





# HR'S ROLE IN FOSTERING AGILE CULTURE AND UPSKILLING IT TALENT

Dejan Ječmenica\*,   
Dušan Mandić,   
Nataša Stanišić 

Singidunum University,  
Belgrade, Serbia

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## Abstract:

Rapid changes in technology in the IT sector make continuous development and improvement of employees crucial for company success. However, attracting and retaining talent with the necessary skills presents a significant challenge for HR professionals. This paper analyzes the role of HR in creating an agile culture and encouraging upskilling to retain IT talent. We aim to examine how various HR strategies, such as education and training programs, launching innovation initiatives, and flexible working options, impact team agility, innovation, and employee motivation. Through a comparative analysis of existing research, the paper identifies key challenges and opportunities within HR practices, underscoring the necessity for continuous adaptation and innovation in HR strategies to support organizational success in a dynamic global business environment. The paper concludes with practical recommendations for HR professionals in the IT sector, aiming to improve their strategies for attracting and retaining skilled IT professionals through effective upskilling programs and agile practices.

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## Keywords:

agile culture, upskilling, talent retention, IT technologies, skills.

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## 1. INTRODUCTION

The information technology (IT) sector is characterized by rapid development and continuous innovation in today's world. This dynamic environment requires companies to be agile and capable of quickly adapting to changes. Success in such an environment is crucially dependent on having talented and motivated IT professionals with the necessary skills. However, attracting and retaining such talent is increasingly challenging for HR professionals. From all this, companies must develop an agile culture. It should enable the creation of a work environment that supports rapid adaptation, response, and innovation. Agility programs and their implementation are becoming something that is already taken for granted. In this way, companies want to show that they respond quickly to changes and all the challenges that arise before them. In this direction, companies want to enable the upgrading of the skills of their employees, because that is something new. The job that was done in the previous period required one set of skills. New challenges have also brought the need for new skills. To meet these demands, HR must provide additional opportunities and resources for skill development and improvement. This process is not at all easy and simple. It is considered key in developing an agile culture and its realization. This is a big change for the company. HR must play a key role in this transition. In addition to clearly defined employee needs for their new skills, it must take into account how the change will be accepted and applied in the coming period. HR needs to increase employee motivation so that employees feel certain benefits in implementing an agile culture. HR is the one who needs to create a positive work atmosphere with all managers that values acceptance,

Correspondence:  
Dejan Ječmenica

e-mail:  
dječmenica@singidunum.ac.rs



initiative, and employee contribution in achieving company goals on one hand, and on the other hand needs to create a culture that builds and nurtures a climate that encourages loyalty to the company. In the analysis itself, we will use quantitative and qualitative analysis methods to identify effective HR strategies that can help IT sector companies retain their talents and stay competitive in a dynamic digital environment. We will particularly emphasize that developing an agile culture is a necessity for quick adaptation in today's times. HR must implement various agile methodologies, which should enable teams and company employees to quickly respond to changes and provide new solutions in a short period of time. One of the important HR challenges is also creating an environment that should support all employees in initiating and trying out new ideas, even if there is a risk of mistakes. The new approach and agility should imply tolerance for mistakes and learning from them. To achieve this, it is necessary to support open communication, brainstorming sessions, and promotion of creative thinking among employees. Also, allowing employees to work on projects that challenge and inspire them. For employees to respond to all these demands, HR must enable skill upgrading. This means providing financial support and time for employees to attend various trainings, IT conferences, and other educational programs that are relevant to their roles and future career goals.

Along the way, it is important to connect more experienced employees with new or less experienced colleagues to provide support and pass on their knowledge and experience. Companies are increasingly developing internal platforms for e-learning or libraries of professional materials available to all employees for continuous improvement. HR's role must also be focused on recognizing employee contributions, providing praise and rewards for achievements, and individual or team successes. HR must monitor trends and employee demands. One of these is enabling employees flexible working hours, working from home, or other arrangements that suit their personal needs and improve the work-private life balance. Implementing these strategies can significantly contribute to attracting, retaining, and motivating talent in the IT sector, which is crucial for company success in a fast and dynamic digital environment.

## 2. LITERATURE REVIEW

As Ajayi and Udeh (2024b) state the analysis emphasizes HR's vital role in developing agile leadership, promoting continuous learning and psychological safety, and using HR technologies to boost workforce agility. Key findings stress HR's strategic involvement in leadership development, learning frameworks, and fostering agile team dynamics to cultivate an agile work culture. The study also discusses upcoming challenges and opportunities in agile work cultures such as integrating remote work, AI, and ensuring diversity. Recommendations for HR and IT leaders include investing in agile leadership, improving team dynamics, and fostering continuous improvement culture. Additionally, the study highlights HR's crucial role in facilitating agile transformations within IT sectors and suggests future research directions on emerging technologies' impact on agile methodologies and HR's role in building inclusive and diverse agile teams. This research enhances our understanding of how HR-driven agile practices can propel organizational success in the evolving digital landscape.

As Shan and Wang (2024) state, in the ever-changing landscape of the knowledge economy, organizations must align their HR, IT, and agile strategies with the demands of a dynamic global business environment. This research embarks on a comprehensive exploration of HR, IT, and agile practices on a global scale. It seeks to unravel the intricacies of how organizations strategically align their HR, IT, and agile initiatives with the evolving demands of the knowledge economy.

According to Ajayi & Udeh (2024a), the transformative impact of digital technology has made upskilling increasingly crucial for the company. This is especially important given its small size, which exacerbates challenges such as outdated skills and limited training resources. The thesis employed interviews as the primary data collection method and focused on theories and approaches for upskilling, especially in the IT sector. By analyzing the company's current practices and engaging key stakeholders, the thesis crafted a tailored framework for fostering employee upskilling. This framework, informed by both theory and practical insights, aims to facilitate orderly upskilling processes, resource management, and the cultivation of a learning-oriented workplace culture. Ultimately, the thesis seeks to enhance digital solutions, boost project success rates, and promote creativity within the organization.

As Mishra and Chakraborty (2023) state, Industry 4.0 is reshaping the economy. As a result, businesses face heightened complexity, disruption, and uncertainty, necessitating frequent innovation in products and services. Organizations must adapt to evolving trends, embrace change, and develop agile processes to navigate



new manufacturing systems and manage organizational impacts effectively. Leaders play a crucial role in fostering adaptability and responding swiftly to dynamic business dynamics. The shift towards a more agile organization requires a redefined leadership approach, with HR functions also needing to adopt agility. This chapter explores key HR agile practices and their impact on employee engagement, highlighting the importance of agile HR systems in fostering employee commitment amidst evolving business landscapes.

McMackin & Heffernan(2021) notes that the business landscape has evolved significantly in recent decades, prompting the adoption of innovative approaches, particularly within the HR domain. Agile principles, traditionally associated with technology production, are now extending into broader business value creation, including HR practices. Agile HR involves customer participation in product development, reflecting the human-centric nature of digital transformation. Key change enablers, intrinsically motivated individuals within organizations, drive progress towards new goals.

Vandy et al. (2024) have found that empirical evidence underscores the necessity for organizations to align their HRM practices with the new normal. The new normal in HRM presents both challenges and opportunities. Challenges include adapting to remote work, maintaining workplace culture and collaboration, and upskilling employees in digital tools and processes. However, it also offers opportunities such as accessing a broader talent pool and developing flexible work arrangements that support employee well-being. HR practitioners can leverage technology and adopt innovative practices to support workforce agility, employee engagement, and organizational success in the post-pandemic world.

To navigate these challenges and capitalize on opportunities, HR practitioners must adopt innovative and agile approaches to talent management, employee engagement, and workplace culture (Ásmundsson, 2021). This paper aims to explore practical strategies for HRM adaptation in light of the new normal, drawing from the broader HRM literature to guide practitioners and HR professionals in aligning their HRM practices with evolving developments.

Guðjón (2021) states that in today's rapidly changing world, companies must embrace agility, flexibility and adaptability like never before. Shifting from a survival mindset to one focused on thriving is imperative. Many companies are transitioning to project-driven models and flexible team networks, reflecting the growing trend towards a gig economy and increased project-focused work. Employees seek companies that foster a sense of belonging, prioritize their well-being, and offer opportunities for growth. To meet these expectations, companies must cultivate a culture that values personal and professional

development. This includes providing opportunities for upskilling, reskilling, and internal mobility. Investing in IT and AI solutions can help employees find growth opportunities within the company, leading to a more competent workforce and increased retention of knowledge workers. While this development is promising, it also presents ethical challenges. The paper offers insights into the current state of this trend and explores potential future directions.

Istenič et al. (2022) in their research conduct a comprehensive examination of workforce upskilling initiatives in the Information Technology (IT) sector, aiming to identify effective strategies for preparing professionals for the rapidly changing digital landscape. Utilizing a systematic literature review and content analysis, the study investigates various upskilling programs, focusing on their design, implementation, and outcomes. Data are sourced from peer-reviewed journals and conference proceedings, selected based on relevance and timeliness to the current IT context. Key findings highlight the importance of anticipating technological trends to align workforce capabilities with future demands, emphasizing personalized and experiential learning pathways. The study underscores the strategic role of upskilling in bridging the digital divide and advocates for inclusive and accessible learning opportunities to cultivate a diverse and globally competitive workforce. Recommendations for stakeholders include adopting flexible learning models, fostering industry-academia partnerships, and prioritizing the development of technical and soft skills. Finally, the research emphasizes the need for a proactive and collaborative approach to IT education and workforce development. By integrating advanced learning technologies and inclusive strategies, stakeholders can ensure that the IT workforce remains adaptable and ready to innovate in the face of technological advancements. This framework lays the groundwork for future research and policy-making endeavours, aiming to strengthen the resilience and diversity of the global IT sector. Digital transformation presents a significant challenge for companies, as skills and competencies continuously evolve, a trend expected to accelerate in the future. To address this challenge, companies must reskill and upskill their existing workforce. The primary motivation behind this imperative is the scarcity of skilled workers in the labour market, particularly those with specific skills. Without reskilling and upskilling initiatives, companies face the dilemma of either hiring competent labour, which can be complex and costly, or risking an obsolete workforce and outdated practices, placing them at a disadvantage in the competitive landscape. Two main approaches emerge in response to emerging market trends: upskilling, which involves adopting new skills to advance in current roles, and reskilling, which entails preparing for entirely new



jobs and career changes. The chapter aims to evaluate how well Slovenian companies are addressing the challenges of digital transformation through upskilling and reskilling initiatives. The research focuses on five key questions: the strategic skills deemed most important by Slovenian companies, how these companies prepare employees for digital transformation, the extent to which reskilling and upskilling methods are integrated into corporate strategies, the most effective training methods, and the primary challenges associated with upskilling and reskilling. To answer these questions, 28 semi-structured interviews were conducted with human resource managers from Slovenian companies recognized for their industry leadership or exemplary HR practices.

Roper et al. (2022) argue that it is necessary to examine the role of HR in supporting the agile transformation of organizations, which is relevant to our work because an agile culture is a key factor for quick adaptation and innovation in the IT sector. We can also rely on their research to identify specific HR practices that are effective in promoting team agility. We see that continuous improvement and acquisition of new skills are crucial for IT professionals to remain relevant in a rapidly changing environment. This research talks about everything so that we can understand the IT talent needs for upskilling and recognize which methods of providing these opportunities are the most effective. Koszela (2020) mention in their work the impact of HR practices on motivation and retention of employees. This research is relevant because talent retention is the primary goal of our work. We can rely on their research to identify specific HR practices that are effective in improving motivation and loyalty of employees in the IT sector, which will ultimately result in a higher likelihood of retaining IT talent. Kryscynski & Ulrich (2015) discuss the concept of Agile HR and how it can support organizations in fast and flexible work. This research shows us how the IT sector requires agility and quick adaptation, and Agile HR can help in creating a framework for such work. Based on their book, we get all the necessary insights to understand the key principles of Agile HR and suggest concrete ways to apply these principles in the IT sector. Mollet et al. (2023) and others in their work explore the transformation of the HR function into an agile organization. They list specific challenges and strategies for implementing agile principles in HR, which is relevant for supporting agile culture in the IT sector. Colakoglu et al. (2019) in their work focus on the role of HR in promoting innovation in organizations. From this, we see that various HR practices can support innovation in the IT team, which is crucial for success in a fast and competitive environment. Li (2022) in his work states that upskilling the workforce in the future becomes increasingly certain. In doing so, he lists several different ways to achieve this through improving the skills and knowledge

of IT professionals. Wilkinson et al. (2020) stated in their work, *The Future of Work: Jobs, Skills*, that different aspects were reviewed through research conducted by the McKinsey Global Institute (2020). Here we see all future work trends and necessary skills that are essential in modern business processes. Based on the same, we have a better understanding of the key challenges in the IT sector in terms of talent and identification of relevant skills that HR strategies should target with upskilling program activities.

### 3. RESEARCH METHODOLOGY

This research will use the methodology of analyzing existing literature to further explore the role of HR in developing an agile culture and implementing upskilling strategies to retain IT talents. The analysis will be based on the selection of relevant research, including academic publications and reports from reputable institutions. Through the analysis of key themes and terms, identification of key HR strategies, and synthesis of empirical evidence from the literature, we will create a comprehensive overview of existing knowledge in this field. This approach will enable a thorough understanding of existing theories and research, and then serve as a solid foundation for further analysis and development of practical recommendations for HR professionals in the IT sector.

In this paper, we want to analyze the role of HR in developing an agile culture and encouraging upskilling to retain IT talents and experts. Special emphasis is given to identifying certain HR strategies that should contribute to the development of an agile culture in the IT sector. By choosing different HR strategies, companies influence the agility of their teams, innovation, and motivation of employees in the IT sector. This also allows them to improve the effectiveness of upskilling programs in retaining IT talent. One of the goals of this paper is to develop practical recommendations for HR professionals in the IT sector to improve the ability to attract and retain talent. This work will make a significant contribution to improving HR practice in the IT sector. The results will be useful to HR professionals, managers, and company owners in the IT sector, as well as to everyone dealing with the issue of attracting and retaining talent in this area.



## 4. RESULTS AND DISCUSSION

Our results confirm the key role of HR in promoting an agile framework and upskilling for IT professionals, thereby complementing the existing literature in this field. Through our work, we have connected our own findings with the existing literature. Our work is in line with research that emphasizes the importance of agile methodologies and continuous learning in the IT sector (Roper et al., 2022; Birkinshaw, 2018). The results provide empirical confirmation of the key roles of HR identified in previous works, such as the development of training programs on agility (Braun et al., 2017) and the promotion of a collaboration culture (Colakoglu et al., 2019).

Our research highlights the need for HR to be actively involved in transforming the organization towards agile principles, to have an active role in developing strategies for continuous professional development through upskilling programs. In spite of everything mentioned, we specifically focus on the connection between agile culture, upskilling, and the motivation/retention of IT employees. This approach relies on existing research and does not offer new empirical evidence. This means that the research results are limited to what has already been studied and published. The quality and objectivity of available works can affect the results of the analysis. The results of the literature analysis may change over time as the context of the researched issue changes. It is important to follow new research and update knowledge on this topic. Despite all these limitations, the literature analysis still offers a valuable contribution to the research of HR's role in the IT sector. By synthesizing the existing knowledge and identifying key themes and strategies, this analysis can serve as a solid basis for further research and practical recommendations for HR professionals.

## 5. CONCLUSION

This research, based on the analysis of published literature and research, has provided us with a detailed overview of the role of HR in developing an agile culture and encouraging upskilling to retain IT talent. The results emphasize the importance of HR strategies in promoting agile principles, facilitating continuous learning, and creating a competitive offering for IT professionals. Although the advantages of this analysis included collecting a wide range of perspectives and identifying key themes for further research, it is limited to existing knowledge and does not provide new empirical data. Despite these limitations, this analysis represents a valuable step in understanding the role of HR in supporting agility, innovation, motivation, and talent retention in the IT sector, providing a solid foundation for future research and practical application.

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