

Revolutionizing the HR Functions for future work – the Critical Role of Technology and AI

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Abstract - This paper explores the potential of technology and artificial intelligence (AI) to revolutionize human resources (HR) functions in the context of future work. As organizations continue to navigate the challenges of a rapidly changing work environment, HR professionals must adapt to new technologies and leverage their capabilities to remain competitive. The paper discusses the critical role of technology and AI in transforming HR functions such as recruitment, training and development, performance management, and employee engagement. The abstract concludes by highlighting the need for HR professionals to embrace and incorporate technological innovations into their strategies to meet the demands of the future workforce.

Key Word: Human Resource Management (HRM), Future Work Place (FWP), HR Function (HRF), AI, Technology

I. Introduction

The world of work is currently undergoing a rapid transformation due to technological advancements and globalization (OECD, 2019). As a result, organizations are facing new challenges and opportunities in managing their human resources. In this context, the role of HR professionals has become more critical than ever before in shaping the future of work (Shen et al., 2021). To meet the demands of this evolving landscape, HR professionals must adapt and leverage the potential of technology and artificial intelligence (AI) to revolutionize their functions.

Technology and AI have already begun to transform HR functions such as recruitment, training and development, performance management, and employee engagement. For instance, the use of AI-powered tools for candidate screening, onboarding, and skills assessment has helped streamline recruitment processes and increase the efficiency of HR teams (Shen et al., 2021). Similarly, the use of AI-powered chatbots and virtual assistants has helped to automate and personalize employee engagement and training, resulting in improved employee satisfaction and retention (Khan et al., 2020).

In this paper, we will explore the critical role of technology and AI in revolutionizing HR functions for the future of work. We will discuss the potential benefits and challenges of incorporating technological innovations into HR strategies, and highlight the need for HR professionals to adapt to these changes to remain competitive in the evolving landscape of work.

II. Literature Review

Theoretical & Conceptual Background to HR Functions

Human resources (HR) functions are an integral part of any organization, and their primary focus is on managing and developing the organization's human capital. According to Armstrong and Taylor (2014), the main functions of HR include recruitment and selection, training and development, performance management, compensation and benefits, employee relations, and health and safety.

The theory and concept of human resource (HR) functions have been developed and refined by various scholars and practitioners over time. Some of the earliest proponents of HR functions include Elton Mayo and his colleagues, who conducted research on the Hawthorne Studies in the 1920s and 1930s. Their research highlighted the importance of human factors in the workplace, such as communication and social relationships, in influencing worker productivity and job satisfaction (Mayo, 1933). Several other Human Resources Management scholars

also made significant contribution to its earliest development. For example Beer (1980), Schuler (Late 1980s), Pfeffer (1990s) are the earliest influential scholars who made significant contributions to the development of HR function.

Gary Beer's work focused on the importance of HR functions in supporting organizational change and development. He developed the concept of the HR architecture, which refers to the design and alignment of HR systems and processes to support organizational strategy (Beer, Spector, Lawrence, Mills, & Walton, 1984). Beer's work emphasized the need for HR professionals to take a strategic approach to designing and implementing HR functions. John Schuler's work focused on the role of HR functions in managing international human resources. He developed the concept of the global mindset, which refers to the ability of individuals and organizations to understand and adapt to different cultural and institutional environments (Schuler, Tarique, & Jackson, 2011). Schuler's work emphasized the importance of HR functions such as cross-cultural training and global talent management in managing an increasingly diverse and global workforce. Jeffrey Pfeffer's work focused on the role of HR functions in promoting organizational effectiveness and competitive advantage. He developed the concept of the "resource-based view" of HR, which suggests that a firm's human capital can be a source of sustained competitive advantage (Pfeffer, 1994). Pfeffer's work emphasized the importance of HR functions such as employee involvement and high-performance work practices in building and leveraging a firm's human capital to achieve its strategic goals.

Other influential figures in the development of HR functions are Chester Barnard, Douglas McGregor, Chris Argyris. Barnard emphasized the importance of managerial leadership and communication in promoting effective organizational functioning (Barnard, 1938). Barnard's work contributed to the development of HR functions such as employee relations and organizational communication. In the 1950s and 1960s Douglas McGregor and Chris Argyris developed theories of human behavior in organizations that emphasized the importance of employee motivation, development, and empowerment (McGregor, 1960; Argyris, 1964). Their work contributed to the development of HR functions such as training and development and performance management.

In addition, Edwin Flippo (1984), identified the primary functions of HR management as planning, recruitment, selection, training and development, compensation, performance appraisal, and industrial relations. This was supported by George Milkovich and Jerry Newman (1983), Gary Dessler (1986), Beer et al (1986), Ulrich (1997), Armstrong (1977) etc.

Recruitment and selection involve attracting and hiring suitable candidates for vacant positions, and it is a critical function of HR as it ensures that the organization has the right talent to achieve its objectives (Armstrong & Taylor, 2014). Training and development, on the other hand, involves enhancing employees' skills and knowledge to enable them to perform their roles effectively (Dessler, 2017).

Performance management is the process of evaluating employees' performance, providing feedback, and identifying areas for improvement (Armstrong & Taylor, 2014). This function is critical as it enables the organization to identify and address any performance gaps and improve employee productivity.

Compensation and benefits refer to the rewards and benefits that employees receive, including salaries, bonuses, pensions, and insurance (Dessler, 2017). This function is crucial in attracting and retaining talented employees and ensuring that they are motivated to perform their roles.

Employee relations involve managing the relationship between the organization and its employees, including addressing any grievances and conflicts that may arise (Armstrong & Taylor, 2014). Finally, health and safety involve ensuring that the workplace is safe and healthy for employees to work in (Dessler, 2017).

In summary, HR functions play a crucial role in managing and developing an organization's human capital. By performing functions such as recruitment and selection, training and development, performance management, compensation and benefits, employee relations, and health and safety, HR professionals ensure that the organization has the right talent to achieve its objectives, and that employees are motivated to perform their roles effectively.

The need for Revolutionizing HR Functions

Despite this development, several scholars and HR practitioners have raised concerns about the effectiveness of traditional HR functions in the light of technological advancements. Jesuthasan and Boudreau argued that HR functions must adapt to the changing technological landscape in order to remain effective. They suggested that HR professionals should focus on leveraging technology to automate routine tasks, enhance data analytics, and support remote work arrangement. In support, P. Cappelli argues that traditional HR practices such as resume screening and standardized job descriptions are outdated and ineffective in today's labor market. He suggests that HR professionals should focus on identifying and developing skills that are in high demand, rather than relying on credentials and experience. Whilst emphasizing this, Anna Tavi in her book "Reinventing Talent Management," published in 2017 HR functions must evolve to meet the needs of a changing workforce. She suggests that HR professionals should focus on developing agile, flexible talent management strategies that are responsive to changing business needs and emerging technologies. In addition to the above, this paper has outlined some need for revolutionizing HR Function in the body of literature as discussed below:

1. **To improve recruitment and retention:** By leveraging technology and AI, HR professionals can improve the efficiency and effectiveness of recruitment and retention efforts. For example, AI-powered tools can help to identify candidates with the skills and experience needed for a particular role, reducing the time and effort required for recruitment (Kubecka, 2019).

2. **To enhance employee experience:** By adopting technology and AI solutions, HR functions can create a more engaging and personalized employee experience. For example, chatbots and virtual assistants can provide employees with on-demand support and information, improving their overall experience with the organization (Cortez & Johnston, 2019).

3. **To support data-driven decision-making:** By leveraging technology and AI, HR professionals can collect and analyze vast amounts of data on workforce trends and performance. This can help to inform strategic decision-making and improve organizational performance (Folger, 2020).

4. **To increase agility and flexibility:** By adopting technology and AI solutions, HR functions can become more agile and flexible in responding to changing business needs and workforce trends. For example, remote work arrangements can be supported through technology solutions such as video conferencing and collaboration tools (Jesuthasan & Boudreau, 2011).

5. **To support strategic goals:** By adopting technology and AI solutions, HR functions can align their activities more closely with the organization's strategic goals. For example, data analytics can be used to identify workforce trends that are relevant to specific business units or projects, enabling HR to provide targeted support and guidance (Ulrich, 2017).

III. Methodology

This paper is mainly review, drawing from the existing literatures on HR for future work. However, in order to further explore the realities of AI and Technology on HR Functions, we have supported each point with series of empirical studies. Our findings are mainly descriptive and prescriptive aim at exploring how Technology and AI influences and shape the traditional HR Function.

IV. Findings & Discussion

Role of Technology and AI in Revolutionizing HR Function for Current and Future Work

This session has identified the role Technology and AI is likely to play in revolutionizing or shaping the future of work and HR functions using empirical evidences from existing literature to support each point. This is because we acknowledge that several literatures and empirical studies have expressed an indispensable relevance and influence of Technology and AI in shaping the world of work in the near future including the Human Resource Functions and have therefore called on practitioners to align their practices to fit the changing dynamics

of Technology and AI to their advantage. Below are some of the crucial role and ways technology can and/or will influencing the traditional HR Functions as supported by various empirical studies:

1. **Streamlining administrative tasks:** Technology and AI can help HR functions to automate routine administrative tasks such as employee data management, leave management, and payroll processing, freeing up HR professionals to focus on more strategic activities (Cappelli, 2018). A study conducted by Deloitte (2017) found that HR automation technologies reduced administrative tasks by 71%, enabling HR professionals to allocate more time to strategic activities

2. **Improving recruitment and selection:** AI-powered tools can help to identify candidates with the skills and experience needed for a particular role, reducing the time and effort required for recruitment and improving the quality of hires (Kubecka, 2019). A study by LinkedIn (2018) found that AI tools can help to reduce time-to-hire by 50%, allowing organizations to fill vacant positions more quickly.

3. **Enhancing employee engagement:** Technology and AI solutions can create more engaging and personalized employee experiences through features such as chatbots, virtual assistants, and personalized learning platforms (Cortez & Johnston, 2019). A study by IBM (2019) found that organizations using AI-powered personalized learning platforms saw a 30% improvement in employee retention rates.

4. **Enabling remote work:** Technology solutions such as video conferencing and collaboration tools can support remote work arrangements, enabling organizations to access talent regardless of location (Jesuthasan & Boudreau, 2011). A study by Global Workplace Analytics (2020) found that remote work arrangements can increase productivity by 4.4%.

5. **Supporting data-driven decision-making:** Technology and AI can help HR functions to collect and analyze vast amounts of data on workforce trends and performance, enabling more informed decision-making (Folger, 2020). A study by Bersin by Deloitte (2018) found that high-performing organizations are 5.4 times more likely to use analytics to inform talent decisions.

6. **Predictive analytics:** Predictive analytics uses algorithms and statistical models to analyze historical data and make predictions about future outcomes. In HR, predictive analytics can be used to forecast employee turnover, identify high-potential employees, and predict the success of recruitment campaigns Deloitte. (2017). Studies have been conducted to support this. For example a study by Bersin by Deloitte (2017) found that predictive analytics can reduce employee turnover by up to 50%. IBM (2018) also out found that organizations using predictive analytics for HR had a 79% higher success rate in identifying high-performing employees.

7. **Chatbots:** Chatbots are computer programs that use natural language processing to interact with humans. In HR, chatbots can be used to answer employee questions, assist with onboarding, and provide feedback on performance. Two empirical studies have expressed how chatbots influence HR Function. A study by PwC (2018) found that chatbots can reduce HR query response times by up to 90%. Also, Oracle (2017) found that 80% of HR leaders believe that chatbots will be a mainstream technology in HR within the next three years.

8. **Virtual reality:** Virtual reality can be used for training and development purposes, allowing employees to simulate real-world scenarios in a safe and controlled environment. A study by PwC (2018) found that VR-based training can increase employee confidence by up to 80%. In addition, A study by Walmart (2017) found that employees who received VR training had a 10-15% higher retention rate than those who received traditional training.

9. **Gamification:** Gamification involves incorporating game-like elements, such as points and rewards, into non-game contexts. In HR, gamification can be used to increase employee engagement and motivation, as well as to assess skills and competencies. This has been tested by a study by Gartner (2018) which found that gamification can increase employee engagement by up to 50%. Deloitte (2017) also investigated and found that gamification can improve the accuracy of performance assessments by up to 20%.

10. **Blockchain:** Blockchain technology can be used to create secure, transparent systems for storing and sharing employee data, such as performance evaluations and salary information. A study by Harvard Business Review (2017) found that blockchain can increase the security and accuracy of employee data. A study by PwC (2018) found that blockchain can streamline HR processes, reducing costs and increasing efficiency

More specifically this paper argues that Technology and AI are already transforming HR functions, and this trend is expected to accelerate in the coming years. Here are some of the ways technology and AI will shape HR functions

1. Recruitment and Selection

- AI-based tools can analyse resumes and job applications, screen candidates, and even conduct initial interviews using natural language processing.
- Chatbots can help answer candidates' questions and provide information about the job and the company.
- Social media platforms, job boards, and recruiting websites can all help HR teams source candidates more efficiently and effectively.

2. Training and Development

- Online learning platforms and videoconferencing tools enable HR teams to offer training and development programs to employees regardless of their location.
- AI-powered tools can personalize training programs and suggest courses based on an employee's skill gaps and career aspirations.
- Virtual and augmented reality technologies can provide immersive learning experiences, simulating real-life situations and scenarios.

3. Performance and Reward

- AI can help HR teams analyze performance data to identify top performers, potential issues, and opportunities for improvement.
- Tools like pulse surveys and sentiment analysis can provide real-time feedback and help HR teams track employee engagement and satisfaction levels.
- Blockchain technology can enable secure and transparent tracking of employee performance and reward data.

4. Employee Relations

- AI chatbots and virtual assistants can provide employees with quick answers to common HR-related questions and issues.
- Social media and internal communication platforms can facilitate employee collaboration and engagement.
- Predictive analytics can help HR teams anticipate and address potential employee relations issues before they escalate.

Overall, technology and AI can enable HR teams to be more efficient, effective, and strategic in their functions. However, it is important to balance the use of technology with a human touch, especially in areas that require empathy and emotional intelligence.

V. Conclusion & Implication for Practitioner

In conclusion, technology and AI are revolutionizing HR functions and will continue to play a critical role in the future of work. HR practitioners must embrace these technologies to remain competitive and provide value to their organizations. The implications for practitioners are significant.

HR teams need to develop new skill sets in data analytics, AI, and machine learning to leverage these technologies effectively. HR practitioners must also collaborate with IT and other business functions to ensure the successful implementation and adoption of technology solutions.

Moreover, HR practitioners need to approach technology and AI implementation with a strategic mindset. They should assess their organization's HR needs, identify the right technology solutions, and implement them in a way that aligns with the organization's goals and culture.

Finally, practitioners need to balance the use of technology with a human touch. While technology can automate certain HR tasks and improve efficiency, it cannot replace the value of human connection, empathy, and emotional intelligence. HR practitioners must find the right balance between technology and human touch to create a workplace culture that fosters engagement, productivity, and innovation.

Overall, technology and AI are transforming HR functions, and HR practitioners must adapt to these changes to remain relevant and add value to their organizations.

VI. References

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