Human Capital Management in the Wandering Context of Events – Challenges for the Managerial Staff

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Chapter 6

BENEFITS AND THREATS OF KNOWLEDGE MANAGEMENT SUPPORTED WITH ARTIFICIAL INTELLIGENCE ALGORITHMS FROM THE END USER'S PERSPECTIVE

Katarzyna Czainska[a]

6.1. Introduction

In the previous two chapters, the subject of interest were virtualization and digitalization of the work environment in various forms. Two of the issues raised were artificial intelligence and the importance of knowledge in modern organizations. In this chapter, attention was focused on their combination from the management perspective. The basic reason is that the creation and development of solutions aimed at the implementation of artificial intelligence (AI), and in particular knowledge management (KM) processes, is the main and dynamically developing trend in various sectors of the economy (Landeta Echeberria, 2022; Osuszek, Stanek, and Twardowski, 2016). Based on the bibliometric analysis carried out in 2021, it was also proved that there is a link between digital innovation and knowledge management systems (Di Vaio, Palladino, Pezzi, and Kalisz, 2021). Therefore, many scientists representing various disciplines conduct research aimed at analyzing individual aspects of the above-mentioned phenomenon. One of the key problems of this trend is the social consequences of the widespread use of AI in KM.

In connection with the above, **the goal of this chapter** was to present the benefits and threats of knowledge management supported with artificial intelligence algorithms from the end user's perspective. The intention of indirect research was also to determine whether the representatives of Generation Z, referred to as the digital generation, are aware of the risks associated with the new technological developments. To reach the goal and realize the subsidiary research intention, this chapter was constructed in the following way. Firstly, the author discussed

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certain theoretical foundations for the concept of Generation Z and AI solutions in knowledge management adopted in the study. The next section describes the empirical methodics of research performed by the author. Then the most important research findings were presented and final conclusions formulated. At this point, it is worth mentioning that on the basis of the results obtained on the selected AI-aided knowledge management tools, the key importance of simplicity, intuitiveness and usability of solutions in the opinion of end-users was identified. There were also noted gaps in users' knowledge concerning the consequences of cyber-attacks on personal security, important from the point of view of the security management of knowledge management systems. Hence, this chapter should be of interest to entities involved in the protection of data being assets of employees and organizations.

6.2. Theoretical foundations for the concept of Generation Z and AI solutions in knowledge management

As signaled in the title of this section, the subject of the considerations was first Generation Z, followed by discussion of the problems related to knowledge management.

According to numerous studies (see Table 6.1), Generation Z, i.e. people born after 1995, can be considered a digital generation with the competencies necessary to use the latest achievements in knowledge management. The indicated features are observed in this generation, regardless of the education and economic sector in which its members operate, e.g. similar results were obtained from the military sector (Kupczyk, Rupa, Gross-Gołacka, and Mańkowska, 2021).

Table 6.1. Features of Generation Z from the perspective of the labor market

Most of Generation Z:	Torocsik, Szucs, Kehl (2014)	Williams (2015)	Lyons, Lavelle, Smith (2017)	Dolot (2018)	Bateh (2018)
• have knowledge of foreign languages			X	X	
• have knowledge of computer programs supporting professional tasks		X	X	X	
• prefer telework			X		
• switch between the virtual and real world, which they perceive as complementary	X	X		X	X
• source and check the information they need in the Internet		X		X	X
• quickly share information or express opinions mostly via a variety of communication devices or social media (also anonymously)	X	X		X	X
• thanks to apps support multitasking				X	

Source: own work based on (Bateh, 2018; Dolot, 2018; Lyons, Lavelle, and Smith, 2017; Torocsik, Szucs, and Kehl, 2014; Williams, 2015).

Naturally, there are also critical studies pointing to a large group of the NEET (Not in Employment, Education or Training) within Generation Z, characterized by the lack of involvement in the two main areas of social life, namely education and work. It is worth noting, however, that the NEET subgroup rate their competencies in the use of the Internet highest (but they use it mostly for entertainment and spending free time), and at their the lowest level their professional qualifications (Czainska, 2019; Wiśniewska, Wiśniewski, and Szydło, 2019).

Regarding people oriented at education and employment, it is worth mentioning that the digital competencies of this generation are in line with the knowledge management strategy of most contemporary organizations, especially strategies integrating solutions based on human knowledge with artificial intelligence algorithms (Abualoush, Bataineh, and Alrowwad, 2018; Al Mansoori, Salloum, and Shaalan, 2021; Balcerzyk, 2021; Batko, 2021; Liebowitz, 2001; Osuszek and Stanek, 2021).

In connection with the subject of this study, it was assumed that knowledge is an organized set of information along with the rules for interpreting it, based on the sequence:

signs (+ syntax) give data (+ context) give information (+ structure) give knowledge.

It should be remembered that the transition from data to knowledge is not abrupt and continuous (Jemielniak and Koźmiński, 2012). Therefore, the focus was on the process approach to knowledge management (Karadsheh, Mansour, Alhawari, Azar, and El-Bathy, 2009; Liebowitz, 1999), in which four main synthetic problem areas related to the circulation of knowledge in the organization were distinguished, namely (Wyrozębski, 2014):

1)   identifying and locating knowledge, i.e. identifying the organization's needs in terms of knowledge and indicating the sources of their satisfaction;

2)   knowledge gathering, i.e. all activities aimed at acquiring, evaluating, processing, preparing for transfer, storing and securing knowledge;

3)   knowledge transfer, i.e. action taken to deliver the right knowledge at the right time and in the right place;

4)   the use of knowledge, i.e. the application of knowledge to solve the problem situation.

A strategic knowledge management perspective was also adopted, which relates to the processes and the infrastructures organizations use to attain, create and share knowledge for strategy formulation and strategic decisions process (Ferreira, Mueller, and Papa, 2018; Zack, 2002).

As regards the use of AI solutions in knowledge management, the focus was primarily on research by Liebowitz (2001), which indicated the following application areas:

1) knowledge capture and representation, by applying knowledge acquisition techniques, i.e. interviewing, protocol analysis, simulation, personal construct theory, card sorting, data/text mining approaches, etc.;

2) knowledge repositories – knowledge taxonomy, knowledge mapping;

3) knowledge transfer (sharing) – intelligent agents, data mining and knowledge discovery techniques, online communities, etc.

Generally, it can be said that knowledge management uses AI tools to capture, filter, represent and apply knowledge. Additionally, AI solutions provide apps for selecting, analyzing and classifying text, automatic inference and visualization to facilitate decision making, and processing human input data (e.g. handwriting and voice recognition). Artificial intelligence helps, above all, to overcome the problems associated with the huge amounts of data that need to be sorted, processed, analyzed, etc. (Dalkir, 2013).

6.3. The empirical research methodics

In connection with the above considerations and assumptions, **the main goal of the empirical research** was to identify the advantages and disadvantages of selected knowledge management tools from the end-user point of view distinguished on the basis of a demographic feature.

When designing the study, three main research questions were formulated, namely:

1. What advantages and disadvantages of AI-assisted knowledge management do end-users from Generation Z indicate?

2. In what areas of knowledge management does Gen Z identify the advantages and disadvantages of AI support?

3. In what areas of the knowledge management process are the advantages and disadvantages unnoticed by the end-users?

The indirect research intention was also to determine whether Generation Z, which is referred to as the digital generation, is aware of the risks associated with the above-mentioned solutions.

In the preparation stage of the study, it was assumed that the elements of content analysis and coding of answers to open-ended questions would be used in the research process. This assumption was due to the fact that researchers were not interested in the statistical distribution of responses to predefined concepts. However, it was crucial to identify and explore the implicit knowledge from particular kind of data broadly interpreted. Thus, the initial assumption of the analysis comes from the concept of a 'mental lexicon', according to which the meaning associated with a given word reflects the process of categorizing the surrounding reality (Emmorey and Fromkin, 1988; Taft, 2013). The collected statements were subjected to content analysis, which allowed for the categorization of the answers in accordance with

the developed coding keys. Then the following thematic sets (clusters) were distinguished:

a) subject of influence,

b) qualitative features,

c) phases of the knowledge management process (identification, collection, transfer, use).

The obtained values were statistically analyzed with the use of standardization and factor analysis. In order to receive texts for analysis, 166 respondents were invited to cooperate. The respondents had to meet the criteria of age (20-25) and education (none could have a technical and IT education). They were divided into teams of a maximum of four. The task of each team was to analyze any tool they used to manage their knowledge (e.g. databases, web browsers, intranet solutions, etc.) and then identify the advantages and disadvantages of these solutions. As a result, 46 projects were received, of which 81 statements qualified for analysis (repeated statements were eliminated from the research material).

The projects were developed in the period from April to June 2021. The language of the study was Polish. Formal verification was carried out in June 2021. The actual research was conducted from October to December 2021.

6.4. The empirical research findings

The data analysis began with the identification of who/what the identified advantages, disadvantages, benefits and threats were related to, i.e. research in terms of the subject of impact (see Table 6.2).

Table 6.2. The subject of impact

	Advantages (in %)	Disadvantages (in %)
People	21	10
Data	41	17
Information	7	0
Knowledge	3	0

Source: own research.

Mostly, the respondents pointed to the advantages related to "data" (41% of the responses). There was no indication of defects in "information" and "knowledge"; this probably means that the respondents did not see threats related to, for example, the loss of information and knowledge, but perceived the loss of "data". This is not just of semantic relevance. This result shows that the respondents' awareness of the relation between, for example, loss of data and loss of knowledge was still low. It is also important to note that the respondents perceived very little of the relationship between the phenomena occurring in the digital world and the resulting threats

and benefits for themselves. Permanent surveillance was the only field where the respondents clearly indicated "the threat to humans".

The purpose of the second analysis was to identify the qualitative characteristics that the respondents attributed to solutions used in knowledge management with the use of artificial intelligence (see Table 6.3).

Table 6.3. The qualitative characteristics

	Advantages (in %)	Disadvantages (in %)
Efficiency, effectiveness	12	5
Environmental friendliness (eco)	2	0
Speed	25	0
Convenience	10	0
Ease	17	0
Accuracy, precision	8	7
Permanence	3	7
Objectivism	2	3

Source: own research.

Table 6.4. Classification in terms of the phases of the knowledge management process

Factor	Advantages (in %)	Disadvantages (in %)
PHASE: ACQUISITION		
Acquiring	8	2
Searching	5	1
PHASE: PROCESSING		
Cost	1	0
Comparing, sorting, cataloging, segregation	4	1
Copying	2	1
Modifying	2	1
Processing	9	2
PHASE: STORAGE		
Carriers	4	0
Infrastructure	8	3
Maintenance	4	4
Cost	6	0
Storage	6	0
PHASE: PROTECTION & SECURITY		
Security	5	8
Theft	1	2
Loss	1	3
Making public	1	3

Source: own research.

By applying the principles of content analysis, the adjectives used in the statements by the respondents were systematized. As indicated in Table 15, most of the quality characteristics are related to advantages, in particular emphasizing "speed" (25%) and "ease" (17%). This was confirmed by the findings used, for example, when designing apps, according to which the end user expects, above all, the intuitiveness of the solution (translated into "ease") and a short system response time ("speed"). The above features are also related to such functions as: convenience, accessibility (in terms of time and scope), and location (accessibility in the geographical sense).

The key analysis concerned the classification of indications in terms of the phases of the knowledge management process. The division was adopted in accordance with Wyrozębski (2014), who distinguished the following components of the above--mentioned process: identification, collection (including: acquisition, processing, storage, protection and security), transfer and use as presented in Table 6.4.

The study did not address the explanation of the reasons for the statements made by the respondents, so it can only be assumed that since none of them had any technical and IT education, no indications resulted of the risks and disadvantages related to the costs of processing and storage, while stressing many benefits of this range. Particularly noteworthy was the "processing" function (9%), which, with the matrix reading of the results combined with the features of "convenience", "ease", "speed", provided another field of significance.

It is worth noting that the dominant number of statements concerned the storage phase (28% in the case of advantages) and securing and protection (16% defects).

6.5. Final conclusions and research summary

Referring to the results of the study presented above, it can be concluded that the goal of the empirical research has been realized. The research allowed to confirm the fact that from the point of view of the end user, there are both advantages and disadvantages of the selected AI-aided knowledge management tools. The most important advantages are ease and speed, i.e. features that improve the pace of task implementation, with an uncomplicated form of use. The second important and identified issue concerns the security sphere, as the awareness of end-users of the relations between data incidents and personal and organizational security needs to be increased (e.g. the consequences of a customer data loss by a bank). The third problem is related to the economic side of knowledge management, namely: the correct estimation of losses, expenditures and expected profits; the lack of technical/ IT knowledge on the part of strategic and financial analysts may result in underestimating or overestimating the expected effects of implementing AI solutions to knowledge management systems in the organization. Therefore, the above research findings allow to admit that the goal of this chapter has also been achieved. The author presented the benefits and threats related to knowledge management supported by artificial intelligence algorithms from the perspective of end users.

Finally, it is necessary to add that the study was a pilot study. Both the size of the respondent group as well as the scope and methods of obtaining lexical material will be expanded in the further research. Nevertheless, it is visible that the discussed topic is extremely important from the point of view of strategic knowledge management in an organization, as well as designing appropriate systems for individual clients.

REFERENCES

1. Aamondt, M. G. (2004). *Applied industrial/Organisational psychology* (4th ed.). Thomson/Wadsworth.

2. Abualoush, S., Bataineh, K., and Alrowwad, A. A. (2018). The role of knowledge management process and intellectual capital as intermediary variables between knowledge management infrastructure and organization performance. Interdisciplinary Journal of Information. *Knowledge, and Management*, *13*, 279.

3. Ackermann, K. F. (2017). Badania nad zielonym zarządzaniem zasobami ludzkimi. Stan według współczesnej wiedzy. *Zarządzanie Zasobami Ludzkimi*, (6).

4. Adenuga, O. A. (2015). Impact of occupational stress on job satisfaction and mental health of first bank employees : Implication for personnel psychologists. *American Journal of Psychology and Cognitive Science*, *1*(1), 1-21.

5. Akkermans, J., Richardson, J., and Kraimer, M. L. (2020). The COVID-19 crisis as a career shock: Implications for careers and vocational behavior. *Journal of Vocational Behaviour*, (119). https://doi.org/10.1016/j.jvb.2020.103434

6. Al Mansoori, S., Salloum, S. A., and Shaalan, K. (2021). The impact of artificial intelligence and information technologies on the efficiency of knowledge management at modern organizations: A systematic review. In M. Al-Emran, K. Shaalan, A. Hassanien (Eds.), *Recent advances in intelligent systems and smart applications. Studies in systems, decision and control* (vol. 295). Springer, Cham.

7. Al-Ajmi, R. (2001). The effect of personal characteristics on job satisfaction: A study among male managers in the Kuwait oil industry. *International Journal of Commerce & Management*, (11), 91-101.

8. Ali, Z., Bashir, M., and Mehreen, A. (2019). Managing organizational effectiveness through talent management and career development: The mediating role of employee engagement. *Journal of Management Sciences*, *6*(1), 62-78.

9. Alli, B. O. (2008). *Fundament al principles of occupational health and safety*. Geneve: International Labour. Retrieved July 14, 2020 from https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_093550.pdf

10. Amos, P. M., Acquah, S., Antwi, T., and Adzifome, N. S. (2015). A comparative study of factors influencing male and female lecturers' job satisfaction in Ghanaian higher education. *Journal of Education and Practice*, *6*(4), 1-11.

11. Anzengruber, J., Goetz, M., Nold, H. and Woelfle, M. (2017). Effectiveness of managerial capabilities at different hierarchical levels. *Journal of Managerial Psychology*, *32*(2), 134-148. doi: http://dx.doi.org/10.1108/JMP-12-2015-0451

12. Armstrong, M. (2000). *Zarządzanie zasobami ludzkimi*. Kraków: Oficyna Ekonomiczna.

13. Armstrong, M. (2006). A *handbook of human resource management practice*. Kogan Page Publishers.

14. Arokiasamy, L., Mansouri, N., Balaraman, R. A., and Kassim, N. (2017). A literature review of competence development on academic career advancement: A human resource development perspective. *Global Business & Management Research*, *9*(1), 403-414.

15. *Aspekty pracy zdalnej z perspektywy pracownika, pracodawcy i gospodarki*. (2021). Retrieved December 15, 2021 from https://www.parp.gov.pl/component/publications/publication/aspekty-pracy-zdalnej-z-perspektywy-pracownika-pracodawcy-i-gospodarki

16. Assen, M. F. (2021). Training, employee involvement and continuous improvement – the moderating effect of a common improvement method. *Production Planning & Control*, *32*(2), 132-144. doi: 10.1080/09537287.2020.1716405

17. Auer, P. (2006). Protected mobility for employment and decent work: Labour market security in a globalized work. *Journal of Industrial Relations*, *48*(1), 21-40. doi: 10.1177/0022185606059312

18. Bachtiar, D., Sudibjo, N., and Bernarto, I. (2018). The effects of transformational leadership, perceived organizational support on job and life satisfaction of preschool teachers. *International Information Institute (Tokyo) Information*, (21), 1301-1320.

19. Bajpai, N., and Srivastava, D. (2004). Sectorial comparison of factors influencing job satisfaction in Indian banking sector. *Singapore Management Review*, (26), 89-99.

20. Balcerzyk, R. (2021). Intra-organizational conditions in knowledge sharing. *European Research Studies Journal*, *24*(1), 762-775.

21. Barley S. R., Bechky B. A., and Milliken, F. J. (2017). The changing nature of work: Careers, identities, and work lives in the 21st century. *Academy of Management Discoveries*, *2*(3).

22. Bartkowiak, G. (2009). *Człowiek w pracy. Od stresu do sukcesu w organizacji*. Warszawa: Polskie Wydawnictwo Ekonomiczne.

23. Bartram, D., and Roe, A. R. (2005). Definition and assessment of competences in the context of the European Diploma in Psychology. *European Psychologist*, *10*(2), 93-102.

24. Bateh, D. (2018). Leadership style from millennials to generation z transformed (Conference paper). Academy of Management. Retrieved from https://www.researchgate.net/publication /331736235_ Leadership_from_Millennials_to_Generation_Z_Transformed

25. Batko, R. (2021). *Management and organisation in the age of AI*. The Routledge Social Science Handbook of AI.

26. Becker, B. E., Huselid, M. A., and Ulrich, D. (2001). *The HR scorecard: Linking people, strategy, and performance*. Boston: Harvard Business School Press.

27. Bekesiene, S., and Prūsevičius, G. (2020). Simulators usage assessment for higher military readiness. *Challenges to National Defence in Contemporary Geopolitcal Situation*, (1), 114-124.

28. Belina, B. (2017). Szkolenie i doskonalenie jako jeden z kluczowych czynników rozwoju organizacji. *Polish Journal of Continuing Education*, (4), 128- 137.

29. Bersin, J. (2021). *AI-enabled coaching is hot. And there's lots more to come*. Retrieved February 12, 2022 from https://joshbersin.com/2021/07/ai-enabled-coaching-is-hot-and-theres-lots-more-to-come/

30. Blanchard's Annual Survey Assessing L&D Trends. (2022). *Learning and development in a hybrid world*. Retrieved February 3, 2022 from https://www.blanchardaustralia.com.au/static/uploads/files/2022-trends-report-l-d-in-a-hybrid-world-wfrccmwqhcyz.pdf

31. Boon, C., Den Hartog, D. N., and Lepak, D. P. (2019). A systematic review of human resource management systems and their measurement. *Journal of Management*, *45*(6), 2498-2537. https://doi.org/10.1177/0149206318818718

32. Boulton, G. (2011). Harvesting talent: Strengthening research careers in Europe. *Procedia Social and Behavioral Sciences, 13*(1), 3-34.

33. Brayfield, A. H., and Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, *35*, 307-311.

34. Brewster, C. (2007). European perspective on HRM. *European Journal of International Management, 1*(3).

35. Browning, L., Thompson, K., and Dawson, D. (2017). From early career researcher to research leader: survival of the fittest? *Journal of Higher Education Policy and Management*, *39*(4), 361--377. doi: 10.1080/1360080X.2017.1330814

36. Brzegowy, A. (2021). Wirtualizacja relacji pracowniczych jako wyzwanie współczesnego środowiska pracy. In A. Walasik, *Gospodarka współdzielenia. Rynki – instytucje – organizacje* (pp. 32--243). Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.

37. Bugdol, M., and Stańczyk, I. (2020). *Zielone zarządzanie ludźmi.* Warszawa: Wydawnictwo Difin.

38. Cain, M. S., Leonard, J. A., Gabrieli, J. D., and Finn, A. S. (2016). Media multitasking in adolescence. *Psychonomic Bulletin & Review*, *23*(6), 1932-1941. https://doi.org/10.3758/s13423-016-1036-3

39. Caligiuri, P., DeCieri, H., Minbaeva, D., Verbeke, A., and Zimmermann, A. (2020). *International HRM insight for navigating the COVID-19 pandemic: Implications for future research and practice*. *Journal of International Business Studies*, (51), 697-713.

40. *Cambridge dictionary*. (2021). Cambridge University Press. Retrieved from https://dictionary.cambridge.org/pl/dictionary/english/interest

41. Cewińska, J. (2013). HR Manager in the light of the HR Business Partner concept. *Acta Universitatis Lodziensis, Folia Oeconomica,* (283), 79-87.

42. Chanana, N. (2021). The impact of COVID-19 pandemic on employees organizational commitment and job satisfaction in reference to gender differences. *Journal of Public Affairs*, *21*(4). https://doi.org/10.1002/pa.2695

43. Chaudhary, R. (2019). Green human resource management and employee green behavior: An empirical analysis. *Corporate Social Responsibility and Environmental Management*, *27*(2).

44. Chudzińska, K. (2018). Ewolucja modelu HR Business Partner. *Marketing i Zarządzanie*, *1*(51), 9-19. doi: 10.18276/miz.2018.51-01

45. Chung, H., and Mau, S. (2014). Subjective insecurity and the role of institutions. *Journal of European Social Policy*, *24*(4), 303-318. doi: 10.1177/0958928714538214

46. Cierniak-Emerych, A., and Gableta, M. (2022). *Gospodarowanie potencjałem pracy zorientowane na interesy pracobiorców*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.

47. Ciolan, L., and Ciolan, L. (2011). Training the untrainable. A blended learning approach to university academic staff competence development. *eLearning & Software for Education*, 1-6.

48. Clark, D. (2020). *Artificial intelligence for learning: How to use AI to support employee development*. London: Kogan Page Limited.

49. Collings, D. G., McMackin J., Nyberg, A. J., and Wright, P. M. (2021). Strategic human resource management and COVID-19: Emerging challenges and research opportunities. *Journal of Management Studies*. https://doi.org/10.1111/joms.12695

50. Collins, H. (2006). Flexibility and stability of expectations in the contract of employment. *Socio-Economic Review*, *4*(1)*,* 139-153. doi: 10.1093/SER/mwj036

51. Cook, E. M., Wildschut, T., and Sander, T. (2017). Understanding adolescent shame and pride at school: Mind-sets and perceptions of academic competence. *Educational & Child Psychology*, *34*(3), 119-129.

52. Cooke, F. L., Dickmann, M., and Parry, E. (2022). Building sustainable societies through human-centred human resource management: Emerging issues and research opportunities. *The International Journal of Human Resource Management*, *33*(1), 1-15. doi: 10.1080/09585192.2021.2021732

53. Creswell, J. W., Hanson, W. E., Clark Plano, V. L., and Morales, A. (2007). Qualitative research designs: Selection and implementation. *The Counseling Psychologist*, *35*(2).

54. Crowley, E., and Overton, L. (2021). *Learning and skills at work survey 2021*. London: Chartered Institute of Personnel and Development (CIPID). Retrieved February 20, 2022 from https://www.cipd.co.uk/knowledge/strategy/development/learning-skills-work

55. Czainska, K. (2019). Diagnosing and developing the e-business competencies of the "Z" generation. *Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach*, (122), *Administracja i Zarządzanie*, (49), 5-12.

56. Czarniawska, B. (2018). *Badacz w terenie, pisarz przy biurku. Jak powstają nauki społeczne*. Łódź: Wydawnictwo SIZ.

57. Dalkir, K. (2013). *Knowledge management in theory and practice*. Routledge.

58. Davidsen, A. H., and Petersen, M. S. (2021). The impact of covid-19 restrictions on mental well-being and working life among Faroese employees. *International Journal of Environmental Research and Public Health*, (18), 4775. https://doi.org/ 10.3390/ijerph18094775

59. De Cieri, H., Shea, T., Cooper, B., and Oldenburg, B. (2019). Effects of work-related stressors and mindfulness on mental and physical health among Australian nurses and healthcare workers. *Journal of Nursing Scholarship*, 51(5), 580-589.

60. Dębska, E. (2012). Chaos pojęciowy wokół szkoleń i treningów. Próba uporządkowania terminologii. *Edukacja Dorosłych*, (1), 23.

61. DelSignore, P. (2021). *Education in the metaverse*. Retrieved February 21, 2022 from https://medium.com/the-future-of-learning-and-education/education-in-the-metaverse-5a2b579f6cf3

62. Dereń, A. M., and Skonieczny, J. (2021). Proactive and reactive actions of the organization during COVID-19 pandemic crisis. *European Research Studies Journal*, *XXIV*(2), 358-368.

63. Dessler, G. (2020). *Human resource management*. Boston: Pearson Education Limited.

64. Di Vaio, A., Palladino, R., Pezzi, A., and Kalisz, D. E. (2021). The role of digital innovation in knowledge management systems: A systematic literature review. *Journal of Business Research*, *123*, 220-231.

65. Digital Poland i CIONET. (2022). *Jak rozwiązać problem luki w umiejętnościach ery cyfrowej. Spostrzeżenia społeczności Digital Shapers i CIONET*. Retrieved February 20, 2022 from https://digitalpoland.org/publikacje

66. Doctrine of training of the Armed Forces of the Republic of Poland DD/7(A). Ref. 837/2010.

67. Dolot, A. (2018). The characteristics of generation Z. *E-mentor*, *2*(74), 44-50.

68. Dolot, A. (2020). *Wpływ pandemii covid-19 na pracę zdalną – perspektywa pracownika*. *E-mentor*, *1*(83), 35-43. https://doi.org/10.15219/em83.1456

69. Donley, J. (2021). The impact of work environment on job satisfaction: Pre-covid research to inform the future. *Nurse Leader*, *19*(6), 585-589. https://doi.org/10.1016/j.mnl.2021.08.009

70. Dörner, O., and Rundel, S. (2021). Organizational learning and digital transformation: A theoretical framework. In D. Ifenthaler, S. Hofhues, M. Egloffstein, C. Helbig C. (Eds.), *Digital transformation of learning organizations*. Springer, Cham. https://doi.org/10.1007/978-3-030-55878-9_4

71. Edwards, T., Sánchez-Mangas, R., Jalette, P., Lavelle, J., and Minbaeva, D. (2016). Global standardization or national differentiation of HRM practices in multinational companies? A comparison of multinationals in five countries. *Journal of International Business Studies*, *47*(8), 997-1021. http://www.jstor.org/stable/26169981

72. Ejdys, J., Lulewicz, A., and Obolewicz, J. (2008). *Zarządzanie bezpieczeństwem w przedsiębiorstwie.* Białystok: Wydawnictwo Politechniki Białostockiej.

73. Emmorey, K. D., and Fromkin, V. A. (1988). The mental lexicon. *Linguistics: The Cambridge Survey,* (3), 124-149.

74. *Employees expectations from employers in modern business*. Retrieved January 2, 2021 from https://www.linkedin.com/pulse/employees-expectations-from-employers-modern-business-hafij-ali

75. *Encyklopedia PWN*. (n.d.). Retrieved May 17, 2021 from https://encyklopedia.pwn.pl/haslo/aktywnosc-spoleczna;3867107.html

76. Erro-Garces, A., and Ferreira, S. (2019). Do better workplace environmental conditions improve job satisfaction? *Journal of Cleaner Production*, (219). doi: 10.101 6/j.jclepro.2019.02.138

77. European Agency for Safety and Health at Work. (2004). *Corporate social responsibility and safety and health at work*. Retrieved April 2, 2021 from https://osha.europa.eu/en/publications/reports/210/

78. European Commission. Directorate for Research & Innovation. (2011). *Towards a European framework for researcher careers*. Retrieved from https://cdn5.euraxess.org/sites/default/files/policy_library/towards_a_european_framework_for_research_careers_final.pdf

79. Evans, L. (1997). Understanding teacher morale and job satisfaction. *Teaching and Teacher Education*, *13*(8), 831-845.

80. Fan, W., and Moen, P. (2021, October). Working more, less or the same during covid-19? A mixed method, intersectional analysis of remote workers. *Work and Occupations*, 1-44.

81. Farndale, E., and Paauwe, J. (2018). SHRM and context: Why firms want to be as different as legitimately possible. *Journal of Organizational Effectiveness: People and Performance*, *5*(3), 202-210. https://doi.org/10.1108/joepp-04-2018-0021

82. Farndale, E., Pai, A., Sparrow, P., and Scullion, H. (2014). Balancing individual and organizational needs in global talent management: A mutual-benefits perspective. *Journal of World Business*, *49*(2), 204-214.

83. Farndale, E., and Sanders, K. (2017). Conceptualizing HRM system strength through a cross-cultural lens. *The International Journal of Human Resource Management*, *28*(1),132-148.

84. Fayard, A. L., Weeks, J., and Khan, M. (2021, March-April). Designing the hybrid office. *Harvard Business Review*, *202*, 1-11.

85. Feitosa, J., and Salas, E. (2020). Today's virtual teams: Adapting lessons learned to the pandemic context. *Organizational Dynamics*. https://doi.org/10.1016/j.orgdyn.2020.100777

86. Fenton-O'Creevy, M., Gooderham, P., and Nordhaug, O. (2008). Human resource management in US subsidiaries in Europe and Australia: Centralisation or autonomy? *Journal of International Business Studies*, *39*(1), 151-166. http://www.jstor.org/stable/25483251

87. Fernandes, C., Griffith, D. A., and Lages, L. F. (2014). The performance effects of vertical and horizontal subsidiary knowledge outflows in multinational corporations. International Business Review, *23*(5), 993-1007. https://doi.org/10.1016/j.ibusrev.2014.03.002

88. Ferreira, J., Mueller, J., and Papa, A. (2018). Strategic knowledge management: Theory, practice and future challenges. *Journal of Knowledge Management*, *24*(2), 121-126.

89. Ferri, F., Grifoni, P., and Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, *10*(4). https://doi.org/10.3390/soc10040086

90. Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. SAGE Publications.

91. Filipowicz, G. (2019). *Zarządzanie kompetencjami – perspektywa firmowa i osobista*. Warszawa: Wolters Kluwer.

92. Forbes. (2020). *97% of executives say covid-19 sped up digital transformation*. Retrieved February 1, 2022 from https://www.forbes.com/sites/johnkoetsier/2020/09/10/97-of-executives-say-covid-19-sped-up-digital-transformation/?sh=4217801d4799

93. Forsten-Astikainen, R., Tuominen, T., and Heilmann, P. (2017). Expanding awareness of employees' competences: The holistic perspective as a management tool. *Nordic Journal of Business*, *66*(2), 92-106.

94. Forsten-Astikainen, R., and Heilmann, P. (2018). Creating a competence profile of a new profession: Social service agents in welfare centers. *Employee Relations*, *40*(2), 362-380. https://doi.org/10.1108/ER-01-2017-0009

95. Fosway. (2020). *The power of virtual classrooms in a post-pandemic world.* Retrieved January 12, 2022 from https://www.fosway.com/research/next-gen-learning/virtual-classroom/

96. Fosway. (2021). *Digital learning realities. Corporate learning in a post-pandemic world*. Retrieved January 12, 2022 from https://www.fosway.com/research/next-gen-learning/digital-learning-realities-2021/

97. Friday, S., and Friday, E. (2003). Racioethnic perceptions of job characteristics and job satisfaction. *Journal of Management Development*, *22*(5), 426-442. https://doi.org/10.1108/0262171031047-4778

98. Fute, A., Oubibi, M., Sun, B., Zhou, Y., and Xiao, W. (2022). Work values predict job satisfaction among Chinese teachers during covid-19: The mediation role of work engagement. *Sustainability*, *14*(3). https://doi.org/10.3390/su14031353

99. Fute, A., Oubibi, M., Xiao, W., Sun, B., and Zhou, Y. (2022). Perceived organizational support and career satisfaction among Chinese teachers: The mediation effects of job crafting and work engagement during covid-19. *Sustainability*, *14*(2). https://doi.org/10.3390/su14020623

100. Gableta, M. (Ed.). (2012). *Interesy pracowników oraz warunki ich respektowania w przedsiębiorstwie.* Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.

101. Gambin, M., Sękowski, M., Woźniak-Prus, M., Wnuk, A., Oleksy, T., Cudo, A., Hansen, … Maison, D. (2021). Generalized anxiety and depressive symptoms in various age groups during the covid-19 lockdown in Poland. Specific predictorsand differences in symptoms severity. *Comprehensive Psychiatry*, (105).

102. Garavan, T., McCarthy, A., Lai, Y., Murphy, K., Sheehan, M., and Carbery, R. (2021). Training and organisational performance: A meta-analysis of temporal, institutional and organisational context moderators. *Human Resource Management Journal*, *31*, 93-119. https://doi.org/10.1111/1748--8583.12284

103. Gavin, M., Poorhosseinzadeh, M., and Arrowsmith, J. (2022). The transformation of work and employment relations: COVID-19 and beyond. *Labour and Industry*, *32*(1), 1-9. doi:10.1080/10301763.2022.2038353

104. Gembalska-Kwiecień, A. (2017). *Czynnik ludzki w zarządzaniu bezpieczeństwem pracy w przedsiębiorstwie. Wybrane zagadnienia.* Gliwice: Politechnika Śląska.

105. George, T. J., Atwater, L. E., Maneethai, D., and Madera, J. M. (2021). Supporting the productivity and wellbeing of remote workers. *Organizational Dynamics*. https://doi.org/10.1016/j.orgdyn.2021.100869

106. Gigi, G. S., and Pavithra, J. R. (2020). Employees' mental wellbeing, organizational outcome and innovative practices during covid-19. *Journal of Contemporary Issues in Business & Government*, *26*(2), 531-532.

107. Glinka, B., and Czakon, W. (2021). *Podstawy badań jakościowych*. Warszawa: PWE.

108. Gołembski, M. (2013). HR Business partner as a contemporary solution in the field of human resources management. *Scientific Notebooks of the Lodz University of Technology. Organization and Management, 51*(1146), 105-106.

109. Green, F. (2009). Subjective employment insecurity around the world. *Cambridge Journal of Regions, Economy and Society*, *2*(3), 343-363. doi: 10.1093/cjres/rsp003

110. Gross, U. (2003). *Zachowania organizacyjne w teorii i praktyce zarządzania*. Warszawa: Wydawnictwo Naukowe PWN.

111. Gruszecki, T. (2002). *Współczesne teorie przedsiębiorstwa*. Warszawa: Wydawnictwo Naukowe PWN.

112. Guest, D. E., Michie, J., Conway, N., and Sheehan, M. (2003). Human resource management and corporate performance in the UK. *British Journal of Industrial Relations*, *41*, 291-314. https://doi.org/10.1111/1467-8543.00273

113. Hai-dong, Z., and Yu-jun, S. (2006). *Relationship between employees' interests and business performance in state-owned enterprises: Evidence from Shenzhen, China* (2006 International Conference on Management Science and Engineering, pp. 1307-1311). Lille.

114. Halilem, N. (2010). Inside the triple helix: An integrative conceptual framework of the academic researcher's activities, a systematic review. *Journal of Research Administration*, *41*(3), 23-50.

115. Hamouche, S. (2021). Human resource management and the COVID-19 crisis: implications, challenges, opportunities, and future organizational directions. *Journal of Mangement & Organization*, 1-16. doi: 10.1017/jmo.2021.15

116. Hansen, A. (1998). *Bezpieczeństwo i higiena pracy*. Warszawa: WSiP.

117. Harackiewicz, J. M., and Hulleman, C. S. (2010). The importance of interest: The role of achievement goals and task values in promoting the development of interest. *Social and Personality Psychology Compass*, *4*(1), 42-52. doi: 10.1111/j.1751-9004.2009.00207.x

118. Haromszeki, Ł. (2020). Liderzy lokalni jako przywódcy organizacyjni w społeczeństwie obywatelskim. *Monografie i Opracowania*.

119. Hauziński, A. (2018). *Informatyzacja w środowisku pracy jako źródło kryzysu relacji pracowniczych* (III Zjazd Polskiego Stowarzyszenia Psychologii Organizacji. Konferencja Ogólnopolska, KUL, 24-25 May 2018). Retrieved from https://www.researchgate.net/publication/329179418_Informatyzacja_w_srodowisku_pracy_jako_zrodlo_kryzysu_relacji_pracowniczych

120. Hawi, R. O., Alkhodary, D., and Hashem, T. (2015). Managerial competencies and organizations performance. *International Journal of Management Sciences*, 5(11), 723-735.

121. Heibutzki, R. (2013). *The importance of obtaining job security*. Retrieved from http://work.chron.com/importance-obtaining-job-security-21845.html

122. Hensel, R., Meijers, F., van der Leeden, R., and Kessels, J. (2010). 360 degree feedback: How many raters are needed for reliable ratings on the capacity to develop competences, with personal qualities as developmental goals? *International Journal of Human Resource Management*, *21*(15), 2813-2830. doi: 10.1111/apps.12290 09.03.2022

123. Hidi, S., and Renninger, K. A. (2006). The four-phase model of interest development. *Educational Psychologist, 41*(2), 111-127. doi: 10.1207/s15326985ep4102_4

124. Hirschfeld, R. R. (2000). Does revising the intrinsic and extrinsic subscales of the Minnesota satisfaction questionnaire short form make a difference? *Educational and Psychological Measurement*, (60), 255-270.

125. Hite, L. M., and McDonald, K. S. (2020). Careers after COVID-19: Challenges and changes. *Human Resource Development International*, *23*(4), 427- 37. doi: 10.1080/13678868.2020.1779576

126. Huluba, A. E. (2021). The process of continuous training of military personnel in the 21st century. *Journal of Defense Resources Management*, (2), 189-198.

127. Huselid, M. A. (1995). The impact of human resource management practices on turnover productivity and corporate financial performance. *Academy of Management Journal, 38*(3).

128. *Instruction on training and methodical activity*. (n.d.). Ref. 816/2009.

129. Jacobs, R., and Washington, Ch. (2003). Employee development and organizational performance: A review of literature and directions for future research. *Human Resource Development International*, *6*(3), 343-354. doi: 10.1080/13678860110096211

130. Jain, A. (2019). Understanding the future of HRM through the VUCA lens. *NHRD Network Journal*, *12*(2), 80-86. https://doi.org/10.1177/2631454119852860

131. *Jak wykorzystać szansę pracy zdalnej*. (2020, April). Goldenline report.

132. Jakimiuk, B. (2015). Relacje interpersonalne w miejscu pracy i ich znaczenie dla funkcjonowania zawodowego. In B. Pietrulewicz, M.A. Paszkowicz (Eds.), *Wybrane zagadnienia aktywności zawodowej człowieka na rynku pracy* (pp. 55-630). Zielona Góra: Wydawnictwo Naukowe Polskiego Towarzystwa Profesjologicznego.

133. Jangbahadur, U., and Sharma, V. (2018). Measuring employee development. *Global Business Review*, *19*(2), 455-476. https://doi.org/10.1177/0972150917713548

134. Jarecki, W., Kunasz, M., Mazur-Wierzbicka, E., and Zwiech, P. (2010). *Gospodarowanie kapitałem ludzkim*. Szczecin: Economicus.

135. Jarosik-Michalak, A. (2018). Zarządzanie karierą z perspektywy jednostki i organizacji. *Marketing i Zarządzanie*, *1*(51), 123-130.

136. Jemielniak, D., and Koźmiński, A. K. (2012). *Zarządzanie wiedzą.* Wolters Kluwer Polska.

137. Jorfi, H., Bin Yacco, H. F., and Shah, I. M. (2012). Role of gender in emotional intelligence: Relationship among emotional intelligence, communication effectiveness and job satisfaction. *The International Journal of Management*, *29*(4), 590-597.

138. Juchnowicz, M. (2010). *Zarządzanie przez zaangażowanie. Koncepcja. Kontrowersje. Aplikacje.* Warszawa: PWE.

139. Juchnowicz, M. (2014). *Satysfakcja zawodowa pracowników. Kreator kapitału ludzkiego*. Warszawa: PWE.

140. Juchnowicz, M., and Kinowska, H. (2019). Proinnowacyjne kompetencje polskich menadżerów. *Studia i Prace Kolegium Zarządzania i Finansów*, (161), 41-54. https://doi.org/10.33119/SIP.2018.161.3

141. Juchnowicz, M., and Kinowska, H. (2021). Employee well-being and digital work during the covid-19 pandemic. *Information,* (12), 293, doi: 10.3390/info12080293

142. Judge, T. A., Bono, J. E., and Locke, E. A. (2000). Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, (85), 237-249.

143. Kafel, T. (2000). Metodologiczne aspekty analizy mikrootoczenia organizacji. *Zeszyty Naukowe Akademii Ekonomicznej w Krakowie*, (554).

144. Kankaraš, M. (2021). *Workplace learning: Determinants and consequences: Insights from the 2019 European company survey* (Cedefop working paper No 7). Luxembourg: Publications Office of the European Union. http://data.europa.eu/doi/10.2801/111971

145. Karadsheh, L., Mansour, E., Alhawari, S., Azar, G., and El-Bathy, N. (2009). A theoretical framework for knowledge management process: Towards improving knowledge performance. *Communications of the IBIMA*, (7), 67-79.

146. Katou, A. A., and Budhwar, P. S. (2010). Causal relationship between HRM policies and organisational performance: Evidence from the Greek manufacturing sector. *European Management Journal*, *28.*

147. Kawka, T. (2010). HR Business Partner – a new managerial role of the personnel function. *Scientific Papers of the Wroclaw University of Economics*, (115), 268-276.

148. Khan, N. A., Bharadwaj, S., Khatoon, A., and Jamal, M. T. (2021). Assessing the nexus between employer branding and employee retention: Moderating role of organizational identification. *Management and Labour Studies*, *46*(4), 379-398. https://doi.org/10.1177/0258042X211005330

149. Kim, J. (2020). When organizational performance matters for personnel decisions: Executives' career patterns in a conglomerate. *Management Accounting Research*, *49*, https://doi.org/10.1016/j.mar.2020.100695

150. Klamut, R. (2013). Aktywność obywatelska jako rodzaj aktywności społecznej – perspektywa psychologiczna. *Studia Socjologiczne*, *1*(208).

151. Kniffin, K. M., Narayanan, J., Anseel, F., Antonakis, J., Ashford, S. P., Bakker, A. B., … Vugt, M. van. (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *American Psychologist*, *76*(1), 63-77. https://doi.org/10.1037/amp0000716

152. Kociatkiewicz, J., and Kostera, M. (2014). Zaangażowane badania jakościowe. *Problemy Zarządzania*, *12*(1), (45), 9 -17.

153. Kopertyńska, M. W., and Dernowska, N. (2021). Factors determining the role and tasks of HR business partnering in enterprises. *Human Resource Management/Zarządzanie Zasobami Ludzkimi*, *138-139*(1-2), 65-84. DOI: 10.5604/01.3001.0014.8786

154. Kotarbiński, T. (2019). *Traktat o dobrej robocie*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.

155. Kumar, A., and Nayar, K. R. (2021). COVID-19 and its mental health consequences. *Journal of Mental Health*, *30*(1), 1-2. https://doi.org/10.1080/09638237.2020.1757052

156. Kunasz, M. (2008). Efektywność szkolenia i doskonalenia zawodowego – wybrane aspekty. *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania Uniwersytetu Szczecińskiego*, (3), 129-141.

157. Kunasz, M., and Zwiech, P. (2016). Pomiar efektywności procesów personalnych – wyniki badań. In M. Kunasz (Ed.), *BPM vs. HRM* (pp. 39-52). Szczecin: Volumina.

158. Kupczyk, T., and Stor, M. (2017). *Competency management. Theory, research and business practice*. Wrocław: Wyższa Szkoła Handlowa.

159. Kupczyk, T., Rupa, P., Gross-Gołacka, E., and Mańkowska, M. (2021). Generation Z's expectations of adaptation to work. Military service. *European Research Studies Journal*, *24*(4), 329-343.

160. Kyvik, S. (2013). The academic researcher role: Enhancing expectations and improved performance. *Higher Education*, *65*(4), 525-538. https://doi.org/10.1007/s10734-012-9561-0

161. Łaguna, M. (2019). Nowe tendencje w podejściu do szkoleń w organizacji. In A.M. Zawadzka (Ed.), *Psychologia zarządzania w organizacji* (p. 116). Warszawa: PWN.

162. Landeta Echeberria, A. (2022). *AI integration in the digital transformation strategy. In artificial intelligence for business*. Cham: Palgrave Macmillan.

163. Latif, M. H., Ahmad, M., Qasim, M., Mushtaq, M., Ferdoos, A., and Naeem, H. (2013). Impact of employee's job satisfaction on organizational performance. *European Journal of Business and Management*, *5*(5), 166-171.

164. Lendzion, J. P., and Stankiewicz-Mróz, A. (2005). *Wprowadzenie do organizacji i zarządzania*. Kraków: Oficyna Ekonomiczna.

165. Leszczyński, M. (2007). Dostęp do rynku pracy w kontekście teorii segmentacyjnych. *Acta Scientifica Academiae Ostroviensis*, (29).

166. Liebowitz, J. (2001). Knowledge management and its link to artificial intelligence. *Expert Systems with Applications*, *20*(1), 1-6.

167. Liebowitz, J. (Ed.). (1999). *Knowledge management handbook*. Boca Raton, Florida: CRC Press.

168. LinkedIn Learning. (2021). *Workplace learning report*. Retrieved February 8, 2022 from https://learning.linkedin.com/resources/workplace-learning-report

169. Lobanova, T. N. (2015). Influence of dominant labor interests on the activity of employees Vliyanie dominiruyushih trudovyh interesov na deyatelnost sotrudnikov organizacii. *Organizacionnaâ psihologiâ*, *5*(2), 26-45.

170. Locke, E. A. (1976). Nature and causes of job satisfaction. In M.D. Dunette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297-1343). Chicago: Rand McNally.

171. Loscocco, K. A. (1990). Reactions to blue-collar work. *Work and Occupations*, (17), 152-177.

172. Lowe, T. S. (2018). Perceived job and labor market insecurity in the United States: An assessment of workers' attitudes from 2002-2014. *Work and Occupations*, *45*(3), 313-345. doi: 10.1177/0730888418758381

173. Lutyński, J. (1994). *Metody badań społecznych. Wybrane zagadnienia*. Łódź: Łódzkie Towarzystwo Naukowe.

174. Lyons, M., Lavelle, K., and Smith, D. (2017). *GEN Z rising*. Accenture.

175. Maatman, M., and Meijerink, J. (2017). Why sharing is synergy: The role of decentralized control mechanisms and centralized HR capabilities in creating HR shared service value. *Personnel Review*, *46*(7), 1297-1317. https://doi.org/10.1108/PR-09-2016-0245

176. Madsen, P. K. (2007). Flexicurity: A new perspective on labour markets and welfare states in Europe. *Tilburg Law Review – Journal of International and Comparative Law*, *14*(1&2), 57-79.

177. Magnier-Watanabe, R., Benton, C. F., Uchida, T., and Orsini, P. (2019). Designing jobs to make employees happy? Focus on job satisfaction first. *Social Science Japan Journal*, *22*(1). doi: 10.1093/ssjj/jyy040

178. Mahmood, F., Ariza-Montes, A., Saleem, M., and Han, H. (2021). Teachers' teleworking job satisfaction during the COVID-19 pandemic in Europe. *Current Psychology*, (1), 1-14. https://doi.org/10.1007/s12144-021-02355-6

179. Malmström, M., Wincent, J., and Johansson, J. (2013). Managing competence acquisition and financial performance: An empirical study of how small firms use competence acquisition strategies. *Journal of Engineering and Technology Management*, *30*(4), 327-349.

180. Marx, P. (2014). The effect of job insecurity and employability on preferences for redistribution in Western Europe. *Journal of European Social Policy*, *24*(4), 351-366. doi: 10.1177/0958928714538217

181. Marzec, I. (2015). *Uwarunkowania rozwoju zatrudnialności pracowników w organizacji*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.

182. Masri, H. A., and Jaaron, A. A. (2017). Assessing green human resources management practices in Palestinian manufacturing context: An empirical study. *Journal of Cleaner Production*, (143).

183. Matuska, E., and Niedzielski, P. (2018). HR business partner – the range of roles and services. *European Journal of Service Management*, *4*(28/1), 191-197. doi: 10.18276/ejsm.2018.28/1-24

184. May, K. E., and Elder, A. D. (2018). Efficient, helpful, or distracting? A literature review of media multitasking in relation to academic performance. *International Journal of Educational Technology in Higher Education*, *15*(13). https://doi.org/10.1186/s41239-018-0096-z

185. Maznevski, M. L., and Chudoba, K. (2000). Bridging space over time: Global virtual team dynamics and effectiveness. *Organization Science*, *11*, 473-492.

186. McGuire, D., Germain, M. -L., and Reynolds, K. (2021). Reshaping HRD in light of the covid-19 pandemic: An ethics of care approach. *Advances in Developing Human Resources*, *23*(1), 26-40. doi: 10.1177/1523422320973426

187. Meissner, D., and Shmatko, N. (2019). Integrating professional and academic knowledge: The link between researchers skills and innovation culture. *The Journal of Technology Transfer*, *44*(4), 1273-1289.

188. Mendryk, I. (2016). Uwarunkowania doskonalenia kompetencji pracowników 50+. Wyniki badań. Zeszyty *Naukowe Politechniki Śląskiej. Seria: Organizacja i Zarządzanie*, (97), 213-233.

189. Messervey, D. L., Peach, J. M., Dean, W. H., and Nelson, E. A. (2022). Training for heat-of-the-moment thinking: Ethics training to prepare for operations. *Armed Forces & Society*. https://doi.org/10.1177/0095327X221088325

190. Microsoft. (2020). *AI & skills*. Retrieved December 10, 2021 from https://news.microsoft.com/pl-pl/2020/06/30/badanie-microsoft-ai-motywuje-firmy-do-podnoszenia-umiejetnosci-pracownikow/

191. Mihalache, M., and Mihalache, O. R. (2022). How workplace support for the covid-19 pandemic and personality traits affect changes in employees' affective commitment to the organization and job-related well-being. *Human Resource Management*, *61*(3), 295-314. https://doi.org/10.1002/hrm.22082

192. Mikołajczyk, K. (2021). Changes in the approach to employee development in organizations as a result of the COVID-19 pandemic. *European Journal of Training and Development*. https://doi.org/10.1108/EJTD-12-2020-0171

193. Miller, P. (2018). Kompetencje przyszłości i zarządzanie nimi – wyzwanie dla biznesu i całożyciowego poradnictwa karier. In E. Stokowska-Zagdan, J. Flanz (Eds.), *Kształcenie ustawiczne. Wymiar interdyscyplinarny*. Skierniewice: Państwowa Wyższa Szkoła Zawodowa.

194. Minbaeva, D. B. (2005). HRM practices and MNC knowledge transfer. *Personnel Review*, *34*(1), 125-144. https://doi.org/10.1108/00483480510571914

195. Minbaeva, D., Pedersen, T., Björkman, I., and Fey, C. F. (2014). A retrospective on: MNC knowledge transfer, subsidiary absorptive capacity, and HRM. *Journal of International Business Studies*, (45), 52-62. https://doi.org/10.1057/jibs.2013.56

196. Młokosiewicz, M. (2017). Zaangażowanie pracowników – perspektywa indywidualna i organizacyjna. *Zeszyty Naukowe Wyższej Szkoły Bankowej w Poznaniu*, *74*(3).

197. Moglia, M., Hopkins, J., and Bardoel, A. (2021). Telework, hybrid work and the United Nation's sustainable development goals: Towards policy coherence. *Sustainability*, *13*(16), 9222. doi: 10.3390/su13169222

198. Molek-Winiarska, D. (2020). *Interwencje antystresowe w organizacji. Modele. Zarządzanie. Efektywność*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.

199. Moon, J. S., and Choi, S. B. (2017). The Impact of career management on organizational commitment and the mediating role of subjective career success: The case of Korean R&D employees. *Journal of Career Development*, *44*(3), 191-208. https://doi.org/10.1177/0894845316643829

200. Morley, M. J., Heraty, N., and Michailova, S. (Eds.). (2009). *Human resources management in Eastern and Central Europe*. London, New York: Routledge.

201. Mróz-Jagiełło, A., and Wolanin, A. (2013). Metoda analizy i krytyki dokumentów w naukach o bezpieczeństwie. *Obronność. Zeszyty Naukowe Wydziału Zarządzania i Dowodzenia Akademii Obrony Narodowej, 2*(6), 113-117.

202. Muffels, R., Crouch, C., and Wilthagen, T. (2014). Flexibility and security: National social models in transitional labour markets. *Transfer: European Review of Labour and Research*, *20*(1), 99-114. doi: 10.1177/1024258913514361

203. Muisyo, P., and Qin, S. (2018). Enhancing the FIRM'S green performance through green HRM: The moderating role of green innovation culture. *Journal of Cleaner Production*, *289*(2).

204. Myjak, T. (2018). Formy zatrudnienia a postawy wobec pracy na przykładzie badanych przedsiębiorstw budowlanych, *Bezpieczeństwo Pracy. Nauka i Praktyka*, (10).

205. Myjak, T. (2019). Kompetencje jednostki w kontekście bezpieczeństwa zatrudnienia. *Zeszyty Naukowe Wyższej Szkoły Zarządzania Ochroną Pracy w Katowicach*, (1), 79-88.

206. Ngadiman, A. E., and Ratmawati, D. (2013). Influence of transformational leadership and organization climate to the work satisfaction. *Organizational Commitment and Organizational Citizenship Behavior on the Educational Personnel of Educational Research International*, *1*(1), 41-66.

207. Nicoară, M. A. (2011). *The educational management in the military training*. Bucharest: National Defense University Carol I.

208. Nieć, D. (2020). Badanie zadowolenia pracowników jako element substrategii zarządzania organizacjami. In M. Ćwiklicki, A. Frączkiewicz-Wronka, A. Pacut, K. Sienkiewicz-Małyjurek (Eds.), *Współczesne problemy zarządzania publicznego i przedsiębiorczości społeczne.* Kraków: Małopolska Szkoła Administracji Publicznej Uniwersytetu Ekonomicznego w Krakowie.

209. Numminen, O., Virtanen, H., Hafsteinsdóttir, T., and Leino-Kilpi, H. (2020). Postdoctoral nursing researcher career: A scoping review of required competences. *Nursing Open*, *7*(1), 7-29. doi: http://dx.doi.org/10.1002/nop2.367

210. Oberländer, M., and Bipp, T. (2022). Do digital competencies and social support boost work engagement during the COVID-19 pandemic? *Computers in Human Behavior, 130*(107172), 1-9. https://doi.org/10.1016/j.chb.2021.107172

211. Obłój, K., and Wąsowska A. (2015). *Zarządzanie międzynarodowe: teoria i praktyka*. Warszawa: PWE.

212. Obrad, C., and Circa, C. (2021). Determinants of work engagement among teachers in the context of teleworking. *Amfiteatru Economic*, *23*(58), 718-735. https://doi.org/10.24818/EA/2021/58/718

213. Ogrodnik, R., and Mieszaniec, J. (2010). Metoda analizy interesariuszy jako innowacyjna koncepcja w zarządzaniu przedsiębiorstwem górniczym. In R. Knosala (Ed.), *Komputerowo zintegrowane zarządzanie.* Opole: Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją.

214. Okpara, J. O. (2004). Personal characteristics as predictors of job satisfaction: An exploratory study of IT managers in a developing economy. *Information Technology & People*, *17*(3), 327-338. https://doi.org/10.1108/09593840410554247

215. Oleszak, W. K., and Oleszak, M. W. (2016). Edukacja dorosłych jako siła twórcza kultury bezpiecznej pracy. *Problemy Nauk Stosowanych*, (4), 210.

216. Olkowicz, J. (2013). Spółdzielcza kasa oszczędnościowo-kredytowa jako organizacja ucząca się na przykładzie Kasy Stefczyka – cechy i rozwiązania. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, (310), 411-420.

217. Omodan, B. I. (2020). The vindication of decoloniality and the reality of COVID-19 as an emergency of unknown in rural universities. *International Journal of Sociology of Education (Special Issue).* https://doi.org/10.17583/RISE.2020.5495

218. Oorschot, W. van, and Chung, H. (2015). Feeling of dual-insecurity among European workers: A multi-level analysis. *European Journal of Industrial Relations*, *33*(1)*,* 23-37. doi: 10.1177/0959680114523199

219. Opatha, H., and Aruljarah A. (2014). Green human resource management: Simplified general reflections. *International Business Research*, *7*(8).

220. Organ, D. W., Podsakoff, P. M., and Mackenzie, S. B. (2006). *Organisational citizenship behaviour. Its nature, determinants, and consequences*. Thousand Oaks: Sage Publications.

221. Osuszek, Ł., and Stanek, S. (2021). AI for augmenting human judgement in Business Processes Management. *Scientific Journal of the Military University of Land Forces*, *53*, (3(201)), 507-518.

222. Osuszek, L., Stanek, S., and Twardowski, Z. (2016). Leverage big data analytics for dynamic informed decisions with advanced case management. *Journal of Decision Systems*, *25* (sup1), 436-449.

223. Paliwoda-Matiolańska, A. (2014). *Odpowiedzialność społeczna w procesie zarządzania przedsiębiorstwem*. Warszawa: Wydawnictwo C.H. Beck.

224. Palmer, K. (2022). *Invest Wisely: Help your people learn how to learn*. Retrieved February 20, 2022 from https://blog.degreed.com/help-your-people-learn-how-to-learn/

225. Papavasileiou, E., Lyons, S., Shaw, G., and Georgiou, A. (2017). Work values in tourism: Past, present and future. *Annals of Tourism Research*, *64*, 150-162. https://doi.org/10.1016/J.ANNALS.2017.03.007

226. PARP. (2021a). *Bilans kapitału ludzkiego.* Retrieved January 26, 2022 from https://www.parp.gov.pl/component/publications/publication/raport-podsumowujacy-wyniki-badan-bilans-kapitalu-ludzkiego-2019-2020

227. PARP. (2021b). *Polska 2021 – raport o stanie sektora małych i średnich przedsiębiorstw w Polsce 2021*. Warszawa. Retrieved from https://www.parp.gov.pl/storage/publications/pdf/PARP-26_Raport-2021-07-22_WCAG_210726.pdf

228. Parvin, M. M., and Kabir, M. M. N. (2011). Analysis of factors affecting employee job satisfaction. *Australian Journal of Business and Management Research*, *1*(9), 113-123. https://doi.org/10.20472/iac.2018.038.004

229. Pass, S., and Ridgway, M. (2022). An informed discussion on the impact of covid-19 and 'enforced' remote working on employee engagement. *Human Resource Development International*, *25*(2), 254-270. doi: 10.1080/13678868.2022.2048605

230. Pauli, U. (2010). Badanie satysfakcji pracowników jako źródło informacji menedżerskiej. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie*, (828).

231. Pawłowska, A. (2017). *Zatrudnialność pracobiorcy w elastycznym zarządzaniu ludźmi*. Warszawa: PWE.

232. Peccei, R., and Lee, H. -J. (2005). The impact of gender similarity on employee satisfaction at work: A review and re-evaluation. *Journal of Management Studies*, *42*(8), 1571-1592. https://doi.org/https://doi.org/10.1111/j.1467-6486.2005.00557.x

233. Penc-Pietrzak, I. (2011). Tworzenie kluczowych kompetencji organizacji. *Zeszyty Naukowe Wyższej Szkoły Bankowej w Poznaniu*, (34).

234. Pham, N. T., Tuckova, Z., and Chiappetta Jabbour, C. J. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. *Tourism Management*, (72).

235. Pham, N. T., Tuckova, Z., and Phan, Q. P. T. (2019). Greening human resource management and employee commitment towards the environment: An interaction model. *Journal of Business Economics and Management*, *3*(20).

236. Pham, N. T., Vo Thanh, T., Tuckova, Z., and Thuy, V. T. N. (2019). The role of green human resource management in driving hotel's environmental performance: Interaction and mediation analysis. *International Journal of Hospitality Management*. doi: 10.1016/j.ijhm.2019.102392

237. Phuc, N. H., and Matsuura, Y. (2016). Modeling and analyzing academic researcher behavior. *The Asian Journal of Technology Management*, *9*(2), 80-87. doi: http://dx.doi.org/10.12695/ajtm.2016.9.2.2

238. Pichler, M., Krenmayr, N., Schneider, E., and Brand, U. (2021). EU industrial policy: Between modernization and transformation of the automotive industry. *Environmental Innovation and Societal Transitions*, *38*(1).

239. Pietruszka-Ortyl, A. (2019). Transfer wiedzy w warunkach nierówności na współczesnym rynku pracy. *Bezpieczeństwo Pracy*, *2*(22).

240. Piwowar-Sulej, K. (2017). The concept of HR business partner in a project- oriented organization. *The Central European Review of Economics and Management (CEREM)*, 2544-0365. *WSB University in Wrocław, 1*(2), 77-90. doi: 10.29015/cerem.317

241. Piwowar-Sulej, K. (2020). Human resource management in the context of Industry 4.0. *Organizacja i Zarządzanie: Kwartalnik Naukowy*, (1), 103-113.

242. Piwowar-Sulej, K. (2021). The practice of green HRM in Poland – with the focus on elements of the HR function. *Oeconomia*, *3*(55).

243. Plewka, C. (2016). Wspomaganie rozwoju zawodowego pracowników współczesnego rynku pracy. *Szkoła. Zawód. Praca*, (12), 25-41.

244. Pocztowski, A. (2016). Zrównoważone zarządzanie zasobami ludzkimi w teorii i praktyce. *Zarządzanie i Finanse*, *14*(2, Part 1).

245. Pocztowski, A. (2019). HRM context in practice and scientific research. *Zarządzanie Zasobami Ludzkimi, 6*(131).

246. Poncet, M. C., Toullic, P., Papazian, L., Kentish-Barnes, N., Timsit, J.-F., Pochard, F., … Azoulay, É. (2007). Burnout syndrome in critical care nursing staff. *American Journal of Respiratory and Critical Care Medicine*, *175*(7), 698-704. https://doi.org/10.1164/rccm.200606-806OC

247. Poór, J., Juhász, T., Machová, R., Bencsik, A., and Bilan, S. (2018). Knowledge management in human resource management: Foreign-owned subsidiaries' practices in four CEE countries. *Journal of International Studies*, *11*(3), 295-308. doi:10.14254/2071-8330.2018/11-3/23

248. Probst, T. M., and Jiang, L. (2017). European flexicurity policies: Multilevel effects on employee psychosocial reactions to job insecurity. *Safety Science*, *100*(A), 83-90. doi: 10.1016/j.ssci.2017.03.010

249. PwC. (2020). The *effectiveness of virtual reality soft skills training in the enterprise*. Retrieved January 11, 2022 from https:// www.5discovery.com/wp-content/uploads/2020/09/pwc-understanding-the-effectiveness-of-soft-skills-training-in-the-enterprise-a-study.pdf

250. PWC, Well.hr, and Absolvent Consulting. (2021). *Młodzi Polacy na rynku pracy 2021*. Retrieved 20 October, 2021 from https://www.pwc.pl/pl/publikacje/mlodzi-polacy-na-rynku-pracy-2021.html

251. Radziukiewicz, M. (2021). Praca zdalna w Polsce i jej perspektywy. *Economic and Regional Studies*, *14*(4), 409-427. https://doi.org/10.2478/ers-2021-0029

252. Rae, L. (2004). *Planowanie i projektowanie szkoleń*. Kraków: Oficyna Ekonomiczna.

253. Rahman, U., Shahrazad, W. S. W., Sulaiman, W. S. W., Nasir, R., and Omar, F. (2014). The role of job satisfaction as mediator in the relationship between self-efficacy and organizational citizenship behavior among Indonesian teachers. *International Journal of Business and Social Science*, *5*(9), 255-261.

254. Rakowska, A. (2022). *Różnorodność zasobów ludzkich w organizacji – istota, dylematy, wyzwania*. Lublin: Wydawnictwo UMCS.

255. Rakowska, A., and de Juana-Espinosa, S. (2021). Ready for the future? Employability skills and competencies in the twenty-first century: The view of international experts. *Human Systems Management*, *40*(5), 669-684. doi: 10.3233/HSM-201118

256. Raut, R. D., Gardas, B., Luthra, S., Narkhede, B., and Mangla, S. K. (2020). Analysing green human resource management indicators of automotive service sector. *International Journal of Manpower*, (41).

257. Robbins, S. P. (2005). *Essentials of organisational behaviour* (8th ed.). Prentice Hall.

258. Robbins, S. P., Odendaal, A., and Roodt, G. (2003). *Organisational behaviour* (9th ed.). Prentice Hall International.

259. Rosiński, J., Pieczka, A., and Stańczyk, I. (2021). Ewolucja roli HR biznes partnera w czasie pandemii: Case study. *Zarządzanie Zasobami Ludzkimi*, *21*(5 (142)).

260. Roth, G., and Kurtyka, M. (2017). *Zarządzanie zmianą. Od strategii do działania*. Warszawa: CeDeWu.

261. Różańska-Bińczyk, I., Matejun, M., and Matusiak, B. E. (2020). Praktyki green HR we współczesnych przedsiębiorstwach. In J. Cewińska, A. Krejner-Nowecka, S. Winch S. (Eds.), *Zarządzanie kapitałem ludzkim – wyzwania*. Warszawa: SGH Oficyna Wydawnicza.

262. Saffron Interactive. (2021). *Can AI coaching be the solution to scalable workforce skills development?* Retrieved February 20, 2022 from https://saffroninteractive.com/ai-and-scalable-skills-development/

263. Salas, E., Tannenbaum, S. I., Kraiger, K., and Smith-Jentsch, K. A. (2012). The science of training and development in organizations: What matters in practice. *Psychological Science in the Public Interest*, *13*(2), 74-101. http://www.jstor.org/stable/23484697

264. Salladarré, F., Hlaimi, B., and Wolff, F. -Ch. (2011). How important is security in the choice of employment? Evidence from European countries. *Economic and Industrial Democracy*, *32*(4), 549-567. doi: 10.1177/0143831X10387649

265. Salman, M., Ganie, S. A., and Saleem, I. (2020). Employee competencies as predictors of organizational performance: A study of public and private sector banks. *Management and Labour Studies*, *45*(4), 416-432.

266. Sardana, A. (2018). Turning green into gold through practices of green HRM. *The Journal of Management Awareness*, *21(*2).

267. Savanevičienė, A., Stukaitė, D., and Šilingienė, V. (2008). Development of strategic individual competences. *Engineering Economics*, *3*(58), 81-88.

268. Schmidt, S. J. (2020). Distracted learning: Big problem and golden opportunity. *Journal of Food Science Education*, (19), 278-291. https://doi.org/10.1111/1541-4329.12206

269. Schroeder-Strong, M. P., Schreiber, B., and Bennett, W. (2022). A methodology for projecting the return on investment of training technologies. *Military Psychology*. doi: 10.1080/08995605.2022.2050164

270. Schultza, C. (2021). Essential future developmental areas for human resource managers post--COVID-19. In *Re-Imaging Management Research* (Conference Proceedings of the 32nd Annual Conference of the Southern Africa Institute for Management Scientists, North-West University).

271. Sęczkowska, K. (2019). Konsekwencje psychospołeczne pracy zdalnej. *Problemy Nauk Humanistycznych i Społecznych. Teoria i Praktyka*, (2), 10-16.

272. Sęk, H., and Cieślak, R. (2004). *Wsparcie społeczne – sposoby definiowania, rodzaje i źródła wsparcia. Wybrane koncepcje teoretyczne*. In H. Sęk, R. Cieślak (Eds.), *Wsparcie społeczne, stres i zdrowie*. Warszawa: Wydawnictwo Naukowe PWN.

273. Selmer, J., Ebrahimi, and B. P. Mingtao, L. (2002). Career management of business expatriates from China. *International Business Review*, *11*(1), 17-33. https://doi.org/10.1016/S0969-5931(01)00045-2

274. Sew, H. T., Yahya, S., and Tan, C. L. (2019). Importance-performance matrix analysis of the Researcher's competence in the formation of university-industry collaboration using smart PLS. *Public Organization Review*, 20(2), 249-275. doi: http://dx.doi.org/10.1007/s11115-018-00435-z

275. Shahzad, A., Hassan, R., Aremu, A. Y., Hussain, A., and Lodhi, R. N. (2021). Effects of covid-19 in E-learning on higher education institution students: The group comparison between male and female. *Quality & Quantity*, *55*(3), 805-826. https://doi.org/10.1007/s11135-020-01028-z

276. Sharma, R. R. (Ed.). (2019). *Human resource management for organizational sustainability*. New York: Business Expert Press.

277. Sheikh, M. K., Chaudahry, N., and Ghogare, A. (2020). Depression in teachers due to cyberbullying who are working in covid-19 pandemic: A cross-sectional study. *International Journal of Current Research and Review*, *12*(20), 98-102. https://doi.org/10.31782/IJCRR.2020.122015

278. Shen, J., Dumont, J., and Deng, X. (2018). Employees' perception of green HRM and non--green employee work outcomes: The social identity and stakeholders perspectives. *Group & Organization Management*, *43*(4).

279. Słowik, M. (2008). Rozumienie i wartościowanie aktywności społecznej młodzieży – wnioski dla pracy socjalnej. *Pedagogia Christiana*, *1*(21).

280. Sousa-Poza, A., and Sousa-Poza, A. A. (2007). The effect of job satisfaction on labor turnover by gender: An analysis for Switzerland. *The Journal of Socio-Economics*, *36*(6), 895-913. https://doi.org/10.1016/j.socec.2007.01.022

281. Sowińska, A. (2014). Zadowolenie z pracy – problemy definicyjne. *Studia Ekonomiczne,* (197).

282. Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. CA: Sage.

283. Staszkiewicz, M. (2021). Kompetencje osobiste i społeczne HR business partnera. *Zarządzanie Zasobami Ludzkimi, 142*(5), 43-62. doi: 10.5604/01.3001.0015.5052.

284. Steel, P., Schmidt, J., Bosco, F., and Uggerslev, K. (2019). The effects of personality on job satisfaction and life satisfaction: A meta-analytic investigation accounting for bandwidth–fidelity and commensurability. *Human Relations*, *72(*2), 217-247.

285. Stor, M. (2016). Paradoksalne i nieparadoksalne oksymoronizmy w strategiach zarządzania kompetencjami pracowniczymi – refleksje badawcze. *Nauki o Zarządzaniu*, *2*(27), 164-185, doi: 10.15611/noz.2016.2.14

286. Stor, M. (2021). The configurations of HRM bundles in MNCs by their contributions to subsidiaries' performance and cultural dimensions. *International Journal of Cross Cultural Management, 21*(1), 124-166. http://doi.org/10.1177/1470595821997488

287. Stor, M., and Haromszeki, Ł. (2020). The role of human factor and HRM practices in MNCs' performance in Eastern and Western Europe – a comparative analysis of the research findings. In J. Stankeviciene et al. (Eds.), *Business and management '2020. Selected papers* (pp. 343-357). Vilnus: Vilnius Gediminas Technical University. doi: 10.3846/bm.2020.540

288. Stor, M., and Haromszeki, Ł. (2021). Competency management and the financial results of the foreign subsidiaries of Polish MNCs: The empirical research findings. *Human Systems Management*, 1-13. http://doi.org/10.3233/HSM-211515

289. Stor, M., and Kupczyk, T. (2015). Differences in competency management – comparative analysis between Polish, Spanish, and Austrian business practices. *Journal of Intercultural Management*, *7*(2).

290. Stor, M., and Domaradzka, A. (Eds.). (2020). *Zarządzanie kapitałem ludzkim 4.0 – wyzwania organizacyjne i kompetencyjne w perspektywie menedżerskiej*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.

291. Stosik, A., Głowicki, P., and Zarecka, E. (2011). HR Business Partner – nowa rola w zarządzaniu zasobami ludzkimi. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, (218), 242-248.

292. Strack, R., Kovacs-Ondrejkovic, O., Baier, J., Antebi, P., Kavanagh, K., and Lopez-Gobernado, A. (2021). *Decoding global ways of working*. Retrieved from https://www.bcg.com/publications/2021/advantages-of-remote-work-flexibility

293. Stredwick, J. (2005). *Zarządzanie pracownikami w małej firmie*. Gliwice: Helion.

294. Strivr. (2020). *The ultimate guide to immersive learning*. Retrieved February 12, 2022 from https://www.strivr.com/resources/ebooks/immersive-learning/

295. Strumińska-Kutra, M., and Koładkiewicz, I. (2012). Studium przypadku. In D. Jemielniak (Ed.), *Badania jakościowe. Metody i narzędzia* (tom 2). Warszawa: Wydawnictwo Naukowe PWN.

296. Stuart, H. (2002). Employee identification with the corporate identity issues and implication. *International Studies of Management & Organization*, *32*(3), 28-44.

297. Studenski, R. (1996). *Organizacja bezpiecznej pracy w przedsiębiorstwie*. Gliwice: Wydawnictwo Politechniki Śląskiej.

298. Succar, T., Beaver, H. A., and Lee, A. G. (2022). Impact of COVID-19 pandemic on ophthalmology medical student teaching: Educational innovations, challenges, and future directions. *Survey of Ophthalmology*, *67*(1), 217-225. https://doi.org/https://doi.org/10.1016/j.survophthal.2021.03.011

299. Suganya, S., and Sankareshwari, B. (2020). Job satisfaction level on online teaching among higher secondary school teachers during COVID-19 pandemic. *Shanlax International Journal of Education*, *9*(1), 138-145. https://doi.org/10.34293/education.v9i1.3530

300. Suharti, L., and Sugiarto, A. (2020). A qualitative study of Green HRM practices and their benefits in the organization: An Indonesian company experience. *Business: Theory and Practice*, (21).

301. Sukmana, O., Salahudin, Robbie, I., Roziqin, A., Deniar, S. M., Sihidi, I. T., and Suhermanto, D. F. (Eds.). (2022). *Social and political issues on sustainable development in the post COVID-19 crisis* (Proceedings of the International Conference on Social and Political Issues on Sustainable Development in the Post COVID-19 Crisis (ICHSOS 2021), Malang, Indonesia, 18-19 June 2021, 1st ed.). Routledge. https://doi.org/10.1201/9781003263586

302. Sus, A., and Sylwestrzak, B. (2021). Evolution of the labor market and competency requirements in Industry 4.0 versus the covid-19 pandemic. *European Research Studies Journal, XXIV*(1), 494--506.

303. Sypniewska, B. A. (2014). Evaluation of factors influencing job satisfaction. *Contemporary Economics*, *8*(1), 57-72. https://doi.org/10.5709/ce.1897-9254.131

304. Taft, M. (2013). *Reading and the mental lexicon*. Psychology Press.

305. Tang, G., Chen, Y., Jiang, Y., Paill_e, P., and Jia, J. (2017). Green human resource management practices: Scale development and validity. *Asia Pacific Journal of Human Resources*, (555).

306. The Josh Bersin Company. (2022). *Learning technologies and platforms: 2022 and beyond*. Retrieved February 21, 2022 from https://joshbersin.com/2022/02/demystifying-the-learning-technology-market/

307. *The L&D disruption playbook with David James*. (2019). Retrieved January 15, 2022 from https://elearningindustry.com/free-ebooks/digital-learning-and-development-strategy-playbook

308. *The voice of the European workforce 2020. Niech moc pracowników będzie z Wami*. (2021). Retrieved January, 2021 from https://www2.deloitte.com/pl/pl/pages/human-capital/articles/raport-The-voice-of-the-European-workforce-2020.html

309. Thomas, M. S. C., and Rogers, C. (2020). Education, the science of learning, and the COVID-19 crisis. *Prospects*, *49*, 870-90. https://doi.org/10.1007/s11125-020-09468-z

310. Thu, T. P. B., Ngoc, P. N. H., Hai, N. M., and Tuan, L. A. (2020). Effect of the social distancing measures on the spread of COVID-19 in 10 highly infected countries. *Science of The Total Environment*, (742), 140430. https://doi.org/10.1016/J.SCITOTENV.2020.140430

311. Timms, P. (2018). *Transformational HR*. London: Kogan Page.

312. Torocsik, M., Szucs K., and Kehl, D. (2014). How generations think: Research on generation Z. *Acta Universitatis Sapientiae, Communicatio*, *1*(2014), 23-45.

313. Trenerry, B., Chng, S., Wang, Y., Suhaila, Z. S., Lim, S. S., Han Y. L., and Peng, H. O. (2021). Preparing workplaces for digital transformation: An Integrative review and framework of multi-level factors. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.620766

314. Tsang, E. W. K. (1999). The knowledge transfer and learning aspects of international HRM: An empirical study of Singapore MNCs. *International Business Review*, *8*(5-6), 591-609. https://doi.org/10.1016/S0969-5931(99)00021-9.

315. Tušl, M., Brauchli, R., Kerksieck, P., and Bauer, G. F. (2021). Impact of the COVID-19 crisis on work and private life, mental well-being and self-rated health in German and Swiss employees: Across-sectional online survey. *BMC Public Health*, (21).

316. Ubeda, C. L., and Santos, F. A. (2007). Staff development and performance appraisal in a Brazilian research centre. *European Journal of Innovation Management*, *10*(1), 109-125.

317. Ulrich, D. (1997). *Human resource champions: The next agenda for adding value and delivering results*. Boston: Harvard Business School Press.

318. Ulrich, D., and Brockbank, W. (2005). *The HR value proposition*. Boston: Harvard Business School Press.

319. Ulrich, D., and Lake, D. (1990). *Organizational capability*. New York: John Willey.

320. Ulrich, M., Kryscynski, D., Ulrich, D., Brockbank, W., and Slade, J. (2015). *2016 HR competency model. RBL Group presentation* (Human Resource Competency Conference 2016). University of Michigan's Ross School of Business, slide 20. Retrieved March 28, 2022 from http://www.apg.pt/downloads/file954_pt.pdf

321. Uncapher, M. R., Thieu, M. K., and Wagner, A. D. (2016). Media multitasking and memory: Differences in working memory and long-term memory. *Psychonomic Bulletin and Review*, (23), 483-490.

322. Uniwersytet Mikołaja Kopernika w Toruniu. (2020). *Niewidoczni, niebędący, niezbędni. Administracja uczelni na rzecz doskonałości naukowej. Raport z badania. Komentarze eksperckie*. Retrieved from https://www.wfins.umk.pl/panel/wp-content/uploads/Niewidoczni-niebedacy-niezbedni.Raport.pdf

323. Upadhyay, K., and Dangarwala, U. R. (2018). Green HRM initiative: A case study of selected public sector enterprise of Baroda. *International Journal of Research in Commerce and Management*, *9*(8).

324. Vance, R. I. (2006). *Employee engagement and commitment*. SHRM Foundation.

325. Vaara, J. P., Groeller, H., Drain, J., Kyröläinen, H., Pihlainen, K., Ojanen, T., … Nindl, B. C. (2022). Physical training considerations for optimizing performance in essential military tasks. *European Journal of Sport Science*, *22*(1), 43-57. doi: 10.1080/17461391.2021.1930193

326. Verma, A., and Venkatesan, M. (2022). HR factors for the successful implementation of Industry 4.0: A systematic literature review. *Journal of General Management*, *47*(2), 73-85. https://doi.org/10.1177/03063070211019141

327. Wach, B. A., Wehner, M. C., and Kabst, R. (2021). Performance implications of the HR Business Partner model and the mediating role of internal efficiency: A comparison between Germany and the United Kingdom. *The International Journal of Human Resource Management*, 1-38. doi: 10.1080/09585192.2021.1943490

328. Wach-Kąkolewicz, A. (2008). Rozwój zawodowy – motywy podejmowania aktywności uczenia się. *E-mentor, 4*(26), 57-60.

329. Wachowiak, P. (2007). *Kształtowanie umiejętności przedsiębiorczych*. In P. Wachowiak, M. Dąbrowski, B. Majewski (Eds.), *Kształtowanie postaw przedsiębiorczych a edukacja ekonomiczna*. Warszawa: Publikacja Polsko-Amerykańskiej Fundacji Wolności.

330. Wachowiak, P. (2013). *Wrażliwość społeczna przedsiębiorstwa. Analiza i pomiar*. Warszawa: Oficyna Wydawnicza SGH w Warszawie.

331. Wang, Z., and Zhang, L. (2010). An empirical study on relations among person-organization fit, job satisfaction and turnover intention. *Chinese Journal Management*, *3*, 379-385.

332. Warner, A. (2020). Zielony ład, czyli co dalej z motoryzacją? *Rzeczpospolita*. Retrieved May 12, 2022 from https://moto.rp.pl/tu-i-teraz/art17293761-zielony-lad-czyli-co-dalej-z-motoryzacja

333. Wijekoon, L., Swinkels, S., Lalik, E., Parekh, R., Isaacs, D., and Kozeychuk, U. (2022). Impact of the Ukraine conflict and related sanctions on global workforces. *The Society for Human Resource Management*. Retrieved May 12, 2022 from https://www.shrm.org/resourcesandtools/legal-and-compliance/employment-law/pages/the-impact-of-the-ukraine-conflict-and-related-sanctions-on-global-workforces.aspx

334. Wilkinson, A., and Wood, G. (2017). Global trends and crises, comparative capitalism and HRM. *The International Journal of Human Resource Management*, *28*(18).

335. Williams, A. (2015, October 18). Move over, millennials, here comes generation Z. *New York Times*. Retrieved from http://www.nytimes.com/2015/09/20/fashion/moveovermillennialsherecomesgenerationz.html?_r=0

336. Wiśniewska, S., Wiśniewski, K., and Szydło, R. (2019). Ranking kompetencji przedstawicieli generacji NEET. *Edukacja Ekonomistów i Menedżerów*, *1*(51), (I-III 2019), 181-192.

337. Wojtaszczyk, K. (2012). *Employer branding, czyli zarządzanie marką pracodawcy. Uwarunkowania, procesy, pomiar*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.

338. Wojtczuk-Turek, A. (2014). Składniki potencjału kompetencyjnego. In M. Juchnowicz (Ed.), *Zarządzanie kapitałem ludzkim: procesy – narzędzia – aplikacje*. Warszawa: PWE.

339. Wood, R., and Payne, T. (2006). *Metody rekrutacji i selekcji pracowników oparte na kompetencjach.* Kraków: Oficyna Ekonomiczna.

340. Wooden, M. (1999). *Job insecurity and job instability: Getting the facts straight', mimeo*. National Institute of Labour Studies. Flinders University.

341. Worach-Kardas, H. (2015). Aktywność społeczna pokolenia późnej dorosłości – potrzeby, wyzwania, zagrożenia. *Pedagogika Rodziny*, *5*(3).

342. World Economic Forum. (2016). *The future of jobs: Employment, skills and workforce strategy for the fourth industrial revolution*. Retrieved October 12, 2019 from http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf

343. Wright, P. M., Gardner, T. M., Moynihan, L. M., and Allen, M. R. (2005). The relationship between HR practices and firm performance: Examining causal order. *Personnel Psychology*, *58*, 409-446. https://doi.org/10.1111/j.1744-6570.2005.00487.x

344. Wyrozębski, P. (2014). *Zarządzanie wiedzą projektową*. Warszawa: Difin.

345. Wysokińska-Senkus, A., and Senkus, P. (2016). Geneza, istota i obszary strategiczne implementacji koncepcji sustainability na przykładzie sił lądowych USA – studium przypadku. *Zeszyty Naukowe Akademii Obrony Narodowej*, *2*(103).

346. Yang, E., Kim, Y., and Hong, S. (2021). Does working from home work? Experience of working from home and the value of hybrid workplace post-COVID-1. *Journal of Corporate Real Estate*. doi: 10.1108/JCRE-04-2021-0015

347. Yang, L., Holtz, D., Jaffe, S., Suri, S., Sinha, S., Weston, J., … and Teevan, J. (2022, January). The effects of remote work on collaboration among information workers. *Nature Human Behaviour*, *6*, 43-54.

348. Yılmaz, D., and Kılıçoğlu, G. (2013). Resistance to change and ways of reducing resistance in educational organizations. *European Journal of Research on Education*, *1*(1), 14-21.

349. Yin, K. R. (2003). *Case study research. Design and methods*. Thousand Oaks: Sage Publications.

350. Yusuf, B. N. (2020). Are we prepared enough? A Case study of challenges in online learning in a private higher learning institution during the covid-19 outbreaks. *Advances in Social Sciences Research Journal*, *7*(5), 205-212. https://doi.org/10.14738/assrj.75.8211

351. Zack, M. H. (2002). Developing a knowledge strategy. *California Management Review*, *41*(3), 125-223.

352. Zhang, J. (2016). The dark side of virtual office and job satisfaction. *International Journal of Business and Management*, *11(*2), 40-46. https://doi.org/10.5539/ijbm.v11n2p40.

353. Zhang-Zhang, Y., Rohlfer, S., and Varma, A. (2022). Strategic people management in contemporary highly dynamic VUCA contexts: A knowledge worker perspective. *Journal of Business Research*, *144*, 587-598. https://doi.org/10.1016/j.jbusres.2021.12.069

354. Zuo, L., and Juvé, A. M. (2020). Transitioning to a new era: Future directions for staff development during covid-19. *Medical Education*, *55*, 104-107.

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