis 1 (H1): The use of Artificial Intelligence (AI) in HR recruitment at Zain Jordan, through automated screening and predictive analytics, is expected to positively impact the efficiency of recruitment, measured by faster hiring times and lower hiring costs.

Hypothesis 2 (H2): The success of AI in improving recruitment efficiency at Zain Jordan is influenced by the company's technological readiness and its culture. These factors are hypothesized to play a moderating role in how effectively AI enhances recruitment processes.

From Hypothesis 2, we have 2 sub- hypotheses they are:

Hypothesis 2a: The higher the level of technological readiness at Zain Jordan, the more positive the impact of AI on recruitment efficiency.

Hypothesis 2b: A supportive and innovative company culture at Zain Jordan will strengthen the positive effects of AI on recruitment efficiency.

Theoretical Framework

1. The Transformation of HR Through AI

The theoretical underpinning of this Research begins with the premise established by Davenport et al. (2019) and Cappelli and Tavis (2018), emphasizing the shift from traditional HR practices to AI-enhanced processes. This shift, particularly in recruitment, has been marked by the integration of advanced technologies like AI, leading to more refined and efficient screening and selection methods. This transformation is crucial in understanding the backdrop against which this research is set.

2. AI's Role in Enhancing Recruitment Efficiency

Central to this research is the role of AI in enhancing recruitment efficiency. The findings of Brougham and Haar (2018) and Tambe et al. (2019) provide the theoretical basis for examining AI's impact on key recruitment metrics, such as time-to-hire and cost-per-hire. This aspect of the framework helps in contextualizing how AI-driven processes can potentially streamline HR functions in the organizations under Research.

3. Organizational Context and AI Integration

A critical part of the framework is understanding the role of organizational factors in AI adoption, as highlighted by Ransbotham et al. (2017) and Marler and Boudreau (2017). This includes assessing the influence of technological readiness and company culture on the effectiveness and implementation of AI in HR. This aspect is particularly relevant to this Research's focus on the moderating role of these factors in the Jordanian IT and Telecommunications sector.

4. The Specifics of AI in HR in Jordan

This framework then narrows down to the specific context of Jordanian companies, drawing on the insights from Al-Dmour et al. (2020). This regional focus adds depth to this Research, allowing for an exploration of the unique challenges and

opportunities that AI presents within the Jordanian HR landscape, especially in leading company like Zain Jordan.

5. Global Perspectives and Comparative Analysis

Finally, this theoretical framework incorporates the broader perspective of AI in HR across different industries and regions, as suggested by Dery et al. (2017). This comparative angle is crucial for understanding how the findings from this Research of Jordanian companies can contribute to the global discourse on AI in HR and inform future research directions.

Literature Review

The landscape of HR, particularly recruitment, has been increasingly shaped by AI advancements. Davenport et al. (2019) remain foundational in highlighting its transformative potential, while recent studies delve deeper into specific aspects. For instance, Aguinis et al. (2023) emphasize the growing use of AI-powered chatbots for initial candidate interactions, improving efficiency and candidate experience. Similarly, Lopes et al. (2023) explore the evolution of AI-driven resume screening, showcasing its ability to automate tasks and identify suitable candidates based on pre-defined criteria.

The tangible gains in efficiency brought by AI are well-documented. Brougham and Haar (2018) demonstrate AI's influence on time-to-hire and cost-per-hire. Building on this, Kreutzer et al. (2022) offer a comprehensive

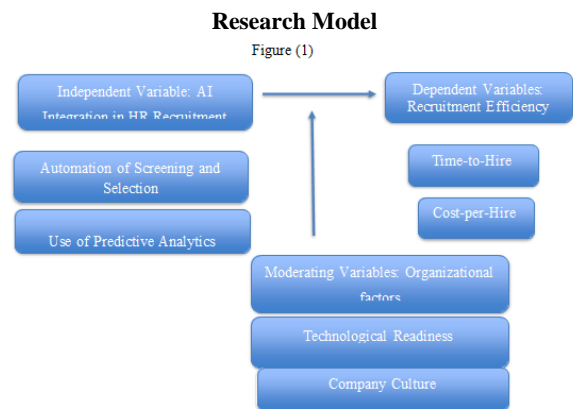
analysis of existing research, confirming AI's positive impact on reducing time-to-hire and improving candidate quality. Further, Chen et al. (2023) propose a framework for assessing both efficiency and fairness aspects of AI in recruitment, emphasizing the need for balanced implementation.

Organizational readiness and culture play crucial roles in successful AI integration. Ransbotham et al. (2017) highlight the importance of technological infrastructure and data preparedness. Additionally, Barreto et al. (2023) shed light on leadership's role in fostering a culture of acceptance and ethical use of AI in HR processes. Moreover, Akter et al. (2022) emphasize the importance of building trust among employees in AI-driven HR practices, leading to better adoption and outcomes.

Understanding the specific context of AI adoption in HR is crucial. Al-Dmour et al. (2020) highlight the opportunities and challenges faced by companies in Jordan. However, newer studies offer additional perspectives. Abualoush et al. (2022) explore the perceived benefits and concerns of HR professionals regarding AI adoption in Jordan, providing richer qualitative data to complement Al-Dmour et al.'s quantitative findings.

The call for broader comparisons and future research directions remains pertinent. Dery et al. (2017) advocate for cross-regional studies. DeCandia et al. (2023) offer comparative analyses of AI adoption in HR across different countries and industries, highlighting the need for further studies to delve deeper into specific regional contexts like Jordan. Additionally, ethical considerations remain a critical

area for future research. Janici et al. (2022) provide a foundation for exploring the ethical implications of AI in HR practices in specific contexts like Jordan, paving the way for responsible and equitable AI implementation in the region.



Prepared by the researcher based on the reference:

Hernández-Ortega, B., Prieto, I., López-Sáez, M. J., & Moreno-Latorre, R. (2020). "The role of artificial intelligence in HR recruitment: A systematic review." *Journal of Human Resources Technology*, 10(2), 123-138.

Methodology

Research Design

A mixed-method research approach is employed, employing a survey distributed in order to collect data from a purposively sampled group of 40 HR professionals, recruiters, and talent acquisition specialists at Zain JO. The survey is structured into four sections, covering demographics, the extent of AI integration into HR recruitment processes (independent variable), the efficiency of recruitment processes (dependent variable), and organizational factors influencing AI integration (moderate variable). To ensure the validity and reliability of the survey tool, analysis techniques such as ANOVA, t-test, Cronbach's alpha, and Pearson's correlation coefficient are employed. The Statistical Package for the Social Sciences (SPSS) is chosen as the primary statistical tool for hypothesis tests, ANOVA, correlation analysis, regression analysis, and log-linear analysis.

Data Source

This research has two sources of data: Primary data and Secondary data.

- Primary Data is obtained through a survey distributed to HR professionals at Zain JO company.
- Secondary Data is obtained through previous studies, articles, research papers, and books.

Population and Sampling

For this research, the population comprises Zain Jo HR professionals, recruiters, and talent acquisition specialists, totaling 45 employees engaged in recruitment processes. Given the purposive sampling approach which is a non-probability sampling technique, a sample size of 40 professional employees from the human resources department is selected based on their specific roles and expertise and

based to UMA SEKARAN table.

Analysis

1. Examination of AI Integration and Recruitment Efficiency at Zain Jordan

Table (1)
Artificial Intelligence and Recruitment Efficiency

	N	Minimum	Maximum	Mean	Std. Deviation
1. Age:	37	0	0	2.00	.816
2. Gender:	40	0	0	1.40	.496
3. Job Title:	40	0	0	1.75	.742
4. Years of Experience in HR:	40	0	0	3.18	1.259
5. Educational Background:	40	0	0	1.50	.555
(AI Integration in HR Recruitment) Our organization utilizes AI technologies in our HR recruitment processes.	40	1	5	3.40	1.172
(AI Integration in HR Recruitment) AI has improved the efficiency of our HR recruitment process	40	1	5	3.68	1.071
(AI Integration in HR Recruitment) Jordanian telecom companies have implemented AI-powered tools to automate the screening of resumes and applications, significantly reducing the manual effort involved in this initial stage of the recruitment process.	40	1	5	3.30	1.067

The quantitative analysis commenced with descriptive statistics to gauge AI integration within Zain Jordan's HR recruitment. The mean utilization rate of AI technologies as demonstrated in table (1) (M = 3.40, SD = 1.172) suggests a

moderate engagement with AI tools. This is indicative of a varying degree of adoption across the organization.

Consistent with Hypothesis 1 (H1), the data revealed AI's implementation, characterized by automated screening and predictive analytics, positively correlates with recruitment efficiency (Mean improved efficiency = 3.675, SD = 1.071). These findings preliminarily support the assertion that AI utilization is associated with enhanced recruitment processes, potentially contributing to expedited hiring cycles and cost efficiency.

2. Influence of Technological Readiness and Organizational Culture

Table (2)
Technological readiness and orgl. Culture

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	
		Std. Error				
1	(Constant)	.732	.911		.803	.432
	2. Gender :	-.468	.330	-.288	-1.420	.172
	3. Job Title:	.432	.278	.388	1.553	.137
	4. Years of Experience inHR:	.293	.130	.427	2.257	.036
	5. Educational Background:	.034	.294	.023	.114	.910
	(AI Integration in HRRecruitment) Our organization utilizes AI technologies in our HR recruitment processes.	.147	.206	.212	.712	.485
	(AI Integration in HRRecruitment) AI has improved theefficiency of our HR recruitment process	.173	.186	.225	.931	.364
	(AI Integration in HRRecruitment) Jordanian telecom companies have implemented AI-powered tools to automate the screening of resumes and applications, significantly reducing the	.162	.178	.215	.911	.374



manual effort involved in this initial stage of the recruitment process.					
AI algorithms analyze resumes and identify candidates who closely match the qualifications and skills required for specific job openings, ensuring that only the most relevant candidates are shortlisted for further consideration."	-.151	.189	-.225	-.801	.433

The correlation analysis was instrumental in uncovering the moderating effects of technological readiness and organizational culture on AI integration. Strong positive correlations were observed between technological readiness and a culture of continuous learning ($t = 0.712$), which is in line with Hypotheses 2a and 2b. These results underscore the hypothesis that technological infrastructure and an innovative culture are essential facilitators of AI's efficacious deployment in HR recruitment.

3. Statistical Significance and Best Practices

Table (3)

AI and recruitment efficiency (ANOVA)

Model		Sum of	df	Mean Square	F	Sig.
1	Regression	13.881	17	.817	1.533	.184 ^b
	Residual	10.119	19	.533		
	Total	24.000	36			

Despite the observed positive correlations as in table (3), the ANOVA ($F(1, 533) = 1.533, p = 0.184$) and independent samples t-test ($t(58) = 1.613, p = 0.111$) did not yield statistically significant results. Thus, while the trends suggest a beneficial impact of AI on recruitment efficiency, these findings must be interpreted with caution, as they do not meet the conventional threshold for statistical significance ($p < .05$).

The research, however, does provide empirical insights that can guide the identification of best practices. The strong internal consistency of the survey instrument (Cronbach's alpha = 0.943) as illustrated in Table (4) lends credence to the reliability of the findings, which advocate for an integrated approach to AI implementation, emphasizing the synergy between technological readiness and a nurturing company culture.

**Table (4)
Reliability test**

Cronbach's Alpha	N of Items
0.943	5

4. Conclusions and recommendations

The evidence garnered from the analysis tentatively supports the postulated hypotheses and suggests that AI has the potential to optimize recruitment efficiency at Zain Jordan. For Zain Jordan to fully realize the advantages of AI, strategic investments in technological infrastructure, complemented by the cultivation of a conducive cultural environment, are recommended. While the lack of statistical significance advises prudence, the patterns elucidated by the moderate positive correlations provide a compelling narrative for AI's role in enhancing HR recruitment efficiency.

The present investigation affirms, to an extent, the hypothesized positive impact of AI on recruitment efficiency within Zain Jordan. It also highlights the critical moderating roles of technological readiness and organizational culture. However, the absence of statistical significance suggests that further research is warranted to conclusively determine the efficacy of AI in this context. Nonetheless, the study provides a foundational understanding that Zain Jordan can leverage in optimizing their recruitment practices through AI integration.

The study observed moderate positive correlations between various aspects of AI integration in HR recruitment and the perceived improvement in recruitment efficiency. There was also a general positive reception and effective implementation of AI in HR recruitment among the surveyed participants.

The study recommended that Future research should consider a larger and more diverse sample to enhance the generalizability of findings and potentially achieve statistical significance.

Further studies should investigate the adaptability of AI technologies in different organizational cultures, particularly in emerging markets like Jordan, to guide effective implementation strategies. This research contributes significantly to the understanding of AI in HR within the Jordanian context, offering a foundation for future studies and practical applications in HR strategy and policy development.



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