

THE IMPACT OF AI ON HR FUNCTIONS

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ABSTRACT:

Artificial Intelligence (AI) and machine learning are making huge strides and becoming a central part of how businesses operate. From chatbots to blockchain and the Internet of Things (IoT), these technologies are changing the way we connect with machines and each other in the workplace. This shift is not only altering the way people interact with technology but is also transforming the dynamics between managers and employees.

One area where AI is having a particularly strong impact is in Human Resources (HR). Traditionally known for its administrative role, HR is now evolving rapidly, incorporating advanced technologies like Automation, Augmented Intelligence, Robotics, and AI. These advancements are redefining how HR departments manage workforce attributes and organizational structures.

A recent study aimed to explore how AI is being integrated into HR practices and its significant effects on organizations. To gather insights, a small survey was conducted with HR professionals. While some expressed concerns about potential job losses due to increased AI use, the general feeling among employees was one of enthusiasm about these technological advancements.

KEYWORDS:

Artificial Intelligence, Machine learning, HR technology, Human Resource functions.

INTRODUCTION:

The shift from big data to machine learning and artificial intelligence (AI) is transforming the business world at a rapid pace. Yet, there's often a disconnect between the high expectations set for these technologies and their real-world application. Many businesses find it challenging to adopt new data analytics tools, with 41% of employers feeling unprepared to use advanced analytics.

AI includes various technologies designed to handle tasks that usually require human thinking, such as making decisions. Recent strides in natural language processing and pattern recognition, powered by neural networks and deep learning, have made it possible for machines to mimic human

decision-making more closely. Still, most organizations have yet to fully integrate big data into their HR practices.

AI's benefits are more apparent in fields like marketing, where it can predict outcomes like sales figures with relative ease. However, applying AI to HR is more complicated. Evaluating employee performance and defining what makes a "better" employee can be subjective and challenging. There's also the risk that AI systems might perpetuate existing biases if not carefully managed.

HR data often pales in comparison to the vast amounts of consumer data available, making it difficult to predict less common events like employee terminations.



Additionally, legal and social factors add layers of complexity, raising important questions about fairness and transparency.

This thesis seeks to create a framework for effectively integrating AI into recruitment practices. It will explore these key questions:

1. How are employers currently utilizing AI in their HR processes?
2. What do digital natives think about AI in recruitment?
3. How can AI be best used in HR to attract and recruit digital natives?

The aim is to understand how AI is currently applied in HR, gather insights on digital natives' views of AI in recruitment, and develop strategies for making the most of AI in hiring practices from both an employer's and an employee's perspective.

REVIEW OF LITERATURE :

Strategic HR planning through AI

Strategic HR planning is crucial for any successful organization, and AI is increasingly becoming a key player in this process. HR managers need to evaluate past performance and anticipate future trends to make effective plans. AI can enhance this by analyzing vast amounts of data, which improves the precision of HR planning and decision-making. Traditional HR planning often struggles with accuracy due to limited data and resources, but AI can streamline this process significantly.

By leveraging big data analysis, AI helps in understanding the specific needs of an organization, optimizing data use, and forecasting future demands. This means HR departments can make more informed decisions and recommendations based on comprehensive data analysis. Predictive analytics, which uses statistical modeling,

data mining, and machine learning, can forecast future events by examining both current and historical data.

However, it's important to note that AI is not always a perfect solution. While it can greatly enhance efficiency, it also has potential drawbacks. AI systems can sometimes perpetuate biases and unequal access to opportunities if not properly managed. To fully benefit from AI, employers need to choose tools and algorithms carefully, ensuring they are used responsibly and inclusively. This includes addressing any issues of gender and racial diversity to make sure AI contributes positively to HR practices without reinforcing existing inequalities.

RESEARCH METHODOLOGY:

Study Design

To thoroughly explore the integration of AI in HR practices, this study employed a mixed-method approach, combining both qualitative and quantitative research designs.

Qualitative vs. Quantitative Focus

The quantitative component was aimed at addressing specific research objectives, including understanding how AI is currently used in HR and how it can be effectively utilized in recruitment. On the other hand, the qualitative component delved into the experiences and insights of UAE natives regarding AI in recruitment, as well as perspectives from employers. This combination allowed for a comprehensive analysis of both statistical trends and personal viewpoints.

Sample Selection and Data Size

For this study, companies were chosen based on their use of AI in HR practices or their development of AI tools for HR. Since AI in

HR is still relatively new, especially in the UAE, the sample included a diverse range of firms actively using or developing AI solutions.

Quantitative Design : A survey was conducted with 248 HR employees and AI specialists from various companies. These individuals were contacted via phone or email, and the selected respondents were those who could provide valuable insights into HR and recruitment processes.

Qualitative Design: Data collection involved reaching out to companies for interviews. The interviews were designed to gather information on three main areas: general insights from professionals, the integration of AI in HR practices, and the challenges and potential of AI in the hiring process. Due to COVID-19 restrictions, interviews were conducted via Skype and translated from Arabic to English.

Data Collection

Qualitative Data: Over two months, 8 semi-structured interviews were conducted. Each interview was recorded with permission, transcribed, and analyzed to identify key themes. This approach provided in-depth understanding of AI's impact on HR practices.

Quantitative Data: A survey was used to gather responses from HR experts. The survey consisted of close-ended questions measured on a 5-point Likert scale, from "strongly agree" to "strongly disagree." Convenience sampling was employed to collect 248 responses.

Data Analysis

Qualitative Analysis :Thematic analysis was used to process the qualitative data. This method involved coding interview transcripts to identify recurring themes and patterns, providing a structured way to interpret the data.

Quantitative Analysis: Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to test relationships among variables in the study's conceptual framework. PLS-SEM is well-suited for complex models with multiple variables and does not require a large sample size. The validity and reliability of the measures were checked first, followed by hypothesis testing through structural modeling and path analysis.

Overall, this mixed-method approach offered a balanced view of AI's integration into HR practices, combining detailed qualitative insights with quantitative data to provide a comprehensive understanding of the subject.

RESULTS:

Qualitative Insights

Human Touch in Recruitment

All eight HR professionals interviewed highlighted the crucial role of personal interaction in traditional recruitment. They noted that face-to-face communication fosters better understanding and rapport between recruiters and candidates, which aids in evaluating candidates more effectively. As one participant said, "The human feeling is something which can never be ignored as we are satisfied with the elements they know."



Traditional Recruitment Practices

The majority of participants valued traditional recruitment methods for their proven effectiveness and alignment with established theories. Six out of eight professionals felt confident in these methods, suggesting that while AI offers potential, traditional practices have reliably worked over time. “I still think that it is a beginning and we have to learn a lot,” remarked one participant.

AI in Recruitment

Six of the eight participants utilized AI tools for pre-screening and pre-selection processes. These AI tools analyze job descriptions and applications, scanning for relevant keywords and characteristics through platforms like LinkedIn and Facebook. Some systems also evaluate personality traits to ensure a good match between candidates and job requirements.

Strategy Development

In developing recruitment strategies, recruiters focus on effectively reaching and attracting the right candidates. This involves determining where and how to advertise positions, and what messages to convey. While AI could assist with some aspects of strategy development, it wasn't emphasized by the interviewees as a major area for AI application. This indicates that strategic planning remains largely reliant on human judgment.

Benefits and Challenges of AI

Participants identified several advantages of using AI in recruitment, including reducing administrative tasks, speeding up the

process, and decreasing human bias. AI tools can help in identifying and engaging suitable candidates more efficiently. However, challenges include adapting to new technologies and overcoming skepticism about AI. While AI's ability to reduce biases is a noted benefit, proper training and effective implementation are necessary to fully integrate AI into HR practices.

Quantitative Findings

Reliability and Sample Profile

The survey, which included 248 HR and AI professionals, demonstrated strong reliability with Cronbach Alpha values meeting the standard benchmark of 0.70. The sample was predominantly female (77%) and aged 40–49 years (44.4%), with 1–3 years of experience in their current roles.

Key Findings

Training and Development : Effective training and development processes positively impacted AI integration.

Performance Appraisal : There was a strong link between AI integration and improved performance appraisal.

AI and HR Efficiency: AI positively influenced HR efficiency, though the effect was less pronounced.

The study also found that the ease of use of AI tools did not significantly affect the relationship between AI integration and HR efficiency.

Discussion and Implications

The study highlights the importance of balancing AI with human elements in HR. While AI can enhance efficiency and



streamline routine tasks, HR professionals must be equipped to manage digital transformation and focus on strategic planning. AI's integration can lead to improved decision-making and operational efficiency, but organizations need to adapt and implement AI thoughtfully.

To stay competitive, organizations should explore AI-driven tools for administrative tasks and concentrate on strategic planning to address evolving workforce needs.

CONCLUSION:

The shift from big data to artificial intelligence (AI) is transforming business landscapes, yet integrating these technologies, especially in human resources (HR), poses significant challenges. This study explored the current use of AI in HR practices, the views of digital natives on AI in recruitment, and strategies for effectively leveraging AI in hiring processes. Key findings indicate that while traditional recruitment methods, which emphasize personal interaction, are highly valued for their ability to foster communication and understanding, AI tools are increasingly used for pre-screening and pre-selection tasks. These tools can streamline processes and reduce administrative burdens but are not yet central to strategic recruitment planning, where human judgment remains crucial.

AI presents several benefits, such as improving efficiency, speeding up recruitment, and minimizing biases, but also brings challenges, including the need for effective training and overcoming skepticism. The survey data revealed that AI integration positively affects HR efficiency, training, and performance appraisal, although ease of use alone does not

significantly enhance HR outcomes. Thus, a thoughtful integration of AI into HR practices is essential. Organizations should leverage AI to manage routine tasks while maintaining a human touch in recruitment processes. Balancing AI with strategic human judgment and investing in responsible AI use will be key to improving recruitment practices and maintaining competitiveness in a rapidly evolving business environment.

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