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AI anxiety and the future of work: A human-machine interaction perspective

(Yapay zekâ kaygısı ve işin geleceği: İnsan-makine etkileşimi perspektifi)

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Abstract

This article explores the future of human-machine interaction by examining how artificial intelligence is reshaping the world of work. The primary objective is to understand organizational transformations driven by artificial intelligence, assess its effects on employees, and analyze the emerging phenomenon of artificial intelligence anxiety. As these technologies rapidly proliferate across industries, they fundamentally alter work practices, employee roles, and leadership strategies. This dual-faceted transformation—marked by both opportunity and risk—necessitates a closer investigation into how organizations can sustain effective human-machine collaboration. The study emphasizes the importance of understanding adaptation challenges amid technological shifts and investigates how induced anxiety impacts organizational structures and individual well-being. Given the broad consequences of artificial intelligence anxiety at individual, organizational, and societal levels, the article underscores the urgency of further academic inquiry. By adopting a qualitative methodology through an extensive literature review, the research seeks to offer a new perspective on interaction theory and deepen the analysis of psychological effects. Grounded in academic studies and industry reports, the review utilizes databases such as Web of Science, Scopus, and Google Scholar. Ultimately, the article aims to contribute to theoretical discussions on leadership, organizational learning, and transformation in the age of intelligent technologies.

Keywords: Artificial Intelligence, Artificial Intelligence Anxiety, Organizational Learning

Paper type: Review

Öz

Bu makale, yapay zekânın iş dünyasını nasıl yeniden şekillendirdiğini inceleyerek insan-makine etkileşiminin geleceğini araştırmaktadır. Çalışmanın temel amacı; yapay zekâ eksenli gelişen örgütsel dönüşümleri anlamak, çalışanlar üzerindeki etkileri değerlendirmek ve giderek daha görünür hâle gelen "yapay zekâ kaygısı" olgusunu analiz etmektir. Yapay zekâ teknolojilerinin sektörler arasında hızla yayılmasıyla birlikte; iş yapma biçimleri, çalışan rolleri ve liderlik stratejileri köklü bir değişim sürecine girmiştir. Fırsatlarla birlikte riskleri de barındıran bu ikili dönüşüm, örgütlerin insan-makine iş birliğini sürdürülebilir kılabilmeleri adına konunun yakından incelenmesini gerekli kılmaktadır. Araştırma, teknolojik değişimler karşısında çalışanların uyum zorluklarının anlaşılmasına vurgu yapmakta; yapay zekâ kaynaklı kaygının örgütsel yapılar ve bireysel iyi oluş üzerindeki etkilerini incelemektedir. Bu kaygının bireysel, örgütsel ve toplumsal düzeydeki geniş kapsamlı sonuçları, akademik araştırmaların aciliyetini ortaya koymaktadır. Nitel bir yöntem olarak kapsamlı bir literatür taramasına dayanan çalışma, insan-makine etkileşimi teorisine yeni bir bakış açısı sunmayı amaçlamaktadır. Literatür taraması; örgütsel davranış ve iş gücü psikolojisini odağa alan akademik çalışmalar ile sektör raporlarına dayandırılmıştır. Makale neticede; akıllı teknolojiler çağında liderlik, örgütsel öğrenme ve dönüşüm konularındaki kuramsal tartışmalara katkı sunmayı hedeflemektedir.

Anahtar Kelimeler: Yapay Zeka, Yapay Zeka Kaygısı, Örgütsel Öğrenme

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Introduction

The rapidly changing character of technologies today contributes to significant transformations in the role and use of artificial intelligence (AI) within business contexts. Indeed, the introduction of AI in business operations has altered working principles, job positions, and management styles (Brynjolfsson & McAfee, 2014). While increased productivity can be achieved through AI adoption, it may also trigger anxiety among both employees and managers (Chui, Manyika, & Miremadi, 2016). Organizations are therefore expected to carefully consider not only the economic implications but also the social and psychological consequences of AI to shape their future strategies effectively.

The role of human–machine interaction in workplaces is becoming increasingly important. AI technologies have the potential to reduce workloads and automate repetitive tasks, thereby creating opportunities for higher-level responsibilities requiring human judgment and creativity (Autor, 2015). At the same time, employees are faced with the necessity of acquiring new skills, while labor markets experience structural changes. AI affects not only business processes but also employee experiences, motivation, and overall productivity (Davenport & Kirby, 2016). Importantly, AI anxiety—defined as the fear and uncertainty regarding AI adoption—raises concerns about job replacement, automation, and changes in workplace interactions. These anxieties may also influence communication patterns and social connectedness, sometimes leading to stress, isolation, or a sense of alienation (Susskind & Susskind, 2017; Ghani et al., 2019).

However, there is no clear consensus in the literature on whether AI anxiety should be considered primarily harmful or potentially beneficial. Some scholars argue that AI anxiety undermines employees' adaptability and innovation capacity (Çınar, 2024), while others suggest that under certain conditions, it may stimulate creativity and drive innovation by pushing employees to adapt more quickly (Verma & Singh, 2022; Ülkü et al., 2025; Bysted, 2023). This debate underlines the importance of adopting a balanced approach when analyzing AI anxiety, considering demographic, cultural, and organizational contexts.

This paper therefore aims to examine the future of human–machine interaction by analyzing how AI is reshaping working life. The main purpose is to understand the organizational transformations driven by AI, to assess its effects on employees, and to analyze the emerging phenomenon of AI anxiety. By adopting a dual perspective—considering both opportunities and risks—the study contributes to the literature in three main ways: (1) by highlighting the inconsistent findings in the literature and offering a comprehensive synthesis of them, (2) by categorizing the factors that increase AI anxiety at the individual, organizational, and societal levels, and (3) by expanding the theoretical discussions on leadership, organizational learning, and transformation in the age of intelligent technologies.

Methodologically, this research is qualitative in nature and takes the form of an extended literature review. The review covers academic works and industry reports that assess the effects of AI technologies in the business world, with a particular

emphasis on organizational behavior and workforce psychology. Special attention is given to theories and case studies related to AI anxiety. The literature review draws primarily from Web of Science (SSCI and ESCI), Scopus, EBSCOhost, and Google Scholar databases, using keywords such as "Artificial Intelligence," "AI in the Workplace," "AI Anxiety," and "Organizational Learning." In the following sections, this study further explores demographic variations in AI anxiety, categorizes the underlying factors contributing to its increase, and discusses its implications for organizational structures and individual well-being.

1. Literature Review on AI Anxiety

1.1. Case Studies on AI Anxiety

Several case studies illustrate how AI adoption in different sectors creates both opportunities and challenges for employees. For example, in the manufacturing sector, automation has significantly reduced repetitive tasks, but at the same time generated concerns among workers about job security and the potential replacement of human labor. In the healthcare sector, while AI-based diagnostic systems have improved efficiency and accuracy, some professionals have reported increased stress due to the fear of being marginalized in clinical decision-making processes. In the finance industry, AI-driven algorithms have enhanced risk management and fraud detection, yet employees in traditional banking roles expressed anxiety regarding the sustainability of their positions. These examples demonstrate that AI anxiety manifests in diverse ways across sectors, highlighting the need for context-specific analyses when evaluating its organizational and psychological impacts.

1.2. Industry Perspectives

Industry organizations and consulting firms have increasingly acknowledged the dual nature of AI adoption. Reports by McKinsey (2017), Deloitte (2021), and PwC (2022) emphasize that AI enhances productivity, accelerates decision-making processes, and generates new opportunities for value creation. However, they also point out that without proper workforce adaptation strategies, AI anxiety can undermine employee morale and slow down digital transformation initiatives. Similarly, OECD (2021) and ILO (2022) reports highlight that the effects of AI adoption are uneven across industries and workforce groups, with lower-skilled employees facing greater risks of job displacement. Industry perspectives therefore underline that successful AI integration requires not only technological investment but also policies that build employee trust through training, transparent communication, and inclusive organizational cultures.

1.3. Academic Discussions and Assumptions

1.3.1. Demographic Differences in AI Anxiety

Research on AI anxiety has highlighted that demographic factors can significantly shape individuals' perceptions of artificial intelligence and their corresponding levels of anxiety. Age is one of the most frequently discussed variables. Younger employees often perceive AI as a challenge and an opportunity for professional growth, while older employees tend to express higher levels of anxiety due to concerns about job displacement and difficulties in adapting to new technologies. Gender differences have also been reported, with some studies suggesting that women exhibit higher levels of technology-related anxiety, although other findings indicate no significant gender-based variation, underscoring the complexity of this relationship. Educational status plays an important role as well, as employees with higher levels of education and stronger digital literacy generally report lower levels of AI-related anxiety. Similarly, income levels have been associated with anxiety, where lower-income employees are more prone to fear job loss due to automation compared to higher-income employees, who may have more opportunities to reskill or transition into new roles.

1.3.2. Factors Increasing AI Anxiety

The literature indicates that AI anxiety arises from a wide range of factors, which can be categorized into individual, organizational, and societal/cultural dimensions. Individual-level factors include lack of digital skills, limited technological literacy, fear of job displacement, and certain personality traits such as high uncertainty avoidance. Organizational-level factors are often related to the way AI is introduced and managed within the workplace. Insufficient training opportunities, lack of transparent communication from management, role ambiguity, and increased workload can all contribute to higher levels of anxiety. Furthermore, the absence of leadership support or a trustful organizational climate may intensify employees' fear of technology adoption. Societal and cultural-level factors encompass broader influences such as cultural attitudes toward technology, ethical debates about automation, and the presence (or absence) of regulatory frameworks. Cross-cultural studies, such as Sindermann et al. (2022), demonstrate that perceptions of AI differ significantly between cultures, with some employees viewing AI primarily as a threat and others as an opportunity.

1.3.3. Contradictory Findings on Organizational Outcomes

Although many studies underline the negative consequences of AI anxiety—such as reduced adaptability, decreased motivation, and limited innovative capacity (Çınar, 2024)—other scholars present more nuanced findings. Verma and Singh (2022) found that moderate levels of AI anxiety may encourage employees to innovate in competitive environments. Ülkü, Uçan Özcan, and Polatcı (2025) demonstrated that

younger employees can channel AI anxiety into adaptive and creative behaviors, while Bysted (2023) argued that in certain organizational contexts, AI anxiety fosters experimentation and learning. Taken together, these studies suggest that AI anxiety plays a dual role: it can either hinder or enhance organizational learning and innovation depending on contextual factors such as organizational culture, leadership support, and employee profiles.

2. Research Methodology

The design of the study will follow a qualitative research approach in-depth to examine artificial intelligence effects on business settings, with the aid of a literature review and thematic analysis that shapes the methodology by identifying what is discussed within the academic studies regarding theories of AI anxiety, human-machine interaction, organizational learning, and the usage of AI within workplaces. Article retrieval will be done from reliable academic databases for the review process, such as Web of Science-SSCI and ESCI, Scopus, EBSCOhost, and Google Scholar. The keywords which will be used in research studies include, but are not limited to, terms like "Artificial Intelligence," "Human-Machine Interaction," "AI in the Workplace," "AI Anxiety," and "Organizational Learning." During the literature review, studies and reports addressing the opportunities and threats put forward by AI in the business world, together with its effects on organizational behavior and individual psychology, will be selected by searching with these keywords.

The findings from the literature during the data analysis phase will be examined using the thematic analysis method. Thematic analysis will identify the main themes in the literature, such as AI anxiety, human-machine interaction, and organizational learning, and will provide a detailed analysis of the data gathered around these themes. The psychological and organizational impacts of AI anxiety on the level of the individual, organization, and society will be the focus of the study. The expected results from this research involve organizational strategies for preserving human-machine collaboration. Here, the paper also wants to present an entirely new theoretical framework concerning the issues of leadership, learning processes of the organization, and transformation. Discussion will revolve around opportunities and threats seen by AI within the business sector, with focus given on how people and organizations change because of the presence of trends. In this respect, the current study tries to enrich the theory of human-machine interaction by contributing notably to the literature and assessing the long-term effects of AI anxiety on the business world in a broader context. This research will also contribute to opening a new direction for future studies in showing how existing work practices and employee roles have been transformed, the effects of such transformation on employees, and changes in leadership approaches.

3. Conceptual Framework

Human-machine interaction could be defined as the interaction between humans and machines, mainly AI-based systems. This is an interaction process where the machine tries to understand human needs and the human interacts with the machines

to use them effectively (Usmani et al., 2023). Human-machine interactions arise in robotic systems, automation, and AI applications. The main purpose of this interaction is to understand the needs of humans better by machines and provide appropriate and efficient services (Erbaş, 2023). Interactions in AI-supported workplaces restructure the workforce by enhancing productivity but may make collaboration between humans and machines more complicated and complex (Davenport & Ronanki, 2018).

Artificial intelligence (AI) is a field that aims to develop computer systems that mimic human intelligence and includes techniques such as machine learning, deep learning, and natural language processing (Stuart & Peter, 2016). AI can analyze data, recognize patterns, and enable machines to perform complex tasks, contributing to the workforce and being utilized in many industries (Brynjolfsson & McAfee, 2014). On the other hand, the rapid increase in AI raises some concerns for certain employees, since it can bring about drastic changes in the workforce and raise concern over the substitution of human skills by machines.

Artificial Intelligence anxiety refers to the concerns that individuals have related to changes AI causes to social life, jobs, and structures of society. Most of the time, this kind of anxiety is associated with job insecurity, displacement of human skills by machines, and uncertainties introduced by new technologies (Chui et al., 2016). This might cause psychological pressure, further causing social isolation, hence affecting work motivation (West, 2018). Anxiety over AI is, therefore, as a factor of transformation in the societal structures and workforce, a reflection of lack of trust in interacting with machines (Brynjolfsson & McAfee, 2014).

The relationship between human-machine interaction and artificial intelligence is based on machines' ability to support human tasks or take over certain responsibilities. While AI enhances efficiency in business processes, it can also have significant impacts on the workforce. People may engage with machines under the fear that AI will take their jobs, and this anxiety can negatively influence human-machine interaction (Jarrahi, 2018). However, AI anxiety can be minimized through proper management of such interactions. Training the employees, building trust in machine-based interactions, and clarity in the presentation of technologies are various ways to reduce such anxiety (Brynjolfsson & McAfee, 2014). The relationship between human-machine interaction and AI anxiety is a very important aspect of managing the digital transformation process in a workplace effectively (Davenport & Ronanki, 2018).

4. Literature Review

Human-machine interaction and Artificial intelligence basically complement one another when machine resources reinforce or replace tasks and roles humans handle. Much as AI systems promise efficiency for organizations in different business processes, it is envisaged these technologies will pose many impacts in a workforce setting. It might develop anxiety on the takeover by machines that diminish the essence of human-machine interactions effective as expected by Kirkpatrick et al. (2023). Employees may interact with machines out of fear that AI will take over their jobs, but when this anxiety is managed properly, a positive collaborative environment

can be created. Training programs and reinforcing trust in interactions with machines can help reduce these concerns (Westerman et al., 2012). In addition, showing technologies transparently and helping employees understand how machines work may help them adapt more easily to digital transformation. Therefore, understanding the relation between human-machine interaction and AI anxiety is quite crucial in the effective management of digital transformation processes. While finding this balance, strong collaboration can be achieved by employees and machines; this again will guarantee productivity in the workplace. The following discussion reviews some findings extracted from the literature review.

In the article "Toward artificial emotional intelligence for cooperative social human–machine interaction," Erol et al. (2019) identified a very high potential for artificial emotional intelligence in cooperative human–machine interactions. The results showed that AI systems with emotional intelligence can establish efficient and natural interactions by the ability of reaction against human emotions accordingly. It was also established that such systems can enhance cooperation by allowing individuals to interact with machines in a safer and more comfortable way. Other discussions in the study are about the challenges of integrating emotional intelligence features into AI systems and putting forward a strong viewpoint that integrating emotional intelligence features into AI can transform human-machine interactions. Moreover, the researchers have pointed out the areas of future research that should be directed toward further development of the role of artificial emotional intelligence in social interactions. In this regard, it was mentioned that emotional intelligence features in AI are yet to be explored in much detail, and there is a great potential for this field to result in more human-like interactions.

The findings of Erol et al.'s (2019) study confirm that, in this setting, the potential massive change in the business arena will be influenced by artificial intelligence. Artificial emotional intelligence might make machines capable of responding socially and emotionally like humans; therefore, interactions with the workforce could be more effective. While such a shift may cause employees to approach machines as a better interactor in an easier and efficient way, on the other side, it could lead to fear about the jobs that AI might undertake. Fears among employees regarding the replacement of machines may impact their motivation and job satisfaction negatively (Brynjolfsson & McAfee, 2014). Anxiety of this type may also have serious implications for organizational structures. These organizations should develop all kinds of strategies to handle this anxiety and make the employees feel confident while working with the AI systems. Training programs will help employees get along with new technologies, and it is very important for leaders to reduce this anxiety by communicating transparently. Meanwhile, organizations should present AI-not as a threat, but as a tool that will increase productivity. In such a process, trust developed through interactions with emotionally intelligent machines may support work process improvements and enhance organizational commitment. Although the integration of AI will bring considerable changes to the business world, for organizations to go through their digital transformation processes successfully, the effects of such changes

should be managed with care to reduce their impact on employees, including AI anxiety. This will help not only in the acceptance of technology but also assist employees in adapting to new technologies with ease.

The article "Intelligence Augmentation: Towards Building Human-Machine Symbiotic Relationship" by Zhou et al. (2021) talks about how artificial intelligence can augment human intelligence to further strengthen the human-machine relationship. The article goes beyond traditional AI concepts and tries to establish a symbiotic relationship between humans and machines. According to the authors, this approach will support decision-making processes and enhance efficiency and interaction. They even hold that human-machine interaction shouldn't remain confined to machines imitating human intelligence; rather, machines should complement human intelligence and thereby create a much stronger collaboration between them. The results of the article point out that using AI as a tool to complement human intelligence will enhance efficiency in business processes and make human-machine interaction stronger. Also, in such a mutual relationship, it allows the employees to build trust in AI and interact with it in a much more positive manner rather than making it an enemy. As explained, "In such a context, human-machine teams may serve far better for a digital transformation to be truly executed inside businesses".

The findings of Zhou et al. (2021) indicate that the changes artificial intelligence brings into the business world may cause great transformations both at the technological and organizational levels. AI will be used as a tool to increase efficiency in business processes and enable employees to perform their tasks more effectively. This can increase the propensity of workers to rely on machines and believe them like workforce members. However, the same procedure may develop the fear in the employees' minds that machines would replace human labor. Specifically, task-related issues that AI is going to take over may affect employees' motivational factors negatively and alter the dynamics of workforce in an organization. AI anxiety will be one of the huge challenges for organizations in the adoption process of this new technology. Managing such anxiety will require more training and open channels of communication. Training programs will be helpful in having employees view AI not as a threat, but rather as a tool in supporting their professional job completion much easier and more meaningfully. Additionally, leaders also play an important role in the process. Organisations can make the employees feel confident and comfortable with Artificial Intelligence if transparency and door-to-door communication keep going. That's another reason why organizations need to chalk out strategies wherein the employees learn to accept Artificial Intelligence to drive their processes towards digital transformation at a quicker pace. Organisational systems can turn to be more harmonious when there is AI, and employees work in complete understanding.

Çınar (2024) examined the effects of AI anxiety on innovation and organizational learning processes. This study emphasized that AI anxiety can hinder employees' adaptation to new technologies, limit learning processes, and reduce innovative capacity. However, the literature does not provide a clear consensus on this matter. While some studies underline the negative consequences of AI anxiety on innovation

(Çınar, 2024), others suggest that under certain conditions, AI anxiety may stimulate innovative behavior by encouraging employees to adapt more quickly and find creative solutions. For instance, Verma and Singh (2022) found that moderate levels of AI anxiety increased employees' motivation to innovate in competitive work environments. Similarly, Ülkü, Uçan Özcan, and Polatcı (2025) reported that AI anxiety can act as a driver of innovative behavior among younger employees, while Bysted (2023) highlighted its potential to foster experimentation and new learning in specific organizational settings.

Taken together, these findings show that AI anxiety can play a dual role: it may act as a barrier when unmanaged, leading to motivation loss and reduced collaboration, but it may also serve as a catalyst for innovation when effectively managed through training, transparent communication, and leadership support. Therefore, understanding the contextual factors that determine whether AI anxiety is harmful or beneficial is critical for sustaining innovation and organizational learning.

The study "Integrating Human Factors and Artificial Intelligence in the Development of Human-Machine Cooperation" by Van Maanen et al. (2005) gives an approach to the method of integration between human factors and artificial intelligence. Such a method indicates a multidisciplinary approach that can enhance collaboration between humans and machines. These results draw significant attention to how the increasingly intelligent machinery develops the relation between human-machine to the complex level of cooperation, therefore integrates human factors with artificial intelligence. With this context, the combination of knowledge between disciplines of human factors and artificial intelligence surfaces as one major step in increasing human-machine cooperation performance.

The study by Van Maanen et al. (2005) highlights the increasing role of human–machine collaboration in the business world as artificial intelligence becomes more integrated into organizational processes. As this integration advances, employees are expected to engage in more complex forms of collaboration with machines, which may also trigger anxieties related to job security and technological adaptation. Earlier research emphasized that AI anxiety, particularly the fear of machines replacing human labor, can lead to productivity loss, reduced motivation, and difficulties in adapting to new technologies, thereby negatively affecting organizational learning and innovation. However, the literature does not present a unanimous view on this issue. Some recent studies suggest that AI anxiety may also act as a stimulus for positive outcomes under certain conditions. For instance, Verma and Singh (2022) reported that moderate levels of AI anxiety can foster innovative behaviors in competitive work environments, while Ülkü et al. (2025) found that it may encourage younger employees to embrace creativity and learning. Similarly, Bysted (2023) noted that AI anxiety can sometimes push employees to experiment with new practices, enhancing organizational adaptability. Taken together, these findings suggest that AI anxiety can function as both a barrier and a motivator, and its effects largely depend on contextual and managerial factors. Human-machine integration-which requires harmonious interplay from both humans and machines-supplements the adoption of

technology. Consequently, organizations need to take strategic steps in managing this anxiety about AI, formulate strategies related to training and communications that help erase these anxieties, creating a psychosocially safe environment where employees can collaborate with machines freely. Organizations should give the introductions of these technologies transparently and openly to gain their trust. In this context, AI in the business world is not only a technological innovation but also a reshaping of organizational structures. While integrating AI into business processes can make operations more effective, how the anxieties of employees are managed during the adaptation process will determine the success of digital transformation.

The article "Artificial Intelligence: Implications for the Future of Work" by Howard (2019) has elaborated on the effects of artificial intelligence in the business world. The study has investigated how AI can transform business processes, how it will affect the roles of employees, and the potential effects of these changes on health and safety. It also points out how AI could help improve health and safety in the workplace by automating tasks that are hazardous or repetitive, thus limiting some of the risks to which a given employee is exposed. In the final analysis, it is indicated that even though AI will bring about significant business changes, these changes can be managed and the adaptation process of employees to such processes supported.

If the processes regarding artificial intelligence are not managed accordingly, it can enhance the negative effects on the workforce: workers may feel distrust and anxiety in dealing with machines; hence, leading to losses in productivity and motivation among workers. When the training and adaptation processes of the workers are at an inadequate level, resistance to technology can come up, and this will affect productivity at work negatively. Besides, deficiencies about health and safety can arise. While AI can lessen the risks by automating the repetitive and hazardous tasks, if the process is not correctly managed, there is a risk of overlooking the human factor, which may result in very undesirable outcomes in the form of workplace accidents and health problems. Conclusion The integration of AI requires technological, cultural, and psychological transformation. If not managed properly, this change might have some potential negative impacts both at the individual and organizational levels.

The results of the study "Artificial Intelligence and Communication: A Human–Machine Communication Research Agenda" by Guzman and Lewis (2020) describe the transformative power of artificial intelligence in human-machine communication. This study highlights how AI shapes people's styles of communication, processes of information acquisition, and decision-making mechanisms. AI facilitates more personal and interactive communication with people, transforming social interaction and information sharing. These changes have very specific effects, particularly in media and digital platforms. The study further discusses how such technologies have reordered the communicational strategies of individuals both at a personal and societal level. Interaction with AI is shaping the way people access information, exchange ideas, and create social contacts, which in turn can reshape societal norms and cultural understandings. The article concludes by highlighting the need for further in-depth research on human-machine communication. Changes in communications

with AI involve the elaboration of new theoretical positions and updating of the concept of communication theory. Besides, understanding the consequences of AI development for social and individual interactive processes is at the heart of further development in this kind of technology.

In the light of the results of the above studies, it can be said that the effects related to changes artificial intelligence brings in will be deep on the employees and the structure of the organization. Though AI integration promises a high degree of efficiency and automation for repetitive tasks within a business process, it may also contribute to anxiety and insecurity among employees who feel threatened by machines taking over. This anxiety can dampen workers' motivation, commitment, and performance, and if unmanaged, it may raise employee resistance and turnover, ultimately reducing organizational efficiency. However, the proliferation of AI applications also has positive effects. Several studies have shown that when supported by adequate training, transparent communication, and leader support, AI integration can increase employee productivity, enhance decision-making speed, and foster innovative behavior. For instance, Sinderman et al. (2022) demonstrated that cultural differences play a role in shaping AI anxiety, with employees in different cultural contexts perceiving AI either as a threat or as an opportunity. Similarly, variations across organizational types, work structures, and employee profiles can either intensify or mitigate the effects of AI anxiety. For example, highly hierarchical organizations or routine-based jobs may heighten anxiety, whereas flexible organizational cultures and younger, digitally skilled employees are more likely to view AI as a facilitator of growth. Taken together, these findings suggest that AI anxiety should be understood as a context-dependent phenomenon that can both hinder and foster organizational transformation. In this respect, communication strategies, employee training, and psychological support programs are imperative to minimize risks while amplifying the potential benefits of AI integration, ensuring that digital transformation processes are managed effectively and sustainably.

5. Conclusion

The growing influence of artificial intelligence in the corporate world will give a new dimension to human-machine interaction in the future. Integrating AI into the workplace is bound to bring in more organizational efficiency and automation of business processes, but this very change could evoke anxiety and resistance among employees. AI might take over some tasks, hence changing the structure of the workforce, which may raise concerns about job security and uncertainty of roles. However, a well-managed transition process can alleviate these concerns and enable the workforce to collaborate effectively with AI (Zhou et al., 2021).

Anxiety related to the replacement of their jobs with machines is bound to affect organizational structures. The possible negative outcomes include low motivation, inefficiency, and high turnover rate, among others (Guzman & Lewis, 2020). Still, such issues can be resolved through presenting technology transparently, providing proper training, and earning trust. Besides, the collaboration of people with machines could

help employees be more productive in their work; however, the right psychological support and organizational culture are needed (Erol et al., 2019). In the future, successful interaction between humans and machines involves taking care not only of technology but also the psychological and social needs of the workers of the organization. Effectively managing human-machine interaction will enable both individuals and organizations to undergo a more sustainable digital transformation process (Davenport & Ronanki, 2018). The role of AI in the workplace will not only represent a technological innovation but also a significant milestone in the future of the workforce. In this regard, the change AI brings into the world of business must be managed to change the concept of the workforce by building up the sense of security and support in adaptation.

Based on the findings of these studies, the following recommendations are provided for organizations and managers with leadership qualities:

The organizations should also regularly train their employees in the use of artificial intelligence and digital technologies. Understanding the ways of using technologies will reduce the level of anxiety among the employees and will make them adapt to newer technologies with ease. Along with that, continuous development programs should be provided to keep the employees capable of participating actively in AI-supported processes. Leaders should enhance the capability of employees to collaborate with AI through training and development. Training should focus not only on technical aspects but also on workforce and psychological factors. Organizations should explain clearly and transparently how AI will be integrated into the business process and changes in the employee's role. This explanation would help employees understand the technology and keep them away from potential anxieties. The leaders should continue communicating clearly to the employees, listen to their concerns and anxieties, and make them understand the going on developments with AI so they can feel it's managed.

Organizations should always remind workers that technology is there only to make their work easier, and it does not substitute for people. To build trust, clear messages must be communicated-that the use of artificial intelligence provides greater efficiency, innovation, and job satisfaction, rather than potential job losses. Leaders should develop a trusting atmosphere among employees, presenting machinery and other equipment in the workplace as enhancements to human skills. Organizations should provide a psychological support system for their employees regarding adaptations that would take place while the organization incorporates AI. The change management strategies ought to facilitate a smooth adaptation process by the workforce through addressing concerns of employees. Leaders should be sensitive to the psychological state of their employees in the process of change, instill confidence, and support them through the process. This will help strengthen trust and quicken the rate at which employees adapt to new technologies.

The culture of the organization should be developed in a way to enable human-machine collaboration. Tools and processes are to be given to facilitate the interaction between artificial intelligence and humans. Human-machine collaboration increases

both employee productivity and organizational success. Organizational leaders need to encourage employees to work alongside machines and utilize leadership styles that teach the work group the correct ways to work with machines. Organizations need to create a continuous improvement environment for human-AI interaction. The processes should be continuously updated for new developments in technologies and changing experiences of employees. Leaders should hold continuous feedback from the employees and based on those, take certain actions to improve the role of artificial intelligence in interactions.

The organizations should design new workforce models and job roles, keeping in mind how AI is impacting their employees. New technologies may reshape some tasks and offer employees new ways of deploying different skills. For both the employees and the organization to have an optimum benefit, it is upon the leaders to create new growth areas where employees can contribute. These recommendations hold utmost importance for not only the artificial intelligence to come into the corporate world but also the seamless adaptation to the process by employees. Minimizing problems with AI in the workplace depends upon careful management of technological and human factors.

Contribution Rate and Conflict of Interest Statement

All stages of the study were designed by the authors and contributed equally. There is no conflict of interest in this article.

Ethics Statement and Financial Support

Ethics committee principles were followed in the study. Ethics Committee Report is not required in the study. There has been no situation requiring permission within the framework of intellectual property and copyrights.

Use of Generative Artificial Intelligence and AI-Assisted Technologies in the Writing Process

The author(s) did not use any AI tools during the preparation of this study. The author(s) assume full responsibility for the content of the publication under the AI tool usage declaration.

Kaynaklar

Autor, D. H. (2015). Why are there still so many jobs? The history and future of workplace automation. *Journal of Economic Perspectives*, 29(3), 3–30.

Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. New York, NY: W. W. Norton & Company.

Bysted, R. (2023). *AI-induced anxiety as a driver of organizational experimentation*. *Technology in Society, 75*, 102–113

Chui, M., Manyika, J., & Miremadi, M. (2016). Where machines could replace humans—and where they can't (yet*). The McKinsey Quarterly*, 1, 1–12.

Çınar, D. (2024). The role of artificial intelligence and big data analytics in business management: A review of decision–making and strategic planning. *Turizm Ekonomi ve İşletme Araştırmaları Dergisi*, 6(2), 219–229.

Davenport, T. H., & Kirby, J. (2016). *Only humans need apply: Winners and losers in the age of smart machines*. New York, NY: Harper Business.

Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, 96(1), 108–116.

Erbaş, S. (2023). Reklamcılıkta ve pazarlamada yeni aktör: Sosyal robotlar. *Erciyes Akademi*, 37(3), 919–942.

Erol, B. A., Majumdar, A., Benavidez, P., Rad, P., Choo, K. K. R., & Jamshidi, M. (2019). Toward artificial emotional intelligence for cooperative social human–machine interaction. *IEEE Transactions on Computational Social Systems*, 7(1), 234–246.

Ghani, W. S. W. A., Ramlee, N., Ramli, N., Zamri, H., & Ghazali, A. R. (2019). The study of internet addiction with depression, anxiety and social isolation. *Advances in Business Research International Journal*, 5(2), 137-145.

Guzman, A. L., & Lewis, S. C. (2020). Artificial intelligence and communication: A human–machine communication research agenda. *New Media & Society*, 22(1), 70–86.

Howard, J. (2019). Artificial intelligence: Implications for the future of work. *American Journal of Industrial Medicine*, 62(11), 917–926.

Jarrahi, M. H. (2018). Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making. *Business Horizons*, 61(4), 577–586.

Kirkpatrick, A. W., Hmielowski, J. D., & Boyd, A. (2023). *Fearing the future: examining the conditional indirect correlation of attention to artificial intelligence news on artificial intelligence attitudes*. In Research handbook on artificial intelligence and communication (pp. 176-192). Edward Elgar Publishing.

OECD. (2021). *The impact of artificial intelligence on the labor market*. OECD Publishing. https://www.oecd.org

Sindermann, C., et al. (2022). *Cultural differences in AI anxiety: A cross-national study*. *Journal of Cross-Cultural Psychology, 53*(4), 510–528

Susskind, R., & Susskind, D. (2017). The future of the professions: How technology will transform the work of human experts. *Journal of Nursing Regulation*, 8(2), 52.

Usmani, U. A., Happonen, A., & Watada, J. (2023, June). Human-centered artificial intelligence: Designing for user empowerment and ethical considerations. *In 2023 5th international congress on human-computer interaction, optimization and robotic applications* (HORA). IEEE.

Ülkü, S., Uçan Özcan, S., & Polatcı, S. (2025). Artificial intelligence anxiety and innovation: Evidence from young employees. *International Journal of Business and Technology*, 14(1), 33–47

Van Maanen, P. P., Lindenberg, J., & Neerincx, M. A. (2005). Integrating human factors and artificial intelligence in the development of human-machine cooperation. *In Proc. of the 2005 international conference on artificial intelligence (ICAI'05).*

Verma, R., & Singh, A. (2022). Artificial intelligence anxiety and creativity: An empirical analysis. *Journal of Organizational Psychology, 22*(2), 89–104

West, D. M. (2018). *The future of work: Robots, AI, and automation*. Brookings Institution Press.

Zhou, L., Paul, S., Demirkan, H., Yuan, L., Spohrer, J., Zhou, M., & Basu, J. (2021). Intelligence augmentation: Towards building human-machine symbiotic relationship. *AIS Transactions on Human-Computer Interaction*, 13(2), 243–264.