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MODERN CONCEPTS AND APPROACHES TO MOTIVATING EMPLOYEES IN THE PERSPECTIVE OF HYBRID WORK – AN ANALYSIS OF THEORETICAL AND EMPIRICAL RESEARCH RESULTS FROM THE GLOBAL LITERATURE

Introduction

Digital reality has dynamically entered modern enterprises during the pandemic in a significant way, permanently changing their operating rules. Particular changes have been made to previous forms of work, which have evolved from conventional, on-site work into remote or hybrid forms in an accelerated manner. The experience of the new reality has shown that, from a toolbox perspective, we have great potential for rapid adaptation in terms of performing remote or hybrid work. However, we do not have well-thought-out and ready-made patterns on how to manage, and in particular, motivate employees working outside the office. The introduction of new forms of work has become a significant "Game Changer" triggering the need to identify and define modern approaches to motivating employees.

The aim of the article is to present modern motivational concepts in human resources management and approaches to motivating employees based on the analysis of existing theoretical and empirical research results, taking into account the aspect of hybrid working.

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In this publication, motivation is one of the basic functions of management and it is defined as influencing the process of internal regulation of a human being (employee) to achieve specific behaviors or take action in a specific direction. Modern approaches to motivation, diverse and evolving since the early 20th century, focus on a variety of theories, which will be discussed later in this paper.

This study presents how modern employee motivation is approached in the global literature, examining theories that are still actively used and exploring whether new systems are described in the context of newly emerging forms of work, such as hybrid work, to ensure the motivation of those who do not work fully on-site. For this purpose, a systematic literature review for the period 2000–2022 was carried out in the EBSCOhost, Emerald, and Scopus databases, with the research results presented both quantitative and qualitative forms.

1. Procedure for a systematic literature review on concepts and approaches to motivating employees

A systematic literature review is considered to be a solid basis for further research. It also allows the researcher to identify the current state of knowledge on the chosen topic [Czakon, 2011: 57]. The analysis carried out through a systematic literature review summarizes the current state of knowledge and may also lead to the identification of a gap in the analyzed area, providing a foundation for conducting research [Mazur, Orłowska, 2018: 236].

Motivation has been an interesting subject of discussion for more than 100 years. Thus, it is widely considered that this term has been well-defined and described. However, in seeking new approaches to motivation, the most comprehensive search strategy, in terms of the chosen goal, was decided to be based on the following keywords:

- modern motivating employees,
- motivational concepts in human resources,
- motivation of hybrid employees.

The selection of these keywords was preceded by a preliminary literature search, which enabled identification and appropriate narrowing of the search area. Phrases such as "new motivating employees", "new concepts of motivation", "motivating in organizations", "motivating employees", and "employee motivation" were subjected to the researcher's rational assessment. The analysis of these words did not bring adequate results; they either addressed the topic of motivating employees too generally, or the search results significantly differed from the intended scope of analysis. In the initial review of the search results, the most relevant, and intriguing items were obtained using three specific phrases that were then selected for further study.

The selected keywords facilitated a more focused exploration of the article's subject area. This involved breaking down the study's purpose, where the key components included modern motivational concepts and the modern motivation of employees, particularly focusing on individuals employed in a hybrid form. The aspect of hybrid employment as a result of the Covid-19 pandemic has become an extremely dynamically developing topic. According to forecasts, such a work model will remain a continuing trend in employment, making it as an interesting subject for research.

In the process of examining publications related to the three keywords mentioned above, searches were conducted in international electronic databases: EBSCOhost, Emerald, and Scopus. In planning the creation of this publication, it was decided to analyze only global publications, aiming to achieve a broaderrange in the results obtained. During the search, titles, abstracts, and keywords of each publication were analyzed. In the browsed databases, the possibility of limiting the results according to additional criteria was used:

1. **Topics** – publications in the title, abstract or keywords contain the terms: "modern motivating employees" or "motivational concepts in human resources" or "motivation of hybrid employees".
2. **Publication status** – only peer-reviewed publications were considered for analysis.

The results of the analysis and the steps for narrowing down these results are presented in Table 1. The articles selected for further analysis were developed and researched using the online database mendeley.com, created by the author. This database facilitated the categorization and sorting of the obtained results.

2. Results – based on quantitative research

Table 1 presented, summarizes the number of identified articles that included the terms "modern motivating employees", "motivational concepts in human resources" and "motivation of hybrid employees" in their titles, abstracts, or keywords. Additionally, this table illustrates the process of refining the search results by applying subsequent search limits. To enhance readability, individual keywords have been assigned letters, which are used in the table's header.

Based on the results presented in Table 1, it can be concluded that the subject of modern employee motivation, especially including hybrid employees, remains an under-researched area. In the research procedure, a total of 25 items were identified and subsequently subjected to title verification. Among these selected for further analysis, only one repeating position was found. The final number of non-repetitive articles on the studied subject is 24. Table 2 below shows the non-repeating items, broken down into databases and the keyword by which they were found.

Table 1. Review of the literature database for the terms: "modern motivating employees" – (A), "motivational concepts in human resources" – (B), "motivation of hybrid employees" – (C), according to the analyzed databases

	EBSCOhost			Emerald			Scopus		
	A	B	C	A	B	C	A	B	C
Title, abstract, keywords	45	33	21	8	9	2	62	70	43
Year of publication (2000–2022)	44	32	21	7	8	2	58	64	43
English	25	18	20	7	8	2	52	61	43
Peer-reviewed scientific journals	16	14	15	7	8	2	52	50	31
Access to files	16	14	15	7	8	2	13	21	15
After verification of titles and abstracts	5	3	4	1	4	1	2	2	3
Final:	**5**	**3**	**4**	**1**	**4**	**1**	**2**	**2**	**3**

Source: own study.

Table 2. Distinguished publications – the final stage of the literature review

|	Modern motivating employees	Motivational concepts in human resources	The motivation of hybrid employees
EBSCOhost	[Rus et al., 2022] [Gkorezis, Petridou, 2008] [Błaszczak, 2018] [Erceg, Suljug, 2016] [Militaru, Zanfir, 2014]	[Shastri, Patel, 2016] [Coda, Coda, 2014] [Robu, Savlovschi, 2011]	[Lee, 2021] [Knutsen, Chan, 2015] [Auer et al., 2021] [Irimie, Armean, 2012]
Emerald	[Willyerd, Mistick, 2016]	[Lyons, 2005] [Morris et al., 2018] [Stamov-Roßnagel, Hertel, 2010] [Krumm et al., 2012]	[Sampat, et al., 2022]
Scopus	[Kovacevic et al., 2020] [Gaponenko et al., 2020]	[Saether, 2019] [Klopotan et al., 2018]	[Lee, 2021] [Sonnenschein et al., 2022] [Rajaei et al., 2022]
Summary	8	9	8
Without duplicates	8	9	7
TOTAL		**24**	

Source: own study.

An interesting observation is the even distribution of identified positions across the keywords. It can also be concluded that topics related to modern employee motivation still represent a significant research gap. There is a notably low number of publications in this area is observed, which only began to increase in the second decade of the 21st century. Consequently, there is still a lack of comprehensive research on modern methods of motivating employees that would respond to their current needs. The highest number of articles relevant to the subject was found in the EBSCOhost database, while the fewest was in the Scopus database.

The distribution of publications over time is also noteworthy. The analyzed articles span from the years 2000–2022. The chart below (Figure 1) visualizes the annual number of publications.

The presented graph shows that the number of publications in the studied area has been gradually increasing since 2012. The number of publications in the field of modern employee motivation increased significantly in 2016, and the highest number was achieved in 2022. Analyzing the graph together with Table 2. It can be noted that as much as 70% of publications from 2022 are articles containing the subject of hybrid work. This is the visible impact of the Covid-19 pandemic, which has created many new issues to explore. It can therefore be assumed that in the coming years, the number of publications related to hybrid employment and the motivation of such employees will continue to grow.

Figure 1. Number of articles analyzed published in each year
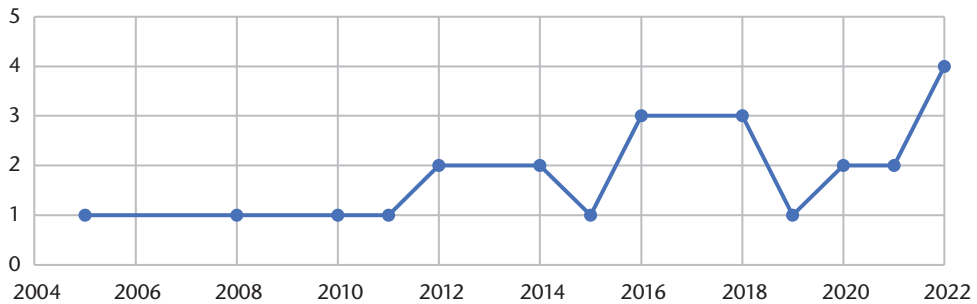
Source: own study.

3. Results – qualitative analysis

An in-depth analysis of the selected articles in the area of titles, abstracts, and keywords was carried out, which allowed identifying several recurring threads, which are described below.

3.1. Articles relating to basic theories of motivation

Although the dynamic evolution in enterprise management initiated the development of new theories of employee motivation and polemics related to the validity of classical theories of motivation, some have become deeply ingrained in organizational consciousness. They continue to be seen as crucial determinants for motivation systems in enterprises. The most common theories in modern literature include Maslow's hierarchy of needs, McClelland's theory and Herzberg's theory.

As a foundation for an ever-evolving understanding of employee needs, Maslow's hierarchy is broadly applied [Coda, Coda, 2014]. This approach is emphasized by the authors such as Coda, Robu and Savloshi, as well as Rus, Sandu, Cheval and Ene. Robu and Savloshi refer to the dynamic development of comprehensive and effective motivation, claiming that significant advancements occurred in the last decade of the twentieth century (1990 s). However, this discussion primarily revolves around Maslow's theory, developed much earlier. The specific time for assessing its trend has not been determined, leaving room for debate on this point [Robu, Savlovschi, 2011].

In one of the most recent publications, one might expect an innovative approach, Rus, Sandu, Cheval, and Ene instead synthesized three classical theories. They began with Maslow's theory, positioning that satisfying these needs would increase employee satisfaction. They then integrated elements from McClelland's theory, particularly those related to achievements and power, and finally connected these ideas to the concept of remuneration as a hygiene factor in Herzberg's theory [Rus et al., 2022]. This synthesis demonstrates the complementary nature of these theories. However, these approaches remain individualistic, and thus the application to employee motivation is considered within the context of the group to which the employee belongs. Nevertheless, as author state "in most modern companies, motivating employees to achieve their full potential in the workplace is one of the key elements of modern human resource management" [Rus et al., 2022].

Similarly, Gkorezis and Petridou adopt a novel approach in discussing skill utilization, referring to the model of work characteristics by Hackman and Oldham [Hackman, Oldham, 1976]. However, their analysis as a whole is reduced to identifying factors that are elements of Herzberg's two-factor theory [Gkorezis, Petridou, 2008]. The method of recognition discussed here is less commonly used, yet it can be very important and is often an expected action from the employer towards the employee. Authors Sonnenschein, Hagen, Rostad and Wiik and Sampat, Raj, Behl, and Schobel shed some innovative light on the use of Herzberg's theory, referring to the hybrid model of work that has become popular as a result of the Covid-19 pandemic. The analysis led both teams to similar conclusions: motivation and satisfaction levels among employees working from home increased, largely due to an enhanced ability to meet hygiene factors. These factors include, among other things, greater flexibility in working hours. Furthermore, the studies showed that working from home made it easier for employees to fulfil their needs for autonomy. However, not all employees were able to effectively navigate relationship dynamics in this setting, which could adversely impact their work motivation. The authors also noted the need for a better understanding of this topic. This encourages a deeper understanding of the intrinsic and extrinsic motivation of employees in the context of hybrid employment [Sonnenschein et al., 2022; Sampat et al., 2022].

3.2. Articles focusing on the analysis of financial and non-financial aspects of motivation

The division of employee motivation into financial and non-financial factors is widely recognized in the literature. Although publications related to new approaches to motivation were analyzed, the classic approach to the division of motivators is still presented.

The view that remuneration is the primary motivator for action has remained constant over the years. Morris Morant and Jacobs [2018], Gaponenko, Muradova and Litvinova [2020] and Erceg and Suljug [2016], among others, speak about it. This unchanging stance is completely understandable and justifiable from a household economics perspective.

Monetary allowances, including various types of rewards or performance bonuses, are often indicated as salary enrichment, however, it has been argued that the use of financial rewards as motivating factors can have a positive, albeit short-lived, impact on employee satisfaction. It is essential to award financial rewards promptly once the qualifying conditions are met. Granting such an award in a deferred period may result in a weaker incentive effect on the employee [Kovacevic et al., 2020; Lee, 2021; Erceg, Suljug, 2016; Klopotan et al., 2018].

Financing specialist training is another common form of remuneration enhancement. Often, the value of such a training is beyond the financial means of the employee. While it offers opportunities for specialization and overall skill enhancement, the primary benefit, from an employer's perspective, is the potential increase in employee efficiency, improved performance, and enhanced commitment to new tasks [Morris Morant, Jacobs, 2018; Auer et al., 2021].

Beyond financial factors, authors most often highlight good team relationships and supervisor appreciation as key motivators. Increasingly, employees pay attention to the environment in which they spend many hours every day. This is particularly evident with generational changes in the labor market [Shastri, Patel, 2016; Gaponenko et al. 2020]. An innovative non-financial motivator is enabling employees to engage in volunteering activities. These activities are popular as they offer opportunities for building exciting relationships with colleagues, as well developing new skills, which employees often see as pivotal for their future. Employees in hybrid work settings are particularly keen to engage in these activities [Knutsen, Chan, 2015]. One research team notes that while managers understand the concept of employee motivation, effectively implementing a tailored strategy often poses a challenge [Rajaei et al., 2022].

3.3. Articles describing new approaches and methods of motivating employees

The examined articles usually focus on the analysis of factors affecting employee motivation, or list elements that may become components of incentive systems. The items collected in this section describe various methods that can be considered as creating a new approach to motivating employees.

This is how authors Coda and Coda discuss the application of motivational orientation diagnosis in the workplace [Coda, Coda, 2014]. They are based on personality traits and behavioral traits collected in four areas, considered as M.A.R.E. (M. – mediating (mediational), A. – analytic (analytical), R. – (Receptive), E. – Entrepreneuring (entrepreneurial)). This allows you to identify the relationship between the individual's behavioral style and the results they achieve, enabling a better adjustment of goals and, above all, matching motivation with an appropriate level of variable remuneration and rewarding achieved results with promotions. Krumm addressed a similar area in describing the MWVM (Munster Work Value Measure), tools for identifying employee's individual values that indicate their main motivational direction [Krumm et al., 2012]. The use of such knowledge by HR teams can significantly support the adaptation of the incentive system to meet the needs related to the values represented by employees, implementing an individualized approach.

Most models described focus on understanding needs and expectations, while Lyons identified an opportunity to start the motivation process by thoroughly understanding the tasks planned to be carried out [Lyons, 2005]. This breakdown into necessary skills, resources, and attitudes was termed 'Skill Charting'. As Lyons proved, this approach leads to a better adjustment of activities with both the situation and individual employees. This was confirmed by employees, who declared increased motivation to perform tasks under this new approach. This allows for a smooth transition to determining the employee's alignment with the overall organization. It is recommended to implement already at the recruitment stage, as an employee's identification with the organization significantly affects their work motivation. Seather confirmed this, saying that employees with a higher fit with the organization show a higher level of autonomous motivation to work. This increased motivation also translates into a heightened commitment to innovative activities [Saether, 2019].

Speaking about employee involvement, it is worth quoting the words of Błaszczak, pointing to well-organized coaching or mentoring as successful methods of motivating employees [Błaszczak, 2018]. He believes that well-conducted meetings can significantly increase the employee's involvement in personal development and also yield benefits for the employer, stemming from improved skills and work. Importantly, he notes that the methods used should be adapted to the specifics needs and

conditions of the company, in order to support the employee's sense of being valued and essential to the organization.

Another generally cited concept of motivating employees, according to Militaru and Zanfir, is participatory management. This approach involves employees in decision-making processes, leading to increased motivation in their professional activities [Militaru, Zanfir, 2014]. Willyerd and Mistick present a similar perspective on motivation, discussing two actions that can increase it [Willyerd, Mistick, 2016]. The first involves analyzing the behavior of the five people with whom one spends the most time. If these individuals are supportive and valuable in achieving goals, the motivation of such a person will be higher. The second option is to announce one's goals and the progress associated with them. The announced goal attracts the attention and curiosity of the people to whom it is introduced, encouraging the individual to consistently work towards it. It should be noted that this approach aligns with management by objectives. The use of such tools in motivating employees can stimulate the development of new methods.

Managing and motivating a multi-generational team is increasingly becoming a challenge for companies, as differences in values and lifestyles become more pronounced. A German team developed a model to identify a personal motivational profile that takes into account the respondent's age. The regular analysis allows the company to update the changing motivators of employees and to prepare an adequate motivation strategy based on them [Krumm et al., 2012]. A different attitude is presented by another German team, stating that with age, work motivation becomes more task-dependent. Hence, they advocate against creating separate employee motivation theories based on age. Instead, they recommend assigning tasks to employees that will naturally inspire an active desire for implementation [Stamov-Roßnagel, Hertel, 2010].

3.4. Article on the use of competition in employee motivation

Employee motivation evolves along with changes in the labor market. As Irmine and Armean have pointed out, during a crisis, companies look for non-monetary forms of motivating their teams [Irimie, Armean, 2012]. They analyzed the "employee of the month" program implemented in a the Romanian company. It combined cash prizes with discretionary awards. The analysis came to the following conclusions:

1. **The effectiveness of the solution lies in the reward,** which stimulates further action. The reward is more effective than punishment, such as consequences for not achieving goals.
2. High results may not always be achievable, or they might require a longer time. Therefore, to maintain motivation at a constant level, it is also valuable to **reward progress** made towards achieving the goal.

3. **A leader or manager should be an example for** the employee to follow.
4. Treating the employee as a professional in a given area encourages him to increase his professional approach to the activities undertaken.

As the authors emphasize, this form of motivation has been met with positive feedback. They recommend gradually introducing elements and subsequently making improvements to such a system. This solution shows that when introducing a form of competition to manage employee motivation, it requires an individual approach resulting from the specificity of the company and the characteristics of employees' actions.

Conclusion

A review of the current state of research on work motivation has shown that there is a research gap regarding employee motivation. In the dynamically changing world associated with generational changes (generations X, Y, Z), as well as changes in the work environment during and after the COVID-19 pandemic, in particular from the perspective of remote and hybrid work, it is evident that the scientific discourse has not paid adequate attention to these issues. Undoubtedly, the Covid-19 pandemic has been a major factor accelerating changes in work styles within the modern labor market. Previous literature has not exhaustively taken into account the factors influencing changes in the employees' motivation perceptions, particularly in the context of hybrid work, and has not taken into account the possibility of using new technologies in the form of gamification.

The keywords chosen by the author indicate that the amount of research on selected issues is limited. The number of identified scientific articles identified that include terms like "modern motivating employees", "motivational concepts in human resources", and "motivation of hybrid employees" in their titles, abstracts, or keywords is deemed insufficient by the author to conclusively state that the current state of knowledge is satisfactory. After substantive analysis of the content of the presented items, it is worth noting the conclusions of other authors valuable for the examined subject:

1. "Failure to use the lessons learned from modern motivation research risks promoting a decline in employee motivation by misusing their capabilities and allowing boredom during employment" [Stamov-Roßnagel, Hertel, 2010].
2. "What motivates and moves one individual can also interfere with the performance of tasks by another" [Coda, Coda, 2014].
3. A hybrid work model, addressing psycho-social needs, is optimal for maintaining high employee motivation [Sonnenschein et al., 2022].
4. Individualized approach using a tool to identify values presented by the employees can, after appropriate division, determine the main motivational direction of the employee [Krumm et al., 2012].

It should be noted that none of the theories precisely indicates how to motivate people. It can be clearly stated that there is a lack of techniques that would most optimally affect the employee's involvement in their assigned tasks. The analyzed theoretical works divide the motivation models mainly into two types: financial, often also referred to salary or material benefits, which are tangible rewards for the employee; and non-financial benefits, also known as non-salary or non-material benefits, which include intangible rewards.

A holistic approach to employee motivation is noticeable in recent works, and the significance of an individual approach is increasingly recognized. However, it should not be forgotten that many companies, as well as researchers, still emphasize the benefits of motivating employees, mainly in the context of achieving full task implementation and high efficiency. Irmine and Armean should also be mentioned here, who believe that during a crisis, companies look for non- monetary forms of team motivation [Irimie, Armean, 2012]. While seeking ways to introduce savings, it is often additional cash rewards or training funds that are among the first to be curtailed.

The small number of studies analyzing modern employee motivation, especially from the perspective of hybrid work may result from the fact that these research topics are relatively recent. This ultimately means that conducting further research in this area is valuable, given the clear trend in the labor market towards remote or hybrid work. It is unlikely that this trend, which was forced by Covid-19, will reverse. The lack of a fresh perspective on how to motivate the new generation of employees, or to redefine the objectives of employee motivation in line with new trends, may stem from an overlooked need to reassess the current state of knowledge in this field.

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Abstract

The paper presents modern motivational concepts in human resources management and approaches to motivating employees based on the analysis of previous theoretical and empirical research results, with a particular emphasis on hybrid work. A systematic literature review from the years 2000–2022 was conducted using electronic, international databases (EBSCOhost, Emerald, Scopus). This review examined three keywords derived from the study's objectives. Titles, abstracts, and keywords of publications were analyzed and items on the selected topics were found. The findings suggest that the subject of motivating hybrid employees remains under-researched and represents a gap in current research. The active use of classical theories of motivation is an interesting observation. There is a lack of comprehensive research on modern methods of motivating employees that would respond their current needs. There is a growing

demand for understanding this area – 70% of publications from 2022 contains the subject of hybrid work. It can be assumed that in the coming years, the number of publications related to hybrid employment and the context of motivating such employees will grow.

Keywords: motivation, modern motivation concepts/approaches, motivation of hybrid employees

JEL classification codes: J24, J32, J33, M52

WSPÓŁCZESNE KONCEPCJE I PODEJŚCIA DO MOTYWOWANIA PRACOWNIKÓW W PERSPEKTYWIE PRACY HYBRYDOWEJ – ANALIZA TEORETYCZNYCH I EMPIRYCZNYCH WYNIKÓW BADAŃ Z LITERATURY ŚWIATOWEJ

Streszczenie

Artykuł przedstawia współczesne koncepcje motywacyjne w zarządzaniu zasobami ludzkimi oraz podejścia do motywowania pracowników na podstawie analizy dotychczasowych teoretycznych i empirycznych wyników badań z uwzględnieniem aspektu pracy hybrydowej. Przeprowadzono systematyczny przegląd literatury z lat 2000–2022 w elektronicznych, międzynarodowych bazach danych (EBSCOhost, Emerald, Scopus), badając trzy słowa kluczowe wynikające z dekompozycji celu badania. Analizowano tytuły, abstrakty i słowa kluczowe publikacji, znajdując pozycje o wybranej tematyce. Stwierdzono, że ta tematyka, zwłaszcza z uwzględnieniem osób zatrudnionych hybrydowo, jest wciąż mało zbadanym obszarem i stanowi lukę badawczą. Ciekawą obserwacją jest wciąż aktywne wykorzystywanie klasycznych teorii motywacji. Brakuje zatem kompleksowych badań w zakresie współczesnych metod motywowania pracowników, które odpowiadałyby na ich aktualne potrzeby. Zauważalny jest wzrost zapotrzebowania na poznanie tego obszaru – aż 70% publikacji z 2022 roku stanowią pozycje zawierające tematykę pracy hybrydowej. Można zatem przypuszczać, że w najbliższych latach liczba publikacji związanych z zatrudnieniem hybrydowym i motywowaniem takich pracowników będzie rosła.

Słowa kluczowe: motywacja, współczesne koncepcje/podejścia motywowania, motywowanie pracowników hybrydowych

Kody klasyfikacji JEL: J24, J32, J33, M52

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IMPLICATIONS OF WORK AUTOMATION FOR HUMAN RESOURCE MANAGEMENT

Introduction

The processes of digitalization of work, the use of artificial intelligence as well as prevalence of remote and hybrid employment are changing the way human resources are managed in organizations [Sienkiewicz, 2022]. The relationship between technological advances and people management has been a key interest [Minbaeva, 2021; Parent-Rocheleau, Parker, 2022; Tambe, Cappelli, Yakubovich, 2019; Vrontis et al., 2022]. Workplace automation and human resource management (HRM) share a complex relationship at both organizational and employee levels. Current research in the literature focuses on the short- and long-term outcomes and challenges associated with both the implementation of the technologies and their impact on HRM [Vrontis et al., 2022]. Technological changes are creating a new context for HRM. They are influencing the landscape of the workspace [Pocztowski, 2021]. The need to analyze the relationship between work automation and human resource management is indicated as an area for further research [Sienkiewicz, 2022]. Despite this, a research gap persists in the existing literature, stemming from an incomplete understanding of the precise nature of human resource management practices applied within an automated work environment.

The relationship between HRM and the progressive automation of work and its effects can be explained based on the Job Demands-Resources Theory [Bakker, Demerouti, 2014]. Every job involves certain difficulties, causing physical, mental and social strain on workers. Collectively, they are referred to as job demands. On the other hand, work creates opportunities and possibilities for the employee through: room for development, autonomy, sense of efficacy, job satisfaction. This second aspect are

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the resources associated with the job. Resources adequate to the demands enable an employee to become engaged with the work performed. Increased demand including: overburden, emotional stress and decreased resources in the form of: social support, autonomy; result in job burnout [Schaufeli, Taris, Van Rhenen, 2008]. A combination of high abundance of resources accompanied by low demands is also undesirable, as it can lead to boredom and lack of interest in work [Demerouti, Nachreiner, Bakker, Schaufeli, 2001; Schaufeli, Bakker, Van Rhenen, 2009]. The research available in the literature suggests that work automation can have both positive and negative consequences for resources and demands associated with work, which results in the need to be proactive in work planning when implementing technology and taking into account human-centered principles [Parker, Grote, 2022].

This article seeks to elucidate the challenges and practices associated with human resource management in the context of work automation. Work automation refers to the substitution or facilitation of human activities through computer-based tools and systems that incorporate artificial intelligence, thereby enhancing the efficiency, precision, and efficacy of organizational workflows. The pursuit of this objective involved a critical literature review and the undertaking of exploratory qualitative research. By doing so, this article enhances our comprehension of human resource management within the framework of work automation and offers valuable insights to facilitate the focus on human resource management practices in the processes of work automation.

1. Relationship between work automation and human resource management

Work automation's main goal is to increase organizational efficiency and individual productivity. It influences human resource management by replacing human activities with digital solutions. It can have both positive and negative consequences, simultaneously restraining and enabling autonomy and value to employees [Meijerink, Bondarouk, 2021].

Emerging technologies and their consequential transformations have been subject to diverse characterizations [Parker, Grote, 2022]. The concept of the "fourth industrial revolution" [Schwab, 2015] particularly underscores the pivotal role of artificial intelligence (AI) and, more specifically, machine learning. Work automation includes the implementation of autonomous, self-learning analytical and decision-making applications based on artificial intelligence [Mann, O'Neil, 2016].

Machine learning entails a paradigm shift in which the responsibility for tasks is transferred from humans to technology as machines become increasingly capable of autonomous learning. Ubiquitous data processing refers to the pervasive connectivity of devices with objects, individuals, physical environment, and information. The

availability of extensive datasets assumes a central role in numerous applications of artificial intelligence as these serve as the foundation for the development of self-learning systems. The collective changes brought forth by smart technologies, artificial intelligence, robotics, and algorithms (STARA) [Brougham, Haar, 2018] are profoundly reshaping the information accessible to employees, work environments, and patterns of collaboration, consequently exerting a profound impact on the field of human resource management.

Automation creates new challenges for employees. These may include issues related to: fairness and ethical considerations [Tambe, Cappelli, Yakubovich, 2019], opacity of algorithms [Gal, Jensen, Stein, 2020], uncertainty as well as anxiety of employees [Rosenblat, Stark, 2016]. It can result in dehumanization of human resource management, by negating interpersonal relationships and the role of empathy [Angrave, Charlwood, Kirkpatrick, Lawrence, Stuart, 2016].

While distinguishing the current wave of changes resulting from work automation from previous ones, scholarly literature highlights the convergence of big data and artificial intelligence as a significant driver enabling machines to substitute humans in cognitive and higher-skilled domains. Technological advancements enable the prediction of complex relationships while eliminating human error [Cheng, Hackett, 2019]. Unlike in the past, complex cognitive tasks are increasingly subject to automation, and there are concerns that knowledge-based work and even management itself may be replaced by artificial intelligence. Such concerns arise from the observation that tasks associated with analytical and rational knowledge processing, as epitomized by the concept of algorithmic management, are prone to being automated. Automation of knowledge-based work and management can lead to depersonalization of management structures and perpetuation of pre-existing biases [Veen, Barratt, Goods, 2020]. Using algorithms in management can lead to an increased sense of injustice, reduced employee autonomy and well-being in the workplace [Kinowska, Sienkiewicz, 2023].

The distinctive feature of AI-based systems lies in their capacity to directly interact with the environment and autonomously learn, endowing them with unparalleled capabilities that revolutionize the dynamics between technology and humans, fundamentally transforming the nature of work, and necessitating the development and implementation of specific human resource management practices.

2. Research methodology

The qualitative research focused on the challenges and practices related to human resource management under conditions of work automation. The analysis is based on the results of qualitative research conducted in companies operating in Poland.

In order to identify challenges and practices that may be indicative of new trends, organizations that care about the quality of human resources management were selected for the study. This is characteristic of companies following the principles of sustainable development. Therefore, the research was conducted in companies that declare such behavior.

To achieve the objectives, the following research questions were posed:

- What are the main practices and challenges of human resource management in an automated work environment?
- How have they manifested themselves in companies operating in Poland?

The lack of acknowledgment regarding HRM practices within the context of work automation provided a solid rationale for applying qualitative research. It was conducted in June and July 2022. Organizations that publicly (e.g. in annual reports or on their websites) declare activities in line with the concept of sustainability were invited to participate. This criterion was chosen for various compelling factors. Enterprises that embrace sustainability epitomize their cognizance and dedication to long-lasting social, environmental, and economic objectives. These organizations pledge to construct enduring and conscientious management practices that encompass the welfare of their workforce, communities, and the ecosystem. Consequently, they exhibit a greater inclination towards introducing pioneering HRM practices. Furthermore, they are perceived as alluring employers, coveted by job seekers. The analysis of HRM practices of such organizations offers valuable insights into the range of initiatives undertaken to entice, retain, and foster employee growth, while simultaneously safeguarding their motivation and well-being.

A total of 10 organizations agreed to participate in the study. Interviews were conducted in live meetings or using remote communication tools. The organizations represented different industries: manufacturing, consulting and services. All were from the private sector. As the focus of the analysis was on human resource management practices, CEOs, board members or high-level managers were selected as well as individuals who could provide comprehensive and precise data. Table 1 shows the profile of the organizations and the roles of the – interviewed – managers.

A total of 10 semi-structured interviews were conducted. The average duration of the interview was approximately one hour. The interviews were conducted in Polish. All were digitally recorded and then transcribed. The interview guidelines consisted of six groups of questions on human resource management practices, motivating and engaging employees taking into account technological change and sustainability requirements. For the purpose of this paper, questions from the group covering human resource management practices and challenges under conditions of work automation were analyzed. The core questions were supplemented with additional ones in order to enhance the respondents' understanding of particular issues. In order to analyze the collected research material, a theoretical coding system was

developed using an open coding approach [Glinka, Czakon, 2021]. The following procedure was applied: (1) initial reading of all interview transcripts to assess their content in general; (2) repeated analysis of the transcripts and extraction of relevant statements; (3) condensation of the extracted statements; (4) identification of practices from the condensed statements; (5) extraction of groups of practices.

Table 1. Profile of organizations and respondents

Respondent number	Type of activity	Number of Employees	Gender	Role in the organization
R1	Energetics	4 200	man	manager
R2	Production	250	woman	board member
R3	Telecommunications (trade)	50	man	manager
R4	IT (start-up)	6	man	CEO
R5	Informatics	1 000	man	manager
R6	Health protection	80 000	woman	manager
R7	IT (game testing)	1 000	man	manager
R8	Informatics	40	man	CEO
R9	Multi-discipline organization	100	man	board member
R10	Advice/legal	50	woman	board member

Source: own study.

The analysis of collected research material was performed using MAXQDA Standard 2022 software (version 22.2.0).

In order to explore the challenges and practices occurring under conditions of work automation, a conceptual framework was used that includes following characteristics of strategic human resource management [Lewicka, 2019]:

- consistency and fit with the organization;
- orientation towards fostering positive employee behaviors and attitudes, particularly in terms of work engagement;
- ensuring a quality working environment based on respect, fairness and high ethical standards;
- focus on recruiting and developing talented and competent staff;
- building a flexible and intelligent organization.

3. Results of qualitative research

The qualitative research explored human resource management practices in the context of work automation. Four thematic areas of HRM practices and challenges related to work automation were identified: redesigning work, employees' negative

reactions, their involvement in automation and participation in the benefits of automation. The first highlighted group were the challenges and practices associated with redesigning work as a result of automation. Subsequently three themes emerged: the inevitability of automation, the possibility of reducing human performance of repetitive tasks, and the impossibility of fully replacing humans.

Table 2. Challenges and practices in redesigning work as a result of automation

Subject	Challenges and practices	Selected quotations
The inevitability of automation	▪ a belief in growing importance of automation;	"Automation is going to be very important and without automation, without simple processes and without that kind of customer-employee interaction in the sale of retail products, well it just won't happen of course". (R9)
Reducing repetitive tasks	▪ improving work performance by automating simple, repetitive tasks and activities;	"Automation sometimes can help with some ongoing tasks, there are some repetitive activities, some reports, it does itself, it's nice, you can save some time". (R8) "When an automaton is done, certain things happen by themselves, we just have the result of a certain process, it will certainly improve, a little bit of interaction limitations, but also thanks to that the risk of error, or timeliness, is always met". (R8)
Inability to fully replace a human being	▪ complexity of human tasks;	"Not every process can be automated like that, you just have to deal with it, some things have to be done manually or require an advanced artificial intelligence and that level and it's not always worth it, because you can do everything, yes, and it's not always worth it, because sometimes it's more worth for a human being to just do it". (R6) "They knew here that automation would help in a lot of things, for example in (*inaudible*). These are disruptive tests. When it comes to manual, they will always be needed and they knew that automation is to help, not to eliminate, so they approached it as a good thing". (R5)
	▪ lack of automation of activities requiring creativity;	"Here, there is rather no fear that robots will take away jobs, our work is so strongly unique". (R6) "Automation, when we talk about a symphonic concert, for example, you can't talk about automation there, because the robot doesn't play, the process doesn't play. It is played by a human being. You can't automate the rehearsal, or you can't do better efficiency related to the tuning of the piano, because it's a completely different specificity". (R9)
	▪ low labor costs as a roadblock to automation;	"It is still cheaper to buy in Poland. Human's labor is still cheaper than a machine. We are not yet at the same stage as the French, Germans or Americans, i.e. that in our country labor costs.... Because it's as if it's not so much that human's labor has become more expensive, but that the cost of labor and that employment, and those social costs, in those countries have become so great that human labor has become so expensive that people have been replaced by machines". (R2)

Source: own study.

According to the respondents, work automation was widely recognized as an evident, necessary, and advantageous phenomenon. It was perceived as a mean to transform job roles, leading to an increase in the value of tasks performed by employees. The surveyed managers underscored the role of automation in enabling smoother organizational operations, with a belief that its importance would continue to grow in the future.

In the examined organizations, automation resulted in a reduction of simple, repetitive tasks performed by employees. This led to improved outcomes by accelerating task completion and a reduction in errors.

Respondents emphasized the impossibility of fully replacing human labor with automation. This limitation stemmed from the excessive complexity and uniqueness of the tasks performed by employees, rendering them difficult to replicate through automated means.

The surveyed managers concurred with this perspective, highlighting entire groups of tasks that were deemed impractical to automate. Tasks requiring creativity were particularly recognized as challenging to automate, given their intricate nature and reliance on human cognitive processes.

According to the managers, employees' awareness that their tasks were irreplaceable by automated systems had a positive impact on their attitudes towards the ongoing processes. This awareness fostered a sense of job security, allowing employees to focus on potential benefits of automation.

Respondents also identified low labor costs as an obstacle to automation. The affordability of human labor slowed down investments in automation, as it presented a cost-effective alternative to more expensive automation technologies.

Based on the findings of the study, it can be concluded that the analyzed organizations actively and consciously considered the implications of progressive automation in their work redesign efforts. The inevitability of automation was recognized, alongside a belief that its application was primarily suited for repetitive tasks and activities, rather than complete human replacement. The surveyed managers noted that more complex applications of automation were limited in the context of low labor costs, as human labor remained a cost-effective alternative. Furthermore, the absence of a perceived threat of being replaced by automation contributed to a sense of job security among employees in the surveyed organizations, enabling them to focus on the advantages offered by automation.

The increasing automation of work can provoke negative reactions from employees. Identifying and addressing the reasons for employees' negative attitudes towards work automation is one of the key challenges for leaders in managing human resources under work automation. The research revealed two groups of challenges and practices in this area: identifying the causes of employees' concerns related to work automation and automation mistakes that exacerbate employees' negative attitudes (Table 3).

Table 3. Challenges and practices related to workers' negative reactions
to work automation

Subject	Challenges and practices	Selected quotations
Employees' concerns	■ fear of job loss;	"It's also a sense of fear, and if we automate everything then maybe I won't be needed and I'll be fired right away, and that's also the kind of aspect that influenced some people not to support automation because they were just afraid of losing their jobs". (R9). "This is some kind of significant threat that employees and people feel, as if this process of automation, the process of kind of replacing, precisely and these human relationships, but also increasing productivity is some kind of element of feeling threatened, affecting safety, affecting relationships". (R10)
	■ reluctance to cooperate with the automaton;	"Generally, people don't like automation processes. In corporations it's a little bit different because you can't skip them, they're there and it's like the machine is blocking you, or you might end up having an accident or dying or something else. So, where there is a higher organizational culture, I mean big corporations, it's impossible to ignore it, but I think people question the point of it anyway". (R2)
	■ increased concerns for older workers;	"The generation, I'm talking about the generation of 50- and 60-year-olds, the kind of people still 10, 15 years away from retirement, who think that sharing knowledge is always a replacement. So for them, too, the machine will always mean that a person is to be removed, here and now. But for the younger generations, not anymore, because they are used to it and they don't see the machine as competition, or as something bad". (R2)
Automation mistakes exacerbating negative reactions	■ automation to increase the number of tasks to be performed;	"A bad automation is one where, for example, it requires a great deal of manual checking, or one that only qualifies for 3% of the scope of work because the rest is an exception and has to be done, or an automation that does not take all aspects into account and then you have to correct afterwards, that is a bad automation". (R6)

Source: own study.

The survey findings shed further light on the intricate dynamics surrounding employees' negative reactions towards work automation within the surveyed organizations. Of particular significance were concerns pertaining to job security, especially among the older workforce, which gave rise to a palpable sense of apprehension and resistance. Older employees, having accumulated extensive experience and expertise over their careers, harbored deep-seated fears of being rendered obsolete by automated systems. This fear engendered a reluctance to share knowledge and collaborate in utilizing automation to streamline work processes, thereby impeding the full potential of automation to expedite operations.

It is worth noting that the manifestation of negative attitudes towards automation was not limited to individual employees' anxieties about their job stability. It permeated the organizational fabric, with a pervasive questioning of the authenticity and relevance of tasks dictated by machines. This skepticism often stemmed from a perception that the tasks imposed by automation failed to align with employees' preferences.

Consequently, there was a notable inclination among workers to challenge or find ways to circumvent these machine-driven tasks, undermining the intended benefits of automation implementation.

Moreover, the reluctance to embrace automation was further amplified when its introduction and execution were marred by inadequacies. In cases when automation initiatives were implemented haphazardly or without due consideration of the full spectrum of activities, it resulted in the generation of additional errors that required manual intervention to correct them. This not only undermined credibility in automation but also created supplementary monotonous tasks, exacerbating employees' resistance and skepticism towards the transformative potential of automation.

In conclusion, the surveyed organizations unveiled a complex set of negative employee reactions towards work automation, deeply rooted in concerns regarding job security, particularly among older and more experienced workers. These concerns manifested in resistance, knowledge hoarding, and skepticism towards the tasks controlled by automation. Moreover, improperly executed automation initiatives and the resulting errors or monotonous tasks further fueled employees' reluctance and skepticism.

The involvement of employees in work automation, which is crucial for HRM, was made possible by an attractive vision for the future of the organization, possible thanks to automation and the inclusion of employees in automating work.

Table 4. Challenges and practices in engaging employees in work automation

Subject	Challenges and practices	Selected quotations
Vision of growth through automation	■ communicating a vision for the future workplace with emphasis on benefits of automation to employees	"I was building this kind of holistic picture, which is what's going to happen next. I said yes – if we're going to double our sales and there's as many of us as we are currently staffed, and we're not going to increase our headcount because there's no funding for it full stop, then we're either going to have to work 2x as long whether you're ready/ready for it or we're going to agree to automation and remember there's going to be work for us because as the company grows, as sales grow it's assured, so we move forward because we don't want to work 2x as long because everyone has a personal life and it's very simple, it's very mundane but it works". (R9)
Involving employees in automating work	■ automating the process in collaboration with the employee;	"We are improving the knowledge management system, that is, we are adding knowledge to the system, but we are adding it incrementally, that is, piece by piece. Well, and an employee has just stated, who has done, I don't know, 50 of such improvements, and we have more or less 300,000, someone has just immediately asked, I mean after those 50 times, asked: OK, then we already know what to do, we know how to do it, could we somehow speed it up?". (R6)
	■ devoting working time to automating tasks;	"Such tools are not always available off the shelf, sometimes you have to build them, so you have to say first what I want to digitize and whether this digitization will really improve my work even though I will now have to work twice as much to define and build this tool". (R1)

Source: own study.

Within the surveyed organizations, the endorsement of work automation gained traction as managers effectively communicated its current and long-term consequences. By presenting a compelling vision of the future that delineated the transformative impact of automation on the organization and the work environment, a spirit of open-mindedness and receptiveness was fostered among employees.

According to the managerial perspective, successful implementation of automation required active employee involvement in the design process. This entailed an additional workload for individuals responsible for executing the automated activities. However, this participatory approach ensured that the automation endeavors aligned with the specific needs and capabilities of the workforce, fostering a sense of ownership and investment in the automation initiatives.

Respondents emphasized that the path to successful automation was a gradual and time-intensive journey. Rather than pursuing rapid, wholesale changes, organizations recognized the importance of an incremental approach, allowing for a smooth assimilation of automation technologies and processes. This deliberate pace allowed employees to adapt to the changes and ensured the integration of automation into existing workflows without causing undue disruption.

In summarizing the challenges and practices associated with involving employees in work automation, it is crucial to underscore the pivotal role of leaders in crafting a compelling vision of the organization's future intertwined with automation. This vision needed to resonate with employees, showcasing how automation would enhance their work experience and contribute to their professional growth. By establishing this meaningful connection, leaders could foster a receptive mindset among employees, enabling them to embrace the transformative changes brought by automation.

Additionally, the surveyed organizations recognized the significance of involving employees in activities aimed at automating their work. This inclusivity empowered employees, granting them freedom to drive automation initiatives and allocate a portion of their working time to automation-related tasks. By empowering employees and granting them autonomy, organizations have leveraged their expertise and insights, facilitating a more seamless integration of automation into their daily work routines.

In essence, the surveyed organizations underscored the criticality of effective leadership in creating a compelling future vision that directly correlated with automation and resonated with employees. This, combined with employee involvement in automation design and the allocation of dedicated time to automation activities, played a key role in fostering employee receptiveness and facilitating successful work automation endeavors.

Another aspect of human resource management under conditions of work automation is concerned with the participation of employees in the benefits of automation. It manifested itself in improved organization of work hours and reduced stress at work (Table 5).

Table 5. Challenges and practices for employee participation in the benefits of work automation

Subject	Challenges and practices	Selected quotations
Improving organization of work hours	▪ reducing the workload;	"If this automation results in the employer sharing this time benefit with the employee, that is, if a portion of time is saved for the employee, then immediately the employee is not required to do other activities in this saved portion, but has some of this time to himself, this can actually improve quality for him". (R1) "Thanks to the automation of certain processes, thanks to the fact that certain activities or document processing can happen in the system and not that every process has to be pushed manually, I'm better off, because I can deliver this added value to the customer faster, to myself, I can do more, I'm satisfied". (R9)
	▪ getting rid of tedious tasks;	"Programmers in particular are very sensitive to having a good working environment, a good environment in terms of things like automation. In all companies, there's a very strong emphasis on the moment of removing any, we call it *churn*, it's that kind of boring, repetitive work. Removing that sort of thing is valued, and that also undoubtedly affects engagement". (R7) "People appreciate automation when they see that it helps them and that they can get more done with it, in less time, repetitive things, or repetitive activities that are often tedious, are done remotely with less risk of error, so they have an impact". (R8)
Stress reduction	▪ reduction of stress thanks to automation that limits the consequences of errors;	"If we are running some software and releasing it to customers, we want to be able to automatically undo that so that if something breaks down, you don't have to personally do it with your hands, because it's known to be a terrible stress at that point. Automation takes away some of the stress in those situations". (R7)

Source: own study.

According to the respondents, the effective approach to enhance employee engagement in an automated work environment was to share the benefits directly with them. By allocating a portion of the time saved through efficient automation to employees, they were afforded additional flexibility and control over their work schedules.

The positive attitudes of employees towards automation were largely influenced by the prospect of liberating themselves from monotonous, repetitive tasks that were prone to errors. The ability to delegate such tasks to automation systems fostered a sense of empowerment and relieved employees from the burden of mundane work, ultimately contributing to their overall job satisfaction.

Moreover, employees perceived automation as a positive force that mitigated stress levels within the workplace. By alleviating the pressure associated with tedious and time-consuming tasks, automation granted employees the opportunity to focus on more meaningful and challenging aspects of their work, leading to a more conducive and less stressful work environment.

The study findings confirmed the efficacy of sharing the benefits of work automation with employees, which yielded a range of positive outcomes. Notably, it promoted

activities that supported automation initiatives. By leveraging automation to accelerate task completion, employees were able to work with reduced time pressure, resulting in a more balanced and efficient workflow. Within the surveyed organizations, the positive effects of automation on employees were evident in the reduction of tedious and repetitive tasks, highlighting the transformative potential of automation in enhancing work quality.

In summary, the study revealed the significance of sharing the benefits of work automation directly with employees, as it engendered a range of positive outcomes. These included increased support for automation efforts, and tangible benefits for employees, such as the ability to work with reduced time pressure and the alleviation of tedious and repetitive tasks. By acknowledging and embracing the positive consequences of automation, organizations can create a work environment that promotes employee satisfaction and productivity.

4. Discussion of the results

Most of the literature available on the links between work automation and HRM concerns the implications of the use of automation, artificial intelligence and robots in human resource management [Vrontis et al., 2022]. There is a lack of sufficient empirical research on HRM practices that support work automation. It can be argued that the studies carried out on the challenges and practices of HRM under conditions of automation, open up new possibilities. They confirm the usability of the application of principles of strategic human resource management. They provide insight into the sustainability of the adopted concepts under conditions of work automation.

The empirical conducted observations confirmed, under conditions of work automation, the presence of features of HRM practices present in the literature [Lewicka, 2019], including in particular: coherence and alignment with the organization, orientation towards fostering positive employee behaviors and attitudes, particularly in terms of work engagement, attention to the quality of the work environment based on respect, fairness and high ethical standards, orientation towards hiring and developing talented and competent employees, and building a flexible and intelligent organization.

Firstly, the coherence and alignment of HRM practices with the organization are evident in the context of work automation. Managers recognize the importance of aligning automation efforts with the overall vision of the future work and the organization. They ensure that automation initiatives are integrated seamlessly into the existing work processes and structures, minimizing disruption and enhancing efficiency. This coherence facilitates a smooth transition to automated work environments and fosters a sense of purpose and direction among employees.

Secondly, HRM practices demonstrate a clear orientation towards fostering positive employee behaviors and attitudes, particularly in terms of work engagement. Managers understand that automation can lead to changes in job roles and responsibilities. They actively involve employees in the design and implementation of automation processes, seeking their input and valuing their expertise. This involvement empowers employees and creates a sense of ownership, promoting higher levels of engagement and commitment to the automated tasks. Additionally, managers provide support to help employees adapt to the changing work environment.

The attention to the quality of the work environment is another significant aspect of HRM practices in the context of work automation. Managers actively address employees' concerns and resistance to automation, striving to identify and mitigate any negative impact on the work environment. They take measures to reduce potential job insecurity by recognizing the fear and concerns of employees. Furthermore, HRM practices emphasize principles of respect, fairness, and high ethical standards in the implementation of automation, ensuring equitable distribution of benefits of work automation among employees.

HRM practices in automated work environments also focus on hiring and developing talented and competent employees. Managers recognize that automation does not render human labor obsolete but rather necessitates a shift in the nature of work. They place emphasis on tasks that require creativity, critical thinking, and problem-solving abilities. Through the active involvement of employees in the design and implementation of work automation processes, they are afforded the opportunity to acquire novel competences and actively contribute to shaping the characteristics of their future workplace. This participatory approach empowers employees by granting them a sense of ownership and control over the automation initiatives, fostering their engagement and commitment towards the evolving work environment. Furthermore, it enables individuals to enhance their skill set and knowledge base, thereby equipping them with the capabilities required to effectively navigate and thrive within the context of automated tasks. By engaging employees in the design phase, organizations leverage their insights, perspectives, and expertise, leading to the development of automation strategies that align with employees' needs, preferences, and aspirations. Consequently, this collaborative process not only facilitates a smoother transition to automated work settings but also promotes a sense of shared responsibility and mutual trust between employees and management.

Overall, the empirical observations support the claim that HRM practices play a vital role in influencing employees' attitudes and behavior in the context of work automation. The findings support the claim that human resource management and work automation have a complex and multidimensional relationship [Meijerink, Bondarouk, 2021]. By aligning with the organization, fostering positive employee behaviors, attending to the quality of the work environment, focusing on talent and

competency, and promoting flexibility and intelligence, HRM practices create an environment where employees can thrive and contribute meaningfully to the automated tasks. This comprehensive approach contributes to a successful integration of work automation and mitigates potential negative repercussions, ultimately facilitating a positive and productive work environment.

Conclusion

The result of the research extends the knowledge of HRM practices under conditions of work automation. It illustrates the complexity of the relationship between HRM and work automation and indicates the validity of their exploration.

The original results of the research indicate various human resource management practices under conditions of work automation. They show that work automation is perceived as inevitable and useful, particularly in terms of repetitive activities, while emphasizing the impossibility of fully replacing humans. An important role is played by taking note of the reasons for workers' negative attitudes towards work automation. It can result from: fear of losing their jobs, reluctance to do work imposed by automation and incorrectly implemented automation. Involving employees in work automation increases its positive effects: incorporating them in the design process, sharing the benefits of automation, reducing stress and showing employees the short- and long-term positive consequences of automation for organizations and workplaces.

Limitations of the adopted methodology

While this research contributes to the existing literature, some limitations must be emphasized. The main empirical contribution of this paper is to highlight human resource management practices under conditions of work automation. In-depth interviews were conducted in organizations concerned with the quality of management, taking into account their application of sustainability development principles. The specificity of disclosed practices may be limited to organizations that incorporate economic, environmental, and social objectives in their activities. On the other hand, it may set the direction in which other companies will follow and thus also be universal.

A certain limitation may be the purposeful selection of the research sample which precludes the generalization of the obtained results.

The selection of participants for the in-depth interviews was constrained to employers exclusively from Poland. These participants constituted a heterogeneous assemblage of organizations, which rendered it unfeasible to ascertain distinct practices that are emblematic of particular categories of organizations based on

industry, region, size, or ownership structure. Additional investigation is warranted to discern such patterns.

Certainly, this issue requires further research, especially on the universal characteristics of human resource management under conditions of work automation. As a further research step, quantitative studies should be considered. These would allow the results obtained to be deepened and extended.

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IMPLICATIONS OF WORK AUTOMATION FOR HUMAN RESOURCE MANAGEMENT

Abstract

Work automation affects workplace and employee engagement in a complex way. Concerns about job stability or a reluctance to be supervised by an algorithm may cause employees' resistance to work automation and make it difficult to implement. The literature review revealed an important gap in empirical research on the specifics of human resource management (HRM) practices in the context of work automation. Therefore, the aim of this paper is to analyze the challenges and HRM practices under conditions of work automation. The research used qualitative data from Polish organizations collected through semi-structured interviews, conducted in 2022, with 10 managers responsible for applying HRM practices. To analyze the collected research material, a theoretical coding system was developed using an open coding approach. The research shows that the key challenges and practices of HRM under work automation include four areas: redesigning work as a result of automation, identifying the causes of employees' negative reactions to work automation, engaging employees in work automation and sharing the benefits of automation with employees.

SKUTKI AUTOMATYZACJI PRACY DLA ZARZĄDZANIA KAPITAŁEM LUDZKIM

Streszczenie

Automatyzacja pracy wpływa kompleksowo na miejsce pracy i zaangażowanie pracowników. Obawy o stabilność zatrudnienia czy niechęć do bycia nadzorowanym przez algorytm mogą być powodem oporu pracowników wobec automatyzacji pracy i utrudniać jej przeprowadzenie. Przegląd literatury ujawnił istotną lukę w badaniach empirycznych dotyczących specyfiki praktyk zarządzania kapitałem ludzkim (ZKL) w warunkach automatyzacji pracy. Dlatego celem niniejszego opracowania jest analiza wyzwań i praktyk ZKL w warunkach automatyzacji pracy. W badaniach wykorzystano dane jakościowe z polskich organizacji, zebrane za pomocą wywiadów półstrukturyzowanych, przeprowadzonych w 2022 roku, z 10 menedżerami odpowiedzialnymi za stosowanie praktyk ZKL. W celu analizy zebranego materiału badawczego opracowano system kodowania z wykorzystaniem otwartego podejścia. W wyniku badań stwierdzono, że kluczowe wyzwania i praktyki ZKL w warunkach automatyzacji pracy obejmują cztery obszary: przeprojektowanie pracy w wyniku automatyzacji, identyfikację przyczyn negatywnych reakcji pracowników na automatyzację pracy, angażowanie pracowników w automatyzację pracy oraz dzielenie się korzyściami z automatyzacji z pracownikami.

Słowa kluczowe: automatyzacja pracy, zarządzanie kapitałem ludzkim, zaangażowanie pracowników, przeprojektowanie pracy, badania jakościowe

Kody klasyfikacji JEL: M12, M54, J24